



**2004 San Francisco HIV Prevention Plan**

**For hard copies of this Plan, please contact:**

**San Francisco Department of Public Health  
AIDS Office - HIV Prevention Section**

25 Van Ness Avenue, 5th Floor  
San Francisco, CA 94102  
415-554-9492  
betty.chan.lew@sfdph.org

**Also available on the web at:** <http://www.dph.sf.ca.us/HIVPrevPlan/hpphome.html>

# 2004 San Francisco HIV Prevention Plan

DEVELOPED BY THE

## HIV Prevention Planning Council

a Community Planning Group Funded

by the Centers for Disease Control and Prevention

IN PARTNERSHIP WITH THE

San Francisco Department of Public Health AIDS Office

Cooperative Agreement #U62CCU923478-01



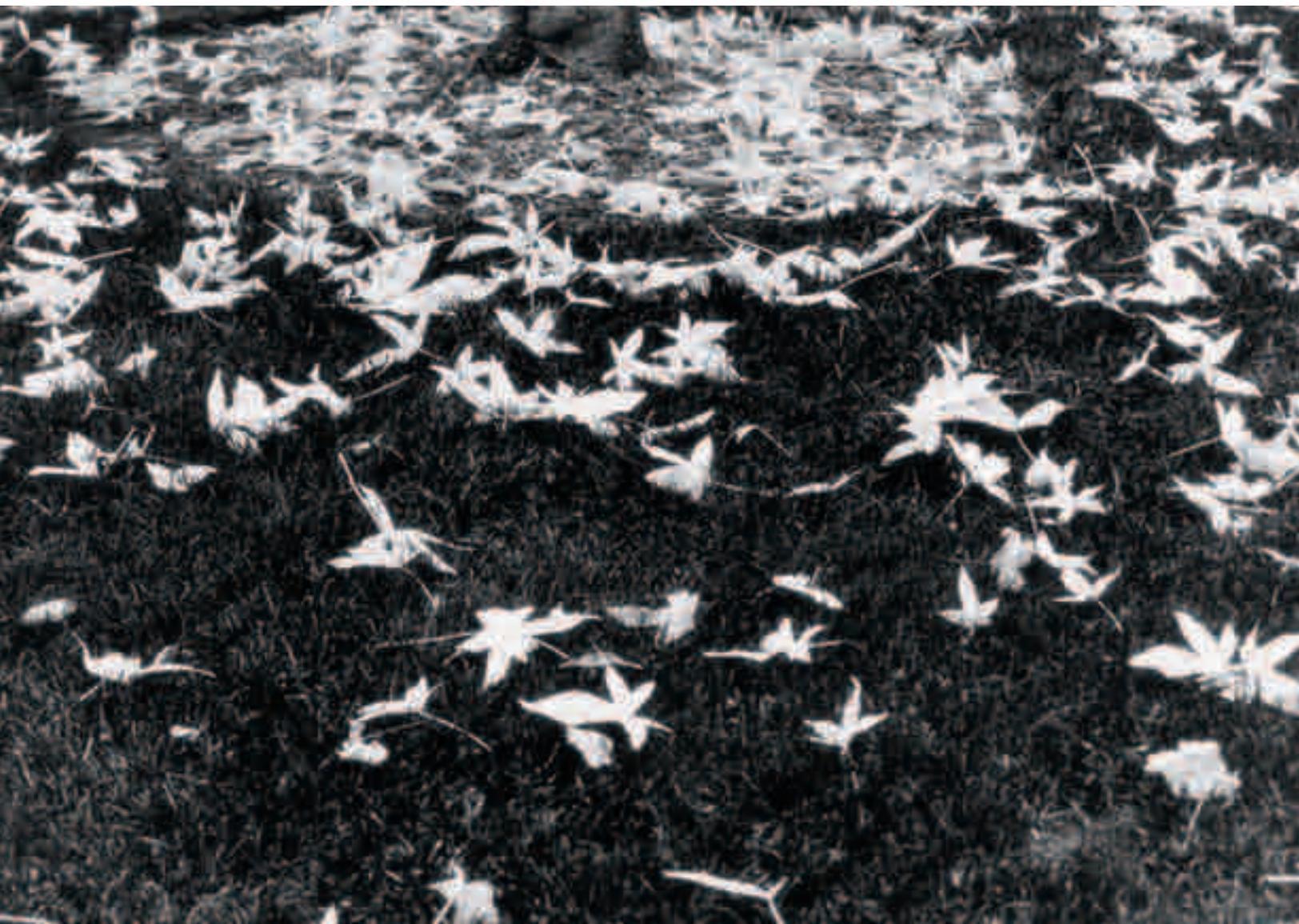
PREPARED BY

Harder+Company Community Research

April 2004

## Dedication

As the HPPC embarks on a period of transition and change, we once again commit to fighting the epidemic and educating the community of San Francisco and those with HIV as well as those at greatest risk for infection. We cannot move forward without acknowledging the work of those who came before us. Today's HPPC embodies the spirit of these men, women, and transgendered persons. We wish to dedicate this plan to their memory and in honor of the work, integrity, and initiative that has continued to shape San Francisco into a leader in cutting edge prevention and education strategies.



# Table of Contents





**Plan Overview**.....iii

**Chapter 1: Community Planning in San Francisco: The History and the Future**

Section I: San Francisco’s Leadership Role in HIV Prevention.....1  
 Section II: The Local Epidemic and the Local Response.....5

**Chapter 2: Epidemiologic Profile**

Introduction.....11  
 Section I: Overview of San Francisco and Its HIV and AIDS Epidemic.....13  
 Section II: Demographics and AIDS Statistics.....16  
 Section III: HIV Prevalence and Incidence.....27  
 Appendix 1: Types of Information Used in the Epidemiologic Profile and Strengths and Limitations.....40  
 Appendix 2: Recent AIDS Cases (1999–2002).....43

**Chapter 3: Community Assessment**

Introduction.....45  
 Section I: HIV Prevention Needs of San Francisco Populations.....47  
 Section II: HIV Cofactors.....108  
 Appendix 1: Resource Inventory.....135

**Chapter 4: Priority-Setting**

Introduction.....137  
 Section I: History of the Model.....138  
 Section II: Priorities for 2004 Through 2008.....140  
 Section III: Background and Rationale.....146  
 Appendix 1: 2001 and 2004 Behavioral Risk Populations.....153  
 Appendix 2: Process for Determining Priority Subpopulations and Cofactors.....155

**Chapter 5: Strategies and Interventions**

Introduction.....157  
Section I: San Francisco’s New Approach to HIV Prevention.....159  
Section II: Tool Box #1: San Francisco’s Principles of Program Design and Implementation.....162  
Section III: Tool Box #2: Behavioral Theories.....165  
Section IV: Tool Box #3: Strategies and Interventions.....173  
Section V: Tool Box #4: Standards of Practice and Quality Assurance.....224  
Appendix 1: Update on Rapid Testing.....226  
Appendix 2: Update on Prevention Technologies Under Development.....229

**Chapter 6: Evaluation**

Introduction.....231  
Section I: San Francisco’s Evaluation Approach.....234  
Section II: San Francisco’s Evaluation Framework for 2004 - 2008.....240  
Section III: Implementation Plan for Evaluation.....242  
Appendix 1: Evaluation Successes in San Francisco.....249  
Appendix 2: CDC Performance Indicators.....250  
Appendix 3: Needs Assessment and Program Evaluation Resources.....252

**References & Index**

References.....253  
Index.....267

**Acknowledgments**.....inside back cover

**Guide to Common Abbreviations**.....inside back cover

### **Chapter 1: Community Planning in San Francisco: The History and the Future**

This chapter places the 2004 HIV epidemic in San Francisco in the context of the last 20 years and highlights the critical role that community planning has played and continues to play in HIV prevention. The HIV Prevention Planning Council's vision for a renewed approach to HIV prevention is described here, along with the new San Francisco Leadership Initiative that will guide the local strategy in the years to come.

### **Chapter 2: Epidemiologic Profile**

San Francisco's HIV epidemic looks different from the national profile. This chapter provides detailed data on HIV and AIDS in San Francisco and describes possible future trends in the epidemic based on several indicators. It includes information on how HIV and AIDS affect San Franciscans of different racial/ethnic backgrounds, ages, genders, and behavioral risks.

### **Chapter 3: Community Assessment**

This chapter describes the HIV prevention needs of populations living with or at risk for HIV in San Francisco and the issues that affect them. This chapter, along with the Priority-Setting chapter, represents the new direction for HIV prevention for 2004 through 2008. While the Priority-Setting chapter describes funding priorities by behavioral risk, this chapter supports HIV prevention providers to focus their efforts on individuals and communities based on their needs and lived experiences.

### **Chapter 4: Priority-Setting**

The primary purpose of this chapter is to outline the priorities for HIV prevention funding in San Francisco from a planning perspective. This chapter complements the Community Assessment chapter, which also outlines priorities. The difference is that this chapter outlines who and what issues are prioritized for funding, whereas the Community Assessment chapter discusses the priorities for how to conduct HIV prevention with different populations. Together, these two chapters build the structure for HIV prevention in San Francisco.

## Chapter 5: Strategies and Interventions

This chapter provides the tools that providers need to design and implement programs that fit into San Francisco’s approach to HIV prevention. It encourages providers to use these tools – program design principles, behavioral theories, strategies, and interventions – in creative ways to address HIV prevention needs in a broad way. The goal is to have in place a city-wide set of programs that reach people at the individual, group, and community levels, as well as address policy and structural issues that affect people’s risk for HIV.

## Chapter 6: Evaluation

This chapter is intended to outline the HIV Prevention Planning Council’s perspective on the role of evaluation and research in combating the epidemic for all involved in HIV prevention. The HIV Prevention Planning Council supports evaluation that is community-oriented, community-driven, collaborative, and inclusive.

Helpful features for navigating the Plan include:

*iv*

- Relevant terms and definitions listed at the beginning of each chapter
- A Guide to Common Abbreviations that folds out from the back cover
- A complete alphabetical index to the Plan starting on page 267
- Introductions to each chapter that give guidance on how to use the chapter

# Chapter 1 Community Planning in San Francisco: The History and the Future





**NATHANIEL KAHN'S  
"MY ARCHITECT"  
ENDS THURSDAY**

## The History

San Francisco was one of the first and hardest hit epicenters of the AIDS epidemic. Sadly, as we enter 2004, San Francisco continues to experience one of the most devastating epidemics in the country. Thousands of people – men, women, transgendered persons, youth, and even some infants – have become infected with HIV, many of those have advanced to a diagnosis of AIDS, and far too many have died. This plan is dedicated to all of them. The members of the HIV Prevention Planning Council (HPPC), who developed this 2004 San Francisco HIV Prevention Plan, take very seriously their responsibility to remember the devastation, to build effective and successful strategies to eliminate new HIV infections, and to improve the quality of life for those living with HIV and AIDS.

For more than 10 years, San Francisco has played a leadership role in redefining the way in which public health and the medical community respond to this disease. Community planning is a concept that came of age here in San Francisco during the early years of the epidemic. It is a process that was developed to reflect the belief that determining how best to respond to local HIV prevention priorities and needs is best carried out through local decision-making.

San Franciscans made sure that community planning was included in federal legislation and administrative guidance. The result was the issuance of the Centers for Disease Control and Prevention's (CDC's) guidance on community planning, which requires health departments to work in collaboration with community planning groups (CPGs) to design local prevention plans that best represent the needs of the various communities at risk for, or infected with, HIV. In this spirit, the San Francisco HPPC was formed in 1994. The HPPC has been a consistent, clear voice of the people of San Francisco. In 2003, the national Society for Public Health Education (SOPHE) awarded the HPPC its distinguished Program Excellence Award in recognition of the group's effectiveness in ensuring that affected communities are involved in setting priorities. It was the first time this award was given to a community planning body.

The role of community planning was clear in the early days of this epidemic. Community planning helped identify who was at risk for HIV infection. It acted as a bridge, by helping many populations (including gay men, injection drug users, youth, the incarcerated, and immigrants) who had not had access to safe and appropriate health care communicate with those responsible for the design and delivery of care and prevention services. It was never acceptable to have disparities in health care, and in the era of HIV and AIDS it became a crisis. Community planning made sure that all of these voices were heard.

The elimination of racial and economic disparities in the delivery of health care is at the top of all reasonable health organizations' agendas. In fact, the federal government (e.g., Healthy People 2000 and Healthy People 2010), the American Public Health Association, and others have taken great strides in identifying and strategically attacking those disparities. It is through community planning that these disparities have the best chance to be identified and eradicated. The principles of parity, inclusion, and representation that guide community planning ensure that all affected communities, including people of different racial/ethnic backgrounds, genders, and life experiences, have a place at the table. This place is assured during the setting of the agenda, not in the middle of a process designed by others (as had too often been the historical case).

## 2004 and Beyond

### COMMUNITY PLANNING AND HIV PREVENTION

As we enter 2004, the ten-year anniversary of community planning, there are a number of realities that face those at risk for HIV. First, there is the impact of difficult economic times. There is less money to spend for government-sponsored health and human service programs. Those in power at the federal and state levels face a tremendous challenge in balancing their budgets and making dollars available for all the service that government is counted on to provide. In addition, national security and Department of Defense priorities further restrict the funds that are available for health care and health promotion.

What is the role of community planning in these times? It has never been more important. Those who have been elected to lead us (and the administrators they hire) must be clearly and articulately reminded that real Americans, in real families and real communities, continue to become infected with HIV and to get sick and to die. The epidemic is not over, and we must maintain a strong national commitment. It is the everyday Americans in this city and in other cities and towns who need to raise their voices. In San Francisco, the HPPC is a key tool in identifying those voices, providing training and support in the articulation of needs, and marshalling the resources necessary to respond to those needs with appropriate, effective, and cost-efficient care and services.

2

This HIV Prevention Plan that you are reading is the result of the work of community planning in San Francisco, of the HPPC and its committees in 2003. A broad spectrum of San Francisco community members have debated the principles contained in this plan. Together we developed priorities for HIV prevention services, and together we recommended strategies and interventions to meet the needs of San Francisco's people.

We believe that state and federal governments work hard to meet the needs of the people. The HPPC understands and enthusiastically accepts its role as a partner in the design, delivery, and evaluation of HIV prevention and health promotion activities. We further believe that the government and the medical and the health care communities will be as successful as we (the HPPC) are in mobilizing the people in all of our communities and neighborhoods, in articulating a shared vision, and in recommending services that originate with those at risk for or living with HIV and their families, partners, and friends.

We take our responsibility very seriously. We take our duty to identify new leaders and develop leadership for the future very seriously. We are committed to the end of this epidemic, the elimination of health care disparities, and the promotion of the health of all San Franciscans, Americans, and people worldwide who can benefit from our experience and successes. As part of this responsibility, we are launching the San Francisco Leadership Initiative.

## THE SAN FRANCISCO LEADERSHIP INITIATIVE

In an ideal world, HIV prevention and health promotion activities would be based on sound scientific evidence, the lived experience of the community, and the professional expertise of caring providers. In reality, a critical factor in the design, funding, and delivery of services is politics. At the federal, state, and city levels, political concerns often compete with research, evaluation findings, and community input. The result is that despite the best efforts to conduct effective community planning, community voices get lost in the final implementation process.

The San Francisco Leadership Initiative is our proactive plan for promoting the most efficient, effective use of resources to ensure that HIV prevention in San Francisco will always remain a community-driven, community-based response to the local epidemic. To launch the Initiative, the HPPC, in collaboration with the San Francisco Department of Public Health (SFDPH), is beginning a campaign to educate communities and providers about a shift in CDC policy, which will affect how HIV prevention resources are directed in the years to come.

The CDC published a new initiative known as “Advancing HIV Prevention” (AHP), in the April 18, 2003 edition of Morbidity and Mortality Weekly Report (MMWR 2003a), which can be found at <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5215a1.htm>.

The principles outlined in AHP are likely to guide the national HIV prevention strategy for the foreseeable future. We believe that AHP will be an important part of a broader local strategy that is effective and appropriate for San Francisco. AHP promotes a medical model for HIV prevention, focused on finding HIV-positive people and linking them to care services, and de-emphasizes community-based health promotion and prevention. In San Francisco, we share the commitment to helping people learn their HIV status in a manner appropriate for our community, which goes beyond the medical model. For example, under AHP, providing counseling when giving an HIV test would no longer be required in certain circumstances. However, San Francisco believes counseling should always be available and offered with testing, because research shows that: (1) providing counseling during HIV testing is an effective method for linking both HIV-negative and HIV-positive people to health and social services (Eichler et al 2002, Heumann et al 2001), and (2) behavior change counseling given during the HIV testing process can reduce the high-risk behaviors that lead to HIV transmission (Dilley et al 2002).

With the release of AHP, the CDC has shifted its thinking about the basic tenets of HIV prevention. The CDC offers a set of ABC’s that focus on Abstinence, Being faithful, and Condom use. We do not necessarily disagree with those principles, but they are not reflective of the entire range of individuals and communities at risk for HIV infection in San Francisco. Here in San Francisco we have adopted an additional set of ABC’s to reflect our local reality and to promote our local vision of health and wellness for communities. Our ABC’s focus on:

- **A**dults and youth who are sexually active
- **B**ehavioral interventions based on evaluation of sound programs
- **C**ofactors that affect HIV risk (e.g., substance use, mental health, homelessness, and many others)

These ABC's are reflected throughout this Plan, and particularly in the Community Assessment chapter, which highlights both the behaviors and cofactors that put adults and youth at risk for HIV. With these ABC's in mind, we have begun to think about our local efforts for the years to come. The first step in the San Francisco Leadership Initiative is to plan strategically for the use of resources beginning in 2004. The two main goals are: (1) to maximize the use of CDC funds (both Cooperative Agreement and direct funding<sup>1</sup>) for programs and interventions that are most in line with AHP, and to use other funding sources for programs and interventions that we know to be effective and relevant for San Francisco, and (2) to support and coordinate the application for CDC direct funding for community-based organizations to ensure that the city's overall needs are met. As part of this Initiative, the SFDPH and the HPPC will continue to educate the community about AHP, to help HIV prevention providers in San Francisco as well as other parts of the country understand how AHP will impact them and the people they serve, and how we at the local level can fully implement AHP and enhance those efforts with local activities designed, delivered, and supported within the community. This is an ideal partnership between the federal government and local HIV prevention providers.

The San Francisco Leadership Initiative is one more critical component of a movement to end HIV and AIDS in the San Francisco community. We invite all those who have been infected and affected by HIV and AIDS in this city to join us in our efforts to make sure that our HIV prevention approach remains effective and cutting edge, even when the political climate is unsupportive.

1. Cooperative Agreement funding is the funding that CDC gives to state and local health departments to use for HIV prevention in their jurisdiction. This is the money that is distributed to community-based organizations (CBOs) in San Francisco every few years via a request for proposals (RFP) process. Direct funding is the funding that CDC gives directly to CBOs through a federal RFP process; it is not distributed to CBOs via the health department.

### San Francisco's HIV Epidemic

Since the epidemic began in the early 1980s, over 28,624 people have been diagnosed with AIDS in San Francisco, the third largest number after New York City and Los Angeles. Today, approximately 18,000 to 19,000 people are living with HIV or AIDS in this city. New HIV infections peaked around 1982, followed by a period of rapid decline that lasted until about 1994, when the rate of new infections stabilized at approximately 500 per year. In 2000, the infection rates began to rise again (Exhibit 1). Most of this increase is due to new infections among gay men and other men who have sex with men (MSM). As of 2003, it is estimated that there are approximately 1,082 new infections in San Francisco per year.

Throughout the course of San Francisco's epidemic, HIV and AIDS have affected predominantly gay men, as well as other MSM (which is different from the national profile). Eighty-nine percent of people diagnosed with AIDS over the last 20 years have been MSM (including MSM who inject drugs). Currently, 72% of MSM living with AIDS (including injection drug users) are White, 13% are Latino, 10% are African American, 4% are Asian/Pacific Islander, and less than 1% are Native American (AIDS Surveillance Quarterly Report, September 2003). These trends demand an HIV prevention approach that broadly addresses gay men's health issues and takes their life contexts into account.

Gay men are not the only population affected by HIV in San Francisco. A groundbreaking study conducted in 1997 found high prevalence and incidence among male-to-female (MTF) transgendered persons (Clements-Nolle et al 2001). This population has since become a priority for HIV prevention efforts. Infection rates among injection drug users have remained moderately low and stable over the course of the epidemic, largely due to the availability of needle exchange. The exception among injection drug users is MSM who inject drugs. Their infection rates more closely follow the pattern of MSM as opposed to other injection drug using populations. Finally, (1) women of all sexual orientations, and (2) heterosexual men who do not inject drugs have not been substantially impacted by the epidemic, and new infections among these groups remain very low. These trends in HIV infections must be taken into account during service design and delivery, and the HPPC provides guidance for this in two of the chapters in this plan (Chapter 3: Community Assessment and Chapter 4: Priority-Setting).

In addition to these overall trends, it is critical to acknowledge and deal with the racial/ethnic disparities in HIV and AIDS. In San Francisco, the most dramatic disparity is evident in the disproportionate impact among African Americans, including men, women and male-to-female transgendered persons. Fifteen percent of people living with AIDS are African American, even though African Americans represent less than 8% of San Francisco's population. African American men are particularly affected – 77% of African Americans living with AIDS are men, and most of these men (70%) are gay men and other MSM (AIDS Surveillance Quarterly Report, September 2003). This data is critically important, as it demands specific culturally competent and appropriate responses in service design and delivery. The HPPC has addressed this by making African Americans a high-priority population for HIV prevention as outlined in Chapter 3: Community Assessment and Chapter 4: Priority-Setting.

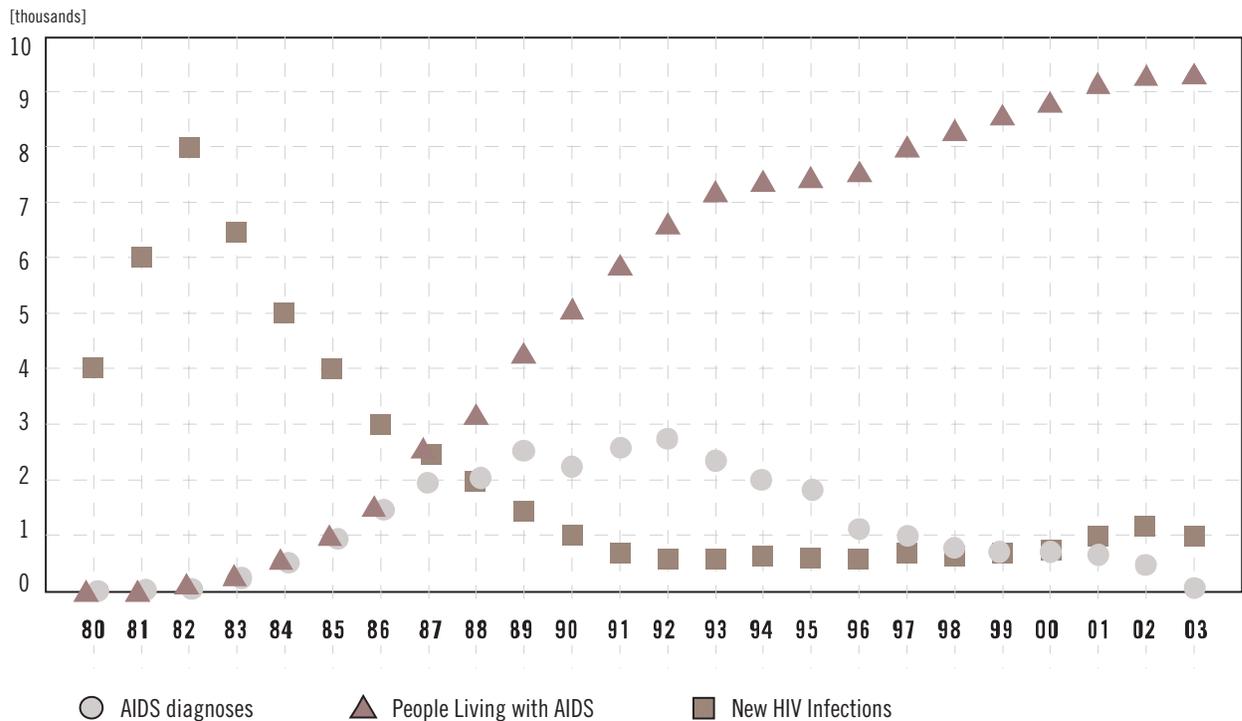
In summary, the state of the epidemic in 2004 can be characterized in the following manner:

- Epidemic levels of HIV among gay men and other MSM and male-to-female transgendered persons (both those who inject drugs and those who do not). (The term *epidemic* means the spread of disease is increasing.) On the eve of the publication of this Plan, there is some new evidence to suggest that high-risk behaviors among gay men may be decreasing and new HIV infections may have reached a plateau. More data is needed, as are continued HIV prevention efforts.
- Endemic levels of infection among heterosexual males who inject drugs and females who inject drugs. (The term *endemic* means a disease persists in a community, without substantially increasing or decreasing over time.)
- No epidemic among non-IDU heterosexuals.
- Racial/ethnic disparities in HIV and AIDS that have resulted in disproportionate effects in the African American community.

The reasons why San Francisco’s epidemic is the way it is are complex and multifold. Many milestones have occurred over the last 20 years that help explain the course the epidemic has taken (Exhibit 1). Perhaps the two most significant changes in recent years that have set the stage for the current trends in HIV are: (1) the advent of highly active antiretroviral therapy (HAART) in 1996, and (2) increases in high-risk sexual behaviors among gay men and other MSM, which were first documented around 1998.

EXHIBIT I

Trends in HIV and AIDS, San Francisco, 1980 – 2003



Source: Adapted from McFarland 2003

## HIV Prevention Milestones in San Francisco

<b>1980</b>
First AIDS case diagnosed in San Francisco
<b>1984</b>
HIV identified as the cause of AIDS
<b>1984</b>
Community-based efforts were launched to prevent the spread of HIV among gay men
<b>1985</b>
HIV test becomes available
<b>1987</b>
AZT (the first AIDS treatment) becomes available
<b>1988</b>
Needle exchange becomes available in San Francisco
<b>1994</b>
San Francisco's HIV Prevention Planning Council is formed
<b>1995</b>
Protease inhibitors become available
<b>1996</b>
Highly active antiretroviral therapy (HAART) becomes available
<b>1997</b>
Male-to-female transgendered persons identified as a high-risk population
<b>1998</b>
Increases in high-risk behavior among MSM in San Francisco first documented
<b>2000</b>
Increases in new HIV infections among MSM seen

The availability of HAART has allowed many people with HIV to live longer, healthier lives, and as a result they are able to be more sexually active. The fact that more people are living with HIV now than ever before, due to treatment advances, means that the pool of infection is larger, which may in part explain the increases in new infections. In addition, this new medical advance contributed to a perception, particularly in the gay community, that HIV is a manageable illness as opposed to a fatal disease. This perception may be linked to decreases in condom use.

Not everyone has experienced the same benefits from HAART, however, which partly explains local racial/ethnic disparities in HIV and AIDS. The life expectancy for people living with AIDS is directly impacted by their access to and compliance with HAART. Recent data shows that African Americans living with AIDS have a significantly higher death rate compared with white people living with AIDS. This statistic is directly tied to lower HAART usage among African Americans, which is related to the bigger issue of poorer access to high-quality health care and health promotion services. The importance of HAART is clear, and increasing access to primary medical care, HAART, and related HIV prevention services for HIV-positive people is critical.

The advent of the HAART era is only one of many influences on the sexual behaviors of gay men and other MSM. Drug use (non-injection), mental health issues, a perception that the acceptability of unsafe sex is growing, and the easy access to sexual partners via the Internet are some of the recent trends that may be contributing to increases in high-risk behaviors and the resulting rise in HIV infection rates. In addition, social issues such as racism, discrimination, homophobia, homelessness, and poverty persist, all of which affect how people make decisions about safer sex.

## San Francisco's Approach to HIV Prevention

This rapidly changing epidemic calls for a renewed commitment to HIV prevention and a shift in focus. San Francisco has shown extraordinary leadership over the last 20 years. We have created a cutting edge, creative, community-based model for HIV prevention that has been replicated all over the world. We have consistently supported needle exchange, both philosophically and with dollars, because it is an effective prevention strategy. We have prevented the spread of the epidemic among heterosexual men, women, and newborns. And we have a new strategy to confront the challenges we face today.

To fulfill our vision of creating healthier communities, our approach for 2004 and beyond is based on the following principles:

- **Health and wellness.** Health is about what is going on in people's lives and how it affects them. The term health includes mental, emotional, and spiritual health as well as physical health. Individual health is influenced by an infinite number of factors – psychological, social, structural, and political. HIV prevention needs to become part of this larger health and wellness movement in order to have any lasting effect on individuals and communities.

- **Linkages and coordination.** Health and wellness is the goal; linkages are the building blocks to reach the goal. HIV does not exist in a vacuum. People affected by HIV need to be supported in getting the services they need to help them stay healthy. This means that HIV prevention programs need close linkages with other services, including services for people living with HIV, primary care, sexually transmitted disease detection and treatment, mental health services, substance use prevention and treatment, housing, financial assistance, social support services, and many others. Handing out a card with another agency's phone number is not enough. Linkages within and between agencies need to be coordinated, and referrals need to be followed up.
- **Prevention with positives and negatives.** HIV prevention should reach all those affected by HIV – people at risk for HIV, as well as people who are already living with HIV. We need messages for HIV-positive people. We need messages for high-risk HIV-negative people. And we need messages that speak to both, because all affected individuals exist together as part of a larger community.
- **One step ahead.** HIV prevention efforts should focus not only on people who we know to be at high risk today, but should also identify and reach those who might be at high risk tomorrow. This means we are committed to a strong focus on research and evaluation, which help us understand where the epidemic is and where it is going. This also means that this research does not exist in an ivory tower; it is done with the community, findings are given back to the community, and action is taken based on the results of the research.
- **Science + community values = success.** The best HIV prevention happens when scientific research and community values come together to create a picture of what is going on and what needs to be done. The community planning process is one place where this happens. The HPPC, the local community planning group, is committed to providing leadership to make sure that San Francisco always takes both science and community values into account.

With this approach, San Francisco aims to reduce the number of new HIV infections. We have set the following specific objectives for ourselves:

- **Objective 1:** Reduce new HIV infections among gay men and other MSM and male-to-female transgendered persons by 50% by 2008.
- **Objective 2:** Reduce new HIV infections among injection drug users by 50% by 2008.
- **Objective 3:** Eliminate new infections among (1) women, and (2) men who have sex exclusively with women by 2008.
- **Objective 4:** Eliminate perinatal infections by 2008.

This HIV Prevention Plan presents the information needed to implement this approach. It represents the work of the 2003 HPPC, who approved the Plan in the final three months of 2003.

The Epidemiologic Profile tells the detailed story of where the local epidemic is and where it is headed using HIV, AIDS, and other data. The Community Assessment and Priority-Setting chapters follow, and together they lay out the priorities for where and how HIV prevention should be focused. The Strategies and Interventions chapter is the toolbox for designing programs. Finally, the Evaluation chapter provides a roadmap for staying one step ahead of the epidemic.

The HPPC offers this Plan to the larger San Francisco community in the spirit of collaboration. It is our contribution to ending the HIV and AIDS epidemic. Read this 2004 San Francisco HIV Prevention Plan carefully and with a great deal of hope. We believe it contains the tools to stop this epidemic and we want to provide the leadership and effort to make it happen. Please join us.



CHARCOAL  
BROILER

ITALIAN  
FOOD  
AT ITS BEST

COCKTAIL  
LOUNGE



### Purpose

The purpose of this chapter is to present the epidemiology of the HIV and AIDS epidemic in San Francisco. In other words, this chapter paints a picture of HIV and AIDS in San Francisco.

The HIV and AIDS data is presented for several demographic and risk populations. AIDS data tells the story of HIV transmission several years ago; this data is included because it is the most complete data we have related to the epidemic, and it gives us some information about who is affected by HIV. HIV data, estimates, and indicators tell the story of current patterns in HIV infection. Unlike AIDS data, HIV data is not based on case reporting and is therefore less complete. Both types of data are needed to get a full picture of the epidemic.

The information in this chapter represents the scientific evidence upon which San Francisco's HIV prevention priorities are based. Specifically, the funding priorities are based on the estimates of HIV incidence presented in Exhibit 33, as well as prevalence, incidence, and behavioral data for specific populations. For more information on the funding priorities, see Chapter 4: Priority-Setting (pp. 137-156). For more detailed needs of various populations, as well as additional data on cofactors related to HIV such as drug use or homelessness, see Chapter 3: Community Assessment (pp. 45-136).

### How to Read This Chapter

Those who are interested in learning about the overall picture of the epidemic are invited to read the whole chapter. To understand the disproportionate effects of AIDS on various demographic groups, focus on Section III. For recent trends in HIV, focus on Section IV.

Those who wish to obtain epidemiologic information about a specific population have two options:

- 1) Determine how your population is defined and turn to the corresponding pages:
  - Gender (p. 20)
  - Race/ethnicity (pp. 21-24)
  - Age (p. 25)
  - Behavioral risk population (BRP; p. 26, pp. 29-38)
  
- 2) Use the index at the back of the Plan to find your population and locate epidemiologic information.

Although the information in this chapter represents the best available, researchers have not thoroughly investigated all aspects of the local HIV epidemic. For example, there is less research available regarding women and HIV in San Francisco compared with gay men. Therefore, data should be interpreted with caution. Additional data limitations are presented in Appendix 1.

## Terms and Definitions

<b>Disproportionately Represented</b>	A population group, such as a racial/ethnic group, makes up a higher percentage of people living with HIV or AIDS compared with their percentage in the overall population.
<b>Endemic</b>	A disease persists in a community, without substantially increasing or decreasing over time.
<b>Epidemic</b>	The spread of disease is increasing.
<b>Epidemiology</b>	The scientific study of disease distribution and the factors that cause diseases to spread in communities.
<b>HIV Incidence</b>	Refers to new HIV infections. Incidence can be expressed as the number of new infections in a year, or as the percentage of uninfected individuals who will become infected in a year.
<b>HIV Indicators</b>	Diseases or conditions known to follow or precede the pattern of the HIV epidemic. Indicators can be used (in some cases) to predict trends in HIV infection, and they can also serve as markers of risk behaviors that are known to be associated with HIV infection.
<b>HIV Prevalence</b>	Refers to people living with HIV, including people living with AIDS, at any given point in time. Prevalence can be expressed as the number of HIV-positive people, but is more often expressed as the percentage of people who are HIV-positive within a given population.
<b>Under-represented</b>	A population group, such as a racial/ethnic group, makes up a lower percentage of people living with HIV or AIDS compared with their percentage in the overall population.

## Chapter Outline

### **I. Overview of San Francisco and Its HIV/AIDS Epidemic**

Gives a narrative summary of the City and County of San Francisco and its HIV/AIDS epidemic.

### **II. Demographics and AIDS Statistics**

Describes people living with AIDS by demographics (gender, race/ethnicity, age, and neighborhood of residence) and behavioral risk populations.

### **III. HIV Prevalence and Incidence**

Presents the latest information on trends in HIV infections, including HIV Consensus Meeting conclusions, counseling and testing data, and HIV indicator data.

### **Appendix 1: Types of Information Used in the Epidemiologic Profile and Strengths and Limitations**

### **Appendix 2: Recent AIDS Cases (1999-2002)**

### The City and County of San Francisco: An Overview

San Francisco is the fourth largest city in the state of California and the thirteenth largest in the nation, with approximately 791,600 residents as of 2002. San Francisco is also a county, and it is one of the most densely populated areas in California, with over 17,000 persons per square mile. San Francisco has a total area of 46.4 square miles, including 43 hills and 30 miles of shoreline. The city sits at the northern tip of a peninsula that divides the Pacific Ocean and the San Francisco Bay. San Francisco County is one of nine counties that comprise the San Francisco Bay Area, which is the fifth largest metropolitan region in the U.S. San Francisco is also one of the cities most frequently visited by domestic and international tourists (over 4 million visited the city in 1999). San Francisco has a primarily service-based economy, although there is a manufacturing industry.

The city is well known for its diverse and multicultural population. Over half of the city's residents are people of color, over one third are immigrants to the U.S., and there is a large lesbian/gay/bisexual/transgender community. It is also home to some of the most and least privileged socioeconomic groups, with over one third of households making \$75,000 or more per year and 11% living in poverty. One of the distinguishing characteristics of San Francisco is its progressive thinking and social policies. As such, it attracts people from all different backgrounds and walks of life. Many homeless individuals, sex workers, transgendered persons, and other groups who have experienced discrimination make their home in the city. HIV affects people from all these communities – both high-income and low-income individuals are affected, as are both people of color and white individuals.

The HIV epidemic is not concentrated only among the poor and underserved, as in other parts of the country. This is because the factors that affect HIV risk in San Francisco affect people from all socioeconomic backgrounds. For example, homelessness affects mostly low-income individuals, but substance use (which has been identified as a key factor in the increases in new HIV infections) affects people of low and high socioeconomic status. To a greater extent than most cities, San Francisco's epidemic primarily affects gay men and male-to-female (MTF) transgendered persons.

San Francisco has undergone dramatic changes in its population in the last five years. From 1999 to 2001, San Francisco and the Bay Area experienced an economic boom attributable to the fast-growing high tech sector. Thousands moved to San Francisco for employment. A housing shortage ensued, housing costs soared, and many long-time San Francisco residents were forced to leave San Francisco in search of affordable housing in other Bay Area counties or elsewhere in the country. In early 2001, the economy began to contract. Layoffs and rising unemployment characterized 2002 and 2003. Some of those who came here for high tech jobs have left the city. Housing costs have dipped substantially in several neighborhoods but still remain unaffordable for many. Further, the concurrent nationwide economic downturn has begun to affect the availability of human and social services due to budget cuts at the city, state, and federal levels. All of these population shifts have undoubtedly affected HIV transmission patterns, although no studies have explored this issue specifically. With people moving in and out of San Francisco frequently, it is challenging to ensure that HIV prevention messages are reaching everyone at risk.

In summary, San Francisco's unique character sets the stage for an HIV/AIDS epidemic that is different from the national profile.

## HIV and AIDS in San Francisco: An Overview

San Francisco has had 28,624 people diagnosed with AIDS since the beginning of the epidemic, the third largest number after New York City and Los Angeles. Compared with national trends, San Francisco's epidemic affects a smaller proportion of heterosexuals, injection drug users (IDUs), and people of color, although these groups are still affected. Historically, San Francisco's HIV epidemic has been largely among gay men, and in the early years prior to needle exchange, among IDUs as well. Between the early 1980s (when the peak in new HIV infections occurred) and the late 1990s, new HIV infections declined dramatically, due to mobilization and prevention efforts among gay men and IDUs.

In the late 1990s, the epidemic began to change. New infections among gay men began to increase, and a high HIV prevalence was documented among MTF transgendered persons. The causes of these increases in new infections are numerous and complex. Highly active antiretroviral therapy (HAART) has led to individuals living longer, feeling healthier, and, as a result, being more sexually active. Increases in recreational drug use have been associated with increases in high-risk sexual behavior, particularly among men who have sex with men (MSM). Increases in sexually transmitted disease (STD) rates have affected HIV incidence because some STDs can facilitate HIV transmission. Unmet mental health and substance use treatment needs and economic insecurity are also contributing factors, especially among MTF transgendered persons. In summary, there continues to be an epidemic among MSM (particularly gay men) and MTF transgendered persons in 2004 in San Francisco. Some data suggests that new infection rates among MSM may be leveling off, but it is too soon to make any definitive conclusions.

14

In addition to reducing the overall number of new HIV infections in the city by focusing on populations with the highest numbers of new infections (gay men and MTF persons), San Francisco's HIV prevention strategy also involves addressing the disproportionate effects of HIV and AIDS. As in most communities, HIV and AIDS are not distributed evenly across all populations. In San Francisco, the populations disproportionately affected compared with their numbers in the populations include African Americans, whites, and adults aged 30 to 50. In contrast, some groups are under-represented among people living with AIDS (PLWA). Women make up only 6% of PLWA, and youth under 25 make up less than 3% of PLWA.

Although there are challenges facing us in this new era of the epidemic, San Francisco has had several HIV prevention successes on which a solid foundation for future prevention efforts can be built. For example, needle exchange and other strong community-based prevention efforts have reduced new HIV infections to endemic (as opposed to epidemic) levels among IDUs. However, some epidemiologists believe that these infection rates are sufficient to sustain HIV prevalence among IDU populations indefinitely. The exception among IDUs is MSM-IDU; this group continues to experience increased infection rates, probably due to increases in high-risk sexual behaviors and not to increases in needle sharing.

Another success is that there continues to be no epidemic among non-IDU heterosexual men and women in San Francisco. The few new cases of HIV that occur among these populations each year are generally among partners of IDUs and females who have sex with MSM. Therefore, the absence of an epidemic among heterosexuals is likely due, at least in part, to effective prevention efforts among MSM and IDU.

The final piece of good news is that new HIV infections among children born to HIV-positive mothers and among blood product recipients continue to be extremely uncommon in San Francisco. In 2000 and 2001 there were no perinatal HIV cases, and in 2002 there were two cases.

The rest of this chapter presents the data that supports this summary of the epidemic, including how HIV infections and AIDS are currently distributed in San Francisco and some of the recent trends in HIV and AIDS. Data obtained from AIDS Surveillance Quarterly Reports is from June 2003. For the latest quarterly report, see <http://www.dph.sf.ca.us/Reports/HlthAssess.htm>.

### Citywide Profile

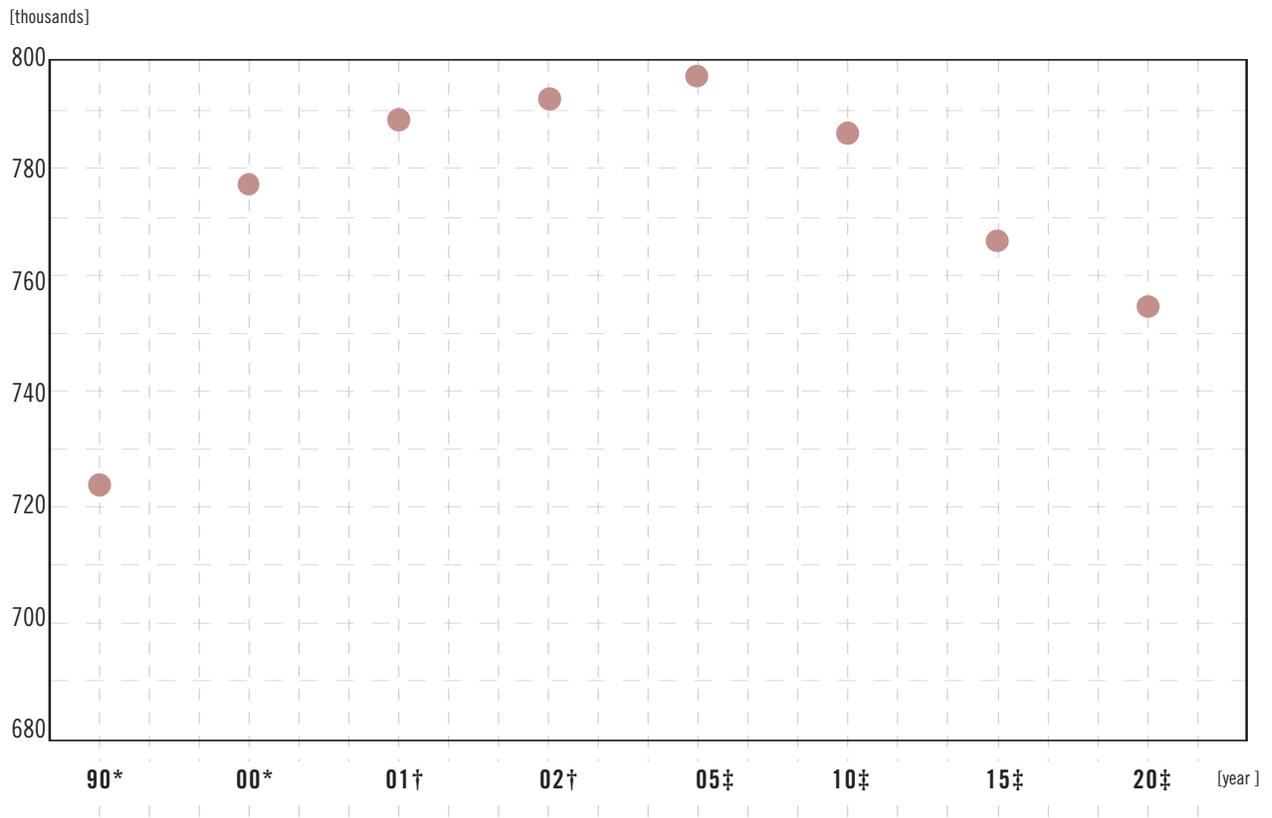
San Franciscans have been highly impacted by the epidemic. In 2003, approximately 18,000 to 19,000 people were living with HIV and AIDS out of a total of approximately 791,600 residents, for an overall HIV prevalence of approximately 2.4%.

Based on an SFDPH pilot study, there are an estimated 20% of people living with HIV who are not in care, the majority of whom do not know they are infected (Willi McFarland, personal communication, 2003). The percentage of San Francisco residents who do not know they are infected is likely lower than the national percentage (Bingham et al 2002), due to San Francisco's successful outreach and counseling and testing efforts.

- According to the U.S. Census, the overall population of San Francisco increased by 7.3%, or 52,774 people, between 1990 and 2000. The population increase for the Bay Area overall was even greater, at 12.6%.
- Since 2000, population growth in San Francisco has begun to slow. As of 2002, San Francisco was the fourth largest city in California, with a population of 791,600 (Exhibit 1).
- San Francisco County ranks second only to Los Angeles County in the number of PLWA, with 17% of California residents living with AIDS residing in San Francisco (Exhibit 2).
- Among California counties, San Francisco has had the highest number of people diagnosed with AIDS per 100,000 population since the epidemic began. This is five times the number of cumulative AIDS cases per 100,000 population in Marin, the county second most affected (Exhibit 3). In Marin, the high AIDS case rate is in part due to PLWA in San Quentin prison.
- Over half of PLWA in the nine Bay Area counties live in San Francisco, and nearly one third of all PLWA in California live in the Bay Area (Exhibit 3).
- Not all San Francisco neighborhoods have been impacted equally. Exhibit 4 shows the distribution of PLWA by neighborhood, based on their residence at time of diagnosis. The Castro, the Tenderloin, and Western Addition are the neighborhoods with the most PLWA. Other strongly affected neighborhoods include Diamond Heights, parts of Potrero Hill, South of Market, and Bayview/Hunter's Point.
- In recent years, there has been an increase in the number of individuals living with AIDS, largely due to the rapid increases in the use of highly active antiretroviral therapy (HAART) after 1995. As the number of PLWA increases, the pool of infection expands.

# EXHIBIT I

## San Francisco Population, 1990 – 2020



\*Source: U.S. Census Bureau, Census 2000.

†Source: State of California, Department of Finance, E-1 City/County Population Estimates, with Annual Percent Change, January 1, 2002 and 2003. Estimates as of May 2003.

‡Source: California Department of Finance, Interim County Population Projections, Projections for 2005, 2010, 2015, and 2020 as of June 2001. Projections based on 2000 census data.

## EXHIBIT 2

### Ten California Counties with the Highest Number of People Living with AIDS, 2003

COUNTY	NUMBER OF PERSONS LIVING WITH AIDS	PERCENT OF ALL CASES IN CALIFORNIA	CUMULATIVE AIDS CASES PER 100,000 POPULATION
Los Angeles	18,152	34%	489
San Francisco	9,401	17%	3,302
San Diego	5,299	10%	420
Orange	3,062	6%	224
Alameda	2,644	5%	448
Riverside	2,593	5%	315
Santa Clara	1,476	3%	205
San Bernardino	1,336	2%	179
Sacramento	1,315	2%	266
Contra Costa	875	2%	252
<b>SUBTOTAL</b>	<b>46,153</b>	<b>86%</b>	<b>-</b>
<b>TOTAL CALIFORNIA</b>	<b>53,976</b>	<b>100%</b>	<b>388</b>

Source: California State Office of AIDS, AIDS Case Statistics, June 2003. SFDPH, HIV/AIDS Statistics and Epidemiology Section, special data request, June 2003.

18

## EXHIBIT 3

### People Living with AIDS in the San Francisco Bay Area, 2003

COUNTY	NUMBER OF PERSONS LIVING WITH AIDS	PERCENT OF ALL CASES IN BAY AREA	CUMULATIVE AIDS CASES PER 100,000 POPULATION
San Francisco	9,401	54%	3,302
Alameda	2,644	15%	448
Santa Clara	1,476	9%	205
Contra Costa	875	5%	251
San Mateo	776	4%	282
Marin	708	4%	633*
Sonoma	683	4%	381
Solano	682	4%	345
Napa	73	<1%	165
<b>TOTAL SAN FRANCISCO BAY AREA</b>	<b>17,318</b>	<b>32%†</b>	<b>-</b>
<b>TOTAL CALIFORNIA</b>	<b>53,976</b>	<b>100%</b>	<b>388</b>

Source: California State Office of AIDS, AIDS Case Statistics, June 2003. HIV/AIDS Statistics and Epidemiology Section, special data request, June 2003.

\*The high AIDS case rate in Marin is in part due to PLWA in San Quentin prison.

†This is the percent of all California AIDS cases that are among people living in the Bay Area.

# EXHIBIT 4

## People Living with AIDS by San Francisco Neighborhood, 2003



Source: HIV/AIDS Statistics and Epidemiology Section, special data request, June 2003.  
Note: For additional HIV and AIDS maps, see the Atlas of HIV/AIDS in San Francisco 1991-2000 published by SFPDH, HIV/AIDS Statistics and Epidemiology Section, 2003 (<http://www.dph.sf.ca.us/Reports/HlthAssess.htm#atlas>).

## Gender

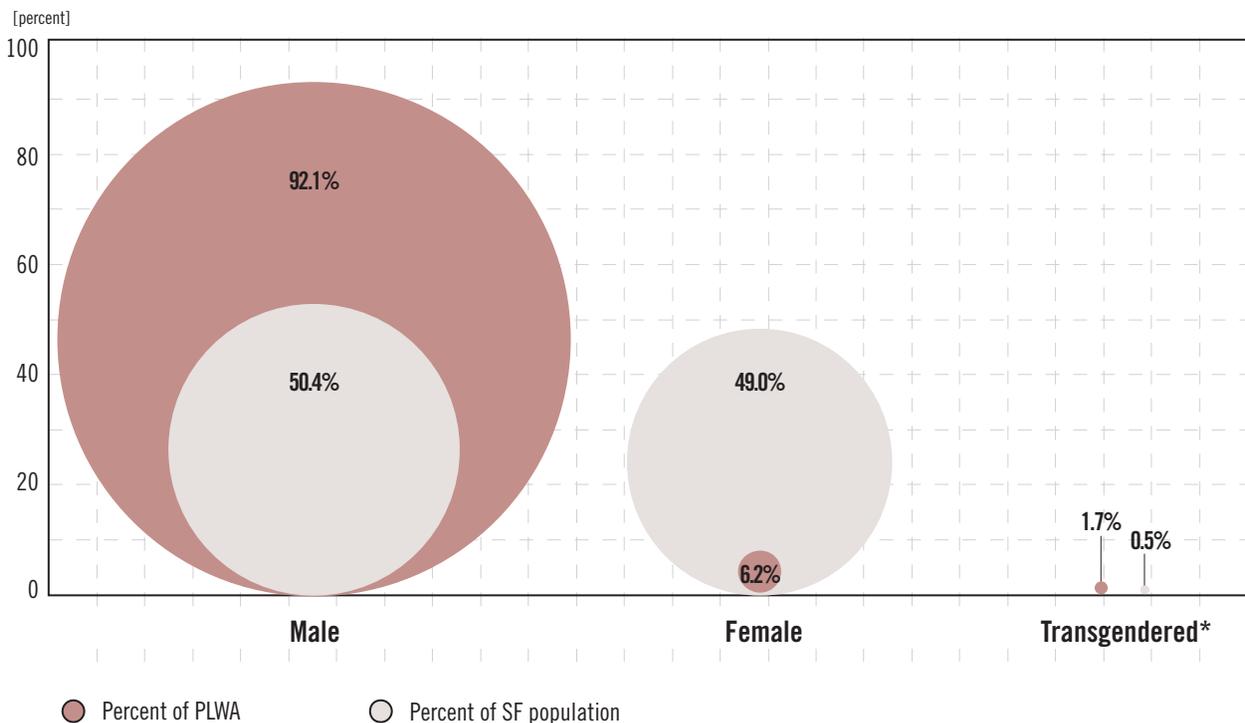
In San Francisco, men (mostly MSM) and MTF transgendered persons are disproportionately affected by HIV/AIDS.

- Although men make up 50% of San Francisco's population, they represent 92% of the PLWA (Exhibit 5) and an estimated 82% of all new HIV infections (Exhibit 13, BRPs 1, 3, 5, and 8).
- MTF transgendered persons make up less than 1% of the population, yet they represent nearly 2% of people living with AIDS (Exhibit 5) and an estimated 13% of all new HIV infections (Exhibit 13, BRPs 2 and 6).
- Nationally, women represent approximately 30% of the new HIV infections in the country (CDC's A Glance at the HIV Epidemic, <http://www.cdc.gov/nchstp/od/news/At-a-Glance.pdf>). In San Francisco, although women make up 49% of the population, they represent only 6% of PLWA and an estimated 5% of all new HIV infections (Exhibit 13, BRPs 4 and 7).

### EXHIBIT 5

#### San Francisco Population (2000) and People Living with AIDS (2003) by Gender

20



Source: U.S. Census Bureau, Census 2000. AIDS Surveillance Quarterly Report, June 2003.

Note: The Census does not include "transgendered" as a gender category. The size of the transgendered population in San Francisco is estimated at 4,000, including 3,000 MTF and 1,000 female-to-male (FTM) (HPPC 2001). To determine the proportion of the population that is transgendered, the estimated number of MTF transgendered individuals (3,000) was subtracted from the total 2000 Census count of females in San Francisco, and the estimated number of FTM transgendered individuals (1,000) was subtracted from the total 2000 Census count of males.

\*This category encompasses both MTF and FTM transgendered persons.

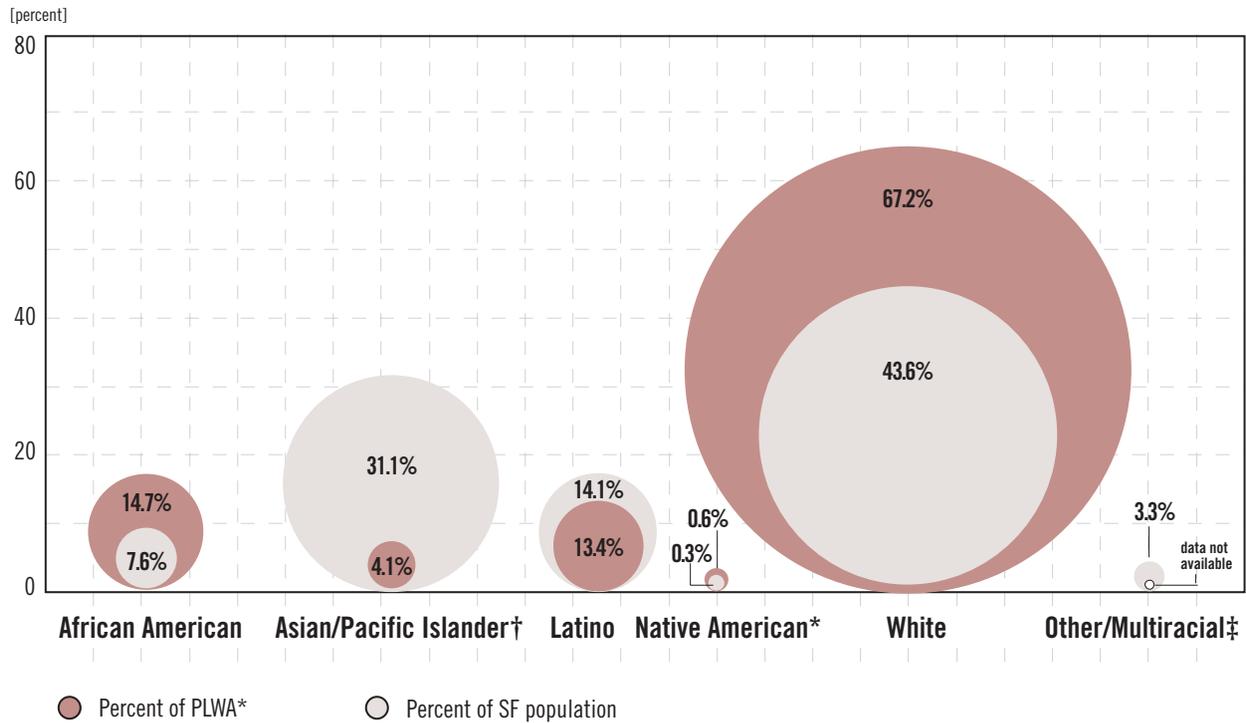
## Race/Ethnicity

Although whites are the single largest racial group in San Francisco, more than half of the city's residents are people of color. All racial/ethnic groups in San Francisco are affected by HIV and AIDS, and African Americans and whites are disproportionately affected.

- One third of adults living with AIDS are people of color (Exhibit 6). The past decade has seen a slight increase in the proportion of people of color living with AIDS and a decrease in the proportion of whites living with AIDS.
- African Americans and whites continue to be disproportionately affected by HIV and AIDS compared with their numbers in the population (Exhibit 6).
  - African Americans make up 8% of San Francisco's population but represent 15% of all PLWA in San Francisco.
  - Whites make up 44% of the city's population but represent 67% of all PLWA.
- The number of Latinos and Native Americans living with AIDS is proportionate to their numbers in the population (Exhibit 6). However, the low numbers of Native Americans living in San Francisco make it difficult to determine whether this population is in fact disproportionately affected.
  - Latinos make up 14% of the population and 13% of PLWA.
  - Native Americans make up less than 1% of the population and less than 1% of PLWA.
  - It should be noted that limitations in the way the data is collected might result in the misclassification of Latinos and Native Americans living with AIDS into other racial/ethnic categories (see Appendix 1: Data Limitations).
- Asian/Pacific Islanders are underrepresented among PLWA. They make up 31% of San Francisco's population but only 4% of PLWA (Exhibit 6).
- 66% of females living with AIDS are women of color. 44% of females living with AIDS are African American.

## EXHIBIT 6

### San Francisco Population (2000) and People Living with AIDS (2003) by Race/Ethnicity



Source: U.S. Census Bureau, Census 2000. AIDS Surveillance Quarterly Report, June 2003.

Note: The 2000 Census, unlike the 1990 census, allowed individuals to select more than one racial/ethnic identification. See Exhibit 7 for the number and percent of individuals who identify as partially or fully belonging to each racial/ethnic group.

\*Includes Alaska Native.

†Includes Native Hawaiian.

‡Data not available for PLWA.

## EXHIBIT 7

### Number/Percent of Individuals Who Identify as Partially or Fully Belonging to Each Racial Category, San Francisco, 2000

RACE	NUMBER	PERCENT OF TOTAL POPULATION
African American/Black	67,076	8.6%
Asian/Pacific Islander	259,750	33.4%
Latino/Hispanic	109,504	14.1%
Native American/Alaskan Native	8,971	1.2%
White/Caucasian	411,427	53.0%
Other Race	65,757	8.5%
<b>TOTAL</b>	<b>922,485*</b>	<b>N/A</b>

Source: U.S. Census Bureau, Census 2000.

\*This total is the total number of racial/ethnic identifications made, not the total number of persons in San Francisco. The totals exceed 100% because individuals who identify with more than one race/ethnicity appear in more than one category.

## EXHIBIT 8

### Ethnic Identification Among San Francisco's Asian Population, 2000

ASIAN ETHNIC GROUP	IDENTIFY WITH ONE OR MORE ASIAN ETHNIC GROUPS		IDENTIFY WITH ONE OR MORE ASIAN ETHNIC GROUPS AND ANOTHER RACIAL GROUP
	IDENTIFY WITH ONE ASIAN ETHNIC GROUP	IDENTIFY WITH ONE OR MORE ASIAN ETHNIC GROUPS	
Asian Indian	5,524	5,851	6,616
Bangladeshi	45	49	57
Cambodian	1,023	1,174	1,358
Chinese, except Taiwanese	151,965	156,101	160,113
Filipino	40,083	41,229	45,793
Hmong	30	33	33
Indonesian	778	904	1,142
Japanese	11,410	12,418	14,618
Korean	7,679	8,027	8,706
Laotian	564	627	707
Malaysian	111	193	244
Pakistani	436	489	636
Sri Lankan	73	79	96
Taiwanese	655	759	834
Thai	1,329	1,440	1,638
Vietnamese	10,722	12,562	12,874

Source: U.S. Census Bureau, Census 2000.

## EXHIBIT 9

### Racial Identification Among San Francisco's Latino Population, 2000

RACE	IDENTIFY WITH ONLY ONE RACE		IDENTIFY WITH ONE OR MORE RACES	
	Number	Percent	Number	Percent
African American	1,724	1.6%	3,006	2.7%
Asian/Pacific Islander	1,634	1.5%	9,386	8.6%
Native American	1,438	1.3%	2,949	2.7%
White	46,819	42.8%	55,053	50.3%
Other	47,788	43.6%	55,704	50.9%
<b>TOTAL NUMBER OF LATINOS</b>	<b>109,504</b>			

Source: U.S. Census Bureau, Census 2000.

Note: In the 2000 U.S. Census, Latino is considered an ethnicity, not a race. Therefore, all individuals who identified as Latino were also asked to select one or more racial identifications, which are presented in this Exhibit.

## EXHIBIT 10

### Ethnic Identification Among San Francisco's Latino Population, 2000

ETHNICITY	NUMBER	PERCENT OF TOTAL
<b>MEXICAN</b>	<b>48,935</b>	<b>44.7%</b>
<b>PUERTO RICAN</b>	<b>3,758</b>	<b>3.4%</b>
<b>CUBAN</b>	<b>1,632</b>	<b>1.5%</b>
<b>OTHER HISPANIC OR LATINO</b>	<b>55,179</b>	<b>50.4%</b>
<b>DOMINICAN (DOMINICAN REPUBLIC)</b>	148	0.1%
<b>CENTRAL AMERICAN (EXCLUDES MEXICAN)</b>	23,367	21.3%
Costa Rican	326	0.3%
Guatemalan	3,196	2.9%
Honduran	934	0.9%
Nicaraguan	5,459	5.0%
Panamanian	261	0.2%
Salvadoran	10,655	9.7%
Other Central American	2,536	2.3%
<b>SOUTH AMERICAN</b>	5,007	4.6%
Argentinean	540	0.5%
Bolivian	258	0.2%
Chilean	405	0.4%
Colombian	817	0.7%
Ecuadorian	329	0.3%
Paraguayan	16	0%
Peruvian	1,769	1.6%
Uruguayan	38	0%
Venezuelan	234	0.2%
Other South American	601	0.5%
<b>ALL OTHER HISPANIC OR LATINO</b>	26,657	24.3%
Spaniard	703	0.6%
Spanish	3,640	3.3%
Spanish American	239	0.2%
Not elsewhere classified	22,075	20.2%
<b>TOTAL HISPANIC OR LATINO (OF ANY RACE)</b>	<b>109,504</b>	<b>100%</b>

Source: U.S. Census Bureau, Census 2000.

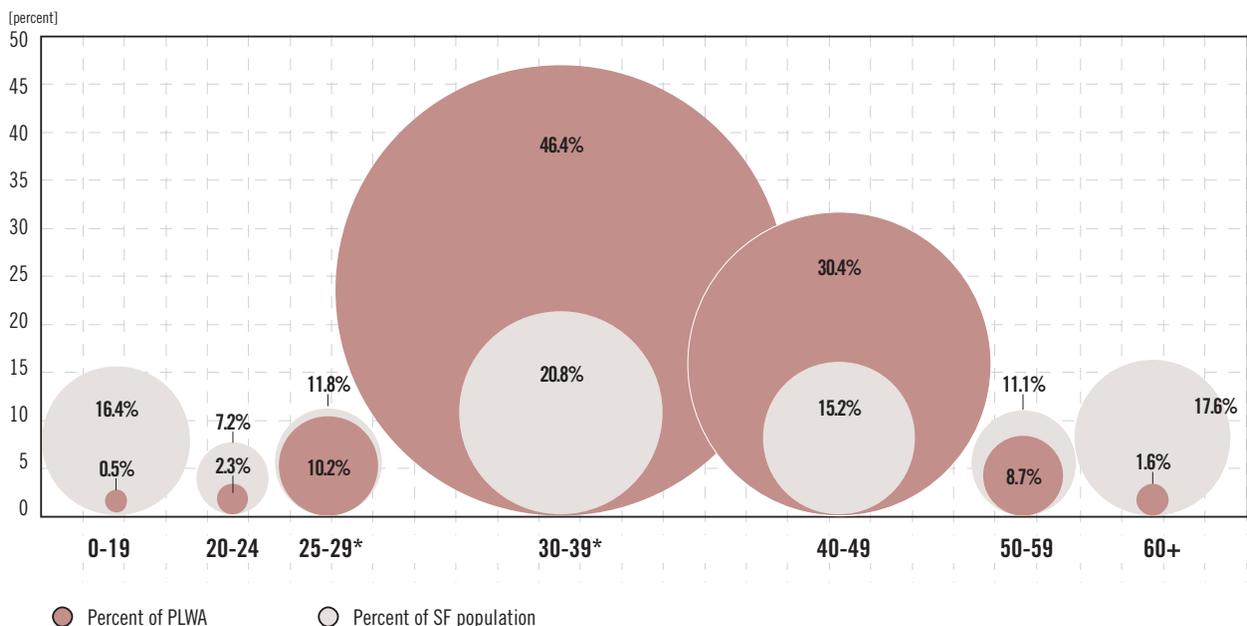
## Age

Approximately three quarters of San Francisco's population are adults ages 25 and older (76%), and the vast majority of PLWA are 25 and older. The median age for all San Franciscans is 36.5 years old. For more detailed information on youth, see Chapter 3: Community Assessment (pp. 45-136).

- Exhibit 11 shows that the majority of PLWA in San Francisco are ages 30 and over (87%), and an additional 10% are between 25 and 29.
- The number of PLWA in their forties and fifties is growing; 39% of PLWA are between 40 and 59 years old.
- Youth aged 24 and under make up 24% of San Francisco's population but only 3% of PLWA (Exhibit 11). The racial/ethnic distribution of AIDS among youth is as follows: 45% white, 26% Latino, 19% African American, 9% Asian/Pacific Islander, and 2% Native American.
- It is important to note that data on PLWA reflects acquisition of HIV at a younger age. Therefore, although youth represent a small proportion of PLWA, PLWA in their twenties and early thirties may have been infected when they were much younger.

### EXHIBIT 11

#### San Francisco Population (2000) and People Living with AIDS (2003) by Age



Source: U.S. Census Bureau, Census 2000. AIDS Surveillance Quarterly Report, June 2003.

\*Data on transgendered PLWA is only available for two age categories: (1) under 30, and (2) 30 and over. Those under 30 were placed in the 25-to-29 age group, and those 30 and older were placed in the 30-to-39 age group.

## Behavioral Risk Population

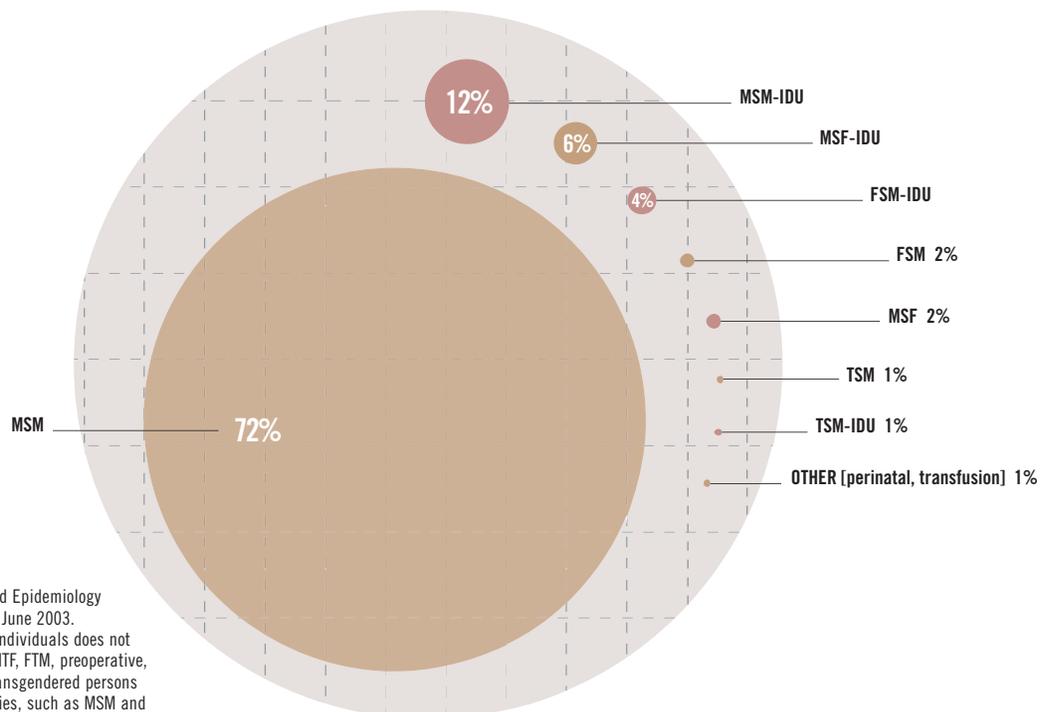
For a description of each of the eight behavioral risk populations (BRPs) and their acronyms, see the foldout from the back cover of the Plan (alphabetical list) or Chapter 4: Priority-Setting, pp. 142-143 (listed in prioritized order).

Nearly three quarters of PLWA are MSM or MSM/F (71%) and an additional 12% are MSM-IDU or MSM/F-IDU. These BRPs also have high rates of new HIV infections. Although TSM, TSM/F, TSF and TSM-IDU, TSM/F-IDU, TSF-IDU represent only a small proportion of PLWA (2%), these BRPs have high incidence rates. (For more about HIV incidence, see Section III, pp. 27-39.)

- The composition of San Francisco's AIDS epidemic is remarkably different from the national profile. Seventy-one percent of PLWA in San Francisco are MSM (Exhibit 12), compared with 45% nationally (CDC's Cases of HIV Infection and AIDS in the United States, 2002 <http://www.cdc.gov/hiv/stats/hasr1402/table11.htm>).
- MSM and MSM-IDU together make up approximately 83% of PLWA. Of the MSM and MSM-IDU cases reported, 73% are among whites, 13% are among Latinos, 10% are among African Americans, 4% are among Asian/Pacific Islanders, and less than 1% are among Native Americans.
- Some racial/ethnic groups are disproportionately affected by AIDS within certain BRPs, compared with their numbers in the population.
- African Americans are disproportionately represented in all the BRPs, with the exception of MSM, MSM/F.
- Whites are over-represented in the MSM, MSM/F and MSM-IDU, MSM/F-IDU BRPs.
- Latinos are over-represented in the MSF, FSM, and transgender BRPs.
- Asian/Pacific Islanders have fewer PLWA in each of the BRPs than would be expected given their proportions in the overall San Francisco population.

### EXHIBIT 12

#### People Living with AIDS by BRP, San Francisco, 2003



Source: HIV/AIDS Statistics and Epidemiology Section, special data request, June 2003.  
 Note: Data on transgendered individuals does not currently distinguish among MTF, FTM, preoperative, and postoperative. Data on transgendered persons might appear in other categories, such as MSM and MSM-IDU, due to misclassification.

### Background

San Francisco's approach to tracking the HIV epidemic takes into account four basic assumptions (McFarland 2003):

- All data is potentially biased.
- No single study gives the entire picture.
- More data is better than less data.
- If all signs point up, look up. That is, if evidence can be corroborated by multiple sources, it is more likely reflective of real trends.

In this section, three types of data are presented:

- **HIV incidence and prevalence estimates from the 2001 Consensus Meeting.** In 2001, the SFDPH AIDS Office convened a meeting of community and academic researchers, epidemiologists, and behavioral scientists to examine the findings from prevalence, incidence, and behavioral studies conducted in San Francisco. The goal of the meetings was to review current studies and data to determine HIV prevalence and incidence estimates for the San Francisco BRPs, with the additional goal of providing data on incidence and prevalence estimates for specific BRP subpopulations. This process has come to be known as the Consensus Meeting. The San Francisco HIV Consensus Meeting occurred over two days in January and February of 2001.
- **Counseling and testing data from voluntary testers at publicly funded sites.** All publicly funded confidential and anonymous test sites report their data to SFDPH. This data is used to monitor trends in incidence over time for various populations. However, not all incidence estimates derived from this data are reliable, due to low numbers of tests and/or low numbers of individuals found to be HIV-positive. Moreover, the data only reflects persons who access counseling and testing services. For a description of additional limitations of this data, refer to Appendix 1.
- **Recent trends in indicators of HIV risk.** HIV indicator data (i.e., data that could be considered markers for HIV infection, such as prevalence of high-risk behavior or STD rates) provides additional information about the direction of the HIV epidemic.

These three sources of data all support the following conclusions:

- There continues to be an epidemic among MSM, MSM-IDU, and MTF transgendered persons in San Francisco. A few indicators suggest that new infection rates among MSM may be stabilizing and leveling off, but it is too soon to make any definitive conclusions.
- San Francisco has endemic levels of infection among MSF-IDU and female IDU, which is enough to sustain the pool of HIV infection in these groups indefinitely.
- There is no epidemic among non-IDU heterosexuals in San Francisco. The few HIV infections that occur among heterosexual females are largely attributable to sex with IDU partners and sex with MSM. The few HIV infections that occur among heterosexual men who have sex exclusively with women are mostly attributable to sex with IDU partners.

It is important to note that HIV reporting in California (using a non-names-based system) became a requirement in July 2002. Once complete HIV reporting data becomes available, additional information on prevalence and incidence will also be available.

## HIV Prevalence and Incidence Estimates: 2001 Consensus Meeting

Exhibits 13 and 14 present HIV prevalence and incidence estimates by BRP that were agreed on at the 2001 Consensus Meeting. They have been updated to June 30, 2003 using the method described in the following paragraphs. The incidence data in Exhibit 13 forms the foundation for San Francisco's HIV prevention priorities. The HPPC determines funding guidelines for each BRP based on the proportion of all new infections that occur within that BRP. (For more information on San Francisco's priority-setting model, see Chapter 4: Priority-Setting, pp. 137-156.)

The following limitations should be considered when interpreting the data:

- **Prevalence.** The 2003 prevalence data in Exhibit 13 represents estimates that do not account for changes in BRP size since 2001 nor the real number of seroconversions in 2001 because such data is not available. The method used to calculate the updated prevalence was:

$$\begin{aligned} & \text{HIV prevalence 2001} \\ & + \text{ Estimated new HIV infections in 2001, 2002, and 2003 (January-June)} \\ & - \text{ AIDS deaths in 2001, 2002, and 2003 (January-June)} \\ \hline & = \text{ Estimated HIV prevalence as of June 30, 2003} \end{aligned}$$

In addition, the prevalence of HIV by race/ethnicity was estimated by apportioning all HIV/AIDS cases according to living AIDS cases.

- **Incidence.** In 2004, it is expected that new HIV infections will be distributed across BRPs in the same proportions as in 2001. However, until another Consensus Meeting is held, the exact numbers of expected new infections in each BRP in 2004 cannot be determined. Therefore, the numbers of expected new infections and the annual incidence rate listed in Exhibit 13 are the 2001 estimates.

## EXHIBIT 13

### HIV Prevalence and Incidence Estimates by BRP, San Francisco

BRP	TOTAL POPULATION SIZE 2001*	ESTIMATED HIV PREVALENCE, 12/31/00: n (%)	ESTIMATED HIV PREVALENCE, 6/30/03: n (%)	ESTIMATED NUMBER OF NEW INFECTIONS ANNUALLY	ESTIMATED HIV INCIDENCE PER YEAR
1. MSM, MSM/F	46,800	12,786 (27.3%)	13,611 (29.1%)	748	2.2%
2. TSM, TSM/F, TSF, TST, TSM/T, TSF/T†	2,160	513 (23.8%)	656 (30.4%)	102	6.2%
3. MSM-IDU, MSM/F-IDU	3,982	2,080 (52.2%)	2,100 (52.7%)	87	4.6%
4. FSM-IDU, FSF-IDU, FSF/M-IDU	4,850	485 (10.0%)	525 (10.8%)	48	1.1%
5. MSF-IDU	9,000	900 (10.0%)	899 (10.0%)	45	0.6%
6. TSM-IDU, TSM/F-IDU, TSF-IDU, TST-IDU, TSM/T-IDU, TSF/T-IDU†	840	537 (63.9%)	579 (68.9%)	40	13.2%
7. FSM, FSM/F, FSF	5,000§	334 (0.1% of total population)	333 (0.1% of total population)	10	<0.1%
8. MSF	2,000§	82 (<0.1% of total population)	75 (<0.1% of total population)	2	<0.1%
Pediatric‡	-	49	51	-	-
Transfusion/ Blood Products‡	-	51	53	-	-
<b>TOTAL</b>	<b>791,600</b>	<b>17,817 (2.3%)</b>	<b>18,882 (2.4%)</b>	<b>1,082</b>	

Source: HIV Consensus Meeting (SFDPH 2001a). HIV/AIDS Statistics and Epidemiology Section, special data request, August 2003.

\*Population sizes for BRPs have not been updated since 2001. Preliminary analysis of the data from the 2001 Behavioral Risk Factor Survey suggests that the MSM, MSM/F population (especially HIV-negative) has increased, although actual numbers are not yet available.

†Consensus estimates include only MTF transgendered persons, and not males or females who have sex with transgendered individuals.

‡Consensus estimates were not derived for pediatric or transfusion recipient populations. The pediatric prevalence number given includes children under 12 living with HIV, based on surveillance data. The transfusion prevalence number given includes adults living with AIDS; it is not known how many are living with HIV.

§This is the number considered to be at risk within these BRPs, not the total population size.

# EXHIBIT 14

## HIV Prevalence Estimates by BRP and Race/Ethnicity, San Francisco

BRP	ESTIMATED NUMBER LIVING WITH HIV				
	African American	Asian/ Pacific Islander	Latino	Native American	White
1. MSM, MSM/F	1,101	552	1,794	46	10,118
2. TSM, TSM/F, TSF, TST, TSM/T, TSF/T*	191	91	183	42	149
3. MSM-IDU, MSM/F-IDU	371	38	236	30	1,421
4. FSM-IDU, FSF-IDU, FSF/M-IDU	266	14	55	8	182
5. MSF-IDU	432	20	96	9	341
6. TSM-IDU, TSM/F-IDU, TSF-IDU, TST-IDU, TSM/T-IDU, TSF/T-IDU*	221	52	124	33	150
7. FSM, FSM/F, FSF	118	36	68	8	104
8. MSF	21	8	23	0	24
<b>TOTAL ESTIMATED NUMBER LIVING WITH HIV†</b>	<b>2,746</b>	<b>828</b>	<b>2,599</b>	<b>182</b>	<b>12,527</b>
<b>TOTAL POPULATION‡</b>	<b>58,791-67,076</b>	<b>241,775-259,750</b>	<b>109,504</b>	<b>2,020-8,971</b>	<b>338,909-411,427</b>
<b>TOTAL ESTIMATED PREVALENCE BY RACE/ETHNICITY§</b>	<b>4.1 - 4.7%</b>	<b>.3%</b>	<b>2.4%</b>	<b>2.0 - 9.0%</b>	<b>3.0 - 3.7%</b>

Source: HIV Consensus Meeting (SFDPH 2001a), and HIV/AIDS Statistics and Epidemiology Section, special data request.

Note: The estimated HIV prevalence for San Francisco as a whole is 2.4%.

\*Includes MTF transgendered persons only.

†Does not include pediatric or transfusion cases.

‡Source: U.S. Census Bureau, Census 2000. The lowest number in the range represents individuals who identify only as that racial group. The highest number in the range represents individuals who identify only as that racial group plus those who identify as that racial group as well as one or more other racial groups.

§This is the total estimated number of people living with HIV divided by the total population size, for each racial group. A range is given because depending on the denominator, the estimated HIV prevalence is different (see previous footnote).

## Counseling and Testing Data

A practical method for estimating HIV incidence is analysis of counseling and testing data. Two types of counseling and testing incidence data are presented in Exhibit 15: (1) the STARHS methodology (serological testing algorithm for recent HIV seroconversion), and (2) repeat tester data. This data is from individuals who voluntarily sought anonymous or confidential HIV testing in recent years and therefore is not necessarily representative of the entire San Francisco population.

The counseling and testing incidence data presented in Exhibit 15 should not be compared directly with incidence data from the 2001 Consensus Meeting presented in Exhibit 13; the data in Exhibit 13 takes into account multiple data sources, whereas the data in this section comes only from testers. Any differences between the data in Exhibit 13 and the data presented here cannot necessarily be interpreted as increases or decreases in the incidence rates. See Appendix 1 for a more in-depth description of the limitations of counseling and testing data.

### EXHIBIT 15

#### Summary of HIV Incidence Among Voluntary HIV Testers in San Francisco by BRP

BRP	STARHS (2001 - 2002)*		REPEAT TESTERS (2000 - 2001)*	
	Number of Recent Infections	Incidence Rate: Percent per Year	Number of Seroconversions	Incidence Rate: Percent per Year
1. MSM, MSM/F	39	2.7%	212	2.1%
2. TSM, TSM/F, TSF, TST, TSM/T, TSF/T†	1	6%	15	8%
3. MSM-IDU, MSM/F-IDU	2	7%	23	5%
4. FSM-IDU, FSF-IDU, FSF/M-IDU	0	0.0%	5	1%
5. MSF-IDU	3	7%‡	12	1.7%
6. TSM-IDU, TSM/F-IDU, TSF-IDU, TST-IDU, TSM/T-IDU, TSF/T-IDU†	0	0%	5	17%‡
7. FSM, FSM/F, FSF	6	< 1%	13	< 1%
8. MSF	18	< 1%	20	< 1%

\*See Appendix 1 for data limitations.

†Includes only MTF transgendered persons.

‡Likely an overestimate due to small sample size.

## Recent Trends in the HIV Epidemic: HIV Indicator Data

The pieces of data presented in this section are considered indicators for HIV infection because they signal high-risk sexual behavior taking place among a population. The following indicator data is presented by BRP. BRPs with similar indicators (e.g., MSM, MSM/F and MSM-IDU, MSM/F-IDU) have been grouped together.

### BRP 1: MSM, MSM/F and BRP 3: MSM-IDU, MSM/F-IDU

The weight of the evidence suggests that HIV incidence among MSM and MSM-IDU has been increasing since 1998 and remains high.

For MSM, counseling and testing data provides estimates of incidence under 2% per year for 1998 and earlier, and estimates ranging from 2% to 4% per year from 1999 and later. Trends in some incidence and risk behavior data for MSM suggest that a possible plateau or decrease in new infections is on the horizon (Exhibit 16), but it is premature to determine whether this trend will continue.

For MSM-IDU, counseling and testing data suggests that HIV incidence remains high at over 4% per year, and a recent study suggests an increase in seroprevalence among gay and bisexual IDUs from 25% in 1996 to 42% in 2000 (Bluthenthal et al 2001). Although sexual behavior is the primary transmission route among MSM-IDU, needle sharing still occurs among this group, possibly at rates of 30% or higher (Bluthenthal et al 2001, Kral et al 2003). In addition, many of the indicators of HIV sexual risk behavior for MSM and MSM-IDU have continued to increase in recent years, such as syphilis diagnoses and rates of unprotected anal sex (Exhibit 16).

African American and Latino MSM continue to have the highest HIV prevalence among anonymous testers, at 9.7% and 5.8% respectively. Latino MSM also have the highest HIV incidence among testers (3.5% per year). Despite the high HIV prevalence among African American MSM, incidence remains low at 0.8% per year, which may be due to African Americans getting tested later after infection compared with other groups. White and Asian/Pacific Islander MSM have moderately high HIV prevalence (3.2% for both groups) and incidence (2.3% and 2.5% per year, respectively; SFDPH 2001b). It is noteworthy that, historically, Asian/Pacific Islander MSM have had lower rates HIV infection than other groups. However, a recent study showed that several indicators of high-risk behavior for Asian/Pacific Islander MSM surpassed those of white MSM in 2002 (McFarland et al, in press).

Both younger and older MSM are becoming infected with HIV. Outreach survey data suggests that new infection rates among MSM under 30 may be slightly higher than for MSM age 30 and over (Chen et al 2002), but infections are increasing in both groups (Chen et al 2003).

# EXHIBIT 16

## Trends in HIV Indicators for MSM, MSM/F and MSM-IDU, MSM/F-IDU in San Francisco

INDICATOR	TREND	DATA	DATA SOURCE
<b>Male rectal gonorrhea</b>	Increasing (may be due at least partly to increased screening)	2000: 201 cases 2001: 237 cases 2002: 308 cases 2003: 153 cases*  *first six months	STD Prevention & Control surveillance data
<b>Primary and secondary syphilis</b>	Increasing	2000: 40 cases 2001: 116 cases 2002: 318 cases 2003: 194 cases*  *first six months	STD Prevention & Control surveillance data
<b>Mean number of sex partners</b>	Increasing	2000: 6.2 partners 2001: 6.9 partners 2002: 16.84 partners 2003: 18.5 partners*  *first six months	City Clinic data
<b>Anal sex in past 6 months</b>	<b>HIV-</b> Increasing but may be leveling off  <b>HIV+</b> Decreasing since 2001	<b>HIV+   HIV-</b> 1999: 67%   69% 2000: 71%   73% 2001: 74%   75% 2002: 73%   71% 2003: 66%*   75%*  *first five months	STOP AIDS data (Chen et al 2002, SFDPH 2002a)
<b>Unprotected anal sex in past 6 months</b>	<b>HIV-</b> Increasing but may be leveling off  <b>HIV+</b> Decreasing since 2001	<b>HIV+   HIV-</b> 1999: 42%   32% 2000: 46%   36% 2001: 51%   37% 2002: 45%   32% 2003: 45%*   36%*  *first five months	STOP AIDS data (Chen et al 2002, SFDPH 2002a)

EXHIBIT 16 (continued)

INDICATOR	TREND	DATA		DATA SOURCE
Unprotected anal sex with two or more partners in past 6 months	<b>HIV-</b> Increasing but may be leveling off	<b>HIV+</b>	<b>HIV-</b>	STOP AIDS data (Chen et al 2002, SFDPH 2002a)
		1999: 30%	16%	
	<b>HIV+</b> Decreasing since 2001	2000: 37%	19%	
		2001: 37%	22%	
		2002: 34%	18%	
		2003: 32%*	22%*	
		*first five months		
Unprotected anal sex with two or more partners of unknown serostatus in past 6 months	<b>HIV-</b> Increasing but may be leveling off	<b>HIV+</b>	<b>HIV-</b>	STOP AIDS data (Chen et al 2002, SFDPH 2002a)
		1999: 19%	10%	
	<b>HIV+</b> Decreasing since 2001	2000: 20%	12%	
		2001: 25%	15%	
		2002: 23%	13%	
		2003: 18%*	16%*	
		*first five months		
Percent of HIV testers reporting speed use	Increasing slightly*	1998: 1.4%		HIV/AIDS Statistics & Epidemiology Section, special data request, August 2003
		1999: 1.4%		
		2000: 1.7%		
		2001: 1.7%		
		2002: 1.8%		
Percent of HIV testers reporting poppers use	Increasing*	1998: 6.7%		HIV/AIDS Statistics & Epidemiology Section, special data request, August 2003
		1999: 5.6%		
		2000: 6.0%		
		2001: 9.4%		
		2002: 8.7%		

\*This data is only for MSM seeking HIV testing and therefore is not necessarily reflective of trends in the general population. Although we do not have solid trend data for speed use, community evidence suggests that rates of speed use are high among gay men. For more on speed and poppers, see Chapter 3: Community Assessment, p. 109).

**BRP 2: TSM, TSM/F, TSF, TST, TSM/T, TSF/T and BRP 6:TSM-IDU, TSM/F-IDU, TSF-IDU, TST-IDU, TSM/T-IDU, TSF/T-IDU**

HIV incidence, prevalence, and risk behaviors appear to remain high among MTF transgendered persons, as suggested by counseling and testing data and trends in indicators. HIV incidence is difficult to determine among these BRPs using counseling and testing data because of the relatively low numbers of testers and individuals found to be HIV-positive, which makes the data unreliable. Despite these limitations, it appears that incidence rates among MTF transgendered persons (IDU and non-IDU) continue to be the highest of any BRP. However, there is little new data since the 2001 San Francisco HIV Prevention Plan was published to indicate whether new HIV infections are increasing or decreasing. The recent HIV Testing Survey conducted locally found lower rates of unprotected receptive and insertive anal sex than for other populations (SFDPH 2002a). In fact, rates of unprotected sex with non-primary partners were less than 10%, indicating a possible increase in protective behaviors among this population. The small sample size for this study (n=96) should be noted. Exhibit 17 shows trends in other HIV indicators.

African American MTF transgendered persons continue to be disproportionately affected by HIV, with the highest HIV prevalence (33%) and incidence (17.5% per year) of any racial/ethnic group (SFDPH 2001b). A recent SFDPH study found a 58% HIV prevalence among African American MTF transgendered persons living in San Francisco or the East Bay (Rose et al 2002).

**EXHIBIT 17**

**Trends in HIV Indicators for TSM, TSM/F, TSF, TST, TSM/T, TSF/T and TSM-IDU, TSM/F-IDU, TSF-IDU, TST-IDU, TSM/T-IDU, TSF/T-IDU in San Francisco**

INDICATOR	TREND	DATA	DATA SOURCE
Mean number of sex partners	Unclear, possibly increasing†	2000: 31.0 partners 2001: 16.4 partners 2002: 114.0 partners 2003: 55.2 partners*  *first six months	City Clinic data
Primary and secondary syphilis	Remains low	2000: 1 case 2001: 0 cases 2002: 1 case 2003: 1 case*  *first six months	STD Prevention & Control surveillance data

†Small sample size leads to wide variation in the data; therefore, this data does not point to any definitive conclusions.

#### **BRP 4: FSM-IDU, FSM/F-IDU, FSF-IDU and BRP 7: FSM, FSM/F, FSF**

Counseling and testing data suggests that HIV incidence remains low among female IDU and non-IDU at less than 1% per year. A slight increase in the mean number of sexual partners among female City Clinic patients over the last few years and high chlamydia rates suggest the need to continue to monitor risk behaviors and HIV transmission among women in San Francisco (Exhibit 18). In addition, recent data from the HIV Testing Survey suggests high rates of unprotected vaginal and anal sex among FSM who reported those types of sex (79% and 100%, respectively) and among FSM-IDU (81% and 100%, respectively) (SFDPH 2002a), although the sample sizes were small. Among female IDUs, needle sharing is still a concern, with rates possibly 30% or higher (Kral et al 2003). A recent analysis of data from the UFO Study demonstrated that females have higher needle sharing rates than men, and having an injection partner who was also a sexual partner was associated with increased risk among females (Evans et al 2003).

African American females, especially younger African American females, are severely and disproportionately affected by chlamydia, with rates eight times higher than those among white females. African American females are also disproportionately affected by AIDS. However, there is no current evidence to suggest that new HIV infections are increasing among African American females in San Francisco.

## EXHIBIT 18

### Trends in HIV Indicators for FSM, FSM/F, FSF, and FSM-IDU, FSM/F-IDU, FSF-IDU in San Francisco

INDICATOR	TREND	DATA	DATA SOURCE
<b>Chlamydia</b>	No clear trend	2000: 1,831 2001: 1,744 2002: 1,836 2003: 837* *first six months	STD Prevention & Control surveillance data
<b>Gonorrhea</b>	No clear trend, possibly decreasing	2000: 415 2001: 366 2002: 376 2003: 123* *first six months	STD Prevention & Control surveillance data
<b>Mean number of sex partners</b>	Increasing slightly	2000: 2.2 partners 2001: 2.3 partners 2002: 3.7 partners 2003: 6.6 partners* *first six months	City Clinic data
<b>Percentage of total births that occur to mothers under 20 years old</b>	Decreasing (the actual number of births is also decreasing)	1997: 7% 1998: 6% 1999: 6% 2000: 5%	Child Trends KIDS COUNT Special Report†

†Source: The Annie E. Casey Foundation, <http://www.aecf.org>.  
Note: See also Exhibit 20.

**BRP 5: MSF-IDU and BRP 8: MSF**

HIV incidence remains low among MSF at less than 1% per year, according to counseling and testing data. A recent study noted that HIV incidence among MSF-IDU has remained stable since 1998 (Bluthenthal et al 2001). Current incidence rates for MSF-IDU are likely less than 1% per year, based on several data sources. However, rates of unprotected anal and vaginal sex among these groups are high according to the HIV Testing Survey (SFDPH 2002a). For MSF, rates of unprotected anal and vaginal sex among those who reported those types of sex were 88% and 69%, respectively, and for MSF-IDU the rates were 80% and 92%, respectively, although the sample sizes were small. Further, among MSF-IDU, needle sharing still occurs at rates of possibly 30% or higher (Bluthenthal et al 2001, Kral et al 2003). Increases in the number of sexual partners among male City Clinic patients and increases in the number of syphilis cases suggest the need to continue to monitor risk behaviors and HIV transmission among these populations (Exhibit 19). It should be noted that some of the recent syphilis cases (as well as recent HIV infections) may in fact be among MSM who did not report sex with men.

**EXHIBIT 19**

**Trends in HIV Indicators for MSF and MSF-IDU in San Francisco**

38

INDICATOR	TREND	DATA	DATA SOURCE
<b>HIV prevalence among San Francisco's military recruits†</b>	Remains low	1998: 0 cases 1999: 1 case 2000: 0 cases 2001: 0 cases	SFDPH 2002a
<b>Primary and secondary syphilis</b>	May be increasing slightly	1999: 5 cases 2000: 8 cases 2001: 14 cases 2002: 13 cases* *first nine months	STD Prevention & Control surveillance data
<b>Mean number of sex partners</b>	Increasing slightly	2000: 1.9 partners 2001: 2.2 partners 2002: 3.8 partners 2003: 3.9 partners	City Clinic data

†The sexual orientation/BRP of the one case reported in 1999 is not known. This data is placed in this BRP because to become a military recruit, men must report no sex with men and no injection drug use.

**Other Populations: Pediatric and Transfusion HIV and AIDS Incidence**

Between 1993 and 2002, 306 infants were born to HIV-positive mothers in San Francisco, and 51 (17%) of these infants have been confirmed to be HIV-infected. Fifty-two percent of the 306 exposed infants were African American, 19% were Latino, and 20% were white (SFDPH 2002a).

In the last six years (1997 through 2002), only four infected infants were born to HIV-infected mothers. No HIV-positive infants were born in 2000 or 2001. In 2002, two HIV-infected infants were born in San Francisco, although all pregnant known HIV-infected women received antiretroviral therapy. This data illustrates a continuing decline in, and near elimination of, HIV and AIDS incidence among infants and children (SFDPH 2002a). If new infections among infants occur, they are likely to be born to HIV-infected mothers who received late or no prenatal care. Trends in receipt of prenatal care for San Francisco women are presented in Exhibit 20.

As of June 2003, there are 35 PLWA who acquired HIV through transfusion. HIV transmission via blood products continues to be rare in San Francisco (1 in a million) (SFDPH 2001b).

**EXHIBIT 20**

**Trends in Pediatric HIV Indicators in San Francisco**

INDICATOR	TREND	DATA	DATA SOURCE
Percent of infants born to mothers with late, no, or unknown prenatal care	No change	1997: 3.6%	California Department of Health Services, Center for Health Statistics*
		1998: 3.2%	
		1999: 3.6%	
		2000: 3.6%	
		2001: 3.5%	

\*Source: Query conducted on the following website: <http://www.applications.dhs.ca.gov/vsq/default.asp>.

## Types of Information Used in the Epidemiologic Profile and Strengths and Limitations

The Epidemiologic Profile draws on multiple sources of information, including U.S. Census data, the AIDS case registry, HIV counseling and testing data, other secondary data (e.g., on STDs), original research (e.g., prevalence studies, behavioral studies), and estimates arrived at by consensus among researchers. The following are descriptions, strengths, and weaknesses of the data sources used in this chapter.

### U.S. Census Data

#### DESCRIPTION

The U.S. government conducts a census, or counting, of the U.S. population every ten years. All census data presented in this chapter is from the 2000 census unless otherwise indicated. Information about how the census was developed and implemented can be found at <http://www.census.gov/mso/www/c2000basics/00Basics.pdf>.

#### STRENGTHS AND LIMITATIONS

The census is the most comprehensive source of information about the U.S. population and its characteristics. However, vulnerable and marginalized populations, such as homeless individuals and people living in poverty, may be undercounted. In addition, transgendered persons are not counted. The census does not collect information on behavioral risk populations; therefore, we do not know, for example, how many men who have sex with men live in San Francisco. Finally, the 2000 census collected racial/ethnic information in a way that allowed individuals to more fully represent their identities than in previous censuses. Therefore, the data can be presented in many ways, not just the way it is presented in this chapter.

### AIDS Case Registry Data

#### DESCRIPTION

An AIDS case registry is kept by each public health jurisdiction and contains basic demographic and transmission category information about those diagnosed with AIDS. Data on PLWA and recent AIDS cases is drawn from this source.

#### STRENGTHS AND LIMITATIONS

The AIDS Case Registry is the most complete source of data available regarding PLWA in San Francisco. Nevertheless, some groups may be under-represented in the AIDS case registry, such as Native Americans (some Native Americans have Spanish surnames and may be mistakenly classified as Latino) and transgendered persons (some MTF transgendered PLWA may be mistakenly classified as male or female, which may be in part due to reluctance to disclose identify for fear of discrimination in receiving treatment). Finally, AIDS case data is not a good indicator for trends in new HIV infections, as PLWA likely acquired HIV 5 to 15 years prior to their AIDS diagnosis. Therefore, HIV trend data, to the extent that it is available, must be taken into consideration as well.

## HIV Counseling and Testing Data

### DESCRIPTION

Publicly funded testing sites collect and report basic demographic information and test results from persons using the services. Estimates of HIV incidence in particular populations can be drawn from this data.

### STRENGTHS AND LIMITATIONS

Although counseling and testing data is one of the primary indicators of HIV incidence, variability in the data due to low numbers of testers or low numbers of people found to be HIV-positive can compromise its validity in some cases. Furthermore, the data is self-reported and only represents those who seek testing at public sites, both of which support the need to interpret the data with caution. Finally, changes in the way the data is collected from year to year and incomplete data can also affect the generalizability of incidence estimates to the larger population. Specific limitations by data type are as follows:

#### **Repeat tester data:**

- Only individuals with complete data for two or more tests can be included in the analysis.
- There is a sizable number of seroconversions among individuals for whom risk information is missing, especially for men and for individuals whose gender is not specified.
- The method for assessing incidence based on repeat tester data changed in 2003, which may limit comparability with data presented in other earlier reports.

#### **STAHRS data:**

- Only blood tests (not oral) can be used for STAHRS testing.
- Less than thorough collection of IDU data in 1999 and 2000 and low numbers of transgendered testers may lead to inaccurate incidence estimates among these groups.
- There is a sizable number of seroconversions among individuals for whom risk information is missing, especially for individuals whose gender is not specified.

## Other Secondary Data

### DESCRIPTION

Existing data on teen birth rates, STDs, and other related information was assembled from various government departments. This data is collected on an ongoing basis and is generally based on information derived from service utilization (e.g., number of individuals diagnosed with STDs). Much of this data appears in Section III in the tables that depict indicators of HIV infection for the various BRPs. (HIV indicators are diseases or conditions known to public health officials to follow the pattern of the HIV epidemic.)

## STRENGTHS AND LIMITATIONS

Service utilization-based data, while providing in-depth information about a broad range of health issues, is limited because it does not capture information about individuals who do not seek services. Individuals not connected to the service system may be affected even more strongly by these health issues, as they may not have access to health care due to lack of insurance or other reasons. Therefore, this data may be biased. Furthermore, some indicator data is very good for predicting HIV infection (e.g., STDs), but other indicator data is less reliable (e.g., teen birth rates).

## Original Research

### DESCRIPTION

HIV prevalence, HIV incidence, and behavioral studies, either published in peer-reviewed journals or unpublished, provide information about how HIV and AIDS are affecting various populations in San Francisco.

### STRENGTHS AND LIMITATIONS

These studies provide a great deal of detailed information about HIV and AIDS in specific populations. Each study is potentially biased due to limitations related to sample size, sampling method, what issues the study examines or does not examine, or other factors. Each study must be assessed for validity on its own. Finally, special research studies are usually limited to one time period so they do not provide information on trends over time. The studies used in this chapter were based on sound science, and their strengths outweigh their limitations.

42

## HIV Consensus Estimates

### DESCRIPTION

In January and February of 2001, the SFDPH convened a panel of researchers, epidemiologists, and HIV/AIDS experts to bring together as much data on HIV as possible. This meeting was called the 2001 HIV Consensus Meeting. The panel presented and discussed findings from all the HIV data sources just described, as well as others. They used the range of findings in these studies to estimate HIV prevalence and incidence in different populations.

### STRENGTHS AND LIMITATIONS

The incidence estimates derived from this meeting are considered the best available and most comprehensive because they draw on a number of data sources, taking into account their strengths and limitations. These are the estimates upon which San Francisco's priority populations are determined. Despite their strengths, these figures are only estimates. Further, the existing estimates are for 2001, although researchers believe they are still valid for 2002 and 2003. When HIV reporting data is complete, additional information on HIV incidence and prevalence will be available.

## APPENDIX 2

### Recent AIDS Cases (1999–2002)

Recent AIDS cases refers to the number of new AIDS cases diagnosed between January 1, 1999 and December 31, 2002. The following Exhibits depict recent AIDS cases by gender (Exhibit 21), race/ethnicity (Exhibit 22), age (Exhibit 23), and BRP (Exhibit 24). Overall, there has been a steady decline in the past four years in new AIDS diagnoses, largely due to HAART usage. There has been a corresponding increase in the number of PLWA, which increases the pool of infection, which in turn could contribute to new HIV infections.

#### EXHIBIT 21

##### Number of New AIDS Cases by Gender, San Francisco, 1999 – 2002

GENDER	1999		2000		2001		2002	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Male	559	88.4%	516	86.7%	482	88.6%	411	89.7%
Female	55	8.7%	62	10.4%	46	8.5%	36	7.9%
Transgendered	18	2.8%	17	2.9%	16	2.9%	11	2.4%
<b>TOTAL</b>	<b>632</b>	<b>100.0%</b>	<b>595</b>	<b>100.0%</b>	<b>544</b>	<b>100.0%</b>	<b>458</b>	<b>100.0%</b>

Source: AIDS Surveillance Quarterly Report, June 2003.

Note: Column totals do not match exactly for Exhibits 21-24 because for some categories, less than five AIDS cases were reported. The exact numbers are not reported to protect confidentiality.

#### EXHIBIT 22

##### Number of New AIDS Cases by Race/Ethnicity, San Francisco, 1999 – 2002

RACE/ETHNICITY	1999		2000		2001		2002	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
African American	117	18.5%	124	20.8%	110	20.2%	92	20.0%
Asian/Pacific Islander	31	4.9%	29	4.9%	34	6.2%	24	5.2%
Latino	106	16.8%	95	16.0%	68	12.5%	67	14.6%
Native American	5	<1%	5	<1%	<5	<1%	<5	<1.1%
White	373	59.0%	342	57.5%	328	60.2%	271	59.0%
<b>TOTAL</b>	<b>632</b>	<b>100.0%</b>	<b>595</b>	<b>100.0%</b>	<b>545</b>	<b>100.0%</b>	<b>459</b>	<b>100.0%</b>

Source: AIDS Surveillance Quarterly Report, June 2003.

Note: Column totals do not match exactly for Exhibits 21-24 because for some categories, less than five AIDS cases were reported. The exact numbers are not reported to protect confidentiality.

## EXHIBIT 23

### Number of New AIDS Cases by Age, San Francisco, 1999 – 2002

(YEARS)	1999		2000		2001		2002	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
0–19	<5	<1%	5	<1%	<5	<1%	<5	1.1%
20–24	8	1.3%	14	2.4%	7	1.3%	9	1.9%
25–29	40	6.3%	40	6.7%	37	6.8%	31	6.7%
30–39	281	44.4%	250	42.0%	221	40.4%	167	36.1%
40–49	219	34.6%	196	32.9%	185	33.8%	162	35.1%
50–59	67	10.6%	74	12.4%	72	13.0%	79	17.1%
60+	13	2.1%	16	2.7%	20	3.7%	9	1.9%
<b>TOTAL</b>	<b>633</b>	<b>100.0%</b>	<b>595</b>	<b>100.0%</b>	<b>547</b>	<b>100.0%</b>	<b>462</b>	<b>100.0%</b>

Source: HIV/AIDS Statistics and Epidemiology Section, special data request, August 2003.

Note: Column totals do not match exactly for Exhibits 21-24 because for some categories, less than five AIDS cases were reported. The exact numbers are not reported to protect confidentiality.

## EXHIBIT 24

### Number of New AIDS Cases by BRP, San Francisco, 1999 – 2002

BRP	1999		2000		2001		2002	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1. MSM, MSM/F	386	61.1%	352	59.0%	335	61.1%	293	63.6%
2. TSM, TSM/F, TSF	10	1.6%	7	1.2%	7	1.3%	6	1.3%
3. MSM-IDU, MSM/F-IDU	90	14.2%	80	13.4%	72	13.1%	59	12.8%
4. FSM-IDU, FSM/F-IDU, FSF-IDU	38	6.0%	37	6.2%	31	5.7%	20	4.3%
5. MSF-IDU	58	9.1%	63	10.6%	49	8.9%	40	8.7%
6. TSM-IDU, TSM/F-IDU, TSF-IDU	8	1.3%	10	1.7%	9	1.6%	5	1.1%
7. FSM, FSM/F, FSF	16	2.5%	24	4.0%	15	2.7%	16	3.5%
8. MSF	21	3.3%	19	3.2%	25	4.6%	17	3.7%
9. Other risk* (pediatric, transfusion)	5	0.7%	<5	<1%	<5	<1%	<5	<1.1%
<b>TOTAL</b>	<b>632</b>	<b>100.0%</b>	<b>597</b>	<b>100.0%</b>	<b>548</b>	<b>100.0%</b>	<b>461</b>	<b>100.0%</b>

Source: HIV/AIDS Statistics and Epidemiology Section, special data request, August 2003.

Note: Column totals do not match exactly for Exhibits 21-24 because for some categories, less than five AIDS cases were reported. The exact numbers are not reported to protect confidentiality.

\*This category is the only one that includes cases from persons between ages 0 to 12. The other transmission categories include only individuals above 12 years of age.

## Chapter 3 Community Assessment





### Purpose

This chapter discusses how HIV has affected different populations in San Francisco. It talks about the needs of different populations living with or at risk for HIV and presents the priorities for how to do HIV prevention with these populations. This chapter, along with Chapter 4: Priority-Setting, represents the new direction for HIV prevention for 2004 through 2008.

In past years, the eight behavioral risk populations (BRPs) created by the HIV Prevention Planning Council (HPPC) have provided a strong framework for guiding funding, and they are still the best way we know to ensure that money reaches the highest risk groups. The Priority-Setting chapter uses BRPs to prioritize populations and cofactors for funding. In contrast, this chapter is about the broader HIV prevention needs and issues of people at risk for HIV. It encourages HIV prevention providers to think about, design programs for, and focus their efforts on individuals and communities based on their needs and lived experiences.

### How to Read This Chapter

This chapter is not designed to be read cover to cover. Instead, it is structured so that service providers and others can use it to review the needs of a specific population or the role of a particular cofactor in HIV risk. The Table of Contents on the following page lists all the chapter topics in alphabetical order with corresponding page numbers.

Many of the populations and issues described are not mutually exclusive, and it may be necessary to read more than one section to get a complete picture of the needs of a particular group. For example, chapter sections relevant to Latino immigrant MSM might include: Latinos, Gay Men, Heterosexually Identified Men Who Have Sex with Men, Immigration and Language, and Access to Services. In addition, all studies were conducted with or include San Francisco populations unless otherwise indicated.

Finally, it is important to keep in mind that San Francisco's populations are affected by HIV and AIDS very differently compared with national trends. There are many possible explanations for this. While reading this chapter, it is useful to keep in mind that rates of HIV infection depend on a number of factors. Two of the most important factors are behavior and the odds of being exposed to HIV. In San Francisco, the odds of being exposed to HIV are very different than nationally, because most people living with HIV and AIDS are gay men. This helps explain why San Francisco is different.

For a resource inventory showing how funds are currently allocated (as of 2002) to a mix of interventions for San Francisco's priority populations, see Appendix 1.

## Terms and Definitions

**Cofactor** A condition that can increase risk for HIV, increase susceptibility to infection, or decrease ability to receive and act upon HIV prevention messages.

**SCAN** Systems capacity assessment by neighborhood (a research method used to assess HIV prevention efforts in particular San Francisco neighborhoods).

## Chapter Outline

### Section I: HIV Prevention Needs of San Francisco Populations

Describes the epidemiologic, behavioral, and cofactors data for populations at risk for HIV. Prioritizes strategies, interventions, and approaches for HIV prevention with these populations. Identifies priorities for future research.

### Section II: HIV Cofactors

Discusses how different cofactors affect HIV risk and who is affected by these cofactors in San Francisco. Prioritizes strategies, interventions, and approaches for addressing these cofactors.

### Appendix 1: Resource Inventory

## Table of Contents

Populations (alphabetical)	Page Numbers
African American People	77-82
Asian/Pacific Islander People	83-86
Bayview/Hunter's Point	99-103
Bisexual Men	56-57
Female-to-Male Transgendered Persons	67-68
Gay Men	50-55
Heterosexual Men	72-73
Heterosexually Identified Men Who Have Sex with Men	58-61
HIV-Positive Individuals	47-49
Injection Drug Users	74-77
Latino/Latina People	86-89
Male-to-Female Transgendered Persons	62-64
Male Partners of Male-to-Female Transgendered Persons	65-66
Native American People	90-92
Non-San Franciscans and New San Franciscans	106-107
Tenderloin	104-106
White People	92-94
Women	68-72
Youth	95-99
<b>Cofactors (alphabetical)</b>	
Access to Health and Social Services	131-133
Having HIV-Positive/High-Risk Partners	133-134
Homelessness	120-122
Immigration and Language	122-126
Incarceration	118-119
Income and Poverty	129-131
Mental Health	112-114
Sex Work and Exchange Sex	126-129
Sexually Transmitted Diseases	115-117
Substance Use	108-112
Use of Public/Commercial Sex Venues	134-135

### HIV-Positive Individuals

Prevention with positives is a high priority for San Francisco. This section outlines the HIV prevention needs of HIV-positive persons. More on prevention with positives is discussed in Chapter 4: Priority-Setting, p. 141, and Chapter 5: Strategies and Interventions, pp. 181-184.

#### What Are the HIV Prevention Needs of HIV-Positive People?

##### EPIDEMIOLOGY

Until HIV reporting data is complete, we do not have completely accurate demographic or behavioral risk profiles for people living with HIV. We do, however, know the demographics and behavioral risks for people living with AIDS (PLWA) (see Chapter 2: Epidemiologic Profile, pp. 16-26). In summary, most PLWA are white, are MSM, and are over age 30. More African Americans are living with AIDS than would be expected, given their numbers in the population.

##### BEHAVIOR

It is important to understand trends in behavior among HIV-positive individuals, because high-risk behavior can lead to transmission of HIV to others, to superinfection (superinfection means infection with another strain of HIV) for the HIV-positive person, or to infection with STDs. (One study found that HIV-positive MSM were significantly more likely than HIV-negative MSM to have rectal gonorrhea [Kim et al 2003].) Most studies on HIV-positive persons' behaviors are among MSM and focus on sexual behavior as opposed to needle sharing. The research focuses on two main issues: (1) unprotected sex, and (2) disclosure of serostatus.

Since more effective therapies for HIV have become available, many HIV-positive people have been living healthier, more sexually active lives. The complex issues affecting the gay community (see the section on Gay Men, pp. 50-55) have affected both HIV-negative and HIV-positive individuals, resulting in higher levels of unprotected sex. HIV-positive MSM have reported unprotected anal sex with partners who are either HIV-negative or of unknown serostatus in multiple studies (Chen et al 2002, Colfax et al 2001, Colfax et al 2002, Mansergh et al 2002, Marks & Crepaz 2001, O'Leary et al 2003). In at least three of these studies, a higher percentage of HIV-positive MSM reported unprotected sex with partners of opposite or unknown serostatus, compared with HIV-negative individuals (Chen et al 2002, Colfax et al 2001, Mansergh et al 2002). Individuals who have recently become HIV-positive have reported engaging in high-risk behavior both during their seroconversion period and up to one year after, a time when they may be highly infectious due to high viral load (Colfax et al 2002). In this study, individuals reduced but did not eliminate their high-risk behavior upon learning their serostatus. Data for 2002 and 2003 suggests that the percentage of HIV-positive MSM engaging in unprotected anal sex (insertive or receptive) may be decreasing (Chen et al 2002, SFDPH 2002a), but it remains to be seen whether this trend will continue (see Chapter 2: Epidemiologic Profile, Exhibit 16, pp. 33-34).

Many people assume that if an HIV-positive individual discloses his or her HIV status to an HIV-negative sexual partner, safer sex will result. One study among HIV-positive gay, bisexual, and heterosexual men in Los Angeles does not support this assumption. Men who disclosed, as well as those who did not disclose, engaged in similar levels of protected sex (35% vs. 40%) and unprotected sex (12% vs. 13%) (Marks & Crepaz 2001). According to a national study among people living with HIV, sex without disclosure is higher among gay and bisexual men (42%) compared with heterosexual men (19%) and women (17%) (Ciccarone et al 2003). In this same study, 13% of all participants reported unprotected sex without disclosure.

#### COFACTORS AND OTHER ISSUES

HIV-positive people are affected by the same cofactors and issues as HIV-negative people, including substance use, homelessness, poverty, STDs, and many others. However, research suggests that issues related to mental and emotional health are some of the most important needs of HIV-positive people. Issues that may affect HIV-positive people's mental health include disclosure and subsequent discussion of their HIV status with family, friends, and partners; making or trying to maintain lifestyle changes to help them stay healthy; taking new medications and suffering side effects; employment security; health care costs; and coping with depression after learning they are HIV-positive.

Specific mental and emotional health-related factors that have been linked to unsafe sex among HIV-positive men include use of alcohol or drugs before sex, being less emotionally involved with one's partner, and having recently learned they were HIV-positive (Marks & Crepaz, 2001). HIV-positive MSM with a history of childhood sexual abuse also report high-risk sexual behaviors that could transmit HIV, partially due to the anxiety, hostility, and suicidality resulting from the abuse (O'Leary et al 2003). Social support services are needed for HIV-positive individuals, especially for those who are newly diagnosed. (See also the section on Mental Health, pp. 112-114.)

HIV medication adherence issues among HIV-positive individuals are important to consider. Recreational drug users may experience challenges in adhering to medication regimens, but they can still benefit from medications. Harmful interactions between certain recreational drugs and HIV medications can also occur. Supporting HIV-positive people to stay on their medications, even if they use recreational drugs, is an example of a contextually appropriate approach for recreational drug users.

It is important to remember that most HIV-positive people take responsibility for not passing on the virus to others very seriously, and their extensive efforts to stop the epidemic should be acknowledged (Collins et al 2000). It should also be noted that decisions about behavior are not made in a vacuum; individual behavior is strongly influenced by social and environmental conditions. Social networks and norms that do not support safer sex make it difficult to make healthy choices. The threat of violence or of being cut off financially if one reveals being HIV-positive or asks to use a condom can be a deterrent to safe behavior, especially among women in abusive relationships. Therefore, the needs of HIV-positive people involve changing the environment in order to have an impact on individual behavior.

## What Are the HIV Prevention Priorities for HIV-Positive Individuals?

### PRIORITIZED HIV PREVENTION APPROACHES

The term used to describe HIV prevention with HIV-positive individuals is “prevention with positives” (see Chapter 5: Strategies and Interventions for more information on how to conduct prevention with positives, pp. 181-184.) In San Francisco, prevention with positives is defined as follows:

Prevention with positives is any intervention that addresses the specific prevention needs of HIV-positive persons. HIV-positive people should be involved in the planning and implementation of all prevention with positives programs.

The main goals of prevention with positives are:

- To reduce the spread of HIV and STDs.
- To help HIV-positive people achieve and maintain physical, emotional, sexual and reproductive health and well-being.
- To assist those HIV-positive people who do not know they are positive in learning their HIV status.

Not all HIV-positive people are at risk for transmitting the virus. Prevention with positives should focus on the groups at highest risk for transmitting the virus, i.e., those who engage in unprotected sex or needle sharing. HIV-positive individuals should be involved in the planning and implementation of prevention with positives programs. In addition, prevention efforts should communicate responsibility in not infecting others without promoting shame or stigma (Collins et al 2000). Another important priority is to help those who are unaware of their HIV-positive status to learn it. This can be accomplished through focused outreach efforts and increasing access to counseling and testing services among high-risk populations. Linkages to ongoing care and prevention services for new and long-time HIV-positive individuals are critical. All of these goals will be best accomplished through strong coordination among the HIV Health Services Section, the HIV Prevention Section, the Health Services Planning Council (also known as the CARE Council), and the HPPC.

### PRIORITIES FOR FUTURE RESEARCH

Although there is a national trend toward increasing prevention efforts among HIV-positive people, there is little research regarding which strategies or approaches are most effective with this population. A recent assessment in San Francisco catalogued the types of prevention with positives activities that are going on in San Francisco (see Chapter 5: Strategies and Interventions under Prevention with Positives for findings, pp. 181-184), but more research is needed regarding the effectiveness of these approaches.

In addition, studies on the risks of transmitting drug resistant virus, superinfection issues, and how viral load relates to infectiousness are also needed. Finally, more qualitative studies with HIV-positive people are needed to better understand the factors that contribute to sexual decision-making and protected and unprotected sex.

## Gay Men

In recent years, studies have defined populations by behavior (e.g., men who have sex with men) as opposed to sexual orientation (e.g., gay, bisexual). Other studies group gay and bisexual men together when describing their needs and issues. Although very few studies highlight the specific needs of gay men, most men who have sex with men (MSM) in San Francisco are gay men, and thus the studies on MSM are relevant. It is indicated in the text whether a study discusses the population of MSM, gay and bisexual men, or gay men only.

### What Are the HIV Prevention Needs of Gay Men?

In San Francisco, new infections among gay men make up the vast majority of new infections in the city, and they have the highest incidence rate among MSM, compared with bisexual and heterosexually identified MSM (HIV/AIDS Statistics and Epidemiology Section, special data request, August 2003). This is why gay men are prioritized for funding under BRP 1: MSM, MSM/F (see Chapter 4: Priority-Setting, p. 142). This population needs to be a primary focus of prevention efforts and resources in order to impact the epidemic.

#### EPIDEMIOLOGY

As with the literature, most epidemiologic data is tracked for MSM overall and not specifically for gay men. Therefore, the data on MSM is presented here.

MSM, including those who inject drugs, make up approximately 77% of all new HIV infections annually in San Francisco (SFDPH 2001a; Exhibit 1). MSM who do not inject drugs make up most of these new infections; sixty-nine percent of all new infections in San Francisco are among MSM who do not inject drugs, compared with 42% nationally (CDC's A Glance at the Epidemic, <http://www.cdc.gov/nchstp/od/news/At-a-Glance.htm>). Estimated HIV seroprevalence among MSM, including those who inject drugs, is 31% (SFDPH 2001a). Gay men of all races and all ages are at risk, but most new HIV infections occur among white gay men over 30. In San Francisco, HIV prevalence is less than 8% among MSM younger than 25 (Valleroy et al 2000, Waldo et al 2000). The Castro and the Western Addition are home to many of San Francisco's gay men living with or at risk for HIV.

## EXHIBIT 1

### HIV Incidence and Prevalence Among MSM and MSM-IDU, San Francisco, 2003

POPULATION	ESTIMATED INCIDENCE			ESTIMATED PREVALENCE	
	Number of New Infections Annually	Annual Incidence Rate	Percent of All New Infections in San Francisco	Number Living with HIV/AIDS	Percent Prevalence
MSM	748	2.2%	69.1%	13,611	29.1%
MSM who inject drugs	87	4.6%	8.0%	2,100	52.7%
<b>TOTAL</b>	<b>835</b>	<b>-</b>	<b>77.2%</b>	<b>15,711</b>	<b>30.9%</b>

Source: SFDPH 2001a, data updated to June 30, 2003.

## BEHAVIOR

Recent increases in high-risk sexual behavior among gay men largely explain the rise in new HIV infections. Numerous recent studies, as well as counseling and testing data, suggest high rates of unprotected sex among gay men. Some of the best data comes from cross-sectional citywide surveys that show trends over time. According to this data (Chen et al 2002), the percentages of MSM (mostly gay men) reporting unprotected anal sex, unprotected anal sex with two or more partners, and unprotected sex with two or more partners of unknown serostatus increased between 1999 and 2001 (see Chapter 2: Epidemiologic Profile, pp. 33-34).

Survey data collected since 2001 suggests that the increases in these high-risk behaviors may be leveling off among HIV-negative individuals and decreasing slightly among HIV-positive individuals. Although this is a positive sign, corresponding decreases in new HIV infections have yet to be documented. Rates of unprotected anal sex may be slightly higher among older gay men compared with youth (Chen et al 2002, Waldo et al 2000).

Needle sharing among gay men who inject drugs also persists, although sexual risk appears to be the primary factor driving the epidemic. Rates of needle sharing among MSM-IDU are 30% or higher (Bluthenthal et al 2001, Kral et al 2003). One study documented needle-sharing rates of 58% among a late-night MSM population (Pendo et al 2003).

## COFACTORS AND OTHER ISSUES

A number of issues and trends help explain why more gay men are engaging in the high-risk sexual behaviors that have led to increases in HIV transmission. HIV prevention programs need to address these issues and their synergistic effects in order to be effective.

Morin et al (2003) conducted focus groups with MSM in five California cities, including San Francisco. The focus group participants identified three factors that have changed among MSM in recent years, which may in part explain the increases in high-risk behavior:

- **Community belief in the acceptability of unsafe sex.** The “barebacking” trend is evidence of how unsafe sex has become normalized (Morin et al 2003). Other trends such as combining drug use with sex, which often leads to unsafe sex, are also evidence of shifting community norms regarding unprotected sex.
- **Reduced threat of HIV due to therapies.** With 88% of HIV-positive gay men who are receiving care services in San Francisco taking highly active antiretroviral therapy (HAART; Bamberger et al 2000), the perception of HIV as a fatal disease has shifted to one of a manageable illness (Morin et al 2003). Actual increases in risk behavior due to knowledge that therapies are available may apply only to a small number of high-risk gay and bisexual men (Dilley et al 2003).
- **Silence.** There is less discussion about HIV in the gay community and reduced social support for safe behavior (Morin et al 2003). These trends may impact willingness to discuss serostatus during sexual encounters. In one national study, 42% of HIV-positive gay and bisexual men reported having sex without disclosing their HIV status with at least one of their last five partners (Ciccarone et al 2003).

In addition to these newer phenomena, there are several issues among gay men that have affected HIV risk throughout the 1990s. These trends have become especially important to address at this point in the epidemic, and they are described in the following paragraphs.

The prevalence of drug use (non-IDU) among gay men in San Francisco is high (Exhibit 2). Drug use has been strongly associated with unsafe sexual practices and HIV seroconversion among gay men and other MSM in study after study (Chesney et al 1998, Colfax et al 2001, Halkitis et al 2001, Mansergh et al 2001, Pendo et al 2003, Rhodes et al 1999, Romanelli et al 2003, Shoptaw et al 2002). Methamphetamine (speed) and poppers are the two drugs that have been most strongly linked to sexual risk-taking among gay men. Viagra has also been associated with high-risk behaviors and higher STD rates (Kim et al 2002), as has ecstasy in a New York City study (Klitzman et al 2000). Ketamine (Special K) and GHB are also popular recreational drugs (Colfax et al 2001, Mansergh et al 2001, Mattison et al 2001). In addition, use of multiple drugs simultaneously (called “polydrug use”) is common among gay and bisexual men (Colfax et al 2001, Greenwood et al 2001, Stall et al 2001) and has been associated with HIV seropositivity (Greenwood et al 2001). Alcohol use, which is also common among gay men, may affect sexual decision-making (Koblin et al 2003, Paul et al 1993, Woody et al 1999). Drug use not only increases the risk of unsafe sex, but can also lead to substantial negative health effects, especially for HIV-positive individuals (Swanson & Cooper 2002, Vittinghoff et al 2001). A summary of drug use rates reported in many of these studies is provided in Exhibit 2. (See also the section on Substance Use, pp. 108–112.)

Gay men who “party and play” at circuit parties, at clubs, and in other settings are one group of drug users that may be at particularly high risk (Colfax et al 2001). A study prioritized by the HPPC concluded that the late night party and play population is contributing to increased HIV and STD infection rates in San Francisco and that they are not being effectively reached with HIV prevention messages (Pendo et al 2003).

In addition to non-injection drug use, injection of speed and other drugs is also of concern because of its impact on sexual risk. Young gay and bisexual injectors at risk for overdose are also at high risk for HIV infection (Ochoa et al 2001). The late night party and play MSM population also has high rates of injection drug use (35%) and needle sharing (58%) (Pendo et al 2003). (See also the section on Injection Drug Users, pp. 74–77.)

How prevention providers respond to drug use is important. First, it is critical that treatment services for speed and other drugs be friendly to people of all races and socioeconomic backgrounds. Services for Castro gay men and other MSM may need to be different than those for Tenderloin gay men and other MSM, and providers should be aware of this and develop appropriate programs. Regardless, incentives (monetary or other) are important to encourage MSM to access HIV prevention/drug treatment services. Second, the gay community is more educated about the effects of speed use than about poppers. Health care and HIV prevention providers need to educate gay men about the compound risks of poppers – they not only increase the likelihood of engaging in unsafe sex, but they also suppress the immune system making people more susceptible to infection (Anonymous 1999, James 1999). Gay men who have information about poppers can be trained to educate their peers, and outreach and social marketing campaigns could also help get the word out.

## EXHIBIT 2

### Drug Use Rates Among Gay Men in San Francisco

DRUG	PERCENTAGE REPORTING USE					
	Gay/Bisexual Men at Most Recent Out-of-Town Circuit Party*	Gay/Bisexual Men at Any Circuit Party In Past Year†	Household-Based Sample of Young Gay/Bisexual Men‡	Three-City Study of Circuit Party Attendees§	Household-Based Sample of Urban MSM**	Party and Play Study††
Speed/Crystal Methamphetamine	4.3%*	3.6%	3.0%	3.6%	1.3%	5.4%
Poppers	1.2%	9%	2.3%	3.9%	2.1%	3.1%
Ecstasy	8.0%	7.5%	3.7%	7.2%	1.1%	3.0%
Ketamine (Special K)	6.6%	5.8%	-	6.0%	-	1.4%
Viagra	1.4%	1.2%	-	-	-	1.2%
GHB	2.9%	2.5%	-	2.8%	-	1.5%
Polydrug use	5.3%	6.1%	4.3%	>3.3%	1.8% overall	-
Alcohol use	5.8%	5.6%	1.4% heavy and frequent use	7.9%	9.2% overall 8% heavy and frequent use	8.2%
Cocaine	2.7%	1.9%	2.3%	3.9%	1.0%	2.2%
Marijuana	2.4%	2.6%	6.9%	4.5%	5.0%	7.0%
LSD/hallucinogens	6%	4%	3.7%	-	-	1.4%

\*Coffax et al 2001.  
 †Mansergh et al 2001.  
 ‡Greenwood et al 2001.  
 §Mattison et al 2001.  
 \*\*Stall et al 2001.  
 ††Pendo et al 2003.

Mental health issues among gay men, especially isolation, loneliness, and low self-esteem, may lead to taking risks in sexual situations (Morin et al 2003). In a study of inner city gay and bisexual men seeking treatment for sexual compulsivity, greater compulsivity was associated with sexual risk-taking and non-disclosure of HIV serostatus (Reece 2003). Both denial (especially among youth) and a sense of inevitability of becoming infected are also common in the gay community and can lead to risk-taking during sex (Morin et al 2003).

The recent rise in STD rates among gay men signals the increases in high-risk behavior and contributes to new HIV infections. Epidemics of both rectal gonorrhea and syphilis, both of which can make it easier to transmit or acquire HIV, have emerged (see the section on Sexually Transmitted Diseases, pp. 115-117). The strongest predictor of rectal gonorrhea among MSM in one study was drug use during anal sex (Kim et al 2003).

The use of the Internet for meeting sexual partners has been identified as a factor in the rise in new infections. MSM who meet partners on line tend to have more partners and more unprotected anal sex (Rebhook et al 2003). They are also more likely to have a history of trading sex for money or drugs and to have had sex with an HIV-positive person in the past year (Kim et al 2001b). The Internet also opens the door to opportunities for risk reduction and prevention. For example, MSM with online partners have developed specific risk reduction strategies for sexual encounters, such as use of condoms with casual or Internet partners but unprotected sex with “known” partners (Rebhook et al 2003). MSM online also may specifically request “safe sex only” or HIV-negative partners (Bull & McFarlane 2000). MSM and others seeking sex on the Internet are more likely to access information about STDs online, compared with those without online partners (Rietmeijer et al 2003). Although the Internet allows unlimited opportunities for sexual encounters, it is also a venue where gay men can find social support and where safer sex messages can be disseminated (Rebhook et al 2003). It offers unlimited opportunities for the promotion of health and wellness among gay men, from learning about issues ranging from the biology of HIV infection to the effects of drug use.

Discrimination, including racism, classism, and homophobia, plays a role in HIV risk, especially among gay men of color (Marin 2003). Gay men of color who live in communities where homosexuality is less accepted, or who feel marginalized within the larger gay community, may be particularly susceptible to low self-esteem and sexual risk-taking. Furthermore, power imbalances related to race and class affect gay men’s ability to negotiate safer sex.

Finally, different age groups of gay men have different needs, and there is not necessarily one type of service or approach that will work across age groups. Age is one aspect of cultural competency, and providers must work to ensure that their programs are age-appropriate. For example, youth clearly have a distinct set of needs (see the section on Youth, pp. 95-99), but 25 to 35-year-olds may also have different needs than either youth or gay men in their forties or fifties.

All of these factors and others work in tandem with each other to create a high-risk environment for gay men. For example, drug use, feelings of loneliness and isolation, and sex solicited on the Internet all work synergistically to increase HIV risk, because they affect individual behavior and influence community

norms related to unsafe sex. As such, gay men need more than simple safer sex messages. Gay men need HIV prevention that speaks to what is going on in their lives and their community. The complex interactions of the many issues affecting gay men must be acknowledged and addressed.

Other subgroups of gay men that may be at high risk for HIV include those who engage in series of short-term monogamous relationships (called “serial monogamy”), those who have recently moved to San Francisco (see the section on Non-San Franciscans and New San Franciscans, pp.106-107), those living in the Castro, and those who attend public and commercial sex venues (see the section on Use of Public and Commercial Sex Venues, pp. 134-135).

## What Are the HIV Prevention Priorities for Gay Men?

### PRIORITIZED HIV PREVENTION APPROACHES

The HPPC supports a health and wellness approach to HIV prevention, where HIV prevention is addressed in the context of gay men’s health and positive sexuality. Therefore, HIV prevention programs for gay men must have strong linkages to health-related services, including mental health and substance abuse counseling and treatment and STD testing and treatment. All such services should be provided in a culturally appropriate manner. When possible, services should be community-based and located where gay men live and hang out (e.g., the Castro). Finally, according to gay men in one study, HIV prevention programs should focus on social support and strengthening a sense of community (Morin et al 2003).

### PRIORITIES FOR FUTURE RESEARCH

Research among gay men clearly demonstrates increasing sexual risk and corresponding increases in HIV infections. There is less research on what has changed in recent years to cause these increases and how prevention could be most effective in this new era of the epidemic. A few innovative studies are currently underway to try to answer these questions, including:

- The Gay Men’s Health Initiative, which seeks to understand how gay men in San Francisco think about themselves, their community, and their health (Principal Investigator, Steven Tierney, SFDPH)
- A qualitative study among gay and bisexual men who recently became HIV-positive, to determine the key contributing factors (Principal Investigator, Olga Grinstead, Center for AIDS Prevention Studies)
- A study of how gay men make decisions about the level of acceptable risk and how the levels of acceptable risk have changed over time (Principal Investigator, Steve Morin, Center for AIDS Prevention Studies)

Priorities for future studies among gay men include:

- An exploration of the effects of power dynamics on safer sex negotiation and sexual risk behaviors among partners of different racial backgrounds.
- More research on what gay men know and do not know about poppers use.

## Bisexual Men

### What Are the HIV Prevention Needs of Bisexual Men?

#### EPIDEMIOLOGY

There is little epidemiologic data specific to bisexual men. (For data on MSM overall, which includes bisexual men, see the section on Gay Men, pp. 50-55.) Counseling and testing data suggests that bisexual men have a lower HIV incidence than gay men. However, there is clear evidence that injection drug users are one subgroup of bisexual men at high risk for HIV infection. Gay and bisexual men who inject drugs had an HIV prevalence of 42% in one study (Bluthenthal et al 2001).

#### BEHAVIOR, COFACTORS, AND OTHER ISSUES

Two main questions arise when thinking about the HIV prevention needs of bisexual men: (1) How are their needs different from those of gay men? and (2) How does having sex with both men and women affect new HIV infections among women?

Regarding the first question, data on gay and bisexual men is often not reported separately in San Francisco-based studies. Therefore, it is challenging to describe HIV risk among bisexual men in San Francisco specifically. Bisexual men have likely experienced increases in high-risk sexual behavior similar to the patterns among gay men (see the section on Gay Men, pp. 50-55). The level and type of risk behavior and the cofactors that affect MSM appear to be relevant regardless of whether they identify as bisexual or gay. However, certain cofactors may affect bisexual men at different rates than they affect gay men. For example, one New York City study found that ecstasy users were more likely to have higher levels of gay community participation and affiliation, and ecstasy use is associated with HIV risk (Klitzman et al 2000). In contrast to other studies that do not show a link between sexual orientation and risk, one study showed that bisexual identity among male and female youth was associated with higher sexual risk-taking and lower levels of perceived risk (Rotheram-Borus et al 1999).

There are some studies from other cities that explore the needs of bisexual men, although it is unclear whether trends in other cities apply to San Francisco. One study conducted in Boston in the late 1990s offers a possible explanation for the lower levels of HIV incidence among bisexual men compared with gay men (Wold et al 1998). This study compared the high-risk behaviors of men who have sex with men only and men who have sex with men and women. Although both groups reported similar rates of unprotected anal sex with men, the men who had sex with men and women were half as likely to report anal sex at all.

The answer to the second question is complicated: To what extent do bisexual men act as a bridge for HIV infection from MSM to women? Because the number of new infections is so low among women in San Francisco (estimated at less than 10 per year for women who do not inject drugs), it is reasonable to assume that women are not contracting HIV from anyone, including bisexual men, at high rates. However, of those 10 new infections per year, at least a few may be attributable to sex with men who have sex with men and women. In the Boston study mentioned earlier, men who had sex with both men and women

were more likely to have unprotected sex with their female partners compared with their male partners (Wold et al 1998). Another study concluded that as many as 200 to 600 of the 40,000 new HIV infections per year nationally occur among women who acquired HIV from sex with bisexual men (Kahn et al 1997). In a late 1980's San Francisco-based study, HIV-positive bisexual men reported very low (but some) unprotected sex with their female partners (Ekstrand et al 1994). In summary, high-risk behavior between bisexual men and their female partners appears to occur in San Francisco, but probably at low rates that have had little impact on new HIV infections among women.

### **What Are the HIV Prevention Priorities for Bisexual Men?**

#### **PRIORITIZED HIV PREVENTION APPROACHES**

The approach to HIV prevention with bisexual men should be similar to that for gay men (see the section on Gay Men, pp. 50-55) because they have some similar HIV prevention needs based on available research. The same strategies and interventions are prioritized for bisexual men, but interventions for bisexual men should address practicing safer sex with female as well as male partners. In addition, not all bisexual men may identify as such; therefore prevention should incorporate messages about a range of behaviors.

#### **PRIORITIES FOR FUTURE RESEARCH**

More research is needed on the specific needs of San Francisco's bisexual men to determine if and how HIV prevention should be done differently for bisexual men compared with gay men.

## Heterosexually Identified Men Who Have Sex with Men

### Who Are Heterosexually Identified Men Who Have Sex with Men?

This population has been receiving increasing attention at the community level and in the media, both in San Francisco and nationally. A New York Times Magazine article published in 2003 (Denizet-Lewis, 2003) called “Double Lives on the Down Low” received national attention for its in-depth look at the lives and sexual practices of MSM who are not openly gay, particularly African Americans. “On the down low” or “on the DL” is an expression commonly used in the community to refer to men who have sex with men secretly, without the knowledge of their female partners, friends, and/or families.

It should be noted that labeling someone as being on the down low is a matter of perspective. HIV prevention agencies need to understand how down low is defined in the particular population they are working with and how the individuals on the down low perceive themselves and their own sexual identities and behaviors. This population is not homogenous, nor is it a community in the same way that many gay men are part of a community. Some of these men are married with children and have sex with men secretly. Some of them have sex with men only out of economic need, in exchange for food, housing, or drugs. Some are upper middle class white men from suburbia. Others are marginally housed, addicted to drugs, and/or incarcerated and may have sex with other men in jail or prison. Some of these men consider themselves heterosexual in all aspects of their lives, but others have a fluid perception of their sexual orientation depending on who they are with at any given time. The one common thread appears to be that, for most of these men, sex with other men is secretive because it is inconsistent with their own view of themselves or with the norms and values of their families and communities. Because of the diversity among this population and the secretive nature of sexual encounters with men, this population may be at high risk for HIV and simultaneously very difficult to reach with prevention messages. As such, concern about this population in the San Francisco community is widespread.

### What Are the HIV Prevention Needs of Heterosexually Identified MSM?

#### EPIDEMIOLOGY

It is difficult to assess how HIV and AIDS affect this population because many men who identify as heterosexual do not disclose that they have sex with men and so they are not reflected in the data. However, between 1997 and 2000, 1,749 men who reported heterosexual identity and sex with men received an HIV test (3.5% of all testers). Sixty-two of these men tested positive for HIV, for a prevalence of 3.5% among testers HIV/AIDS Statistics and Epidemiology Section, special data request, 2003). (Those who seek testing may be at higher risk than those who do not, because they may get tested because they engaged in a high-risk behavior; therefore, this prevalence cannot be extrapolated to the larger population of heterosexually identified MSM.)

Exhibit 3 shows HIV-positive results by race/ethnicity for this population. African American heterosexually identified MSM appear to be more likely to test HIV-positive than other racial/ethnic groups.

## EXHIBIT 3

### HIV Seropositivity Among Heterosexually Identified MSM Testers, San Francisco, 1997 – 2000

RACE/ETHNICITY	HETEROSEXUALLY IDENTIFIED MSM TESTERS	NUMBER/PERCENT TESTING HIV-POSITIVE
African American	279 (16%)	20 (7.2%)
Asian/Pacific Islander	113 (6%)	1 (1.0%)
Latino	294 (17%)	5 (1.7%)
Native American*	-	-
White	950 (54%)	33 (3.5%)
Unknown	113 (6%)	3 (4.5%)
<b>TOTAL</b>	<b>1,749 (100%)</b>	<b>62 (3.5%)</b>

Source: HIV/AIDS Statistics and Epidemiology Section, special data request, April 2003.

\*Data not available.

#### BEHAVIOR

In general, studies and data suggest that both sexual and injection drug use behaviors contribute to HIV risk among this population. However, it is unclear whether sex or drug use is the most important factor, or to what extent this population is at risk because the secrecy of such behaviors may lead to under-reporting.

Published studies conducted in other U.S. locales suggest that non-gay-identified men who have sex with both men and women report high levels of risk behavior (Lichtenstein 2000, Myers et al 2003, Rietmeijer et al 1998, Wohl et al 2002). However, it is unclear whether this data applies to San Francisco populations. Behavioral data for this population in San Francisco does exist and comes from two sources: (1) counseling and testing data (HIV/AIDS Statistics and Epidemiology Section, special data request, April 2003), and (2) a needs assessment prioritized by the HPPC conducted with African American and Latino heterosexually identified MSM, which was conducted in 2002 (Harder+Company 2004a; see section on Cofactors and Other Issues for a description of the methods).

Data from both sources suggest that unprotected receptive anal sex, the highest risk behavior for HIV transmission, is relatively low, although this behavior is probably under-reported. Rates of unprotected insertive anal sex with men and unprotected vaginal sex appear to be substantially higher (Exhibit 4). Drug use was also prevalent among both testers and needs assessment participants (see next section on Cofactors and Other Issues for more information).

## EXHIBIT 4

### Sexual and Drug Use Risk Behaviors Among Heterosexually Identified MSM, San Francisco

BEHAVIOR	TESTERS*		NEEDS ASSESSMENT PARTICIPANTS†	
	NUMBER	PERCENT	NUMBER	PERCENT
Unprotected receptive anal sex	217	12.4%	0	0.0%
Unprotected insertive anal sex with men	589	33.7%	10	31.2%
Unprotected vaginal sex	739	42.3%	14	43.7%
Injected drugs	435	24.9%	2	6.3%
Used any drugs‡	554	31.7%	31	96.9%
<b>TOTAL NUMBER</b>	<b>1,749</b>		<b>32</b>	

Note: Time frames for reported behaviors differ. For example, among testers, sexual risk behavior is “ever engaged in that behavior.” For injection drug use among needs assessment participants, the time frame was “in the last three months.”

\*Source: Counseling and testing data was obtained from the HIV/AIDS Statistics and Epidemiology Section (special data request, April 2003) and represents heterosexually identified MSM receiving an HIV test between 1997 and 2002.

†Source: Data was obtained from a needs assessment conducted with heterosexually identified MSM in 2003 (Harder+Company 2004a).

‡Testing data reflects drug use during sex. Needs assessment data represents drug use overall. Besides alcohol and marijuana, the most commonly used drug for both testers and needs assessment participants was crack, followed by speed.

#### COFACTORS AND OTHER ISSUES

In 2002, the HPPC prioritized heterosexually identified MSM for a needs assessment. The needs assessment (Harder+Company 2004a) focused on the behaviors and cofactors that put African American and Latino heterosexually identified MSM at risk for HIV. Thirty-two men (15 African American and 17 Latino) recruited from community settings participated in in-person interviews. In addition, four focus groups were conducted with gay and bisexual men who had recent heterosexual male sexual partners to provide another perspective. Due to non-random sampling and small sample size, results should be interpreted with caution.

Key conclusions from the needs assessment include:

- Heterosexually identified men may have lower levels of HIV knowledge and lower perceptions of risk compared with gay men. For example, gay and bisexual male focus group participants reported that many heterosexually identified men believe you cannot get HIV if you are a “top” (i.e., the insertive partner during anal sex).
- Drug use appears to play a substantial role in sexual relationships between heterosexually identified men and their male partners. The prospect of getting high often provides the “excuse” for heterosexual men to meet up and have sex with other men. In addition, getting high before sex reduces inhibitions about having sex with men. Condoms are less likely to be used or discussed when drugs are involved. Finally, in some situations, the sex occurs as payment for drugs and is not the primary purpose of the encounter.
- Sexual relationships and encounters between heterosexually identified men and their male partners usually occur in a secretive “don’t ask, don’t tell” context, as many of these men live double lives due to internalized and community homophobia.
- Sexual communication between heterosexually identified men and their male partners does not always occur, and when it does, it does not always lead to safe behaviors. Heterosexual men may avoid discussion of HIV because they consider it taboo. Further, even when their partners disclose that they are HIV-positive, some heterosexual men still consent to unprotected sex.

- Heterosexual men find and have sex with male partners in prison, in the military, in survival sex contexts, in group sex contexts, in clubs and bars (both gay and non-gay), on the street, in parks, on the Internet, at truck stops, in sex clubs, in public bathrooms, at schools, at laundromats, and at adult bookstores.

Gay and bisexual male focus group participants suggested that one of the best ways to reach these men with HIV prevention messages is through social marketing campaigns that depict the reality of these men's lives. Such campaigns should subtly acknowledge that these men have sex with both male and female partners, with a focus on behavior and not sexual identity.

Finally, it should be noted that there appears to be a large concentration of heterosexually identified MSM living in the Tenderloin. One fourth of heterosexually identified MSM testers who sought HIV testing between 1997 and 2000 reported a Tenderloin zip code.

### **What Are the HIV Prevention Priorities for Heterosexually Identified MSM?**

#### **PRIORITIZED HIV PREVENTION APPROACHES**

HIV prevention for heterosexually identified MSM should address risk on at least two levels: (1) the individual level, and (2) the community level. At the individual level, many of these men need education, assistance, and support regarding engaging in safer sex with their male and female partners. They may also need psychosocial support to help them cope with internalized homophobia and the mental health consequences of leading a double life. At the community level, issues that contribute to situations that put these men at higher risk, such as homophobia, drug use, and poverty, need to be addressed. The male partners of these men are perhaps best positioned to bring HIV prevention messages to this group at the individual level, and social marketing interventions could help to address the community-level issues.

#### **PRIORITIES FOR FUTURE RESEARCH**

More data on HIV incidence, prevalence, and behavioral risk is needed for this population in order to understand to what extent this population should be a priority for resources in San Francisco. In addition, research on how San Francisco's HIV prevention providers have worked successfully with this population in the past could help to contribute to improving prevention for this population.

## Male-to-Female Transgendered Persons

### What Are the HIV Prevention Needs of MTF Transgendered Persons?

#### EPIDEMIOLOGY

It is estimated that male-to-female (MTF) transgendered persons have the highest HIV prevalence and incidence rates of any population in San Francisco including gay men – 41% prevalence and 6%-13% incidence (higher for IDUs) (Exhibit 5). These estimates are based primarily on one study conducted in 1997 (Clements-Nolle et al 2001). The actual number of new infections per year among MTF persons is lower than for gay men, even though the incidence rate is higher. However, there are far fewer MTF persons living with HIV and AIDS compared with MSM, by virtue of the fact that the MTF population is only one sixteenth the size of the MSM population. This is why the BRP that includes MTF persons is ranked second, after the MSM BRP, but is still prioritized for the highest level of funding along with MSM (see Chapter 4: Priority-Setting, pp. 142-143). It should also be noted that because of the small population size, estimates of HIV prevalence and incidence are less reliable than for other groups. Another limitation is that there is little trend data for MTF persons, making it impossible to say whether new HIV infections are increasing, decreasing, or staying the same among this group.

African Americans appear to be the most profoundly impacted racial/ethnic group among MTFs in San Francisco. One study found a 63% HIV prevalence among this population in 1997 (Clements-Nolle et al 2001), in 2000 another study found a 42% prevalence (Nemoto et al 2002b) and in 2002 another found a 58% prevalence among MTFs living in San Francisco and Alameda counties (Rose et al 2002).

#### EXHIBIT 5

### HIV Incidence and Prevalence Among MTF Transgendered Persons, San Francisco, 2003

POPULATION	ESTIMATED INCIDENCE			ESTIMATED PREVALENCE	
	Number of New Infections Annually	Annual Incidence Rate	Percent of All New Infections in San Francisco	Number Living with HIV/AIDS	Percent Prevalence
MTF non-IDU	102	6.2%	9.4%	656	30.4%
MTF IDU	40	13.2%	3.7%	579	68.9%
<b>TOTAL</b>	<b>142</b>	<b>-</b>	<b>13.1%</b>	<b>1,235</b>	<b>41.2%</b>

Source: SFPDPH 2001a, data updated to June 30, 2003.

#### BEHAVIOR

Behaviors contributing to the high rates of infection include both sexual and drug use risk behaviors, which are often related to social and economic hardships that result from discrimination against MTF individuals.

Rates of unprotected receptive anal sex, the highest risk behavior for acquiring HIV, in three studies were as follows:

- 38% among HIV-positive and 32% among HIV-negative MTFs in the past six months (Clements-Nolle et al 2001)
- 37% in the past six months among African American MTFs (34% among HIV-positive and 41% among HIV-negative) (Rose et al 2002)
- 24% in the past six months with partner of unknown or opposite serostatus among African American MTFs (24% among HIV-positive and 26% among HIV-negative) (Rose et al 2002)
- 30% with primary and 7% with non-primary partners in the past twelve months (SFDPH 2002a)
- 36% with primary partners, 18% with casual partners, and 9% with commercial sex partners in the past 30 days (Nemoto et al 2002b)

In addition, MTFs in one study reported higher levels of risk behavior than gay and bisexual men and heterosexual women, including higher numbers of recent sexual partners, commercial sex activities, and having a steady sex partner who injected drugs (Nemoto et al 1999b).

Injection drug-related risk behaviors are also prevalent; 47% reported sharing syringes in the prior six months in the Clements-Nolle et al (2001) study. The most commonly injected drug in the prior six months in the Rose et al (2002) study was speed (11%), followed by cocaine (6%) and heroin (4%). However, it appears that sharing of needles used to inject hormones is low, which is possibly a result of the availability of hormone needles at needle exchange sites in San Francisco (Clements-Nolle et al 2001). Further, the risk of transmitting HIV through sharing of hormone needles is lower because hormones are injected subcutaneously (under the skin), not intravenously (into the veins).

#### COFACTORS AND OTHER ISSUES

For many MTF individuals, the issue of HIV is overshadowed by a whole host of other health and social issues – mental health, low self-esteem, lack of job opportunities, lack of transgender-specific and transgender-sensitive community services, substance use, homelessness, discrimination, and sexual violence and victimization (Clements-Nolle et al 2001, Nemoto et al 1999b, Nemoto et al 2002b, Rose et al 2002). Even though these cofactors are not prioritized for funding (see Chapter 4: Priority-Setting, pp. 142-143), it is critical that any agency working with MTFs acknowledge and address these multiple issues and their effects, because these issues largely explain the high HIV risk among MTFs. For example, mental health issues, such as low self-esteem, loneliness, and powerlessness, are experienced profoundly in the transgender community, and the link between mental health issues and HIV risk is well-documented (see the section on Mental Health, pp. 112-114). In one study, 40% of MTFs reported currently experiencing depression, and 29% had ever attempted suicide (Nemoto et al 2002b). Lack of job opportunities forces many transgendered persons into sex work; lifetime rates of sex work among MTF persons were 80% in one study (Clements-Nolle et al 2001). Poverty may be an incentive to accept more money for unprotected sex from sex work clients (Harder+Company 2004b). Further, sex work can expose individuals to violence and abuse. In the Rose et al (2002) study, 69% of African American transgendered persons reported they had been forced to have sex, and 59% reported forced sex in the Clements-Nolle et al

(2001) study. (For more on sex work, see the section on Exchange Sex and Sex Work, pp. 126-129). These are just a few examples of how HIV risk is directly related to larger social issues that affect MTF persons.

In addition, the service provider community needs to build its capacity to work with MTF populations. Service providers need to be familiar with and sensitive to issues that are relevant for MTF persons, including issues related to hormone use, gender reassignment surgery, police harassment, and the roots of mental health problems (Clements et al 1999). Lack of provider sensitivity to the unique needs of the transgender community is a barrier to HIV risk reduction (Clements et al 1999). Insensitivity among HIV prevention and health and social service providers can lead to hesitancy to disclose or discuss transgender status, which can compromise care; it can also lead to MTFs not accessing services at all. Linguistic and cultural factors also contribute to barriers to accessing HIV prevention and health services for this population (Clements et al 1999). There is a need for Spanish and Asian language services. Such services are clearly needed in the Tenderloin, where a large population of MTF persons lives and where most MTFs living with HIV and AIDS live.

In summary, the following priority needs have been identified by MTF persons themselves (Clements et al 1999, Rose et al 2002):

- More health and social services that are transgender-specific and transgender sensitive
- Mental health services, including counseling
- Substance use treatment
- Job opportunities
- Social support services
- Community and provider education to reduce discrimination

### **What Are the HIV Prevention Priorities for MTF Transgendered Persons?**

#### **PRIORITIZED HIV PREVENTION APPROACHES**

Transgender-specific and transgender-sensitive services are a high-priority, especially in the Tenderloin. Because HIV prevention is not the main priority for many MTF persons, HIV prevention needs to be woven into other health and social services, such as primary care, mental health services, and substance use treatment. Promotion of overall health and wellness for MTF persons, of which HIV prevention is a part, needs to be the primary focus. This means that HIV prevention programs for MTFs can be implemented by all types of health and social services agencies, not just traditional HIV prevention agencies.

#### **PRIORITIES FOR FUTURE RESEARCH**

Data and studies on MTF persons in San Francisco, although they have increased in recent years, still remain sparse. The following are recommendations for future data collection and research:

- Improve the collection and reporting of transgender identification for all service data (e.g., HIV, STD, substance use, mental health).
- Improve the collection of HIV indicator data for MTF persons so that trends in HIV infection over time can be monitored.

## Male Partners of Male-to-Female Transgendered Persons

### What Are the HIV Prevention Needs of the Male Partners of MTF Transgendered Persons?

#### EPIDEMIOLOGY

Virtually nothing is known about HIV prevalence or incidence among the male partners of MTF persons, in San Francisco or elsewhere. A needs assessment conducted in 2001 found eight self-reported HIV-positive men (19%) among a sample of 43 male partners of MTFs (Coan et al, in press).

#### BEHAVIOR, COFACTORS, AND OTHER ISSUES

It is important to understand sexual and injection drug-related risk behaviors among the male partners of MTFs for two reasons: (1) such behaviors may put these men at risk for HIV, and (2) such behaviors may put their MTF sexual partners at risk for HIV.

Studies done in non-San Francisco locations have drawn the following conclusions about the male partners, based on accounts provided by MTF persons:

- The perception among MTF persons is that their male partners are of all sexual orientations (Hooley 1996) but usually identify as heterosexual or bisexual (Bockting et al 1998, McGowan 2000). The clients of MTF sex workers most frequently identify as heterosexual (Mason 1995).
- Men engage in both anal insertive and receptive intercourse with their MTF partners, although insertive intercourse is more common (Boles & Elifson 1994, Hooley 1996, Weinberg 1999).
- The male partners of MTF persons are stigmatized for their attraction to transgendered persons and are considered deviant, thus increasing the likelihood of secretive relationships and sexual encounters (Mason 1995, Perkins et al 1994).
- The male partners of MTF persons yield the greatest power in the sexual relationship, because affirmation of identity and social status among peers for a transgendered person often depends on having relationship(s) or sexual encounter(s) with a man, thus creating a power imbalance (Mason 1995, Perkins et al 1994).
- In general, men who have romantic or primary relationships with MTF persons are not connected to prevention or other community support networks. Those who are connected to the service system do not feel that existing HIV prevention education meets their needs (McGowan 2000).
- Men who are clients of transgendered sex workers, and who are often married men, actively pursue unsafe sex practices, using offers of increased financial compensation for performing unsafe sex. These men are very difficult to reach with prevention messages (McGowan 2000).

A needs assessment was conducted in 2001 in San Francisco to learn more about this population locally (Coan et al, in press). Due to small sample size (n=43), the findings should be considered exploratory and not conclusive. Some of the main findings were:

- The male partners of MTF persons are a diverse group. They are of all ages, races, and socioeconomic backgrounds.
- Three quarters (74%) of the male partners of MTF persons who participated in the survey reported sex with male and/or female partners in the prior six months, in addition to their MTF partners. Reported rates of unprotected sex were high, regardless of the gender of their partner. This finding raises concerns about bridges for HIV transmission from one BRP to another (e.g., a man acquiring HIV from an MTF partner and then transmitting it to his female partner; a man acquiring HIV from a male partner and then transmitting it to his MTF partner).
- Among the male partners surveyed, reported rates of insertive anal sex with MTF persons were high (77%) and rates of receptive anal sex were low (16%). However, according to MTF persons participating in focus groups, the men are the receptive partners more frequently than they report. Further, among the men who did report anal sex, rates of unprotected insertive and receptive anal sex were high (58% and 57%, respectively).
- Drug use is an important cofactor for men who have sex with MTF persons. Alcohol, marijuana, and crack or cocaine were the most common drugs reported. About one quarter (23%) of the sample had injected drugs in the prior three months, but none reported sharing needles.

### **What Are the HIV Prevention Priorities for the Male Partners of MTF Transgendered Persons?**

#### **PRIORITIZED HIV PREVENTION APPROACHES**

The best prevention for the male partners of MTFs may be to do effective prevention with MTF persons. According to MTFs participating in a needs assessment (Coan et al, in press), MTF persons should be involved in all prevention efforts for their male partners and can themselves provide the needed education. Sex with MTF persons may not be readily disclosed to a service provider, so reaching these men through their sexual partners may be the only way to provide prevention to them.

#### **PRIORITIES FOR FUTURE RESEARCH**

Priorities for future data collection and research include:

- Improved collection of data on sex with MTF transgendered persons during HIV testing and the delivery of other HIV prevention services.
- More research on how MTF persons can best be involved in HIV prevention for their male partners.

## Female-to-Male Transgendered Persons

### What Are the HIV Prevention Needs of FTM Transgendered Persons?

#### EPIDEMIOLOGY

It is estimated that the female-to-male (FTM) transgendered population in San Francisco is relatively small – approximately 1,000 individuals. Data on HIV among FTMs in San Francisco is sparse. In the only prevalence study among this population, 2 of 123 FTMs tested HIV-positive for a prevalence of 1.6% (Clements-Nolle et al 2001).

#### BEHAVIOR, COFACTORS, AND OTHER ISSUES

There is little data on San Francisco's FTM population. One study suggests that sex with MSM may put FTMs in San Francisco at risk (Clements et al 1999). Because the HIV prevalence among MSM in San Francisco is so high, risk for HIV among FTMs is of concern even though the prevalence currently appears to be low. FTM participants in one focus group reported that low self-esteem was the main reason for engaging in unprotected sex, and denial about engaging in certain sexual behaviors (i.e., vaginal sex) is a barrier to protected sex. Furthermore, FTM participants reported that testosterone use increased their sex drive and willingness to take risks (Clements et al 1999).

Sharing needles to inject hormones may also put FTMs at risk, as this behavior appears to be more prevalent among FTMs than among MTFs (Clements et al 1999).

67

Studies with FTMs in other locations may or may not be relevant for FTMs in San Francisco, but these studies are worth reviewing. Studies in other cities and countries have concluded the following:

- Service providers generally have little or no knowledge about FTMs and their unique needs and do not have appropriate services for FTMs (Green & Rachlin 2001, Namaste 1999).
- There is a lack of informational and educational materials about FTM bodies and sexualities (Namaste 1999).
- Many FTM persons do not consider themselves to be at risk for HIV (Namaste 1999).
- Poor access to hormone needles can create conditions that put FTMs at risk for HIV (Namaste 1999). Many FTMs are not aware of the needle exchange site in San Francisco that distributes hormone needles (Clements et al 1999).
- Low self-esteem may prevent FTM people from adopting safe behaviors (Namaste 1999).

In addition, many of the issues that apply to MTFs also apply to FTMs, since individuals with any transgender identity are often marginalized (see the section on Male-to-Female Transgendered Persons, pp. 62-64).

## What Are the HIV Prevention Priorities for FTM Transgendered Persons?

### PRIORITIZED HIV PREVENTION APPROACHES

In general, outreach and education to communities and providers about the needs of FTMs can help to reduce the invisibility of this population, which can have a profound effect on the factors related to HIV risk. HIV prevention programs for FTMs need to be transgender-specific and transgender-sensitive and must be tailored to the needs of FTM in particular, not just transgendered persons overall. FTM individuals should be included in the design and implementation of programs for this population. Finally, because sex with gay men and hormone needle sharing are two ways that FTMs in San Francisco can be exposed to HIV, effective HIV prevention with gay men and increased access to hormone needle exchange are two clear priorities. In addition, raising awareness of FTMs among the gay male community and developing inclusive prevention messages is an important strategy.

### PRIORITIES FOR FUTURE RESEARCH

Current data shows that FTMs overall are at relatively low risk for HIV compared with MTFs, but that some subpopulations of FTMs may be at greater risk. A comprehensive needs assessment with the potentially higher risk subpopulation of FTMs who have sex with gay men in San Francisco is a very high priority. This research could not only provide much needed information about HIV risk among this population, but could also act as a community organizing tool to increase community and provider awareness about this population.

68

## Women

### What Are the HIV Prevention Needs of Women?

#### EPIDEMIOLOGY

In San Francisco, it is estimated that 58 new HIV infections occur per year among women, with 48 of those among women who inject drugs (Exhibit 6). Compared with MSM, women make up only a small fraction of PLWA (6%). Women of color are disproportionately affected – 66% of women living with AIDS are women of color, and 44% are African American.

The epidemiologic profile among women in San Francisco is very different from the national profile. Nationally, 30% of new infections each year are among women (CDC's A Glance at the Epidemic, <http://www.cdc.gov/nchstp/od/news/At-a-Glance.pdf>), but in San Francisco it is estimated that women represent less than 6% of new infections per year. This is why HIV prevention for women is not as high a priority as prevention for MSM; women who inject drugs are represented in BRP 4: FSM-IDU, FSM/E, FSF and women who do not inject drugs are represented in BRP 7: FSM, FSM/E, FSF (see Chapter 4: Priority-Setting, pp. 142-143).

Less HIV and AIDS research has been done among women compared with men in San Francisco, since fewer women are affected. Therefore, it should be noted that what we know about women's risk for HIV and the factors that affect their risk might not be the whole story. More epidemiologic research is needed to get a complete picture of the epidemic among women in San Francisco.

## HIV Incidence and Prevalence Among Women, San Francisco, 2003

POPULATION	ESTIMATED INCIDENCE			ESTIMATED PREVALENCE	
	Number of New Infections Annually	Annual Incidence Rate	Percent of All New Infections in San Francisco	Number Living with HIV/AIDS	Percent Prevalence
Female non-IDUs	10	< 0.1%	< 1.0%	333	0.1%
Female IDUs	48	1.1%	4.4%	525	10.8%
<b>TOTAL</b>	<b>58</b>	<b>-</b>	<b>5.4%</b>	<b>858</b>	<b>-</b>

Source: SFDPH 2001a, data updated to June 30, 2003.

## BEHAVIOR

When considering the behaviors that put women at risk for HIV in San Francisco, it is important to remember a few key points:

- If a woman is not exposed to HIV (i.e., she does not have sex or needle sharing partners who are HIV-positive), she cannot get HIV no matter how high-risk her behaviors are. In San Francisco, in general, women who have sex with men and do not inject drugs are not at high risk (unless their male partners are at high risk). This is because the HIV prevalence is low among men who do not inject drugs and have sex only with women.
- Behavioral interventions for women are important, because a shift in the epidemic could increase the risk for women being exposed to HIV. Educating women about safer sex and injection practices is important because engaging in HIV protective behaviors can also have impacts in other areas, such as decreasing unintended pregnancy, hepatitis, and STDs.

The primary risk factors for women in San Francisco who do not inject drugs are unprotected sex with high-risk male partners, including HIV-positive, IDU, and MSM partners (Johnson et al 2003, van der Straten et al 2000). Women may not be aware that they are at risk, for example, if they do not know that their partner is having sex with men. Men who have situational sex with other men in jail or prison may have unprotected sex with their female partners after their release (Grinstead et al 1999). Men may also be on the “down low,” meaning they are having sex with men even though they are living heterosexual lives (see the section on Heterosexually Identified MSM, pp. 58–61). This issue is of particular concern among the African American community and was recently highlighted in a New York Times Magazine article (Denizet-Lewis 2003).

As with other populations, sexual orientation and behavior do not always match among women. High-risk sexual behaviors with men have been documented not only among heterosexual women, but also bisexual and lesbian women (Scheer et al 2003, Stevens & Hall 2001). In one study, women who reported sex with both men and women had higher rates of high-risk sex compared with women who had sex exclusively with men, including sex with HIV-positive men, sex with MSM or IDUs, trading sex for drugs or money, and anal sex (Scheer et al 2002). Therefore, when designing programs for women, providers should consider that sexual identity may be linked to a higher prevalence of certain cofactors (e.g., sex work).

Among women who inject drugs, sharing of injection equipment represents a risk factor in addition to sexual risk. Young women with injection partners who are also sexual partners were at greater risk in one study (Evans et al 2003), but women who reported having a steady sex partner who injected drugs were at lower risk in another study (Kral et al 2001). Young female IDUs may be at greater risk than either their male counterparts (Evans et al 2003) or older female IDUs (Kral et al 2001).

Young women engage in unprotected sex as well, as indicated by data on teen births. Although the percent of all births that occur among teens in San Francisco has declined in recent years and remains below the national average (The Annie E. Casey Foundation, <http://www.aecf.org>), the number of births to Latinas under 20 in San Francisco is higher than for any other race (in 2000, 222 births among Latinas compared with 33 among whites and 140 among African Americans; Child Trends Facts at a Glance, September 2002, <http://www.childtrends.org/PDF/FAAG2002.pdf>). This data does not necessarily indicate higher sexual risk behaviors among young Latinas, however. It may indicate lower rates of pregnancy termination. Nevertheless, promoting self-esteem, sexual health, and safer sex among young women can support them in making healthy decisions throughout their lives.

#### COFACTORS AND OTHER ISSUES

The main cofactors that can increase HIV risk for women in San Francisco include sex work, having an STD, drug use (non-IDU), sexual abuse/coercion, poverty, and gender and power issues. Injection drug use also interacts with these cofactors, particularly sex work and poverty, to compound risk. These cofactors are discussed in more depth in the following paragraphs.

Sex work/trading sex is a significant risk factor for women, especially for IDUs and bisexual and lesbian women (Jones et al 1998, Kral et al 2001). Among women who inject drugs, engaging in sex work carries with it a higher risk of needle sharing (Kail et al 1995) and a five-fold increased risk for acquiring HIV (Kral et al 2001). Recent counseling and testing data also supports these findings. Among testers, female sex workers (both IDU and non-IDU) tended to have elevated incidence rates (HIV/AIDS Statistics and Epidemiology Section, special data request, April 2003.) Bisexual and lesbian women were more likely than heterosexual women to have a history of trading sex for money or drugs in one study (Scheer et al 2003). Finally, sex work is also associated with other cofactors, including drug use, physical/sexual violence, STDs, high number of sex partners, poverty, a history of childhood sexual abuse, low self-esteem, and mental illness (HPPC 2001, p. 97).

Some examples of how sex work interacts with other cofactors to increase risk are as follows. Some sex workers may agree to have unprotected sex with clients who have offered them considerably more money, due to economic need. Others may use condoms with their clients but not their main partner. Immigrant Asian/Pacific Islander women who engage in sex work in massage parlors may be a high-risk population among those working off-street, since many of these women may be coerced into sex work under the threat of deportation. They may also fear contact with police and/or Immigration and Naturalization Service (INS) workers, lack HIV and STD information, and have insufficient access to culturally and linguistically appropriate prevention services. The illegal status of sex work makes effective HIV prevention outreach a challenge for this population.

Presence of an STD increases the risk of acquiring HIV. In San Francisco, among women, African American women have the highest rates of chlamydia, gonorrhea, and syphilis, particularly among women under 20. Recent evidence also suggests a greater chlamydia burden among low-income women, most of whom are African American or Latina (Klausner et al 2001). (See also the section on STDs, pp. 115-117.)

Use of drugs, such as crack, cocaine, and alcohol may lead to sexual risk-taking among women (HPPC 2001, p. 33), and use of certain drugs is associated with engaging in sex work (Edlin et al 1994). Bisexual and lesbian women have higher rates of lifetime and recent drug and alcohol use compared with heterosexual women (Scheer et al 2003).

A history of sexual or physical abuse may influence sexual risk for HIV. Having been abused is associated with acquiring an STD, using alcohol or other drugs before sex, having a non-monogamous main partner, exchanging sex for money or drugs, and having unprotected sex and multiple partners (Bauer et al 2002, NIMH 2001, Parillo et al 2001). African American women in abusive relationships may be a particularly high-risk group. One study found that they were less likely to use condoms than other racial/ethnic groups and more likely to experience abuse or the threat of abuse when they used condoms (Wingood & DiClemente 1997). Bisexual and lesbian women are also at risk; they were more likely to have a history of forced sex compared with heterosexual women (Scheer et al 2003).

## What Are the HIV Prevention Priorities for Women?

### PRIORITIZED HIV PREVENTION APPROACHES

Since the majority of women in San Francisco are not considered to be at risk for HIV, HIV prevention programs must focus on the highest risk women (see Chapter 4: Priority-Setting, pp. 142-143 under BRPs 4 and 7) and must take into account the multiple cofactors that affect them. Particular attention should be paid to the cultural competency of interventions, as most women at risk are women of color. Linkages to appropriate services, including drug treatment, mental health, and primary health care are important facets of programs for women. A focus on empowerment and community is needed to promote the self-esteem and social support needed for healthy behavior.

### PRIORITIES FOR FUTURE RESEARCH

Although HIV-related research among women in San Francisco is not as common as research among MSM, several studies are in progress:

- A five-year study (January 2004 to June 2007) on how sexual gender norms and the socioeconomic context contribute to HIV risk behaviors among African American and Latina women in the San Francisco Bay Area. (Principal Investigator, Cynthia Gomez, Center for AIDS Prevention Studies)
- A study on the association of social and sexual networks and STD prevalence among young African American women living in the Bayview-Hunters' point area. (Principal Investigator, Margaret Dolcini, Center for AIDS Prevention Studies)
- A study on the effects of ethnic identity and acculturation on network membership, STDs, and pregnancy. (Principal Investigator, Nancy Padian, Center for Reproductive Health Research and Policy, University of California at San Francisco)

Priorities for future research include:

- Improved data collection on the risk behaviors of the male partners of women who seroconvert.
- A study on high-risk women's access to and use of HIV counseling and testing services.

## Heterosexual Men

### What Are the HIV Prevention Needs of Heterosexual Men?

#### EPIDEMIOLOGY

Heterosexual men who have sex exclusively with women and do not inject drugs are at very low risk for HIV in San Francisco (Kellogg et al 2001), even lower than they are nationally (1.6% of PLWA are among this group [HIV/AIDS Statistics and Epidemiology Section, special data request, 2003], compared with 7.8% nationally [CDC 2002a]). In San Francisco, it is estimated that only two new infections occur each year among this group (Exhibit 7), and thus they are the lowest priority for funding (see Chapter 4: Priority-Setting, pp. 142-143). This low infection rate is due to two factors: (1) for physiological reasons, the odds of a man acquiring HIV from a woman through vaginal sex are relatively low compared with other behaviors, and (2) the odds of a man encountering an HIV-positive woman in San Francisco are relatively low, because HIV prevalence among women is low. Extrapolating from counseling and testing data (HIV/AIDS Statistics and Epidemiology section, special data request, July 2003), the heterosexual men most at risk are African Americans and those aged 30 to 39 (see Chapter 4: Priority-Setting, p. 143 under BRP 8). These men are most likely exposed to HIV through sex with HIV-positive women who inject drugs. Another possibility is that these men are actually men who have sex with men, but they did not report sex with men when tested for HIV (see the section on Heterosexually Identified MSM, pp. 58-61).

Heterosexual men who inject drugs are at higher risk than those who do not, due to needle sharing behaviors. It is estimated that 45 new infections per year occur among this group (Exhibit 7). HIV incidence rates have remained stable among this group since 1998 (Bluthenthal et al 2001).

## EXHIBIT 7

### HIV Incidence and Prevalence Among Heterosexual Men, San Francisco, 2003

POPULATION	ESTIMATED INCIDENCE			ESTIMATED PREVALENCE	
	Number of New Infections Annually	Annual Incidence Rate	Percent of All New Infections in San Francisco	Number Living with HIV/AIDS	Percent Prevalence
Heterosexual men	2	< 0.1 %	0.2 %	75	< 0.1 %
Heterosexual men who inject drugs	45	0.6 %	4.2 %	899	10.0 %
<b>TOTAL</b>	<b>47</b>	<b>-</b>	<b>4.4 %</b>	<b>974</b>	<b>-</b>

Source: SFDPH 2001a, data updated to June 30, 2003.

## BEHAVIOR

Heterosexual men report unprotected sex in a number of studies. For example, HIV Testing Survey data showed rates of unprotected anal and vaginal sex among IDU and non-IDU heterosexual men ranging from 69% to 92% (SFDPH 2002a). However, for the reasons cited earlier, unprotected sex among this group is less likely to lead to acquiring HIV compared with other populations.

Needle sharing rates among heterosexual male IDUs may be 30% or higher among this group (Kral et al 2003), indicating a need for continued HIV prevention efforts with this population.

## COFACTORS AND OTHER ISSUES

Men in sexual relationships with women who inject drugs are more likely to be exposed to HIV. These men might be more likely to be low-income, inject drugs themselves, and experience many of the other cofactors that are related to poverty (e.g., incarceration, drug use, STDs). For example, crack use has been associated with unprotected sex among HIV-positive heterosexual men (Campsmith et al 2000).

These cofactors all work together to put these men at risk. However, the risk is mediated by the protective factors mentioned earlier – the physiological and epidemiologic factors that make them less likely to be exposed to or acquire HIV.

## What Are the HIV Prevention Priorities for Heterosexual Men?

73

## PRIORITIZED HIV PREVENTION APPROACHES

The primary strategy for eliminating new infections in this group, and for preventing the transmission of infection to their female partners among HIV-positive men, is making counseling and testing, partner counseling and referral services, and prevention with positives available and accessible. It would not be appropriate to design an outreach program exclusively for these men; however, any outreach program designed to include men should have the capacity to address the needs of this group. Further, any program that reaches men who identify as heterosexual should explore the individual's specific risk behaviors, as heterosexual identity and sex with men can co-exist.

## PRIORITIES FOR FUTURE RESEARCH

Surveillance data is needed among this population to monitor the goal of eliminating new infections in this group by 2008.

## Injection Drug Users

### What Are the HIV Prevention Needs of Injection Drug Users?

#### EPIDEMIOLOGY

Overall, HIV incidence has declined three-fold among IDUs since the late 1980s (Kral et al 2003), largely due to the availability of needle exchange and bleach kits. The fact that IDUs in San Francisco make up 22% of PLWA (HIV/AIDS Statistics and Epidemiology Section, special data request, 2003), compared with 32% nationally (CDC 2002a), is evidence of the successful local strategy.

In San Francisco in 2003, it is estimated that most of the 220 annual new HIV infections among IDUs occur among MSM who inject drugs (40%), followed by women (22%), men who have sex exclusively with women (20%), and MTF transgendered persons (18%). IDUs make up funding Tier 2, which means it is recommended they receive the second highest level of funding after Tier 1 (MSM, MSM/F and TSM, TSM/F,TSF) (see Chapter 4: Priority-Setting, pp. 142-143). Recent studies support that MSM injectors are the IDU population most affected, in terms of both prevalence and incidence (Bluthenthal et al 2001, Kellogg et al 2001, Kral et al 2003, Shafer et al 2002). Incidence has remained relatively low and prevalence has remained stable among both female IDUs and male IDUs who have sex exclusively with women (McFarland 2003).

74

Young injectors appear to be at higher risk for acquiring HIV, especially MSM (Kral et al 2001, Kral et al 2003, Shafer et al 2002), although older injectors have higher HIV prevalence. Among IDUs, African Americans are disproportionately represented among PLWA, although recent evidence suggests that African American IDUs have the lowest rates of new infections of all racial/ethnic groups (Kral et al 2003). This may be because African American IDUs were reached with HIV prevention messages early in the epidemic, due to the high HIV prevalence, and thus made behavior changes (Alex Kral, personal communication, 2003). People who inject drugs live in all parts of the city, but the Tenderloin, Castro, Bayview/Hunter's Point, and parts of the Mission are home to many of the IDUs at risk for or living with HIV.

## EXHIBIT 8

### HIV Incidence and Prevalence Among IDUs, San Francisco, 2003

POPULATION	ESTIMATED INCIDENCE			ESTIMATED PREVALENCE	
	Number of New Infections Annually	Annual Incidence Rate	Percent of All New Infections in San Francisco	Number Living with HIV/AIDS	Percent Prevalence
MSM IDUs	87	4.6%	8.0%	2,100	52.7%
Female IDUs	48	1.1%	4.4%	525	10.8%
Male IDUs who have sex only with women	45	0.6%	4.2%	899	10.0%
MTF transgendered IDUs	40	13.2%	3.7%	579	68.9%
<b>TOTAL</b>	<b>220</b>	<b>-</b>	<b>20.3%</b>	<b>4,103</b>	<b>22.0%</b>

Source: SFPDPH 2001a, data updated to June 30, 2003.

Additional HIV prevalence data from the Urban Health Study reveals that IDU subpopulations are impacted differently (Alex Kral, personal communication, December 2003). HIV prevalence among the following populations is:

- Homeless IDUs: 11%
- Female sex worker IDUs: 10%
- Bayview residents who are IDUs: 5%
- Tenderloin residents who are IDUs: 23%

Data from the same study shows that hepatitis B prevalence among IDUs in San Francisco is 70%, and hepatitis C prevalence is 82%.

## BEHAVIOR

**Sexual Behaviors.** New HIV infections among IDUs in San Francisco can most likely be attributed to both unsafe sexual behaviors and needle-sharing. For MSM who inject drugs, high-risk sex is increasing the HIV incidence more so than needle sharing. Several studies have documented high levels of sexual risk-taking among MSM injectors (Edlin et al 2001, Kral et al 2001, SFDPH 2002a, Shafer et al 2002). Many of the reasons for increased sexual risk behavior among this population are likely to be similar to those of MSM who do not inject drugs (see sections on Gay Men, pp. 50-55, and Bisexual Men, pp. 56-57.)

Among IDU populations other than MSM, it is less clear whether sexual risk behaviors or needle-sharing are the driving force contributing to new infections. Nevertheless, high-risk sexual behaviors have been documented in these populations. Among male IDUs who have sex only with women and among female IDUs, the recent HIV Testing Survey found high rates of unprotected vaginal and anal sex (SFDPH 2002a), although HIV incidence has remained stable over the last 10 years among these populations (Bluthenthal et al 2001). Even with this encouraging news, the need for continued prevention messages that address sexual risk among IDUs is clear.

Little data on sexual behavior is available specific to transgendered IDUs because most studies focus on transgendered persons overall, not just IDUs. (See also the section on Male-to-Female Transgendered Persons, pp. 62-64.)

**Injection-Related Behaviors.** Heroin and speed are the most commonly injected drugs among IDUs (Clements-Nolle et al 2001, Shafer et al 2002; see also the section on Substance Use, pp. 108-112). Despite strong needle exchange programs, recent studies suggest that needle-sharing practices continue at rates as high as 30% among MSM who inject (Bluthenthal et al 2001, Kral et al 2003), and another study among a late night MSM crowd found needle-sharing rates of 58% (Pendo et al 2003). Needle sharing also continues among other IDUs. In one study, young female IDUs were more likely than their male counterparts to share needles and drug preparation equipment (Evans et al 2003). This same study showed that having an injection partner who was also a sexual partner compounded the risk.

Needle-sharing rates are also high among MTF transgendered persons. In one study, of those reporting a history of injection drug use, 63% reported ever sharing syringes, and of those who injected in the last six months, 47% had shared syringes (Clements-Nolle et al 2001). Although hormone injection was also common among MTFs, sharing of hormone needles is rare due to availability of hormone needles from clinics and needle exchange sites (Clements-Nolle et al 2001). Furthermore, the risk of transmitting HIV through sharing of hormone needles is lower because hormones are injected subcutaneously (under the skin), not intravenously (into the veins).

High-risk sexual and injection behaviors overlap to increase a person's risk for HIV, because use of drugs while high elevates the risk of unsafe sex. Therefore, HIV prevention for IDUs must address both types of risk and how they are related.

#### COFACTORS AND OTHER ISSUES

Sex work/trading sex is an important cofactor for certain groups of IDUs. For example, female IDUs who trade sex for money or drugs are more likely to share needles than women injectors who do not engage in sex work (Kail et al 1995). The interplay between drug addiction and sex work is also particularly salient for transgendered populations (Clements et al 1999). Transgendered IDUs who are sex workers may share needles with customers who are willing to pay more for shooting up together (Nemoto et al 1999a).

76

Drug of choice, which is influenced by many social factors, impacts the frequency and amount of drug use, which in turn affects the likelihood of sexual risk taking. The connection between speed use and high-risk sex, whether injected or not, has been well-documented in several studies among MSM (see the section on Gay Men, pp. 50-55) and studies among MTF persons (Clements-Nolle et al 2001, Nemoto et al 1999a). (See also the section on Substance Use, pp. 108-112.)

Another noteworthy cofactor with links to HIV among IDUs is homelessness. Homeless and marginally housed MSM injectors have been shown to have an HIV prevalence ranging from 31% (SFDPH 1997) to 67.5% (SFDPH 1998b). HIV prevalence among male IDUs who have sex exclusively with women may range from 6.4% (SFDPH 1997) to 25% (SFDPH 1998b). Homelessness also affects transgendered persons, regardless of whether or not they inject drugs, with nearly half (47%) of participants in one study reporting being homeless or marginally housed (Clements-Nolle et al 2001). (See also the section on Homelessness, pp. 120-122.)

Incarceration is another important cofactor, given that prison policies restrict access to clean syringes, making it difficult for prisoners who inject drugs to use clean needles consistently (HPPC 2001, pp.100-101, Zack et al 2001). This issue is particularly important in San Francisco, as half of San Quentin State Prison inmates reported a history of injection drug use according to one study (Zack et al 2001). In San Francisco jails, HIV seropositivity and incidence rates for incarcerated individuals are higher than those among the general population, with MSM injectors being the IDU population most greatly affected. One study found a prevalence of 21.6% among incarcerated MSM who inject drugs upon intake (Kim et al 2001a). (See also the section on Incarceration, pp. 118-119.)

Finally, among gay IDUs, some injectors may identify more with the gay community, whereas others may identify more with their drug-using social networks. Prevention messages need to be developed and targeted appropriately.

## What Are the HIV Prevention Priorities for Injection Drug Users?

### PRIORITIZED HIV PREVENTION APPROACHES

Effective HIV prevention for IDUs needs to address both sexual and injection-related risks in the context of the multiple cofactors that affect IDUs. Prevention efforts need to include the sexual and injection partners of IDUs, since they are also at risk for HIV. HIV prevention should be linked with health services for IDUs, in an effort to promote overall health and wellness for these populations, including the impact of hepatitis C among this population. Finally, not all IDUs have the same needs, and prevention efforts should be culturally appropriate for and designed to meet the specific needs of different groups of IDUs. Needle exchange and harm reduction are two approaches with demonstrated effectiveness. (See Chapter 5: Strategies and Interventions for more information on needle exchange, pp. 192–193, and harm reduction, p. 201).

### PRIORITIES FOR FUTURE RESEARCH AMONG INJECTION DRUG USERS

Current research clearly shows that both sexual behavior and needle-sharing need to be addressed. What is lacking is information on the specific needs of IDU subpopulations. Priorities for future research include:

- A study on the particular needs of transgendered IDUs, compared with transgendered non-IDUs.
- Studies that describe incidence among IDU subpopulations (e.g., African American female IDU, Native American male IDU).

## African American People

### What Are the HIV Prevention Needs of African American People?

#### EPIDEMIOLOGY

Much of what we know about HIV among African Americans in San Francisco is based on (1) data on PLWA, (2) HIV prevalence data and estimates, and (3) HIV incidence estimates and indicators, including HIV counseling and testing data. (In the future, HIV reporting data will also add to the picture.) Together, this data suggests that African Americans are disproportionately affected by HIV and AIDS in San Francisco. However, the national trend – where more than half of new HIV infections occur among African Americans (CDC’s A Glance at the Epidemic, <http://www.cdc.gov/nchstp/od/news/At-a-Glance.htm>) – is not paralleled locally. Although local estimates of the number of new infections by race/ethnicity do not exist, counseling and testing data suggests that African Americans make up far fewer than 50% of the new infections (HIV Statistics and Epidemiology Section, special data request, 2003). This is at least partly due to the relatively small population of African Americans in San Francisco (7.6% of the population).

**Data on PLWA.** There are five important conclusions that can be drawn from this data (AIDS Surveillance Quarterly Report, June 2003):

- Among all people of color, African Americans have the highest number of PLWA (1,365 African American PLWA compared with 1,247 Latino, 379 Asian/Pacific Islander, and 55 Native American).
- The number of African Americans living with AIDS is about one fifth the number of whites living with AIDS (6,243 white PLWA compared with 1,365 African American PLWA).
- African Americans are disproportionately impacted by AIDS compared with their numbers in the population (8% of the population, 15% of PLWA). This is true across all BRPs.
- Most African Americans living with AIDS are MSM (41%), IDUs (32%), or MSM who inject drugs (17%). However, compared with other racial/ethnic groups, non-IDU women and heterosexual men represent a higher percentage of PLWA.
- African American women and MTF transgendered persons are profoundly impacted by AIDS compared with their counterparts of other race/ethnicities; 44% of women and 34% of MTF persons living with AIDS are African American.

**HIV Prevalence Data and Estimates.** Overall, HIV prevalence is estimated at 4.1% to 4.7%, the highest of any racial/ethnic group (SFDPH 2001a, data updated to June 2003). Data and estimates specific to risk groups within the African American population include:

78

- **African American MSM:** HIV prevalence is estimated at 55% overall (SFDPH 2001a). Among anonymous testers, prevalence was 9.7% (SFDPH 2001b). Another study found a 29% prevalence (Catania et al 2001). Collectively, this data suggests that African Americans have the highest prevalence of any MSM population. This is why African Americans are prioritized for funding under BRP 1: MSM, MSM/F (see Chapter 4: Priority-Setting, p. 142).
- **African American MSM youth aged 15 to 22:** HIV prevalence was 13.3% in one study (the highest prevalence compared with other groups of youth; Katz et al 1998).
- **African American MTF transgendered persons:** HIV prevalence was 58% (Rose et al 2002), 63% (Clements-Nolle et al 2001), and 33% (SFDPH 2001b) in three different studies (the highest prevalence of any MTF population).
- **African American male IDUs (MSM and non-MSM):** HIV prevalence was 16.2% in one study (Kral et al 2003).
- **African American female IDUs:** HIV prevalence was 7.9% in one study (Kral et al 2003).

**HIV Incidence Estimates and Indicators.** It is unclear whether African Americans are experiencing higher or lower rates of new infections compared with other racial/ethnic groups. Some data suggests the incidence rates are lower (counseling and testing data suggests lower rates among MSM [SFDPH 2001b]; a study by Kral et al [2003] suggests lower rates among IDUs). However, counseling and testing data is limited because community evidence suggests that African Americans do not get tested

or test later after becoming infected at higher rates compared with other groups (SFDPH 2002a). The multiple cofactors faced by African Americans (discussed later) suggest a strong need to monitor new infections among this group.

Based on the data just presented, African Americans are prioritized for funding under all the BRPs, except BRP 4: FSM-IDU, FSM/F-IDU, FSF-IDU, because HIV prevalence is believed to be less than 8% among that group (Kral et al 2003).

## BEHAVIOR

There is little behavioral risk data on African Americans living in San Francisco, and most of the existing data is among MSM. High-risk sexual behavior among MSM is a contributing factor for HIV infection in African American communities. Studies have indicated that African American MSM had among the highest rates of unprotected anal intercourse, second only to Latinos (SFDPH 1998a). Other data suggests that HIV-negative men (compared with HIV-positive men) and gay/bisexual men (compared with heterosexual men) engage in more high-risk sexual behaviors (Myers et al 2003).

One recent local study with African American MSM living in the Tenderloin found high rates of unprotected anal sex, particularly with primary partners compared with casual partners. In addition, nearly one-quarter (23%) reported unprotected anal sex with a male partner of serodiscordant or unknown HIV status (Crosby & Grofe 2001). Across studies, HIV risk behaviors among African American MSM may be underestimated due to hesitancy of the population to disclose unsafe sexual activity or same-sex sexual activity (SFDPH 1998a).

For African American women, regardless of whether they inject drugs or not, heterosexual contact is the primary source of infection according to one study (Watters et al 1994a). A study of low-income African American mothers showed that nearly one-quarter (23%) had multiple sex partners (Cummings et al 1997). Nevertheless, needle sharing is also a risk factor, but HIV incidence among African American IDUs overall (including women) may be the lowest of all racial ethnic groups (Kral et al 2003). This may be because HIV prevention focused on African American IDUs early on when they were being hit hard by the epidemic, thus shifting norms around safer injection behaviors among this group.

African American MTF transgendered individuals also report high levels of risk behavior, including unprotected receptive anal sex in the last six months (37%; Rose et al 2002). (See also the section on Male-to-Female Transgendered Persons, pp. 62-64.)

## COFACTORS AND OTHER ISSUES

Discrimination is perhaps the most important cofactor to understand when designing and implementing programs for African Americans. The effects of discrimination are far-reaching in this community and impact both individuals and communities. It has effects on access to health care, access to education and employment opportunities, and the presence of violence, substance use and environmental hazards in communities. Discrimination has also resulted in profound disparities in health status, where African Americans have more health issues and suffer greater consequences from them than most other groups, and HIV is one of these health problems. This has an enormous impact on how HIV prevention is delivered in these communities.

One example of how discrimination has impacted African Americans in regards to their health is use of highly-active anti-retroviral therapy (HAART) among those living with HIV in San Francisco. HAART has improved survival rates for many groups, but African Americans have lower usage of HAART than other groups and their survival rates are low compared to other racial/ethnic groups. Several studies have documented lower or delayed use of HAART among African Americans living with AIDS compared to other groups (Halkitis et al 2003, Hsu et al 2001, Kahn et al 2002). Why is this? One possible explanation is fear of going to the doctor. Many African Americans, because of historical events such as the Tuskegee syphilis experiments, do not trust the health care system. Another contributing factor may be the stigma that exists regarding HIV in the African American community (Harder+Company 2004c), which could lead to denial and avoidance of seeking HIV testing or health care. Further, there may be fewer health care facilities in convenient locations for African Americans, and poverty and lack of insurance may make receiving services difficult. Finally, it is possible that doctors do not recommend or encourage HAART use equally across racial/ethnic groups, although no studies have been done in this area. All of these factors are products of long-standing discrimination and racism. The consequences of this are profound. Not only does lower use of HAART result in lower survival, but HIV-positive people not using HAART may be more infectious, which could lead to new infections, particularly among the sexual networks of African Americans (SFDPH 1998a).

Lack of access to HIV testing is another critical cofactor. According to counseling and testing data, African American MSM have a lower incidence rate than MSM of other races (0.8% vs. 2.3% to 3.5%) but this may be attributable to testing later or not at all, and may not really reflect a lower incidence rate among this population (SFDPH 2001b). For the same reasons cited earlier, African Americans may be less likely to seek testing than other groups, resulting in presenting for care at later stages of infection and possibly higher transmission rates. Further, when African Americans are not reflected in the counseling and testing data as a high risk group, it becomes more challenging to obtain funding, thus perpetuating a cycle. In the words of one Bayview community member, "If you aren't counted, you don't count."

High rates of drug addiction and risk behaviors, such as sharing needles, having sex while using drugs, or exchanging sex for money or drugs are other important cofactors that are associated with high rates of unemployment and poverty within African American communities. Crosby and Grofe (2001) interviewed disenfranchised African American MSM and found high rates of substance use and

psychosocial problems related to substance use. Over one-third (34%) of the men in this study reported engaging in anal sex while under the influence of alcohol or drugs, 27% exchanged sex for money or drugs, and 10% engaged in unprotected anal sex for drugs or money. Among a group of heterosexually identified men who have sex with men in Los Angeles County, a history of injection drug use, and speed use were associated with HIV infection (Wohl et al 2002).

High rates of incarceration among African American men could put them, as well as their female sex partners, at risk for HIV. Although few studies have explored this hypothesis in San Francisco, anecdotal evidence suggests that this is an important issue that needs to be addressed in the African American community. A study of low-income African American mothers showed that 15% reported having had an incarcerated partner, especially single women and women under 35 (Cummings et al 1997). It should be noted, however, that one recent study done in Los Angeles (Wohl et al 2000) found that high-risk behaviors (e.g., injection drug use and unprotected anal sex) were more common among African American men out of jail than in jail and increased jail time was associated with lower rates of HIV infection. Nevertheless, the incarcerated population still represents a group for whom access to HIV prevention messages, condoms, and clean needles is still limited. (See also the section on Incarceration, pp. 118-119).

Homophobia and racism also impact HIV risk among African Americans. Bayview/Hunter's Point community leaders participating in interviews in one study identified lack of acknowledgment and discussion about men having sex with men in San Francisco's African American communities as a barrier to effective HIV prevention (Harder+Company 2004c). Such barriers exist at the community level as well as at the individual level (e.g., internalized homophobia). Furthermore, African American MSM may feel marginalized within the larger gay community, and power dynamics in sexual relationships between African American men and men of other races may affect sexual decision-making, and thus HIV risk.

Many African American MSM may not identify as gay or bisexual. For example, one recent local study on African American MSM living in the Tenderloin found that half of the men were having sex exclusively with men and yet many identified as bisexual or heterosexual (Crosby & Grofe 2001). HIV seropositivity has been associated with unprotected anal sex with men among heterosexually identified African American MSM (Wohl et al 2002). This population of non-gay-identified MSM is of concern because they may be left out of HIV prevention messages aimed toward the gay community, they may be at high risk for acquiring HIV, and they may be at risk for transmitting HIV to their female partners (Wohl et al 2002). (See also the section on Heterosexually-Identified MSM, pp. 58-61).

Furthermore, misperceptions about HIV and AIDS may be a contributing factor to high-risk behavior among some African Americans. For example, in a Tenderloin-based study, 50% of participating African American MSM did not know that receptive anal sex is higher risk for acquiring HIV than insertive anal sex (Crosby & Grofe 2001). In a recent assessment conducted in the Bayview, 60% of men and women surveyed incorrectly believed there was a cure for AIDS (Harder+Company 2004c).

Presence of a sexually transmitted disease increases the risk of acquiring HIV. African American women and men have the highest rates of chlamydia, gonorrhea, and syphilis, particularly for those under 20, compared with other racial/ethnic groups. Recent evidence also suggests a greater chlamydia burden among low-income women, most of whom are African American or Latina, than is evident from routine surveillance data (Klausner et al 2001). Among persons seeking repeat HIV counseling and testing, prevalence of herpes was highest among African Americans (34.4%; Turner et al 2003). Moreover, among homosexual men who recently seroconverted, African American or Latino race/ethnicity, and having unprotected anal intercourse or gonorrhea were the best predictors of the seroconversion (Schwarcz et al 2002).

Women who have substance use issues, have STDs, or who do sex work also may be at high risk for HIV due to low perceptions of HIV risk and insufficient access to HIV prevention information.

### **What Are the HIV Prevention Priorities for African American People?**

#### **PRIORITIZED HIV PREVENTION APPROACHES**

HIV messages, services, and programs for African Americans may need to take a different approach than is used in other communities in which the high-risk populations are more aware of their risk. According to some Bayview community members (Harder+Company 2004c), HIV prevention for African Americans needs to reach the broader community in order to reach the “invisible” high-risk populations, such as heterosexually identified MSM and women whose male partners are on the down low. Examples of how this could be done is through social marketing and other community level interventions (see Chapter 5: Strategies and Interventions, pp. 210–221). Some HIV prevention messages should be aimed at particular groups, such as injection drug users. Above all, HIV prevention messages and services must be culturally appropriate, relevant, and integrated into other services, such as primary care, mental health, substance use, and STD services. Social and economic factors, which contribute to disparities in access to health services, should also be addressed. Community-level interventions involving collaborations with faith communities or community-based organizations are needed to address homophobia, transphobia, and denial about HIV and AIDS.

#### **PRIORITIES FOR FUTURE RESEARCH**

Future research needs include:

- More behavioral studies among African American MSM are needed, particularly among men who have sex with both men and women.
- Behavioral research among African American women who have not been traditionally perceived as high risk (i.e., heterosexual non-drug using females).
- More research on the reasons for disparities in HAART use among African Americans.
- More research on the motivators and barriers to preventive behaviors (e.g., safer sex, injection drug use, HIV testing) among African Americans.

## Asian and Pacific Islander People

### What Are the HIV Prevention Needs of Asian and Pacific Islander People?

#### EPIDEMIOLOGY

Much of what we know about HIV among Asian/Pacific Islanders (API) in San Francisco is based on (1) data on PLWA, (2) HIV prevalence data and estimates, and (3) HIV incidence estimates and indicators, including counseling and testing data. (In the future, HIV reporting data will also add to the picture.) Collectively, this data suggests that APIs are at low risk for HIV, similar to the national profile. The exception is API MSM. Although risk among API MSM in San Francisco has historically been lower than for MSM of other races, new local data on sexual risk behavior and STDs suggests that the risk may be increasing. High levels of risk behavior accompanied by low rates of HIV testing, high rates of substance use, and low perceptions of risk could lead to an increasing epidemic among API MSM (Operario 2003).

**Data on PLWA.** There are three important conclusions that can be drawn from this data (AIDS Surveillance Quarterly Report, June 2003):

- There are low numbers of API individuals living with AIDS (379 PLWA), representing approximately 4% of all PLWA.
- Among APIs living with AIDS, the vast majority (81%) are MSM or MSM who inject drugs.
- There are fewer APIs living with AIDS than would be expected, given that they are a large population in San Francisco (31% of the population, 4% of PLWA). This is true across all BRPs.

**HIV Prevalence Data and Estimates.** Overall, HIV prevalence is estimated at 0.3%, which is substantially lower than the citywide prevalence of 2.4% (SFDPH 2001a, data updated to June 2003). HIV prevalence among API MSM has been estimated at 24% (SFDPH 2001a), the lowest prevalence of any MSM population. Studies have found prevalences as low as 2.6% (Choi 2003) to 9% (Catania et al 2001) among API MSM. This prevalence data, in combination with recent incidence and behavioral data for API MSM (see next paragraph), supports prioritizing APIs for funding under BRP 1: MSM, MSM/F and BRP 3: MSM-IDU, MSM/F-IDU (see Chapter 4: Priority-Setting, pp. 142-143). In addition, HIV prevalence among MTFs is high (27% in one study; Clements-Nolle et al 2001), supporting prioritizing APIs for funding under BRP 2: TSM, TSM/F, TSF and BRP 6: TSM-IDU, TSM/F-IDU, TSF-IDU (see Chapter 4: Priority-Setting, pp. 142-143).

**HIV Incidence Estimates and Indicators.** Counseling and testing data suggests that new HIV infections among API remain lower than for other racial/ethnic groups (HIV/AIDS Statistics and Epidemiology Section, special data request, August 2003). Despite these encouraging signs of lower incidence and prevalence in the API community, new data on unprotected anal intercourse (UAI) and STDs among API gay men shows that their risk for HIV is increasing. In fact, between 1999 and 2002, UAI with multiple partners, UAI with multiple partners of unknown HIV serostatus, the incidence of male rectal gonorrhea, and the incidence of early syphilis among API MSM surpassed levels among white MSM (McFarland et al, in press). The possible reasons for low HIV incidence in the face of solid evidence of high-risk behavior among API MSM are discussed further in the following sections.

## BEHAVIOR

Unprotected sex with men among API MSM and injection drug use are primary behaviors that put APIs at risk for HIV. Among API women, the primary mode of HIV transmission is through heterosexual contact.

In one study among Asian drug users in San Francisco, Filipino drug users were found to engage in behaviors that placed them at greater risk for HIV compared with other API ethnic groups (e.g., injection drug use, having sex while on drugs, having sex with IDUs) (Nemoto et al 2000). In the same study, half of the IDUs interviewed cited trust as a reason for sharing needles. Non-IDUs, on the other hand, stated that fear of needles and stigma of injection drug use in the community were reasons for not injecting drugs (Nemoto et al 2000). In another study, frequent speed use among Filipino Americans in San Francisco was associated with HIV-related risk behaviors (e.g., drug use before or during sex, infrequent use of condoms, commercial sex work) (Nemoto et al 2002a). It should be noted that there are more studies among Filipinos in San Francisco than any other Asian ethnic group, so it is difficult to determine whether any other Asian ethnic groups are at elevated risk.

Young API MSM may also be a subgroup of MSM at high risk. High rates of unprotected anal sex among young API MSM have been found in two studies. In one recent study in San Francisco, 47% reported unprotected anal sex in the past six months (Choi 2003), while in another study done in Seattle and San Diego, 33% reported unprotected anal sex the past three months (Choi et al 2002).

## COFACTORS AND OTHER ISSUES

The API community is made up of diverse cultures and ethnic groups. The API community may face barriers that affect the prevalence of HIV infection in the community as a whole. These barriers include lack of access to health and social services, lack of HIV prevention information, and factors related to language, immigration, and acculturation (see also the section on Immigration and Language, pp. 122-126). Particular factors also exist within specific API ethnic and cultural groups that influence their health and HIV risk. For example, Filipinos living in the U.S. make up the largest reported cases of HIV among all APIs (Operario & Hall 2003). A study in San Francisco suggests that sexuality, sexual behavior, and HIV are extremely stigmatized within the larger Filipino community and that Catholicism underlies the tension among Filipino families regarding these topics (Operario & Hall 2003). These factors render the group more vulnerable to HIV.

API MSM engage in behaviors that put them at high risk for HIV. Some of the cofactors that affect risk behavior include the dual stigma stemming from homophobia and racism, discomfort with sexuality, and power dynamics and stereotypes that influence sexual partnerships with white men (Nemoto et al 2003a). Substance use and low utilization of health and social services are also factors (Nemoto et al 2003a). Another study conducted with young API MSM in non-San Francisco urban centers found that unprotected anal sex was associated with self-identifying as gay or bisexual, having multiple sexual partners or having sex with a steady partner, having been tested with HIV, and a lack of importance of safer sex practices among peer norms (Choi et al 2002).

Despite the influence of these cofactors, HIV incidence and prevalence among API MSM remain low compared with other racial/ethnic groups. A recent study by Choi et al (2003) suggests a possible explanation. It appears that high-risk behavior occurs with lower-risk partners (e.g., API partners) and lower levels of risk behavior occur with higher-risk partners (e.g., non-API partners). Within this context, partner age appears to be an important issue. Having a younger API partner was associated with unprotected insertive anal intercourse, and given that prevalence is higher among older API MSM, this could lead to increased HIV transmission from older to younger API MSM. HIV prevention efforts must therefore consider the characteristics of API MSM individuals' sexual partners when designing messages.

Low rates of HIV testing among API MSM have resulted in individuals being diagnosed at a later stage of HIV disease. Young, bisexually identified, more acculturated API MSM, as well as those with an STD history, were less likely to have ever been tested in the San Francisco Asian Counseling and Testing Study (Do 2003). A large proportion of API MSM in San Francisco may be unaware of their HIV status; nearly two thirds of the 13 API MSM found to be HIV-positive in this study were unaware that they were HIV-positive (Do 2003).

Sex work is another cofactor that may place some APIs at risk for HIV. In particular, Asian immigrant women working at massage parlors in San Francisco are at risk, although data is lacking on the ethnic backgrounds of these women. Although it is unknown exactly how many Asian women working at massage parlors engage in sex work, one San Francisco study among 100 masseuses found that difficult work conditions (i.e., multiple sex customers each workday, long working hours, physical and verbal abuse from customers) contributed to participants' HIV risk (Nemoto et al 2003b). In addition, inconsistent condom use for vaginal sex with customers was found to be associated with fatalism about the inevitability of unsafe sex with customers (Nemoto et al 2003b).

Immigration, often accompanied by low socioeconomic status and language barriers, also increases API individuals' vulnerability to HIV risks (see also the section on Immigration and Language, pp. 122-126). Researchers and health care providers report a growing need for translators and services for immigrants who speak indigenous Asian languages (Snyder et al 2000). Furthermore, there is a particularly low perception of risk for HIV in the API community. For example, among API MSM who reported unprotected anal intercourse in one study, 85% reported that they were unlikely to contract HIV and 95% reported that they were unlikely to transmit HIV (Choi et al 1995). Compounding this issue of low perception of risk are the cultural taboos surrounding sex, sexuality, and HIV, and the resulting lack of communication about sex that exists within many API communities. For example, findings from a study among Vietnamese American youth conducted in 1998 suggested that respondents were not comfortable discussing safe sex concerns with their sexual partners (Yi 1998).

## What are the HIV Prevention Priorities for Asian and Pacific Islander People?

### PRIORITIZED HIV PREVENTION APPROACHES

Linguistically accessible and culturally appropriate prevention interventions are needed in the API community, and they should be focused on the highest risk populations (i.e., MSM, Filipinos). In addition, interventions should take into account cultural differences that may exist among different API ethnic groups.

### PRIORITIES FOR FUTURE RESEARCH

More research is needed on:

- The effects of immigration and acculturation on HIV behavioral risk.
- How cultural factors specific to different API ethnic groups affect HIV risk behavior.

In addition, information on API ethnicity and language needs to be collected through surveillance and other HIV data collection processes in order to better understand HIV trends among different groups.

## Latino/Latina People

### What Are the HIV Prevention Needs of Latino/Latina People?

86

#### EPIDEMIOLOGY

Much of what we know about HIV among Latinos in San Francisco is based on (1) data on PLWA, (2) HIV prevalence data and estimates, and (3) HIV incidence estimates and indicators, including counseling and testing data. (In the future, HIV reporting data will also add to the picture.) This data suggests that Latinos in San Francisco are affected by HIV and AIDS at rates similar to national rates, and perhaps slightly less affected locally.

**Data on PLWA.** There are three important conclusions that can be drawn from this data (AIDS Surveillance Quarterly Report, June 2003):

- Among all people of color, the second highest number of PLWA are Latino (1,247), only slightly lower than the number of African American PLWA (1,365).
- The number of Latinos living with AIDS is about one fifth the number of whites living with AIDS (6,243 white PLWA compared with 1,247 Latino PLWA).
- The vast majority of Latinos living with AIDS are MSM and MSM who inject drugs (84%).
- The number of Latino individuals living with AIDS is approximately what would be expected given the size of the Latino population in San Francisco (14% of the population, 13% of PLWA). However, Latina MTF transgendered persons, Latino heterosexual men, and Latina women make up a greater proportion of PLWA than would be expected based on population size.

**HIV Prevalence Data and Estimates.** Overall, HIV prevalence is estimated at 2.4%, the same as the citywide prevalence (SFDPH 2001a, data updated to June 2003). Counseling and testing data suggests that Latino MSM have the highest HIV prevalence (5.8%) after African American MSM (SFDPH 2001b). Another study found a 19% HIV prevalence among Latino MSM (Catania et al 2001). Because HIV prevalence is higher than 8% among Latino MSM, Latinos are prioritized for funding under BRP 1: MSM, MSM/F and BRP 3: MSM-IDU, MSM/F-IDU (see Chapter 4: Priority-Setting, pp. 142-143). HIV prevalence is also high among Latina MTFs (29% in one study, Clements-Nolle et al 2001), which supports prioritizing them under BRP 2: TSM, TSM/F, TSF and BRP 6: TSM-IDU, TSM/F-IDU, TSF-IDU (see Chapter 4: Priority-Setting, pp. 142-143).

**HIV Incidence Estimates and Indicators.** Overall incidence among Latinos is not known. However, counseling and testing data from 2001 suggests that Latino MSM have the highest HIV incidence (3.5%) of all racial/ethnic groups (SFDPH 2001b). Further, among gay male STD patients, being Latino was a predictor of having recently been infected with HIV in one study (Schwarcz et al 2002). Finally, among Latino gay and bisexual male participants in a local HIV prevention program, those younger than 27 were more likely to engage in unprotected anal sex (Díaz et al 1998), indicating a need for monitoring incidence among Latino MSM youth.

## BEHAVIOR

There is little behavioral data specific to Latinos living in San Francisco. Most of the data that exists is relevant mostly to Latino men. For Latino men, the main behaviors that put them at risk for HIV are unprotected sex with men and injection drug use. According to local and national studies, Latino MSM and MSM/F have high rates of unprotected anal intercourse (Díaz et al 1996, Harder+Company 2001), possibly the highest of any racial ethnic group (40% to 52%; (SFDPH 1998a). Latino MSM who also have sex with women reported low rates of condom use with their female partners, for both vaginal and anal sex in one needs assessment (Harder+Company 2001), which could contribute to new infections among women. Finally, moderately high STD rates among Latinos indicate unprotected sex (see the section on STDs, pp. 115-117). Latino migrant laborers in particular have been shown to have some prevalence of STDs, although the prevalence is low: syphilis (0.4%), chlamydia (3.5%), and gonorrhea (0.5%) (Wong et al 2003).

For women, unprotected sex with men and injection drug use are the primary behavioral risks. Young Latina women (under 20) may be at risk for HIV through unprotected sex. The number of births to Latinas under 20 in San Francisco is higher than for any other race (in 2000, 222 births among Latinas compared with 33 among whites and 140 among African Americans; Child Trends Facts at a Glance, September 2002, <http://www.childtrends.org/PDF/FAAG2002.pdf>). However, this data must be interpreted with caution; it does not necessarily indicate higher sexual risk behaviors among young Latinas compared with other groups. It may indicate lower rates of pregnancy termination.

Promoting self-esteem, sexual health, and safer sex among Latinas can support them in making healthy decisions throughout their lives. Interventions that address broader sociocultural issues, such as economic disadvantage, language barriers, and strong cultural gender norms regarding sex may increase the necessary skills for Latina women to prevent HIV infection from their sexual partners (Gomez et al 1999).

No needle-sharing data focusing on Latinas was found.

## COFACTORS AND OTHER ISSUES

The Latino population in San Francisco is diverse. Some are U.S.-born, whereas others have immigrated here. Among immigrants, some have been in the U.S. for a long time, and others have been here for only a few months or years. Latino immigrants are also diverse in terms of country of origin and generation. Therefore, there is not one single HIV prevention approach that will work with all Latinos.

Despite this diversity, Latinos are affected by some common experiences that may increase their vulnerability to HIV, including cultural factors, immigration and acculturation, language barriers, attitudes toward condom use, discrimination, poverty, lack of access to health-related information, and substance use. The cofactors that have been researched the most among Latinos are described in the following paragraphs.

Certain cultural factors can influence HIV risk among Latinos, both negatively and positively, including sexual silence, familismo, and machismo (Galanti 2003, Gomez 1995, Gomez et al 2003, Marin 2003, Organista et al, under review). In many Latino communities, open discussion of sex and sexuality is not accepted. Such norms may inhibit the negotiation of condom use before sex, lest it be interpreted as a sign of infidelity (Hirsh et al 2002). Communication between parents and their children regarding sex and condoms may be affected by sexual silence as well. A study among Latinas showed low levels of communication about sex between mothers and daughters, low sexual comfort and knowledge about human sexuality, inaccurate perceptions of HIV risk, and poor HIV risk reduction skills (Gomez et al 2003). Machismo may also be associated with increased HIV risk, at both the individual and community levels. Latino MSM who adhere to or believe in traditional gender roles, of which machismo may be a part, may be less likely to acknowledge that they have sex with men, and they may even be in denial about their own behavior. In contrast to factors that increase HIV risk, familismo, which means being committed to the family, can be a great motivation for Latino men to have safe sex with a non-primary partner. On the other hand, for many Latino men whose primary partner is female but who are having sex with men, familismo might cause internal conflict and make them feel forced to lead a double life.

Immigration and acculturation also influence the degree to which Latinos are at risk for HIV. Acculturation, which in this case is the extent to which Latino immigrants have adopted the U.S./San Francisco culture, has also been shown to influence risk. However, the research is mixed as to whether acculturation increases HIV risk or protects against HIV (CAPS Fact Sheet 2002, “What are U.S. Latinos’ HIV Prevention Needs?”). In addition to the effects of acculturation, Latino immigrants face many challenges that affect HIV risk, such as poverty, lack of employment, and migrant labor conditions (Organista et al, under review). Further, non-citizen Latinos may encounter barriers to accessing and receiving health-related services, including HIV testing and other HIV prevention services due to fear of deportation, policies that require mandatory HIV testing for immigrants, and discrimination (CAPS Fact Sheet 2002, “What are U.S. Latinos’ HIV Prevention Needs?”). Some Latino immigrants may come here without their spouses or families. Feelings of loneliness and isolation, combined with poverty and lack of access to employment, can create situations where unsafe sex is likely to happen. For example, Latino male day laborers may have unprotected sex with female sex workers or may have sex with other men in exchange for money (Harder+Company, 2001, 2004a). Latino immigrants are also less likely to have access to HIV prevention services because of language or educational barriers; among Spanish speakers in San Francisco, only 50% reported English fluency during the 2000 U.S. Census.

Among Latinos, attitudes and beliefs about condom use may affect decisions about using them. In one needs assessment among Latino immigrant MSM, a common reason for not using condoms was that sex does not feel as good (Harder+Company 2001). Among Latino and Latina youth in Los Angeles, common reasons for why they did not use condoms at first intercourse included “don’t know,” “they weren’t available,” and “didn’t think about it” (Sneed et al 2001).

Finally, baseline data from a study among Latinos in the El Ambiente Program at AGUILAS (Díaz et al 1998) identified four main factors that predicted unprotected anal intercourse among Latino gay and bisexual men: (1) being younger than 27, (2) social cognitive level with respect to intentions to engage in safer sex, perceived self-efficacy, and perceived peer norms, (3) sex under the influence of drugs, and (4) frequency of sex with casual partners. These factors should all be taken into account in the design of HIV prevention programs and individual risk reduction plans.

All of these forces act together to create a complex set of circumstances, which put Latino individuals at increased risk for HIV. In working with specific Latino/Latina subpopulations, it is important to determine which are the most important needs for that group and develop programs that are responsive to those specific needs.

### **What Are the HIV Prevention Priorities for Latino/Latina People?**

#### **PRIORITIZED HIV PREVENTION APPROACHES**

As mentioned before, the Latino community is diverse and no one particular approach will work for all. However, programs that speak to Latinos in the context of their culture are the key to successful prevention with this group. Confidentiality is important in HIV prevention for all populations, and it is especially important with Latinos who may be engaging in behaviors that might not be accepted in their social circles.

#### **PRIORITIES FOR FUTURE RESEARCH**

Priorities for future research among Latinos include:

- More research with Latina women and their particular behavioral risks and cofactors.
- More research on the effects of immigration and acculturation on risk.

## Native American People

### What Are the HIV Prevention Needs of Native American People?

#### EPIDEMIOLOGY

Because the number of Native Americans living in San Francisco is so low, and because of multiple cofactors that prevent Native Americans from accessing the services from which we get most of our data, data on HIV among Native Americans is sparse and difficult to interpret at best. This is also true at the national level. Data on Native Americans living with AIDS is one of the most complete sources of data available, but it tells us little about trends in new HIV infections. Three important conclusions can be drawn from data on PLWA (AIDS Surveillance Quarterly Report, June 2003):

- Among people of all races/ethnicities, Native Americans have the lowest numbers of PLWA (55), one sixth the number of API PLWA, the group with the next highest number (379). The number of PLWA might be undercounted, due to misclassification of Native Americans into other racial groups (Thoroughman et al 2002, Vernon & Jumper-Thurman 2002) and other reasons.
- Even though the number of PLWA is small, Native Americans may be disproportionately impacted (0.3% of the population but 0.6% of PLWA).
- Native Americans living with AIDS are almost exclusively MSM, MSM who inject drugs, and heterosexual IDUs (96%).

90

**HIV Prevalence Data and Estimates.** HIV prevalence estimates are unreliable due to the small population size among Native Americans; therefore, the prevalence cannot be pinpointed exactly. It is estimated at between 2% and 9% for Native Americans overall (SFDPH 2001a, data updated to June 2003). One study found a 24% HIV prevalence among Native American MSM (Catania et al 2001). Another study found a 21% prevalence among Native American MTF persons (Clements-Nolle et al 2001). Therefore Native Americans are prioritized for funding under BRP 1: MSM, MSM/F; BRP 2: TSM, TSM/F, TSF; BRP 3: MSM-IDU, MSM/F-IDU; and BRP 6: TSM-IDU, TSM/F-IDU, TSF-IDU (see Chapter 4: Priority-Setting, pp. 142-143).

#### BEHAVIOR

Data on Native Americans living in San Francisco and their behavioral risks for HIV could not be found. The following studies were conducted in other locales, and may or may not apply to San Francisco populations.

Only since the early 1990s has there been any research done on Native Americans and HIV (CAPS Fact Sheet 2002, “What are American Indian/Alaskan Natives’ [AI/AN] HIV prevention needs?”). Because of this, there is lack of behavioral risk data for this population. Among Native American men, the main risk factors for HIV are sex with men and/or injection drug use.

For women, sex with men and injection drug use remains the primary modes of infection. Data suggests that Native American women may be at greater risk for HIV than men (Stevens et al 2000) or than women of other racial/ethnic groups (Diamond et al 2001).

Native American IDUs have higher-risk injection practices and seroconvert at the highest rates compared with other racial/ethnic groups, although the number of Native American IDUs is small (Alex Kral, personal communication, September 2003). This group needs particular attention in programs designed for IDUs.

#### COFACTORS AND OTHER ISSUES

Native Americans are profoundly affected by social and economic hardships that have been shown to be linked to HIV risk. Native Americans experience high rates of poverty, unemployment (Reynolds et al 2000), drug and alcohol use (Walters et al 2000, Walters et al 2002), STDs (Thoroughman et al 2002), and violence (Walters et al 2000). A number of studies have documented that drug and alcohol use (Baldwin et al 2000, Walters et al 2000), STDs (Diamond et al 2001), and violence (Hobfoll et al 2002, Walters et al 2000) are factors that are associated with increased HIV risk for Native American populations. This combination of cofactors might explain why American Indian/Alaskan Native (AI/AN) men were more likely to experience compounded risk in one study (Diamond et al 2001). In this study, AI/AN men were more likely to have the dual risks of sex with men and injection drug use than other risks.

Among Native American women, substance use may be one of the most important cofactors that puts them at risk for HIV. In a sample of Native American women living in New York, 30% reported alcohol use before having sex (Morrison-Beedy et al 2001). This same study also found that women who were deemed as at higher risk for HIV (i.e., did not consistently use condoms) felt less vulnerable to HIV and were less ready to change their behaviors compared to those perceived as lower risk.

The burden of high STD rates is also a factor in increasing HIV infection among Native Americans (Diamond et al 2001, Thoroughman et al 2002). STD rates may be under-reported for Native Americans due to misclassification of racial/ethnic category. For example, state Indian Health registry data identified chlamydia rates 32% higher and syphilis rates 27% higher among Native Americans in Oklahoma compared with state STD surveillance data (Thoroughman et al 2002). National data among youth enrolled in a federal training program showed that Native American students had the second highest rates of gonorrhea and chlamydia, after African Americans (Lifson et al 2001).

Other salient factors that may affect risk for HIV infection among Native Americans include low HIV/AIDS knowledge (Mitchell & Kaufman 2002, Morrison-Beedy et al 2001, Ramirez et al 2002), homophobia, denial (Young 1995), and mistrust of health care systems.

## What Are the HIV Prevention Priorities for Native American People?

### PRIORITIZED HIV PREVENTION APPROACHES

HIV interventions for Native Americans need to be culturally appropriate and focus not only on the behaviors that put them at risk, but also the larger social and cultural factors that impact risk. To promote the cultural relevance of interventions, key members of Native American communities should be directly involved in conducting outreach and intervention activities and disseminating information and messages (Baldwin et al 1999).

### PRIORITIES FOR FUTURE RESEARCH

Because there is so little data on Native Americans and HIV, we have a strategic opportunity to define the research agenda in the coming years. The following are the most immediate priorities:

- Improved collection of Native American racial/ethnic identity during HIV counseling and testing and AIDS case reporting.
- Research on the factors that put Native American IDUs at highest risk compared with other racial/ethnic groups.
- Research on what are the most effective HIV prevention strategies for working with Native Americans.

## White People

### What Are the HIV Prevention Needs of White People?

#### EPIDEMIOLOGY

Much of what we know about HIV among whites in San Francisco is based on (1) data on PLWA, (2) HIV prevalence data and estimates, and (3) HIV incidence estimates and indicators, including counseling and testing data. (In the future, HIV reporting data will also add to the picture.) Collectively, this data suggests that, unlike national trends, whites are disproportionately affected by HIV and AIDS in San Francisco, and this is largely attributable to HIV and AIDS among white gay men. Whites make up approximately 26% of all new infections nationally (CDC's A Glance at the Epidemic, <http://www.cdc.gov/nchstp/od/news/At-a-Glance.htm>). Although estimates of new HIV infections by race/ethnicity do not exist, local counseling and testing data suggests that the percentage of all new infections that occur among whites is higher than 26%, perhaps closer to one third to one half of all new infections (HIV/AIDS Statistics and Epidemiology Section, special data request, 2003).

**Data on PLWA.** There are five important conclusions that can be drawn from this data (AIDS Surveillance Quarterly Report, June 2003):

- In San Francisco the vast majority of HIV/AIDS cases are among whites (6,243 white PLWA making up 67% of all PLWA). Most white PLWA live in the Castro, the Tenderloin, Potrero Hill, and adjacent areas of the Mission and Western Addition.

- Whites are disproportionately impacted by AIDS compared with their numbers in the population, mostly due to the epidemic among white gay men (44% of the population and 67% of PLWA).
- The vast majority of white PLWA are MSM (80%) and MSM who inject drugs (12%). Most of these MSM identify as gay.
- The percentage of new AIDS diagnoses among whites has been decreasing slightly, with a corresponding increase in the percentage of new diagnoses among people of color (SFDPH 2001b). This is more likely due to differential access to HAART and not to differences in HIV incidence.

**HIV Prevalence Data and Estimates.** Overall, HIV prevalence is estimated at 3.0% to 3.7% higher than the citywide prevalence of 2.4% (SFDPH 2001a, data updated to June 2003). Most of the HIV prevalence among whites is attributable to the high prevalence among MSM and MSM who inject drugs.

- **White MSM:** HIV prevalence was 16% in one study (Catania et al 2001) and has been estimated at 26% overall (SFDPH 2001a).
- **White MSM youth aged 15 to 22:** HIV prevalence was 4.3% in one study (a lower prevalence compared with Latinos and African American youth; Katz et al 1998).
- **White MTF transgendered persons:** HIV prevalence was 22% in one study (Clements-Nolle et al 2001).
- **White male IDUs (MSM and non-MSM):** HIV prevalence was 15.8% in one study (Kral et al 2003). (The HIV prevalence is substantially higher among MSM compared with non-MSM.)
- **White female IDUs:** HIV prevalence was 3.9% in one study (Kral et al 2003).

**HIV Incidence Estimates and Indicators.** Overall, incidence among whites is not known. However, counseling and testing data from 2001 suggests that white MSM have moderate levels of HIV incidence (2.3%) (SFDPH 2001b).

Based on the data just presented, whites are prioritized for funding under BRP 1: MSM, MSM/F; BRP 2: TSM, TSM/F, TSF; BRP 3: MSM-IDU, MSM/F-IDU; and BRP 6: TSM-IDU, TSM/F-IDU, TSF-IDU (see Chapter 4: Priority-Setting, pp. 142-143).

#### BEHAVIOR, COFACTORS, AND OTHER ISSUES

It is challenging to identify the particular behavioral risks and cofactors of white individuals because most studies do not highlight this information. This is because, many times, white individuals are used as the “standard” against which everyone else is assessed. Because racism and classism affects how research samples are recruited and who is willing to participate in research studies, white individuals are represented in virtually all study samples and often represent the majority. Therefore, much of the data we do have about gay men, women, or other populations is really about white individuals, even if it is not explicitly highlighted in the findings. Many of the other populations described in this chapter (e.g., gay men, women, injection drug users) implicitly describe the needs of whites, so additional details are not given here except when there is a particular issue needing attention.

It is clear that the highest risk groups among whites are men who have sex with men, including those who inject drugs, and that sexual risk is the primary factor driving the risk in both groups (Edlin et al

2001, Kral et al 2001, SFDPH 2002a, Shafer et al 2002). Data from outreach surveys demonstrates increases in unprotected anal intercourse and multiple partners across MSM of all racial/ethnic groups (Chen et al 2003, SFDPH 2001b), including unprotected anal sex between HIV-positive and HIV-negative individuals. One study showed that among MSM living with HIV, older white men were more likely to report having had unprotected anal sex with a partner who was HIV-negative (Chen et al 2003).

White gay men have particular drug use patterns that may put them at higher risk for HIV. For example, speed users are more likely than cocaine users to be white, male, gay or bisexual, HIV-positive, and to share needles (Copeland & Sorenson 2001). A community survey among MSM showed that one significant predictor of Viagra use is being white (Chu et al 2003). Both of these drugs have been associated with increased HIV risk behaviors among gay men (see the section on Gay Men, pp. 50-55).

Finally, although whites overall are a socioeconomically advantaged group, not all white individuals have access to the social, health, and economic resources needed to protect against HIV. All of the cofactors that apply to marginalized populations also apply to some groups of whites, including poverty, incarceration, sex work, and many others. (See the Cofactors section, pp. 108-135).

### **What Are the HIV Prevention Priorities for White People?**

#### **PRIORITIZED HIV PREVENTION APPROACHES**

94

Attention to the prevention needs of whites in San Francisco means attention to the prevention needs of gay and bisexual men, both those who inject drugs and those who do not. For more information on the prevention needs of these groups, see the following sections: Gay Men, pp. 50-55; Bisexual Men, pp. 56-57; and Injection Drug Users, pp. 74-77.

#### **PRIORITIES FOR FUTURE RESEARCH**

There are no particular outstanding research needs for white populations, since whites generally represent a large proportion of the sample in HIV-related studies. The priority is instead to increase recruitment and retention of people of color in studies.

## Youth

### What Are the HIV Prevention Needs of Youth?

#### EPIDEMIOLOGY

Nationally, newly diagnosed HIV infections among youth have not been declining (CDC 2002b). The HIV epidemic among youth appears to be different in San Francisco, with only a handful of all the new infections diagnosed each year occurring among youth (HIV Statistics and Epidemiology Section, special data request, 2003). In San Francisco, HIV prevalence among youth is relatively low compared to other groups and appears to have declined since the early 1990s. There are several issues to keep in mind when thinking about the HIV risk of youth in San Francisco:

- **Not all youth are at risk.** Most youth at risk for HIV are MSM and MSM who inject drugs. Other marginalized populations of youth, such as homeless youth, are also at higher risk. For HIV prevalence among various youth populations, see Exhibit 9.
- **Older MSM youth have a higher HIV prevalence than younger MSM youth.** Recent prevalence data for MSM youth is presented in Exhibit 9.
- **HIV prevalence among MSM youth appears to have declined in the last 10 years.** Several studies indicated an HIV prevalence among MSM youth slightly over 8% among youth in the early 1990s (Lemp et al 1994) and slightly under 8% in the late 1990s (Katz et al 1998).
- **How youth are affected by HIV differs by race/ethnicity.** African American youth in most studies have a higher HIV prevalence than other racial/ethnic groups, followed by Latinos (MMWR 2001a, Valleroy et al 2000). For HIV prevalence among various youth populations, see Exhibit 9. Among 13- to 29-year-olds living with AIDS, who may have acquired HIV as youth, whites represent the majority of cases among men, but people of color represent the majority of cases among women and MTF persons (Exhibit 10).
- **HIV prevalence among youth is not a good indicator of their risk.** Individuals living with HIV in their twenties and some in their thirties likely acquired HIV when they were much younger. Data on 13- to 29-year-olds living with AIDS is presented in Exhibit 10 as an indicator of youth risk. In addition, young gay and bisexual men of all races have experienced increases in rates of unprotected anal intercourse (Ekstrand et al 1999), even though most new HIV infections occur among white gay men over 30.

Based on this information, individuals 29 and under are prioritized for funding under BRP 1: MSM, MSM/F; BRP 2: TSM, TSM/F, TSF; BRP 3: MSM-IDU, MSM/F-IDU; and BRP 6: TSM-IDU, TSM/F-IDU, TSF-IDU (see Chapter 4: Priority-Setting, pp. 142-143).

## EXHIBIT 9

### Prevalence Among MSM and IDU Youth, San Francisco

YOUTH POPULATION	PREVALENCE	SOURCE
MSM ages 15-17	2%	Waldo et al 2000
MSM ages 15-22	7.2%	Valleroy et al 2000
MSM ages 17-22	9.4%	Lemp et al 1994
	6.7%	Katz et al 1998
MSM ages 18-22	6.8%	Waldo et al 2000
MSM ages 18-29	18%	Osmond et al 1994
	9%	Catania et al 2001
MSM ages 22-33	10%	Catania et al 2001
Young African American MSM	21.2%	Lemp et al 1994
	16%	Valleroy et al 2000
	13.3%	Katz et al 1998
Young Latino MSM ages 15 to 22	5.6%	Katz et al 1998
Gay and bisexual male teens entering homeless youth centers (non-IDU)	52%	SFDPH 1998b
Gay and bisexual male teens entering homeless youth centers (IDU)	68%	SFDPH 1998b
Homeless MSM and MSM/F under 30	11%	Charlebois et al 2000
Young homeless gay and bisexual males	29%	Charlebois et al 2000
Homeless male IDU youth (only those who have sex exclusively with women)	25%	SFDPH 1998b
Young gay and bisexual street-recruited IDUs	15.6%	Shafer et al 2002

96

## EXHIBIT 10

### People Living with AIDS in San Francisco, Ages 20 – 29, by Race/Ethnicity and Gender, 2003

	AFRICAN AMERICAN		ASIAN/PACIFIC ISLANDER		LATINO		NATIVE AMERICAN		WHITE		TOTAL*	
Males	133	13%	53	5%	230	22%	12	1%	603	58%	1,034	87%
Females	32	31%	10	10%	23	22%	<5	<5%	38	37%	104	9%
MTF Persons	14	31%	6	13%	12	27%	-	-	13	29%	45	4%
<b>TOTAL</b>	<b>179</b>	<b>15%</b>	<b>69</b>	<b>6%</b>	<b>265</b>	<b>22%</b>	<b>17</b>	<b>1%</b>	<b>654</b>	<b>55%</b>	<b>1,183</b>	<b>100%</b>

Source: AIDS Surveillance Quarterly Report, June 2003.

\*Includes people with multiple or unknown race.

## BEHAVIOR

In the past decade, a body of research has emerged documenting high-risk behaviors among certain groups of youth in San Francisco, including high rates of sexual activity, initiation of sex at an early age, multiple sexual partners, and low condom use rates. Much of this research is focused on homeless or marginally housed youth. High risk factors among this population include high rates of injection drug use (Clements et al 1997, Gleghorn et al 1998), non-injection drug use (Martinez et al 1998, Moon et al 2001), polysubstance use (Clements et al 1997, Moon et al 2001), sexual coercion and abuse (Moon et al 2001), and unprotected sex (Clements et al 1997, Moon et al 2001).

Findings from some of the studies documenting these high-risk behaviors are as follows:

- Rates of unprotected anal sex among young gay and bisexual men ages 15 to 22 were 31.2% in one study (Waldo et al 2000).
- Thirty-seven percent of a population-based sample of young gay and bisexual men reported unprotected anal sex in the past year (Hays et al 1997). Among this group, 59% of the men knew they were HIV-positive, 35% perceived themselves to be negative, and 28% never tested.
- According to one study, many youth living in Bayview/Hunter's Point are sexually active (86%), have multiple partners (56%), have been pregnant or gotten someone pregnant (20%), have used marijuana before sex (40%), and many have had sex with high-risk partners (e.g., non-monogamous partners, partners with a history of STDs, partners who have been incarcerated) (Dolcini et al 2003).
- Among male and female street youth in a Northern California study, 60% of the sample had had vaginal sex in the past 30 days, but only 44% used a condom the last time they had sex (Clements et al 1997).

One of the questions frequently asked is whether young MSM or older MSM have higher sexual risk behaviors. Data from outreach surveys suggests that (1) high-risk sexual behaviors have increased in recent years among both younger and older MSM, and (2) because the rate of increase has been higher for younger MSM, rates of unprotected sex surpassed those of older MSM in 2001 (Chen et al 2003).

Risks related to drug use, both needle-sharing risk and sexual risks, may also be high among young injectors. Among male and female street youth in a Northern California study, 32% of the sample had ever injected (Clements et al 1997). Younger IDUs in another study were more likely to be white, be homeless, have injected amphetamines, have shared syringes in the past month, have overdosed in the past 15 months, and have had unprotected vaginal intercourse in the past 6 months (Kral et al 2000). Young females IDUs may be at higher risk than their male counterparts, as they were more likely to engage in needle borrowing, ancillary equipment sharing, be injected by someone else, report recent sexual intercourse, and have IDU sex partners (Evans et al 2003).

## COFACTORS AND OTHER ISSUES

The link between sexual risk behavior and drug use is particularly strong for youth. For example, among 15 to 22 year old gay and bisexual men, use of speed, ecstasy, and poppers was associated with unprotected anal intercourse (Waldo et al 2000). In addition, studies have found that young IDUs commonly have injection partners or sexual partners with whom they share needles and drug preparation equipment (Hahn et al 2002), particularly young female IDUs (Evans et al 2003). Frequent and heavy use of alcohol, as well as polydrug use, among young gay and bisexual men were shown to be associated with multiple sex partners and HIV seropositivity in one study (Greenwood et al 2001). For more on the link between drug use and unsafe sex, see the section on Gay Men, pp. 50-55).

Homelessness and being a runaway have a substantial impact on the types of risks youth engage in, and these groups have been studied more extensively than other at-risk youth. Data shows that homeless youth have high rates of injection drug use and having sex while under the influence of alcohol or drugs (Kral et al 1997, Kral et al 1998, Moon et al 2001) and needle sharing and reuse (Evans et al 2003). They are also exposed to sexual coercion and abuse, engage in survival sex, have multiple partners, use condoms inconsistently, and use speed and heroin (Anderson et al 1996, Clements et al 1997, Moon et al 2001). Similar to other populations, homeless youth also have lower rates of condom use with main partners compared to non-primary partners (Anderson et al 1996). Homeless youth who use heroin, speed, or cocaine appear to take more sexual risks than non-users, according to one study (Gleghorn et al 1998). Youth who reported that they could not go home had greater HIV risks than those who perceived that they could go home in another study (Moon et al 2001). Gay or bisexual homeless youth are a subpopulation at increased risk for HIV, as indicated by high HIV prevalence (Exhibit 9).

The presence of STDs indicates that youth are engaging in behavior that could put them at risk for HIV. African American youth, in particular, have six to eight times higher rates of chlamydia and gonorrhea than other racial/ethnic groups (SFDPH 2002b). Likewise, teen birth rates indicate that unsafe sex is occurring (see the section on Women, pp. 68-72).

Youth may also lack knowledge and skills that could help them protect themselves against HIV. For example, many youth are not aware that they are at risk for HIV. Young African American MSM reported not testing frequently for HIV and engaging in high-risk behavior because they perceived that they or their partners were at low risk for infection (Bingham et al 2002). In one study, homosexual and bisexual youth (both male and female) were found to lack the skills to practice safer sex and to have high levels of risk behavior (Rotheram-Borus et al 1999). In this same study, bisexual youth reporting low perceived risk had the highest risk behaviors, while heterosexual youth demonstrated the highest level of condom skills.

Finally, because youth are in a particular developmental stage, they are dealing with issues related to conforming to peer norms and forming their sexual identities. Several studies have documented how peer norms among youth influence their use of drugs or condoms (Choi et al 2002, Shafer & Boyer 1991, Waldo et al 2000). One study showed that self-acceptance of gay or bisexual identity was associated with lower rates of sexual risk behavior for adolescents (Waldo et al 2000).

## What Are the HIV Prevention Priorities for Youth?

### PRIORITIZED HIV PREVENTION APPROACHES

HIV prevention programs for youth should be integrated and interconnected to other services, such as substance use, mental health, STD testing and treatment, housing, educational development, job training, and needle exchange, given that youth at risk for HIV have multiple pressing and compelling needs. Programs should reach out not only to homeless or marginally housed youth, but also to other at risk youth who are engaging in high-risk behavior (e.g., African American youth living in Bayview Hunter's Point). Peer approaches are particularly important, and services provided to youth should be sensitive to their physical, developmental, and emotional needs.

It is important to remember that young people may not yet have adopted identities or behaviors that would put them into a traditional risk category. However, even non-sexually active and non-drug-using youth could potentially be at risk sometime in the future, especially those who may be dealing with issues around sexual identity. There is a continued need for HIV prevention that reaches youth, regardless of how they might currently identify or what current behaviors they report, with the goal of reaching the youth who could potentially become high-risk in the future. Therefore, programs reaching youth may need to be directed at a broader segment of youth in order to reach high-risk or potentially high-risk youth. Funding should be flexible to allow this.

### PRIORITIES FOR FUTURE RESEARCH AMONG YOUTH

There are populations of youth among whom STD rates are high but HIV incidence is not (e.g., African American heterosexual youth). More research is needed to understand the protective factors and how HIV prevention can contribute to keeping the rates of new infections low.

## Bayview/Hunter's Point

### What Are the HIV Prevention Needs in Bayview/Hunter's Point?

#### EPIDEMIOLOGY

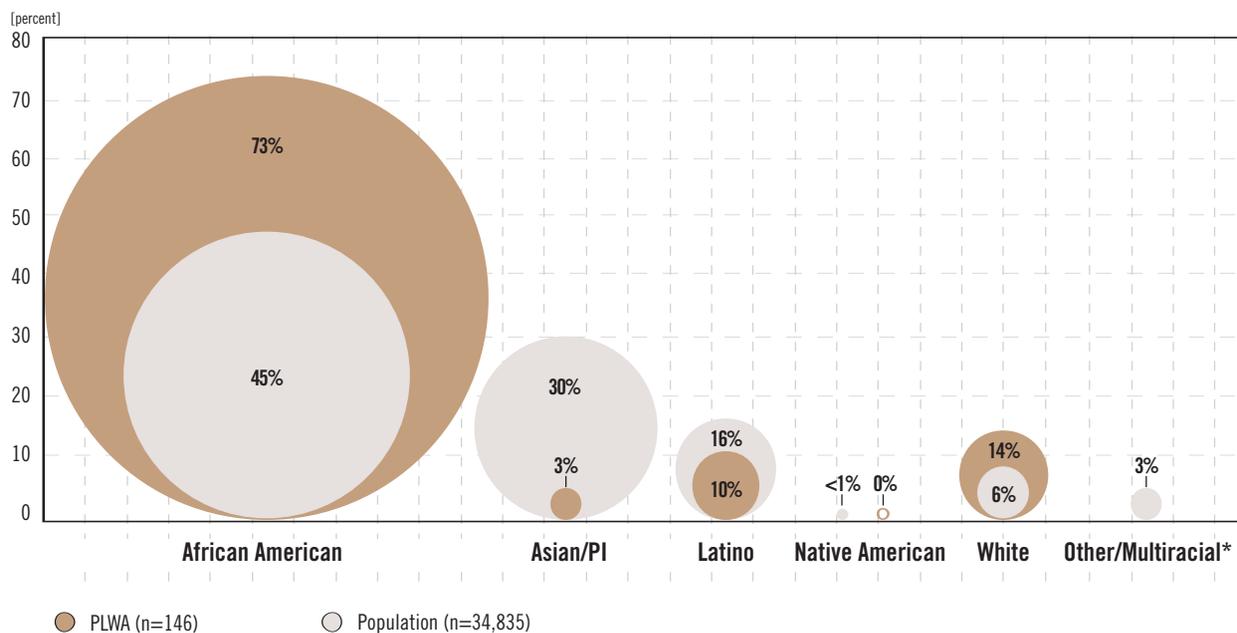
Although neighborhood-level HIV prevalence and incidence data does not exist, HIV counseling and testing data suggests that new infections are occurring in Bayview/Hunter's Point, particularly among MSM (HIV/AIDS Statistics and Epidemiology Section, special data request, 2003). Data on PLWA demonstrates that African Americans living in this neighborhood are disproportionately affected. Less than half the population in Bayview is African American (45%) but nearly three quarters (73%) PLWA in Bayview are African American (Exhibit 11). Overall, however, less than 2% of PLWA in San Francisco live in Bayview/Hunter's Point.

Although a high percentage of Bayview residents are young people under 30 years old, compared with other neighborhoods, the percentage of youth living with AIDS is not higher or lower than in other neighborhoods. This does not mean that Bayview youth are not at risk; however, there is little formal data

documenting the level of HIV risk among this population. Among Bayview youth, young African American MSM are the group at highest risk (see the sections on Youth, pp. 95-99, and African Americans, pp. 77-82).

## EXHIBIT 11

### Bayview/Hunter's Point Neighborhood Population (2000) and People Living with AIDS (2003) by Race/Ethnicity



Source: U.S. Census Bureau, Census 2000, and HIV/AIDS Statistics and Epidemiology Section, special data request, 2003.  
 Note: PLWA included in this data lived in the Bayview at the time of their AIDS diagnosis and may not necessarily live there now.  
 \*Data on PLWA not available for bi/multiracial individuals.

#### BEHAVIOR

Behavioral data is not usually collected at the neighborhood level. However, it can be inferred from data on PLWA and community evidence that the primary behavioral risk groups in Bayview/Hunter's Point are MSM, MSM who inject drugs, and heterosexual men and women who inject drugs. Behavioral data on these populations is provided elsewhere in this chapter (see sections on Gay Men, pp. 50-55; Heterosexually Identified MSM, pp. 58-61; Women, pp. 68-72; Injection Drug Users, pp. 74-77; and African Americans, pp. 77-82). Compared with other neighborhoods, however, MSM and MSM who inject drugs make up a smaller proportion of PLWA (55%), and other IDUs make up a greater proportion (42%) (HIV/AIDS Statistics and Epidemiology Section, special data request, 2003).

#### COFACTORS AND OTHER ISSUES

Bayview/Hunter's Point occupies the southeastern stretch of San Francisco's Bay front and is a lower-income, primarily African American (46%) community, although a substantial portion of the population identifies as Asian/Pacific Islander (30%). Due to racism and other factors, the Bayview community has long endured the consequences of lack of economic opportunities, environmental problems, violence,

drug use, health issues, incarceration, and many other social problems. HIV is only one concern among many. In Bayview/Hunter's Point, there is a strong sense of community. Local institutions (e.g., the church), community-based health and social services (e.g., substance use treatment, health care), and advocacy organizations (e.g., environmental groups) all work to address the root causes and the effects of the multiple issues the community faces.

Despite the diversity of services available, HIV prevention does not appear to have a strong presence in this neighborhood. To explore this hypothesis and to assess unmet HIV prevention needs, the HPPC prioritized assessments in two neighborhoods: Bayview/Hunter's Point and the Tenderloin. These two neighborhoods were selected because of community evidence that existing services may not appropriately meet the HIV prevention needs of residents. The assessments were called SCANS (systems capacity assessments by neighborhood). The Bayview/Hunter's Point SCAN was conducted in 2003 and included focus groups with Bayview/Hunter's Point residents, meetings with service providers, interviews with key community leaders, and a review of existing service data (Harder+Company 2004c). Future SCANS will focus on other neighborhoods.

Through interviews and meetings with service providers, the main issues related to HIV risk in Bayview were identified. Many of these concerns were echoed by community members in focus groups and at a community forum where the SCAN results were presented. The main issues are:

- **Other more urgent concerns.** Environmental issues, violence, health issues such as diabetes and asthma, poverty, homelessness and many other issues may be higher priority than HIV and AIDS, although they are not unrelated. In order to put HIV and AIDS on people's "radar screens," community education is needed.
- **Incarceration.** New HIV infections are occurring in jails and prisons, where African Americans are over-represented. Although HIV prevention education is provided in the jails and prisons, distribution of condoms is not allowed. When men are released from jail or prison, there is a risk of transmission to their female partners if they became infected while incarcerated. Linkages to health and other services for HIV-positive individuals need to be strengthened so that they can be transitioned into services post-release.
- **Men on the down low.** Heterosexual men may be on the down low and having sex with other men without their female partners' knowledge. They fear coming out as gay or bisexual because of community reaction and stigma. There is a need for community education to reduce the stigma surrounding homosexuality and HIV, including education of faith leaders.
- **STDs.** High STD prevalence and incidence (primarily chlamydia but also gonorrhea) among young women and men indicate behavior among youth that puts them at risk for HIV.
- **Lack of community-wide HIV prevention.** The existing HIV prevention efforts in the Bayview are aimed at specific high-risk groups (e.g., youth at risk for STDs). However, individuals at risk for HIV in this neighborhood may not identify with traditional risk groups. There is a need for community-wide HIV prevention messages for all groups, because this is the only way to reach "invisible" populations, such as men on the down low.
- **Need for health and social services.** Existing HIV prevention and other services are insufficient to meet the needs of Bayview residents. Although substantial resources have been invested in primary care, mental health, and substance use programs, unmet needs remain. More or improved services are needed in the following areas: anonymous HIV counseling and testing, mental health, post-release

programs, substance use treatment, housing assistance, services that address the needs of triply diagnosed clients (mental health, substance use, HIV) either on site or through referral, and transgender-specific services through referral (few MTFs live in Bayview, thus the absence of transgender-specific services). Lack of resources and services in the local community means residents often have to travel to other places in the city for services. In addition, there is a need for increased communication and coordination among service providers in Bayview/Hunter's Point.

- **Multiple barriers to accessing services.** A number of barriers exist that prevent Bayview residents from accessing services, even if they are available. For example, the stigma related to having a mental health issue is a barrier to accessing treatment. The perception or the reality that clients are not eligible to receive certain services (e.g., based on income criteria) is another barrier. Unmet substance use, mental health, and housing needs among HIV-positive clients lead to missed appointments and reduced medication adherence. There is a lack of trust of the medical system among some in the community due to historical factors (e.g., Tuskegee syphilis experiments), which can also prevent individuals from seeking needed services.
- **Lack of funding.** Recent funding cuts and changes in funding have left in their wake gaps in services that need to be addressed. Capacity-building for organizations to obtain and maintain funding for neighborhood-based services is needed.

Focus groups and a review of existing services led to the following main conclusions from the SCAN:

- There are some gaps in HIV knowledge among Bayview residents (e.g., some believe HIV is transmitted by saliva).
- Although many community members know of health care or community-based resources in Bayview or elsewhere in the city where they could get information about HIV, few reported that HIV prevention had ever come to them. Community members noted a particular lack of outreach and media campaigns in the neighborhood.
- Few HIV prevention services exist in the neighborhood and they have limited scope. The main types of services available as of 2003 are:
  - HIV counseling and testing
  - Periodic community educational events (e.g., health fairs, some of which are HIV-specific)
  - Needle exchange
  - STD/HIV prevention for youth
  - Informal prevention with positives programs
- Bayview community members want neighborhood-based services that provide information, education, and opportunities for dialogue about HIV and AIDS.
- HIV prevention services should be integrated into existing services (e.g., primary care, substance use treatment), not stand-alone HIV services. There are numerous opportunities for this in the Bayview, as there are many community-based organizations that have access to and trust among the community. These agencies could develop the capacity to conduct HIV prevention, even if they have never done it before.
- Other higher priority health and social issues must be addressed in order for HIV prevention to have more than a limited impact.

## What Are the HIV Prevention Priorities for Bayview/Hunter's Point?

### PRIORITIZED HIV PREVENTION APPROACHES

The priority for HIV prevention in Bayview/Hunter's Point is to “get the word out” through getting a community-wide dialogue started and providing basic education. Two interventions that community members identified as high priority for accomplishing this goal are outreach and social marketing. Capacity-building and technical assistance for neighborhood-based agencies interested in doing this work are needed, to ensure that a solid foundation for continued HIV prevention is built in Bayview/Hunter's Point. This will involve efforts to prepare and educate Bayview service providers to be able to respond to any upcoming HIV prevention requests for proposals (RFPs).

Specific priorities for the Bayview community as identified by Bayview residents and others at an HIV prevention community forum in September 2003 include:

- Increase the number of counseling and testing sites.
- Increase the presence of outreach in all Bayview/Hunter's Point neighborhoods.
- Conduct outreach and education with local businesses.
- Increase programs for incarcerated and recently released people and their partners.
- Increase HIV prevention education in schools.
- Incorporate HIV and STD prevention into substance abuse programs.
- Involve faith communities in HIV prevention.
- Create culturally appropriate social marketing campaigns.
- Find effective ways to reach non-gay identified MSM.
- Promote communication about sexuality.
- Include more community input into research design and implementation.
- Bring more health and social services to Bayview/Hunter's Point.
- Encourage and support community involvement and membership in HIV policy groups (i.e., HPPC and the CARE Council).

Additional priorities identified by Bayview residents at a community forum sponsored by the CARE Council include:

- Youth services (e.g., education, health promotion, outreach, mental health)
- Senior services (e.g., health education)
- Community education on vaccines and HIV and AIDS myths
- Substance use and mental health treatment on demand
- Shelter services
- Treatment advocacy services for HIV-positive people

### PRIORITIES FOR FUTURE RESEARCH

A comprehensive needs assessment that covers a host of health issues is needed. This needs assessment could inform how best to integrate HIV prevention into the service environment.

## Tenderloin

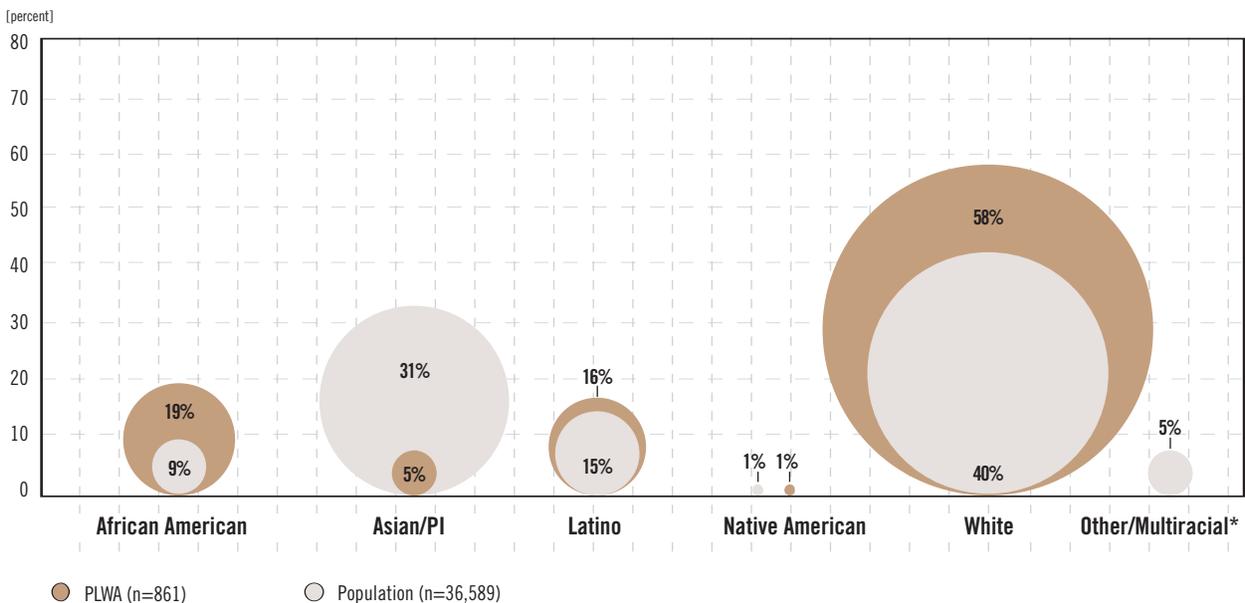
### What Are the HIV Prevention Needs in the Tenderloin?

#### EPIDEMIOLOGY

Although neighborhood-level HIV prevalence and incidence data does not exist, HIV counseling and testing data suggests that new infections may be occurring among Tenderloin residents, particularly MSM, at a higher rate than many other neighborhoods (HIV/AIDS Statistics and Epidemiology Section, special data request, 2003). Data on PLWA also supports the conclusion that this neighborhood has been highly impacted by HIV. For example, AIDS cases among MTF transgendered persons are concentrated in the Tenderloin, where many of San Francisco's MTF individuals live and work. Nearly one tenth of PLWA in San Francisco were diagnosed with AIDS while living in the Tenderloin. This data also suggests that African American and white individuals are disproportionately affected in this neighborhood (Exhibit 12).

#### EXHIBIT 12

### Tenderloin/Civic Center Neighborhood Population (2000) and People Living with AIDS (2003) by Race/Ethnicity



Source: U.S. Census Bureau, Census 2000, and HIV/AIDS Statistics and Epidemiology Section, special data request, 2003.

Note: PLWA included in this data lived in the Tenderloin at the time of their AIDS diagnosis and may not necessarily live there now.

\*Data on PLWA not available for bi/multiracial individuals.

## BEHAVIOR

It can be inferred from data on PLWA and community evidence that the primary risk groups in the Tenderloin are MSM, MSM who inject drugs, MTF transgendered persons, and IDU populations other than MSM. Behavioral data on these populations is provided elsewhere in this chapter (see sections on Gay Men, pp. 50-55; Heterosexually Identified MSM, pp. 58-61; Male-to-Female Transgendered Persons, pp. 62-64; and Injection Drug Users pp. 74-77).

## COFACTORS AND OTHER ISSUES

The Tenderloin neighborhood, situated just west of downtown San Francisco and the Financial District, is an impoverished community that is home to many disadvantaged and marginalized populations. A substantial proportion of San Francisco's MTF transgendered persons, Native Americans, sex workers, homeless individuals, individuals who are at risk for incarceration or have been recently released from jail or prison, and people living in poverty reside in this neighborhood. As such, many of the cofactors that apply to marginalized and underserved populations apply (see the section on Cofactors, pp. 108-135).

Of all San Francisco neighborhoods, the Tenderloin has perhaps the richest mix of health and social service resources, ranging from food pantries to peer support groups to needle exchange. A substantial amount of resources is allocated for HIV prevention in this neighborhood as well. Despite the diversity of services available, unmet HIV prevention needs remain. In 2002, the HPPC prioritized assessments in two neighborhoods: Bayview/Hunter's Point and the Tenderloin. These two neighborhoods were selected because of community evidence that existing services may not appropriately meet the HIV prevention needs of residents. The assessments were called SCANS (systems capacity assessments by neighborhood). The Tenderloin SCAN was conducted in 2003 and included focus groups with Tenderloin residents, interviews with HIV prevention providers, and a review of existing service data (Harder+Company 2004d). Future SCANS will focus on other neighborhoods.

The main conclusions from the SCAN were as follows:

- There is a strong HIV prevention presence in the Tenderloin.
- There appears to be little HIV prevention service duplication. Although the Tenderloin may appear to be over-served in terms of HIV prevention, in reality HIV prevention providers offer distinct services to sometimes similar populations.
- Linkages and coordination between HIV prevention and other health and social services (e.g., substance use, mental health) are there but are not utilized to full effect. For example, some HIV prevention providers refer their clients to other services but do not follow up to make sure the client received the service, due to lack of resources for follow-up. In addition, referrals are based on personal relationships with other providers, whose offices may be across town, and thus referrals are not always as convenient as they could be for the client.
- High-risk populations in the Tenderloin have the knowledge and skills to prevent HIV infection, due to the strong and consistent presence of HIV prevention outreach and other interventions in this neighborhood. For HIV prevention to be effective, a greater focus is needed on the root causes of HIV and AIDS in this neighborhood, including lack of affordable housing, poverty, drug use, mental health, incarceration, and others.

## What Are the HIV Prevention Priorities for the Tenderloin?

### PRIORITIZED HIV PREVENTION APPROACHES

HIV prevention in the Tenderloin needs to expand beyond knowledge- and skills-based interventions. A broader approach is needed that includes (1) improved linkages to services, and (2) policy and structural interventions directed at changing the availability and accessibility of services for meeting basic health and social needs. In order to continue to strengthen the neighborhood service system, improved coordination is needed among HIV prevention providers in the Tenderloin, particularly in the areas of outreach and counseling and testing.

At a community forum in the Tenderloin where the results of the SCAN were presented, community members also identified the following specific priorities for HIV prevention:

- Provide Tenderloin-based culturally appropriate speed treatment and mental health services for gay men and other MSM.
- Provide incentives for collaboration, partnerships, and coordination among HIV prevention providers.
- Examine and replicate other relevant models of collaboration and coordination (e.g., integrated services model used in HIV/AIDS care).
- Ensure the availability of peer-delivered services and that peer educators are perceived as true peers by the population.
- Implement innovative outreach programs (e.g., street theater, musicals).
- Provide professional/paraprofessional street and community based outreach and counseling.
- Emphasize a harm reduction model that meets people “where they’re at.”
- Ensure that services are delivered at times and in locations that are convenient for consumers (i.e., bring the services to the consumers instead of bringing the consumers to the services).
- Improve mental health/substance use linkages and coordination.
- Offer acupuncture and other health promotion services on a drop-in basis.

### PRIORITIES FOR FUTURE RESEARCH

More information is needed as to how HIV prevention can best meet the broader needs of the Tenderloin community – for example, which strategies and interventions are most effective and what kinds of referral systems and processes need to be in place.

## Non-San Franciscans and New San Franciscans

Non-San Franciscans at risk for HIV include two main groups: (1) individuals who live outside San Francisco but come here for work or fun, and (2) individuals who have just moved to the city from elsewhere in the U.S. or another country. There is virtually no formal data on either of these populations, except for immigrants (see the section on Immigration, pp. 122-126).

Anecdotally, individuals come to San Francisco from all over the Bay Area and the country to hang out with friends, party, get high, and have sex. Mobility of populations in general – both due to changing residence and traveling (e.g., for business, circuit parties) – has implications for HIV transmission and

affects epidemics all over the country. HIV risk is of particular concern among gay men and other MSM who come to the city for recreation. Gay men from other locales may be attracted to San Francisco because of the strong gay community here and thus may engage in risk behaviors, even if there are different norms in their home communities. These men might only be reached by HIV prevention when it is done at certain times and places – e.g., during late night hours, at bars or clubs. Other MSM who do not identify as gay may come to the city for sex with men (Harder+Company 2004a) or MTF transgendered persons (Coan et al, in press). Such opportunities are readily accessible here in a way they are not in other Bay Area cities, and these men may feel safer engaging in such secretive behaviors outside of their hometowns because they are more likely to remain anonymous.

Newcomers to San Francisco are another group of concern. Both immigrants and those coming from other areas in the country, especially gay men and other MSM, are not yet accustomed to the unique culture of San Francisco. The norms and values that newcomers bring with them from their hometowns might act as protective factors against HIV, or they might put them at greater risk in sexual or drug use situations.

HIV prevention programs must consider that, regardless of the population they are trying to reach, they will likely encounter non-San Francisco residents or individuals who have just moved here. Addressing their prevention needs is important because of the potential for the spread of HIV within and outside of San Francisco. A regional focus on HIV prevention is also needed and requires Bay Area-wide coordination of HIV prevention, especially between East Bay cities (e.g., Oakland, Berkeley) and San Francisco.

## Introduction

Cofactors, along with primary risks such as sharing needles and having unprotected sex, are critical considerations in HIV prevention planning and implementation. There are two ways in which a cofactor can increase susceptibility to HIV infection: (1) the cofactor motivates or increases the likelihood of engaging in a risk behavior (e.g., low self-esteem, sex work); or (2) the cofactor increases the likelihood of contracting HIV if exposed (e.g., presence of an STD).

Individuals are complex beings with many internal and external circumstances that affect them. Individuals and communities may be affected by multiple cofactors at the same time. In fact, cofactors such as poverty, discrimination, and substance use are interrelated and tend to occur in clusters. The roots of many of these cofactors are policy-related and structural. For example, the lack of affordable housing is directly linked to homelessness, sex work, and substance use, all of which affect HIV risk. While it is important to address these cofactors at the individual level when doing HIV prevention, the policy and environmental causes of the cofactors must also be targeted.

It should be noted that although there are a number of cofactors presented here, many of them have their roots in one issue – poverty and income disparities (see pp. 129–131). Health and disease are not equally distributed in society, and public health studies have documented a greater burden of morbidity and mortality among low-income communities across a wide range of health issues. Homelessness, incarceration, sex work, and a multitude of other issues that affect HIV risk have their roots in poverty. Elimination of poverty would go a long way toward stopping the HIV epidemic, both locally and nationally. It should be acknowledged that, in San Francisco, eradicating poverty may not stop the HIV epidemic altogether. Middle and upper income individuals in San Francisco are also at risk for HIV and experience many of the same cofactors as people living in poverty, including substance use and mental health issues.

The cofactors presented in this section are not exhaustive. Providers are encouraged to determine if additional cofactors are relevant for the specific populations they are trying to reach. HIV prevention programs must have an approach to addressing the cofactors relevant to their consumers, either within the program or through linkages and referrals to appropriate services.

## Substance Use

### Why Is Substance Use an Important Cofactor?

Using alcohol or drugs during sex may affect a person's ability to make decisions about condom use or when to have sex. Similarly, decisions about using clean needles can be impaired while a person is high. Long-term substance use may alter immune functioning, so that exposure to HIV may be more likely to lead to infection. Those who are dually diagnosed with both mental health and substance use issues may be at even greater risk for acquiring or transmitting HIV; for example, in one study, dually diagnosed individuals were more likely to have shared needles, have had sex in exchange for money or gifts, and have had sex with an injection drug user, than those with a substance abuse diagnosis alone (Dausey & Desai 2003).

The relationship between substance use and sexual risk behavior has been documented in many studies throughout the U.S. and in San Francisco. HIV risk among MSM has been clearly linked with recreational drug use in multiple studies (see the section on Gay Men, pp. 50-55). In San Francisco, as well as nationally, lesbian, gay, and bisexual women and men, as well as transgendered individuals, appear to use alcohol and other drugs more often, in greater amounts, and in combination more frequently than the general population, which may affect HIV risk. Substance use also affects heterosexual men and women and adolescents in San Francisco, particularly homeless and runaway adolescents. (See also HPPC 2001, p. 95.)

### Drugs That Affect HIV Risk

- **Poppers.** The alkyl nitrites (amyl, butyl, iso-propyl), or poppers, are colorless or yellow liquids with an acrid odor that, when inhaled, cause a fall in blood pressure, an increase in heart rate, muscle relaxation, among other effects. Use of poppers also leads to euphoria that can reduce inhibitions, increase sexual drive, and intensify the sensations of orgasm (Anonymous 1999). In study after study, the use of poppers has been strongly associated with HIV risk behavior (e.g., unprotected anal sex with casual partners) and seropositivity among MSM (see the section on Gay Men, pp. 50-55). Poppers use is also associated with immune suppression (James 1999). (See also HPPC 2001, p. 95.)
- **Methamphetamine.** Also called meth, speed, crystal, crank, fire, glass, or ice, this stimulant can be injected, snorted, smoked, or swallowed. It produces effects such as prolonged energy, feelings of euphoria, increased self-confidence, and hypersexuality and is often used in club or party environments. Prolonged use can cause heart problems, damage to the brain, irritability, hypothermia, aggressiveness, paranoia, anxiety, and hallucinations (Swanson & Cooper 2002). The association between speed use and high-risk sexual behaviors has been well-documented, particularly among gay men (see the section on Gay Men, pp. 50-55), as well as high-risk injection practices and commercial sex activity (Nemoto et al 2002a). In addition, a new stronger and more powerful form of methamphetamine called “Ya Ba,” which allows users to stay awake for longer periods, is becoming popular among California’s underground club goers, particularly in Southeast Asian communities (Associated Press 2002). (See also HPPC 2001, pp. 95-96.)
- **Crack cocaine.** Crack is a smoke-able and highly addictive form of cocaine. Crack use has been associated with HIV-positive status and high-risk behaviors, such as not using condoms, having sex while under the influence of drugs or alcohol, commercial sex work, exchanging sex for money, crack, or other drugs, and having multiple partners. In addition, crack has physical effects that may increase HIV risk, such as inhibition of ejaculation, which may lengthen the sex act and thus increase skin abrasions that could lead to HIV transmission; sores on and around the mouth that could facilitate oral transmission; and impaired immune systems among frequent crack users. African Americans are disproportionately affected by crack use. (See also HPPC 2001, p. 96.)
- **Heroin.** Heroin, which can be smoked, sniffed, or injected, causes users to feel an intense surge of pleasure, usually accompanied by warm flushing of the skin and dry mouth. Heroin is a very effective pain killer as well. Heroin users are at risk for life-threatening overdoses when it is injected (Ochoa et al 2001). Use of “speedballs” (combinations of heroin and cocaine or speed) has been associated with HIV infection (Kral et al 1998). The primary HIV risk associated with heroin is the sharing of needles, as opposed to sexual risk, because heroin can inhibit erections in men and lubrication in women and can reduce sex drive overall.

- **Ecstasy.** Ecstasy (methylenedioxymethamphetamine, or MDMA) also known on the street as X, E, Adam, or Hug Drug, is an amphetamine with stimulant and hallucinogenic properties. It reduces inhibition and leads to feelings of empathy for others and deep relaxation. Ecstasy in particular has been shown to be associated with unprotected sex among MSM (Klitzman et al 2002). Frequently, ecstasy is combined with other drugs, such as ketamine, cocaine, speed, and Viagra to produce countering effects. Prolonged usage of ecstasy may cause memory impairments, depression, and anxiety (Swanson & Cooper 2002).
- **Viagra.** Viagra is often used in combination with other recreational drugs, including ecstasy, to prolong sexual pleasure. In extending the period of time a man can maintain an erection, Viagra allows men to have sex longer, and potentially with more than one partner, which can lead to increased opportunities for HIV transmission. Like other recreational drugs, it has been shown to be associated with high-risk sex with partners who are HIV-positive or of unknown serostatus (Kim et al 2002). Viagra use has also been associated with HIV seropositivity and higher numbers of sexual partners (Kim et al 2002).
- **Other recreational drugs.** Other recreational drugs, such as hallucinogens, gamma-hydroxybutyrate (GHB), and ketamine (Special K) appear to be very popular among gay men during circuit party weekends, raves, and in public sex environments, such as bathhouses and public cruising areas. They have been shown to be associated with increased high-risk sexual practices, especially among gay and bisexual men (see the section on Gay Men, pp. 50-55).
- **Hormones.** Nationally, sharing needles while injecting hormones to increase male or female secondary sexual characteristics has been shown to be a risk behavior among transgendered populations. However, the availability of hormone needles at needle exchange sites in San Francisco accounts for low rates of needle sharing among MTF hormone users locally (Clements-Nolle et al 2001). (See also HPPC 2001, p. 96.)
- **Steroids.** HIV risk behaviors documented among anabolic-androgenic steroid users include needle sharing, sharing of multi-dose vials, and dividing drugs using unsterile syringes (Midgley et al 2000). HIV infections are not as common among steroid users as other IDUs, but some studies have shown that high-risk behaviors do occur among steroid users (Rich et al 1999). (See also HPPC 2001, p. 96-97.)

### Drugs With Unclear Links to HIV Risk

- **Alcohol.** The connection between alcohol and HIV risk is less certain than the connection between speed, poppers, or other recreational drugs and HIV risk. Several studies have found a link between alcohol and sexual risk behavior, but other studies have not found an association between alcohol use (general alcohol use and alcohol use during sex) and high-risk behavior or HIV infection. Alcohol use is of particular concern among adolescents, among whom it has been associated with lower rates of condom use and higher rates of STDs. Alcohol use can affect people of all demographic groups, but in one national survey, Latinos had higher rates of alcohol use than other ethnic groups, and alcohol use was associated with having multiple partners among African Americans (Caetano & Hines 1995). Woods et al (2000) found a 5% HIV prevalence among heterosexual men and women in alcoholism treatment, which is higher than the prevalence in the general population. However, a history of injection drug use was the primary risk factor among the HIV-positive individuals. (See also HPPC 2001, p. 96.)

- **Marijuana.** Marijuana, also called pot or weed, is usually smoked but can be eaten. No link between marijuana use and high-risk behaviors has been documented. Although one study found that gay men who seroconverted were more likely to have used marijuana than others, they were also more likely to have used poppers and speed, which have strong associations with HIV risk (Chesney et al 1998). MSM may be more likely to use marijuana weekly than heterosexual men (Woody et al 2001), and methadone users are more likely than non-users to use pot (Lollis et al 2000).

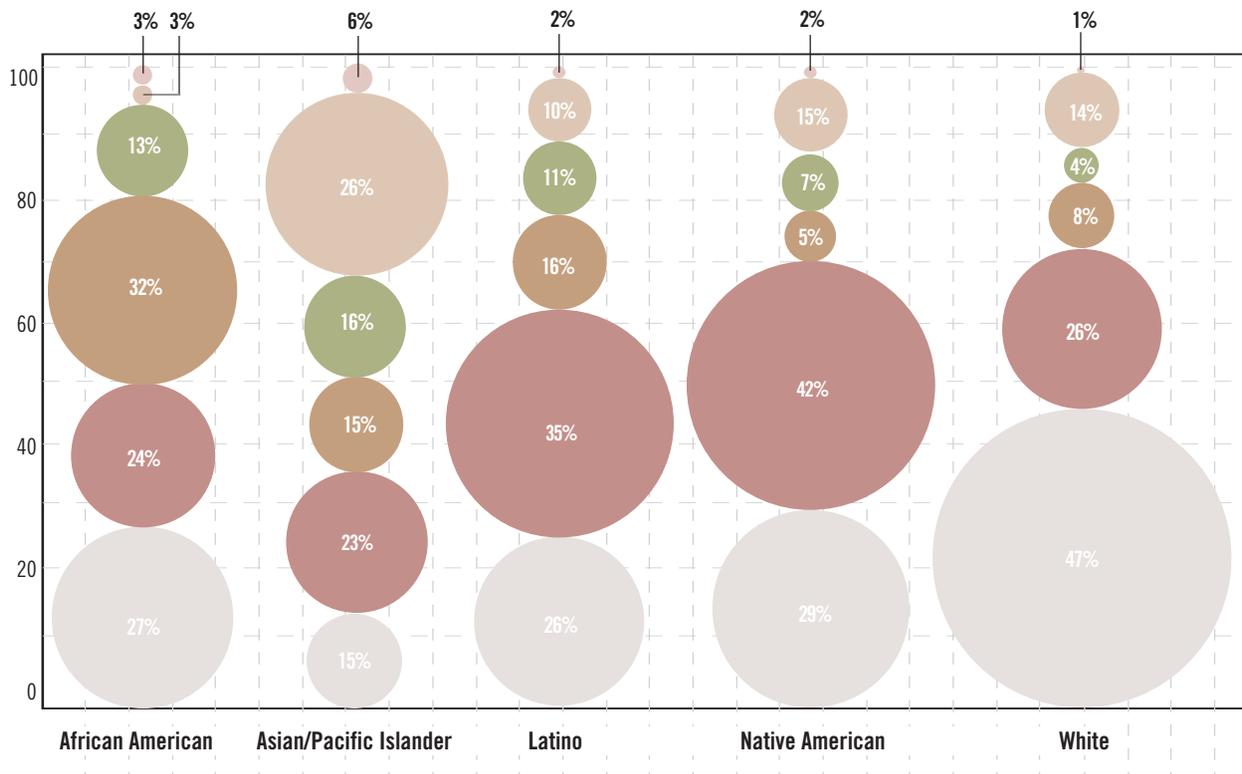
### Who Is Affected By Substance Use in San Francisco?

Substance use affects people of all races, ages, and genders. Recreational drug use among gay men and other MSM affects HIV risk and is discussed elsewhere (see the section on Gay Men, pp. 50-55.) Community-wide data on rates of substance use is lacking, but data on people accessing treatment exists. This data suggests that some populations are disproportionately affected by substance use, including men, African Americans, and Native Americans. Latinos are also slightly over-represented among those in drug treatment. These racial/ethnic groups may be even more profoundly affected than treatment data would suggest, because these groups might experience barriers to accessing treatment and thus would not be represented in this data (see the section on Access to Services, pp. 131-133).

Overall, heroin and alcohol are the drugs for which the largest number of people are in treatment. However, the primary drug addiction for which individuals are receiving treatment differs by race/ethnicity (Exhibit 13). African Americans have the highest rates of treatment for cocaine use (32%), Asians have the highest rates of treatment for speed use (26%), and whites have the highest rates of treatment for heroin use (47%). Differences among populations in the type of drug used should be taken into account when designing prevention programs and building linkages to appropriate services.

## EXHIBIT 13

### Primary Drug Use Issue Upon Admission to Publicly Funded Substance Use Treatment by Race/Ethnicity, San Francisco, July 2002 – June 2003



112

○ Heroin    ● Alcohol    ● Cocaine    ● Marijuana    ● Speed    ● Other

Source: Community Substance Abuse Services, special data request, October 2003.

Note: Includes only Community Substance Abuse Services clients receiving the following services: outpatient, residential/residential detox, outpatient methadone detox, outpatient methadone maintenance, and day treatment.

## Mental Health

### Why Is Mental Health an Important Cofactor?

Mental health stressors may be episodic or chronic conditions, including anxiety, depression, schizophrenia, and bipolar disorder. Stresses on mental health functioning influence thought and decision-making processes, can hinder physical functioning, and can increase risk for HIV infection. Making decisions to engage in high-risk sexual or drug use behaviors may be made on an unconscious level for people who experience low-self esteem, anxiety, depression, sexual abuse, or post-traumatic stress disorder. In one study, gay and bisexual men with multiple psychosocial health problems were more likely to report high-risk sex or to be HIV positive (Stall et al 2002), illustrating the link between mental health and HIV risk. Therefore, it is critical to address mental health issues in the context of HIV prevention.

Overall, HIV risk may be elevated among individuals with certain psychological disorders (e.g., poor impulse control), the chronically mentally ill, those with a history of childhood sexual abuse, and others. In San Francisco, mental health issues affect people from all racial/ethnic backgrounds and socioeconomic status. However, people with few financial and social resources may experience more serious consequences from having a mental health issue, including homelessness and poverty, which are also linked to HIV risk.

## Mental Health Issues That Affect HIV Risk

- **Depression and low self-esteem.** Depression and low self-esteem have been shown to be associated with high-risk behavior among several groups, such as substance users and those who experience poverty, homelessness, discrimination, marginalization, and grief or loss. Because individuals from disenfranchised communities, such as IDUs, gay/bisexual/transgendered individuals, homeless persons, and racial/ethnic minority communities, experience many of these circumstances, they may be more likely to have depression or low self-esteem. The link between depression, low self-esteem, and HIV risk has been particularly well-documented among transgendered populations and MSM (Paul et al 2002). (See also HPPC 2001, pp. 94-95.)
- **Social support.** Social support and social networks can affect a person's health-related and risk-taking behavior, either positively or negatively. Social support has been highly correlated with self-esteem, another HIV-related cofactor. In terms of social support's effect on HIV risk, it is tentatively suggested that the issue is less social support per se and more the norms of the support network. Those support networks that emphasize healthy behaviors are more likely to help people reduce their risk for HIV. (See also HPPC 2001, pp. 93-94.)
- **History of childhood sexual abuse.** A history of childhood sexual abuse has been associated with being HIV-positive and with greater HIV risk behavior later in life. The ways in which such abuse may be linked to increased risk of acquiring HIV are: (1) transmission may occur during the unwanted sexual act; (2) a history of sexual abuse may be related to subsequent HIV risk behaviors or cofactors, such as substance abuse, injection drug use, needle sharing, commercial sex work, unprotected sex, multiple sex partners, and mental health issues; and (3) a history of sexual abuse may impede a person's ability to respond to HIV prevention education and engage in HIV preventive behaviors. Several studies have documented higher levels of risk behavior among MSM, women, and non-MSM with a history of childhood sexual abuse. Urban MSM may be more frequently affected than other groups, according to a recent study (Greenwood et al 2002). Recent studies have also documented HIV risk behavior among HIV-positive MSM (O'Leary et al 2003) and youth (Elze et al 2001) with histories of childhood sexual abuse. (See also HPPC 2001, pp. 92-93.)
- **History of abusive relationships.** A history of childhood sexual abuse, described in the previous paragraph, may predispose involvement in adult abusive relationships (either physically or sexually abusive), and these abusive relationships themselves also may affect HIV risk behavior. The ways in which having a history of abusive relationships may be linked to increased risk of acquiring HIV are: (1) transmission may occur during abusive sexual acts; and (2) a history of abusive relationships may be related to subsequent HIV risk behaviors or cofactors, such as homelessness among women, inability to negotiate condom use or safer sex, and learned helplessness. Groups that may be particularly affected by abusive relationships include those with a history of childhood sexual abuse, alcoholic women, and incarcerated men and women. (See also HPPC 2001, pp. 92-93)
- **Rape.** Rape is any sexual assault or forced sexual encounter regardless of the type of contact or relationship to perpetrator. HIV transmission may occur during the rape, but this risk is probably low. However, the rape survivor may experience post-traumatic stress, depression, and feelings of powerlessness, which can all contribute to a decreased sense of self-efficacy, which in turn could affect the survivor's ability to engage in HIV self-protective measures after the assault. For example, women who have experienced rape are more likely to have exchanged sex for money or drugs, have had a

greater number of sex partners, and have had more unprotected sex (Parillo et al 2001). While anyone may be a potential target for rape, women, homeless women, commercial sex workers, substance users (especially crack), incarcerated men, and men appearing vulnerable are more likely to be targeted. (See also HPPC 2001, p. 93.)

### Who Is Affected by Mental Health Issues in San Francisco?

Mental health issues affect people of all racial/ethnic backgrounds and socioeconomic statuses. Comprehensive data on the prevalence of specific mental health issues among various San Francisco populations does not exist. Available data on mental health includes demographics of those in treatment with county service providers, although this data is not necessarily reflective of the true distribution of mental health issues since different populations have different levels of access to treatment and some may be in private treatment. Nevertheless, this data offers a tentative picture of who is affected by mental health issues in San Francisco.

Exhibit 14 shows the distribution of those in publicly funded treatment facilities (inpatient and outpatient) by race/ethnicity. African Americans are disproportionately represented among those in treatment. In addition, men represent a greater percentage of those in treatment compared with women (55% vs. 44%). Although English is the preferred language for most individuals in treatment (71%), there is also a need for services in other languages including Spanish, Asian languages, and Russian. Further, nearly half of individuals in treatment did not report any formal education (45%), and only about one fifth reported completing high school (22%). At least 16% are homeless or marginally housed, and this does not include individuals living in institutional settings (e.g., hospital, jail, treatment centers). Half of non-retirees in treatment (53%) are unemployed or have never been in the labor force at all.

## EXHIBIT 14

### Number of Individuals Receiving Publicly Funded Mental Health Services by Race/Ethnicity, San Francisco, July 2002 – June 2003

RACE/ETHNICITY	NUMBER	PERCENT
African American	5,230	23%
Asian/Pacific Islander	4,859	21%
Latino	3,099	14%
Native American	214	< 1%
White	7,772	34%
Multiracial	50	< 1%
Other/Unknown	1,663	7%
<b>TOTAL</b>	<b>22,887</b>	<b>100%</b>

Source: Community Mental Health Services, special data request, 2003.

## Sexually Transmitted Diseases

### Why Are STDs an Important Cofactor?

The presence of an STD other than HIV, such as gonorrhea, rectal gonorrhea, syphilis, chlamydia, or hepatitis B or C may indicate risk for HIV infection because they are transmitted in the same way (e.g., via sex or, in the case of hepatitis B and C, needle sharing). Further, STDs, especially ulcerative STDs such as syphilis, herpes, or chlamydia, may lead to increased biological risk for acquiring or transmitting HIV. For example, syphilis lesions can increase risk of HIV transmission by two to five times, and having herpes was associated with 1.8 times increased risk for HIV among MSM (Renzi et al 2003). One study found 4% HIV seropositivity among urban STD patients, 40% of whom did not know their serostatus prior to the study, (Weinstock et al 2002), indicating a need for as well as opportunities for HIV prevention among this population.

STD screening and treatment also offer key opportunities for HIV prevention, since those at risk for STDs are also at risk for HIV. Overall, greater integration of HIV and STD detection and treatment services is needed. When doing HIV prevention, other STDs should also be discussed and appropriate tests offered and provided, and vice versa.

### Who Is Affected by STDs in San Francisco?

All sexually active individuals are at risk for STDs in San Francisco, but some populations are more severely affected, including gay and bisexual men, people of color (particularly African Americans), women (for certain STDs), and youth under 25 (Exhibits 15-17). Recent increases in STDs among MSM in San Francisco, such as rectal gonorrhea and syphilis, are markers of increases in high-risk sexual behaviors that could lead to HIV infection. (It should be noted that some of this increased risk behavior may be between same serostatus individuals.) Among African Americans, young African American women in particular have high rates of chlamydia, an issue that was addressed through SFDPH's Chlamydia Elimination Project. However, corresponding increases in HIV infection have not been documented among African American women. This may be because there actually are low rates of HIV infection among this group, or because African Americans may be less likely to get tested than other groups.

## EXHIBIT 15

### Gonorrhea Rates per 100,000 Population, San Francisco, July 2002 – June 2003

	AFRICAN AMERICAN		ASIAN/PACIFIC ISLANDER		LATINO		NATIVE AMERICAN		WHITE	
	<25	25+	<25	25+	<25	25+	<25	25+	<25	25+
Males	652	786	51	94	177	414	154*	0	299	509
Females	983	171	29	14	71	33	381*	0	66	18

Source: STD Prevention and Control, special data request, 2003.

Note: Includes rectal gonorrhea cases, explaining the higher rates for males in most racial/ethnic groups. STD rates for transgendered persons cannot be included due to lack of data on population size and inconsistent reporting of transgender identity.

\*Rates based on less than five cases.

## EXHIBIT 16

### Early Syphilis Rates per 100,000 Population, San Francisco, July 2002 – June 2003

	AFRICAN AMERICAN		ASIAN/PACIFIC ISLANDER		LATINO		NATIVE AMERICAN		WHITE	
	<25	25+	<25	25+	<25	25+	<25	25+	<25	25+
Males	20	156	0	49	48	230	0	0	44	234
Females	0	18	3*	0	27	15	0	64*	0	0

Source: STD Prevention and Control, special data request, 2003.

Note: STD rates for transgendered persons cannot be included due to lack of data on population size and inconsistent reporting of transgender identity.

\*Rates based on less than five cases.

## EXHIBIT 17

### Chlamydia Rates per 100,000 Population, San Francisco, July 2002 – June 2003

	AFRICAN AMERICAN		ASIAN/PACIFIC ISLANDER		LATINO		NATIVE AMERICAN		WHITE	
	<25	25+	<25	25+	<25	25+	<25	25+	<25	25+
Males	1865	685	119	133	487	393	189*	566	216	330
Females	3430	388	400	137	987	305	1715	256*	412	49

Source: STD Prevention and Control, special data request, 2003.

Note: STD rates for transgendered persons cannot be included due to lack of data on population size and inconsistent reporting of transgender identity.

\*Rates based on less than five cases.

Hepatitis B and C are also of concern. Hepatitis B is transmitted in the same way as HIV, while Hepatitis C is transmitted usually only via blood-to-blood contact (e.g., sharing needles). Hepatitis C is rarely transmitted sexually, but it is discussed here under the STD section along with Hepatitis B. Data on Hepatitis B and C is presented in Exhibit 18. Because the race/ethnicity data collected is incomplete, it is difficult to say who is most affected by chronic hepatitis in San Francisco. However, acute Hepatitis B data is more complete and suggests that whites and African Americans are disproportionately affected, as are gay and bisexual individuals (SFDPH Community Health Epidemiology and Disease Control Section, <http://www.medepi.org/aragon/grant/index.html>).

The data suggests that for acute hepatitis B and chronic hepatitis C, males are more affected than females. This is probably true for acute hepatitis B, due to the large proportion of MSM who are affected. However, the apparent gender disparity in chronic hepatitis C rates may reflect a bias in testing and not a true gender disparity. Recent increases in hepatitis C testing in the jails, in which there is a high-risk male population, may be the reason for the higher rates among men.

## EXHIBIT 18

### Cumulative Number of Chronic and Acute Hepatitis B and C Infections, San Francisco, 1995 – 1999

	CHRONIC HEPATITIS B		ACUTE HEPATITIS B		CHRONIC HEPATITIS C		ACUTE HEPATITIS C	
	n	%	n	%	n	%	n	%
Males	4,779	58%	229	81%	5,002	70%	NA	NA
Females	3,447	41%	54	19%	1,941	27%	NA	NA
Gender Unknown	92	1%	0	0%	258	3%	NA	NA
<b>TOTAL</b>	<b>8,318</b>	<b>100%</b>	<b>283</b>	<b>100%</b>	<b>7,201</b>	<b>100%</b>	<b>NA</b>	<b>NA</b>

Source: SFDPH Community Health Epidemiology and Disease Control Section, <http://www.medept.org/aragon/grant/index.html>.

Note: Chronic hepatitis cases are among individuals who always carry the virus in their body and will likely go on to develop liver disease. Acute hepatitis cases are among individuals who "clear" the virus from their body after becoming infected. Individuals in both categories can transmit the virus, but acute cases are no longer infectious once they have "cleared" the virus.

STD prevalence data among people living with AIDS (PLWA) is presented in Exhibit 19. This data is important because (1) it indicates unprotected sex among PLWA, which can transmit HIV, and (2) some STDs increase the risk of transmitting HIV. In short, the increasing prevalence of STDs among PLWA has implications for HIV incidence.

## EXHIBIT 19

### STD Prevalence Among People Living with AIDS, San Francisco, 1995 – 2001

YEAR	NUMBER OF PLWA WITH STDs	STD PREVALENCE AMONG PLWA
2001	185	2.02%
2000	180	2.00%
1999	115	1.46%
1998	113	1.32%
1997	74	0.89%
1996	60	0.70%
1995	60	0.66%

Source: SFDPH 2002a.

## Incarceration

### Why Is Incarceration an Important Cofactor?

Incarceration and other forms of institutional living create unique conditions that may increase the risk of contracting or transmitting HIV. During incarceration, the two primary issues affecting HIV risk are unprotected sexual activity among inmates and sharing of needles to inject drugs. Regarding sexual behavior, the restriction of sexual activity among inmates and the lack of availability of condoms contribute to situational unprotected sex between men, although the men may not identify as gay or bisexual. San Francisco has been a leader in providing access to condoms at correctional facilities. However, despite the fact that condom distribution is permitted in San Francisco jails (one of six jails in the country that permits this), an open condom package and used condoms are considered contraband. Further, having sex in jail is a felony. The occurrence of rape in jail or prison settings also increases the HIV risk. Regarding needle sharing, prison policies restrict access to clean syringes, making it difficult for prisoners who inject drugs to use clean needles consistently (HPPC 2001, pp.100-101). Needle-sharing risks apply to tattoo needles as well as needles used to inject drugs. Because half of San Quentin State Prison inmates reported a lifetime history of injection drug use according to one study (Zack et al 2001), this issue is particularly important in San Francisco.

The effects of incarceration on HIV risk continue to be present even after individuals are released. In San Francisco, individuals move frequently between the criminal justice system and their communities. (For instance, San Quentin houses about 6,000 men whose average stay in prison is less than two years.) In this manner, the otherwise closed pool of infection within the correctional system may open to those in outside communities. For example, men who become HIV-infected during incarceration, perhaps through behaviors that they may not have engaged in if they were not incarcerated, may transmit HIV to their female partners after release. In one study, most San Quentin State Prison male participants reported that they returned to a committed female partner and had unprotected sex with her immediately after release (Grinstead et al 1999).

Individuals who are incarcerated also tend to be affected by many other cofactors in their lives outside of jail or prison that affect their risk for HIV. Individuals at risk for incarceration include substance users, people with mental health issues, homeless persons, and people living in poverty. This may partly explain why HIV prevalence and incidence are higher among inmates than the general population. MSM and MSM-IDU are the groups most affected by HIV in incarcerative settings (Exhibit 20).

While incarcerative settings are important places to reach people at risk for HIV, it can be challenging to conduct HIV prevention in these settings. HIV prevention providers must deal with the effects of correctional facility policies regarding the availability of condoms and clean syringes. In addition, providers may face barriers while implementing individual and group education programs during and after incarceration (e.g., limited inmate movement, lack of buy-in among facility staff, inability to obtain access to inmates due to lock downs or other factors, stigmatization of sex with men in an all-male environment), even though these are critical HIV prevention strategies (Zack et al 2001). Therefore, the HPPC recognizes that the administrative costs of conducting HIV prevention programs in correctional settings may be higher than for prevention in other settings due to these types of challenges.

## EXHIBIT 20

### HIV Prevalence and Incidence Among the County Jail Population, San Francisco, June 1999 – July 2001

YEAR	HIV PREVALENCE	HIV INCIDENCE PER YEAR
MSM	20.0%	8.8%
MSM-IDU	25.0%	7.1%
Non-MSM Male IDU	5.1%	1.0%
Female IDU	4.6%	2.7%
Heterosexual Male	1.3%	0.6%
Heterosexual Female	1.8%	0.4%

Source: SFDPH 2001b.

### Who Is Incarcerated in San Francisco?

Arrest rates often reflect local socioeconomic conditions, including income, job availability, and housing costs. Both adult and juvenile arrest rates declined in San Francisco between 1996 and 2000. It is possible that the recent economic downturn has caused an increase in arrests since 2000, but the data is not yet available. Arrest rates in San Francisco remain higher than those for the state overall.

Men and people of color are over-represented among the incarcerated population (Exhibit 21). African Americans in particular are highly impacted by incarceration, which indicates a need to consider this cofactor in prevention programs designed for African Americans.

119

## EXHIBIT 21

### Race/Ethnicity of Incarcerated Individuals, San Francisco

RACE/ETHNICITY	SAN QUENTIN PRISON*		SAN FRANCISCO COUNTY JAILS†		JUVENILE PROBATION‡	
	n	%	n	%	n	%
African American	2,225	39%	-	50%	2,392	49%
Latino	1,210	21%	-	25-30%	771	16%
Native American	-	-	-	-	40	<1%
White	1,946	34%	-	} 20-25%	659	14%
Asian/Pacific Islander	-	-	-		809	17%
Other/Unknown	396	7%	-		201	4%
<b>TOTAL</b>	<b>5,777</b>	<b>100%</b>	-	<b>100%</b>	<b>4,872</b>	<b>100%</b>

\*Population as of December 31, 2002. Data includes both San Francisco and non-San Francisco residents. Source: California Department of Corrections, special data request, September 2003.

†Estimates (actual data not available). Source: San Francisco Sheriff's Department, special data request, October 2003.

‡As of 1999. Source: City and County of San Francisco, <http://sfgov.org>.

## Homelessness

### Why Is Homelessness an Important Cofactor?

Homeless individuals may experience similar yet more dire situations compared to those living in poverty since they are living in a more extreme form of poverty. Homeless people often experience multiple cofactors that intensify their risk for HIV infection. Impaired mental health status, higher rates of substance use, dual diagnosis with mental health and substance use issues, exposure to physical and sexual violence, survival sex, repeated contacts with the criminal justice system, poverty, and lack of access to prevention messages and services are some of the relevant risk factors for this population. Further, in one study, 69% of homeless adults reported one or more HIV risk behaviors, including unprotected sex with multiple partners, injection drug use, sex with an IDU partner, and unprotected survival sex (St. Lawrence & Brasfield 1995).

The HIV prevalence among homeless persons in San Francisco is higher than that for the general population (Exhibit 22). Further, the percentage of people who were homeless at the time of AIDS diagnosis increased from 3% in 1992 to 14% in 2001 and has since leveled off. Homeless people diagnosed with AIDS during this period were more likely to be women, non-white, IDUs, and younger compared with non-homeless people diagnosed with AIDS (SFPDPH 2001b). In 1997, there were more than 3,400 homeless people living with HIV (San Francisco AIDS Foundation 1997). HIV-positive homeless individuals have particular needs. For example, homeless people are more likely to delay initiation of HAART after AIDS diagnosis, according to one study (Hsu et al 2001), and those who have been living in the street or shelter for more than a year are less likely to receive HAART at all (Riley et al 2002).

The cofactor of homelessness needs to be addressed as necessary. This means that providers serving the homeless can incorporate HIV prevention into their programs, or that HIV prevention providers can address homelessness through linkages with programs that provide housing, food, clothing, a place to shower, and other services for homeless individuals. Policy interventions designed to reduce homelessness and its health impacts are also needed. Delivering HIV prevention services to homeless persons can be especially challenging because establishing trust and consistent contact are hindered by constant moving around (CAPS Fact Sheet 1996, “What are homeless people’s HIV prevention needs?”). Therefore, HIV prevention programs must include components designed to keep homeless persons connected to the service system.

## EXHIBIT 22

### Summary of HIV Prevalence Studies Among Homeless People in San Francisco

SAN FRANCISCO POPULATION	PREVALENCE	SOURCE
<b>HOMELESS YOUTH</b>		
Gay and bisexual male teens entering homeless youth centers (non-IDU)	5.2 %	SFDPH 1998b
Gay and bisexual male teens entering homeless youth centers (IDU)	6.8 %	SFDPH 1998b
Homeless MSM and MSM/F under 30	1.1 %	Charlebois et al 2000
Young homeless gay and bisexual males	2.9 %	Charlebois et al 2000
Homeless male IDU youth (only those who have sex exclusively with women)	2.5 %	SFDPH 1998b
<b>HOMELESS ADULTS</b>		
Homeless adult MSM	2.4 %	SFDPH 1997
Marginally housed adult MSM	4.1 %	SFDPH 1997
Homeless MSM-IDU	3.1 %	SFDPH 1997
Homeless male IDU (only those who have sex exclusively with women)	6 %	SFDPH 1997
Homeless adults	9 %	Zolcpa et al 1994

#### Who Is Affected by Homelessness in San Francisco?

121

The Mayor's Office on Homelessness defines "homeless" to include individuals or families who lack a fixed, regular and adequate nighttime residence, and who have a primary nighttime residence in one or more of the following categories: shelter, street, vehicle, makeshifts, double-up, and transitional in order to annually assess the number of homeless in the city. This also includes those residing in treatment facilities and/or hospitals, those in the jail system, accessing resources and drop-in centers, and on wait list for shelter.

As of October 2002, data from the Mayor's Office on Homelessness indicates that there are 8,640 homeless people in San Francisco, an increase of 18% since 2001 (Exhibit 23). The majority of homeless persons are men (57%), and most live on the street (53%), an increase of 43% since 2001. The highest numbers of homeless persons are in the Tenderloin, South of Market, and Bayview/Hunter's Point neighborhoods. Data also shows a 25% increase in people living in shelters or transitional housing and a 71% increase in treatment programs. (Mayor's Office on Homelessness 2002 Count, [http://www.ci.sf.ca.us/site/homeless\\_index.asp](http://www.ci.sf.ca.us/site/homeless_index.asp)).

The needs of homeless individuals may shift in the coming years due to local policy changes. In November 2002, San Francisco voters passed Proposition N, known as the "Care Not Cash Initiative," which directs the Department of Human Services to offer single homeless adult clients of the County Adult Assistance Program (CAAP) housing and meals instead of the usual cash aid (\$59/month). As of 2003, this policy has not been implemented due to questions about whether it is the purview of the voters to make such policy. Such policies could lead to increases in HIV transmission through their impact on cofactors such as homelessness, income and poverty, incarceration and sex work. HIV prevention providers need to keep a close eye on the development of policies related to homelessness in order to be able to meet the needs of homeless populations they serve.

## EXHIBIT 23

### Living Situations of Homeless People in San Francisco, October 2002

PLACE LIVING CURRENTLY	ADULTS			YOUTH	UNKNOWN	TOTAL	
	Men	Women	Transgender			n	%
On the Street	2,449	790	81	-	1,215	4,535	52.5%
Shelters (including wait-listed)	1,284	641	0	383	0	2,308	26.7%
Resource & Drop-In Centers	280	48	3	0	0	331	3.8%
Transitional Housing	31	98	1	71	0	201	2.3%
Treatment Beds & Other Transitional Beds	882	359	24	0	0	1,265	14.6%
<b>TOTAL</b>	<b>4,926</b>	<b>1,936</b>	<b>109</b>	<b>454</b>	<b>1,215</b>	<b>8,640</b>	<b>100%</b>
% of TOTAL	<b>57.0%</b>	<b>22.4%</b>	<b>1.3%</b>	<b>5.3%</b>	<b>14.1%</b>		

Source: Mayor's Office on Homelessness, [http://www.ci.sf.ca.us/site/homeless\\_index.asp](http://www.ci.sf.ca.us/site/homeless_index.asp).

## Immigration and Language

### Why Are Immigration and Language Important Cofactors?

Immigration is a cofactor that places persons at higher risk for HIV. Economic instability and poverty, lack of access to health care and social services, lack of information, isolation, and language barriers all make immigrants particularly vulnerable to HIV. Also, because of a legitimate fear of deportation, undocumented immigrants may delay treatment when sick or may not access health care at all. Further, because data on language is not collected during HIV counseling and testing, it is difficult to say how language affects HIV risk, and therefore challenging to design appropriate HIV prevention programs.

HIV/AIDS knowledge among some immigrant groups has been low compared to the general population (Gellert et al 1995, Yi 1998). These low levels of knowledge may be attributed to lack of access to HIV information and prevention messages that are linguistically and culturally appropriate. In addition to Spanish, researchers and health care providers note a growing need for translators and services for immigrants who speak indigenous Asian languages (Snyder et al 2000).

Different groups of immigrants have varying HIV risks depending on their background and personal experiences. Their degree of HIV risk are dependent on a number of factors: (1) how their sexual and drug behaviors change after moving to the U.S.; (2) their access to appropriate health services and HIV education, and condoms; (3) social norms about safe sex and drug practices in their communities; (4) the nature of their relationships with sex partners in the U.S. and their home country; (5) their experience with racism, discrimination, and poverty in the U.S.; and (6) limited English speaking and limited education, which can impact access to services (CAPS Fact Sheet 2003, "What are the HIV prevention needs of Mexican immigrants in the U.S.?").

California public policy and public sentiment in the last two decades has not been supportive of health promotion or equal rights for immigrants. For example, Proposition 187 (<http://www.igc.org/cf/about187.html>) was passed by California voters in 1994 but not implemented due to questions of constitutionality. It barred undocumented immigrants from receiving (1) public social services, including mental health

services and rape crisis intervention, (2) public health services, except for events defined as emergencies under federal law, and (3) public education at elementary, secondary, and post-secondary level. Further, until 1990 homosexuals were not permitted to immigrate to the U.S. (Shoop 1993). These and other policies implemented since September 11th could impact access to health care and social services, including HIV prevention, for immigrants. Even if policies do not actually restrict services for immigrants or pose a threat of deportation, the perception that they do may prohibit individuals from seeking services.

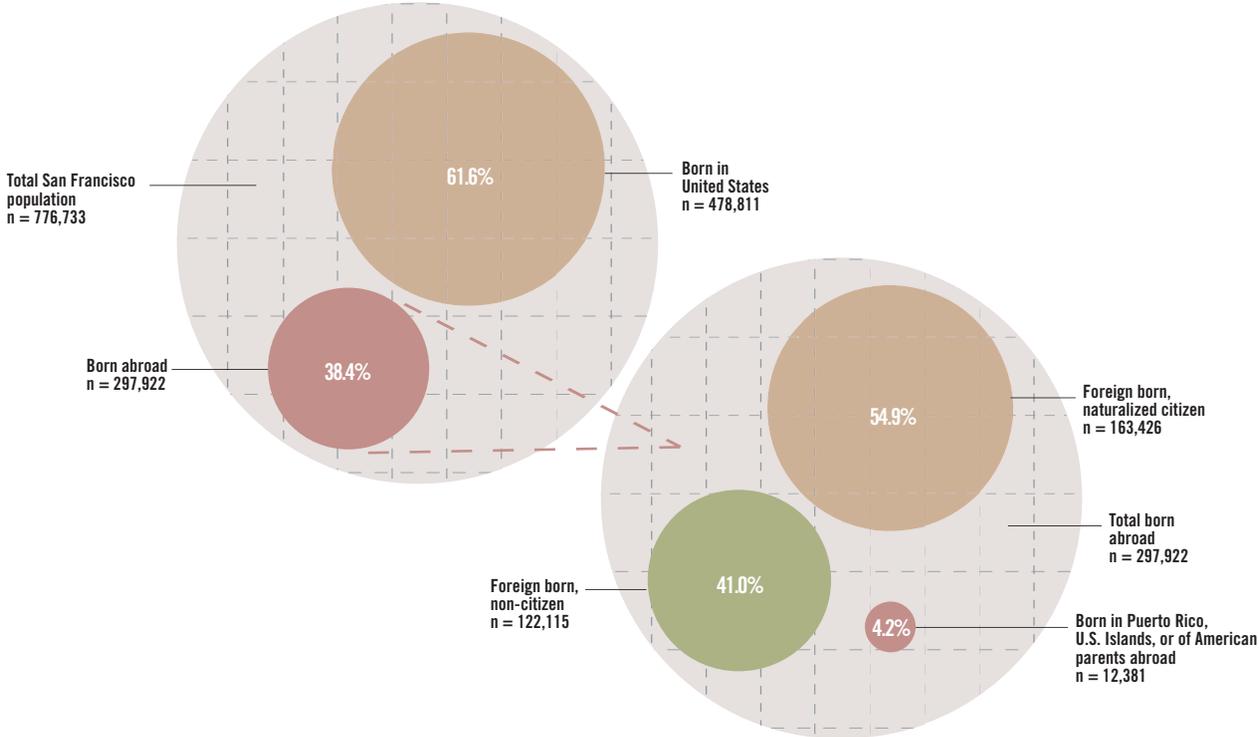
**Who Are San Francisco’s Immigrants and What Languages Do They Speak?**

San Francisco is home to a large immigrant population – over one third of residents (38%) are foreign born, and 41% of that group are non-citizens (Exhibit 24). The city is a primary destination for API immigrants and is one of the top ten cities where immigrants from Latin American countries live. Estimates of the number of undocumented individuals living in San Francisco are sparse. The Public Policy Institute of California estimated that San Francisco’s undocumented population was between 22,000 to 76,000 people in 1996.

Nearly two thirds (63%) of San Francisco’s immigrants were born in Asia, and an additional 22% are from Central or South America (Exhibit 25). As such, most individuals who speak another language speak an Asian language or Spanish. Among San Francisco residents who speak a language other than English, 29% speak English “not well” or “not at all” (Exhibit 26).

**EXHIBIT 24**

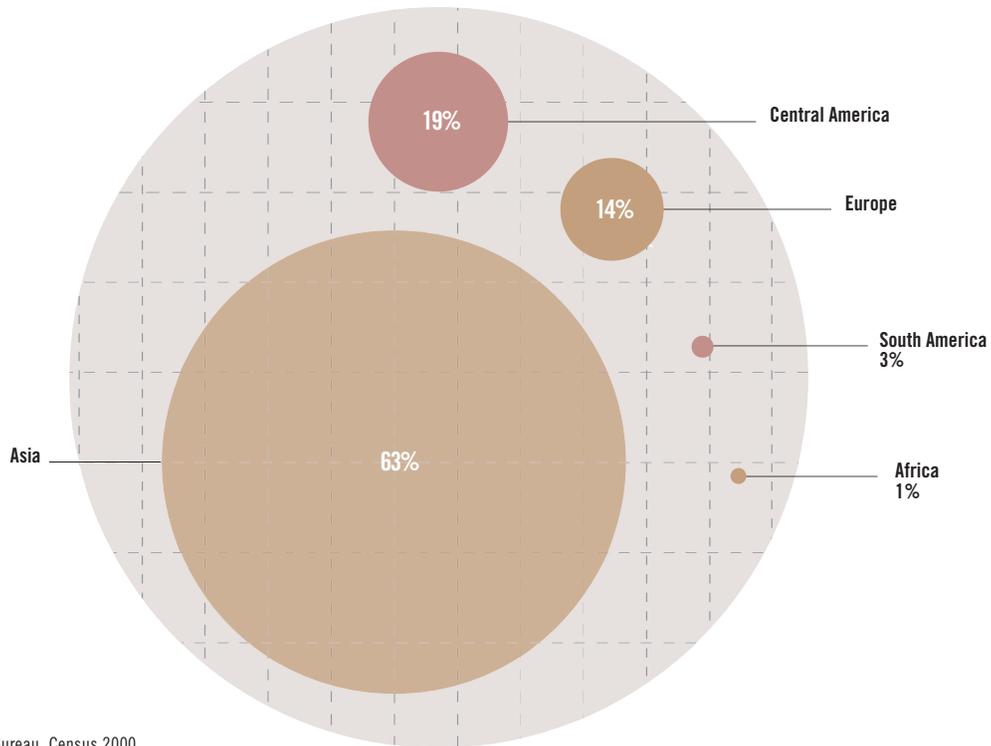
San Francisco Residents by Place of Birth, 2000



Source: U.S. Census Bureau, Census 2000.

EXHIBIT 25

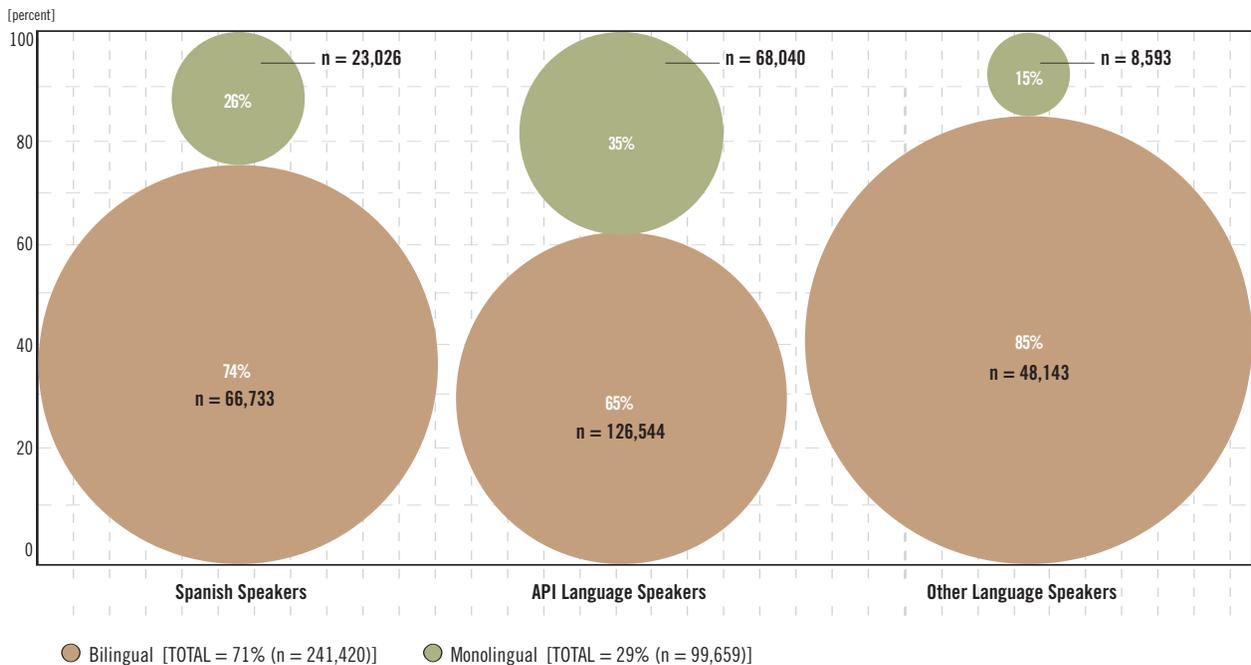
Region of Origin of San Francisco's Immigrants, 2000



Source: U.S. Census Bureau, Census 2000.

EXHIBIT 26

English Speaking Ability Among San Francisco Residents, 2000



Source: U.S. Census Bureau, Census 2000.

## Needs of Immigrant Subpopulations

In one Los Angeles study, HIV-positive foreign-born clients of STD clinics were found to have been infected after immigration, after having been in the U.S. for several years (Harawa et al 2002).

**Asian and Pacific Islander Immigrants.** The API immigrant community is made up of diverse cultures and ethnic groups. While the API community may face barriers that affect the prevalence of HIV infection in the community as a whole (e.g., lack of access to health, social services, and HIV prevention, language barriers), unique factors also exist within specific ethnic and cultural groups that influence their health and HIV risk. For example, Filipinos living in the U.S. make up the largest reported cases among all APIs (Operario & Hall 2003). A study in San Francisco suggests that unique social and behavioral factors exist within the Filipino community that renders the group more vulnerable to HIV. Findings from the study suggest that sexuality, sexual behavior, and HIV are extremely stigmatized within the larger Filipino community and that Catholicism underlies the tension among Filipino families regarding these topics (Operario & Hall 2003). In another study among Asian drug users in San Francisco, Filipino drug users were found to engage in behaviors that placed them at greater risk for HIV compared with Chinese and Vietnamese (e.g., injection drug use, having sex while on drugs, having sex with injection drug users (IDUs) (Nemoto et al 2000). In the same study, half of the IDUs interviewed cited trust as a reason for sharing needles while non-IDUs stated that fear of needles and stigma of injection drug use in the community were reasons for not injecting drugs (Nemoto et al 2000).

API men who have sex with men (MSM) are at particularly high risk for HIV. Behavioral factors that place API MSM at risk include dual stigma stemming from homophobia and racism, discomfort with sexuality, and power dynamics and stereotypes with white men (Nemoto et al 2003a). Substance use and low utilization of health and social services are also factors (Nemoto et al 2003a). In one study in Seattle and San Diego, young API MSM were found to engage in unprotected sex at high rates; 33% reported unprotected anal intercourse in the past 3 months (Choi et al 2002). The study found that unprotected anal sex was associated with self-identifying as gay or bisexual, having multiple sexual partners or having sex with a steady partner, having been tested for HIV, and a lack of importance of safer sex practices among peer norms (Choi et al 2002). (See also the section on Asian/Pacific Islander People, pp. 83–86.)

**Latino Immigrants and Migrant Workers.** Border states such as California have a large number of undocumented residents who frequently travel back and forth across the Mexican/U.S. border. One study found a high prevalence of HIV among young MSM Latino living in San Diego (35%) and Tijuana (19%). Those living in Tijuana were less likely to receive HIV information and tests (<50%), and they were more likely to have female sex partners in addition to their male sex partners and to inject drugs. Young MSM in San Diego were more likely to report unprotected sex with men (Ruiz 2002).

Migrant populations, particularly men day laborers and agricultural workers also experience HIV risk since those who come to the U.S. are often young and without their spouse, making them more likely to seek out sex from commercial sex workers. In addition, some day laborers engage in survival sex with both men and women, have unprotected sex with female sex workers, or unprotected sex with their spouse in their home country (Harder+Company 2001). Moreover, women whose husband migrates

to the U.S. believe that condom use is inappropriate to use since it might infer infidelity. Their perception of HIV risk is low despite acknowledging that men who spend a long time abroad are likely to engage in sex and may be at risk for HIV (Hirsh et al 2002). (See also the section on Latino/Latina People, pp. 86-89.)

A recent study conducted in non-San Francisco urban settings documented a noteworthy difference in HIV risk between recent Latino immigrants and those born in the U.S. In a sample of Latino gay and bisexual men collected in Los Angeles, Miami, and New York by Rafael Diaz's team, the researchers found that recent immigrant men (who have lived in the U.S. less than 5 years) report much less frequently having had unprotected anal sex with a recent partner of opposite or unknown HIV serostatus than U.S.-born men (12.4% vs. 25.4%,  $p < .05$ ). This means that there is high risk in all groups of Latino gay men, but that the highest level is reported among those who are U.S.-born. This finding runs counter to a common assumption among providers about the comparative risk between U.S.-born and immigrant populations. The researchers are currently analyzing the factors that might explain this finding and preparing the data for publication (Hector Carillo, personal communication, January 2004).

## Exchange Sex and Sex Work

### Why Are Exchange Sex and Sex Work Important Cofactors?

126

Exchange sex is a broad term that is defined as the exchange of sex for money, drugs, food, a place to stay, or any other perceived benefit. Sex is usually traded in two different types of situations. The first situation is in the context of commercial sex work (CSW), where the individual may identify as a someone who trades sex as their profession or means of making a living. Commercial sex workers may be street-based or off-street (i.e., based out of a home, apartment, hotel, massage parlor, or some other dwelling). The second situation is survival sex, where the individual may not identify as a sex worker but sometimes trades sex based on their needs at the time. The needs of these two populations and how they can be reached may be different. More studies have focused on the risks associated with CSW as opposed to survival sex; therefore, CSW is the focus of this section. However, it is not clear whether sex workers or those engaging in survival sex are at higher risk.

There are many reasons why CSW can increase HIV risk. First, the high rates of STDs found among sex industry workers, especially those who use drugs, increase risk for HIV. Second, injection drug use (both a direct mode of transmission and a cofactor) and non-injection drug use appear to be more prevalent among sex workers than among those who do not trade sex, although a cause-effect relationship has not been established. Third, the nature of sex work affects decisions about condom use (e.g., more money may be offered for sex without condoms, sex workers' perceived lack of power to negotiate for condom use, risk of violence). Fourth, the high numbers of sexual partners that characterize sex work increase the likelihood of exposure to HIV infection. Finally, CSW is associated with other cofactors, such as poverty, child sexual abuse, low self-esteem, mental health issues, and vulnerability to physical and sexual assault. These risks are compounded by the illegal status of sex work, as this makes sex workers difficult to reach with HIV prevention interventions. Many of these risks also apply to those engaging in survival sex.

High rates of HIV incidence and prevalence have been reported for populations of commercial sex workers in many places around the world as well as in San Francisco. However, it is important to note that, in San Francisco, sex workers are believed to have lower infection rates, lower STD rates, and higher rates of condom use than in other cities, due at least in part to prevention efforts. Nevertheless, particular subgroups of sex workers experience different types and levels of risk. Transgendered individuals may experience greater risks for HIV infection than other groups because of the high prevalence of receptive anal sex with paying partners. Street-based sex workers may have higher risks than those working in off-street situations. Immigrant Asian/Pacific Islander women who sell sex in massage parlors may be a high-risk population among those working off-street because many of these women are required to provide risky services under threat of deportation, and they may not have access to HIV prevention information. (HPPC 2001, p. 97).

A recent needs assessment with MSM and MTF transgendered sex workers illustrates how and why sex workers in San Francisco are at risk for HIV. In early 2003, the HPPC prioritized MTF transgendered and MSM street sex workers in the Polk neighborhood who are homeless or marginally housed for a needs assessment (Harder+Company 2004b). The needs assessment was conducted in July and August of 2003 and consisted of in-person in-depth qualitative interviews with 20 sex workers (11 MSM and 9 MTF persons). Due to non-random sampling and small sample size, the results should be interpreted with caution since they are not generalizable to the population as a whole. The sample was diverse in terms of race/ethnicity (90% people of color), age (ranging from 18 to 45 years old), and sexual orientation (gay men, lesbians, bisexuals, and heterosexuals were all represented).

Preliminary analysis revealed the following findings:

### **Housing**

- The need for safe housing is one of the greatest risk factors the participants confronted.
- Participants reported that maintaining health or medication regimens is a challenge when homeless. They may forget to take medications or miss appointments that they have to travel across the city for, due to the need to constantly move around.
- Lack of permanent housing pushes participants to continue their profession. Many times, they practice unsafe sex when more money is offered for services without a condom.
- According to participants, condom use can become an inconvenience for homeless sex workers when performing services out in the open where time is essential. Other times, condoms are lost due to lack of proper storage.
- Participants indicated that housing vouchers are only temporary solutions that do not afford them much help. They are in a constant state of flux until they find new housing. This creates a great deal of stress, which tends to aggravate mental health problems. Apartments where vouchers are used are filled with drugs and drug dealers who push the use of their drugs on tenants. They also are more likely to encounter HIV-positive individuals among their clients.

### **Health Care**

- Sex worker participants reported that services, such as preventive care and outreach, do not reach them until they are diagnosed as HIV-positive.

- The distance of testing sites and/or preventive programs deters participants from obtaining needed services. For many, it is easier to get tested in mobile vans both because of the distance and the fear of going into offices.
- Many remarked that health providers do not treat clients as individuals. Transgendered individuals, in particular, would like to be treated with more respect by health professionals.
- High staff turnover is another deterrent for participants seeking health care or other services because they must get reacquainted with new health workers who may be inexperienced.

### **Drug Use**

- According to participants, sex work increases the likelihood of using illicit drugs. Many sex workers use drugs to numb themselves while working. When intoxicated, participants reported that they forget and/or care less about using condoms or are more easily convinced by their clients not to do so.
- Participants noted that drug addiction compounds risk, because it can lead to trading sex for drugs, can push sex workers to continue or increase their sex work activities, and can impair judgment about condom use during sex with clients.

### **HIV and STDs**

- Sex worker participants reported that they lack knowledge about HIV and AIDS and how to prevent it prior to a positive diagnosis.
- Several HIV-positive participants reported that they do not reveal their positive status to their clients. They continue to work after an HIV-positive diagnosis, and many continue not using condoms if the money is urgently needed or if they are under the influence of drugs.
- Most HIV-positive participants who use condoms do so out of a fear of contracting other STDs or another strain of the HIV virus.

### **Context of Sex Work**

- Participants trade sex for multiple reasons – for drugs, money, or a place to stay. Condoms are not consistently used for both anal and oral sex, and condoms are used less frequently during oral sex.
- Among participants, condom use is less frequent with non-clients (e.g., primary partners).
- According to participants, the sex work cycle is difficult to break. Many participants reported mental anguish and depression resulting from their sex work, which can lead to drug use or more sex work.
- Many participants indicated that safer sexual practices are hard to maintain because they need the money to pay for housing, clothing, and food and many times they can obtain more money if they do not use a condom when performing anal or oral sex.
- Sex workers do not always have control over their protection. For example, participants recounted that condoms break or customers remove them without the sex workers' knowledge.
- For the transgendered participants in particular, police harassment is constant. Some police officers demand sexual favors to end the harassment, and others demand money.

### **Services**

- Participants reported that housing is their primary need.
- Sex worker participants expressed a need for job training and services designed to help them find them a job so they can stop doing sex work.

- Participants reported a need for more HIV prevention services to be available before a person becomes HIV-positive, such as condom distribution and STD education.
- Other services participants wanted were storage services and food services that supply more nutritional food.
- Sex worker participants stated they are deterred from obtaining services when agencies want to push them to change when they are not ready, or when caseworkers create more problems than they solve.
- Participants strongly supported a peer approach to services for sex workers. They reported that it is helpful if the service provider employees have experiences similar to those of sex workers.
- Transgendered participants noted that there are not enough services designed specifically for them.

In summary, exchange sex must be addressed in two ways: (1) reaching commercial sex workers as a population to provide them with information and services, and (2) addressing sex work as a cofactor among populations who engage in survival sex or who do not identify as sex workers. For both groups, linkages to other supportive services are critical, including housing, financial assistance, legal services, health care, and STD testing and treatment. HIV prevention with these populations should be nonjudgmental and should not coerce people into “getting off the streets.” A harm reduction client-centered approach is recommended, in which all options from continuing to exchange sex daily to stopping exchange sex altogether are available to clients depending on their individual circumstances.

### **Who Is Affected by Exchange Sex and Sex Work in San Francisco?**

In overall numbers, the majority of sex workers are likely women, with men and transgendered people also involved. Most are estimated to be between 18 and 37 years old, although younger teenagers also engage in sex work. In proportion to their population size in San Francisco, MTF transgendered individuals are estimated to be disproportionately involved in sex work

## **Income and Poverty**

### **Why Are Income and Poverty Important Cofactors?**

Health and disease are not equally distributed in society. Low socioeconomic status is one of the most consistent determinants of poor health status. Impoverished communities experience higher morbidity and mortality rates for most major chronic diseases and infections, including HIV infection. Lack of access to health services, social and physical environments unsupportive of healthy behavior, injection drug use and other substance use, commercial sex work, multiple sex partners, sex with partners who are high-risk, low perception of risk, and the prioritization of immediate needs such as maintaining food, housing, and income over issues such as HIV, are some factors associated with poverty that may contribute to increased HIV risk. These conditions provide a context for understanding why poor people are at increased risk for HIV infection, they should draw attention to the larger social and political responsibility of addressing the root causes of poverty. In San Francisco, children, people of color, and particularly women of color are disproportionately represented among those living in poverty. (See also HPPC 2001, p. 92)

HIV prevention programs for low-income individuals can be housed in a variety of agencies – those that serve low-income individuals, those that historically conducted HIV prevention, or other type of health care or social service agency. Regardless, HIV prevention programs should have the capacity to address the needs of low-income individuals as the need arises. In essence, immediate survival needs must be addressed first in order for HIV prevention to be effective. This means linking individuals to services that can assist with housing, money, food, and clothing, as well as health care services and addressing the root causes of poverty through advocacy and policy change.

**Who Is Affected by Poverty in San Francisco?**

Since 1990, San Francisco has undergone dramatic changes in the income distribution among its residents. The percentage of households making less than \$50,000 per year decreased from 73% to 45%, and in the percentage making more than \$75,000 per year more than doubled from 15% to 37% (Exhibit 27). Furthermore, the percentage of households with incomes higher than \$150,000 has nearly quadrupled, from 3.1% in 1990 to 11.5% in 2000. This shift is not likely an indication of San Franciscans moving up the economic ladder. Rather, it reflects the exodus of lower income individuals and families from San Francisco and an influx of higher income populations due to a steep rise in the cost of living, especially with regard to housing costs.

According to the 2000 U.S. Census, 8% of families in San Francisco live below the poverty level (Exhibit 28). Those living just above the poverty line also experience economic difficulties. In a 2001 survey done in California, 23% of non-elderly adults in San Francisco had annual incomes less than 200% of the Federal Poverty Level (Brown et al 2002). People of color in San Francisco have the highest poverty rates, and African Americans have the highest percentage of individuals living in poverty (Exhibit 29). A slightly higher percentage of women live in poverty compared with men (18% vs. 16%).

**EXHIBIT 27**

**Changes in Household Income, San Francisco, 1990 – 2000**

INCOME LEVEL	NUMBER OF HOUSEHOLDS, 1990	PERCENT OF HOUSEHOLDS, 1990	NUMBER OF HOUSEHOLDS, 2000	PERCENT OF HOUSEHOLDS, 2000
< \$25,000	112,946	39%	76,797	23%
\$25,000–\$49,999	98,612	34%	73,380	22%
\$50,000–\$74,999	50,536	18%	58,297	18%
\$75,000 and over	43,890	15%	121,376	37%
<b>TOTAL</b>	<b>287,753</b>	<b>100%</b>	<b>329,850</b>	<b>100%</b>

Source: U.S. Census Bureau, Census 2000.

## EXHIBIT 28

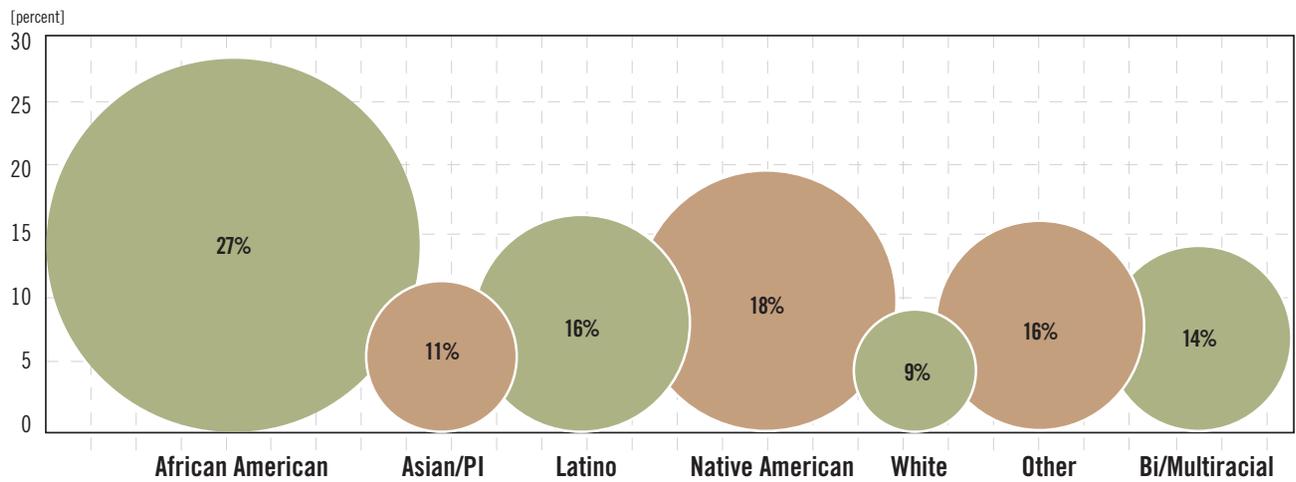
### Poverty Status of Individuals and Families in San Francisco, 2000

SAN FRANCISCO POPULATION	NUMBER LIVING BELOW POVERTY	PERCENT LIVING BELOW POVERTY
<b>FAMILIES</b>		
All families	11,515	7.8%
Families with children under 18 years old	7,645	11.8%
<b>INDIVIDUALS</b>		
Adults	71,142	10.8%
Youth under 18 years old	15,443	14.2%

Source: U.S. Census Bureau, Census 2000.

## EXHIBIT 29

### Percent Living in Poverty by Race, San Francisco, 2000



Source: U.S. Census Bureau, Census 2000.

131

## Access to Health and Social Services

### Why Is Access to Services an Important Cofactor?

All people have a basic right to health and health care, but not everyone has the access to the resources needed to maintain optimal physical, emotional, and mental health. Access to services encompasses a wide range of concepts, including physical access to health care sites, access to services that are culturally and linguistically appropriate, access to health insurance that allows people to receive care that is paid for, and many other aspects.

Access to health and social services is important because people who are more connected to health-related resources and support are more likely to engage in health-promoting behaviors (e.g., safer sex). Access to services also allows people to obtain information and education that can help them learn how to protect themselves (e.g., how to clean syringes).

While there are many health services that all individuals should have access to, three of the most important are primary care, substance use treatment, and mental health services. Primary care for people living with HIV and those at risk provides a key opportunity for HIV prevention education and linking people with other services. Substance use and mental health services can address some of the key factors that lead to high-risk sex. In the past decade, San Francisco has articulated a commitment to treatment on demand for substance abuse, although unmet needs remain. For example, according to a joint policy of San Francisco Mental Health Plan (SFMHP) and Community Substance Abuse Services (CSAS) (<http://www.dph.sf.ca.us/MentlHlth/CMHSPolProcMnl/3.04-6.htm>) addressing dually diagnosed individuals, no one shall be denied mental health services because of substance use, and no one shall be denied substance abuse services because of mental health issues. Despite progress in improving access, treatment on demand for substance abuse and mental health issues is not available for every individual who wants it. Improved accessibility and availability of these services is critical for HIV prevention to have its greatest impact. Addressing barriers to access is an ongoing struggle that involves work at the structural and policy levels, particularly around access to primary care, substance abuse, and mental health services.

### Factors that Affect Access to Services

**Lack of Services.** Perhaps the biggest barrier to access is lack of services. If there are not enough substance use treatment slots or mental health beds, people suffer. Lack of services is a symptom of larger social policies that do not prioritize such services, largely due to the stigma that society still attaches to people who experience problems with mental health or substance use.

**Lack of Insurance.** Being uninsured or underinsured can prevent individuals from receiving needed services, especially primary care services, if they cannot afford to pay for care out of pocket. Further, lack of insurance can lead to inappropriate utilization of services such as emergency room care, which further drives up health care costs, exacerbating the insurance crisis.

Although no studies have documented a direct link between being uninsured or underinsured and HIV risk, many people affected by HIV have issues related to poverty, employment, and immigration status that affect insurance status, which in turn can affect access to the health care system. Among HIV-positive individuals, being uninsured or underinsured has been linked to lower perceived access to health care (Cunningham et al 1995) and less access to AIDS medications (Conviser et al 2000), which could affect their risk for transmitting HIV. Finally, the availability of free confidential and anonymous HIV testing is critical for making sure that lack of insurance is not a barrier to HIV testing.

Lack of insurance is a substantial problem in San Francisco. Approximately 86,000 children and adults living in San Francisco are uninsured, most of whom are eligible for some type of coverage (Brown et al 2002). People living with HIV appear to have higher rates of being uninsured compared with the overall San Francisco population. Between 1997 and 2002, 38% of individuals diagnosed with AIDS were uninsured, with the transgendered population having the highest rates of uninsured individuals (51%), followed by men (39%) and women (25%) (SFDPH 2002a).

**Limited Knowledge of Services.** A lack of knowledge about prevention services and their availability is clearly a barrier to obtaining accurate information about HIV. Some populations may require very specific efforts in order to become more aware of the prevention services available, and the services themselves

may have to be carefully designed to reach the population. For example, one study found that FTM transgendered persons were unaware that they could get hormone syringes from one of the needle exchange sites, probably because the site was called the “Women’s Site” (Clements et al 1999). In addition, language, culture (or acculturation), and literacy are often important factors that limit knowledge of services, but other factors, both personal and institutional, may play a critical role.

**Low Perception of Risk.** Low perception of risk has been correlated with involvement in high-risk behaviors. Perceptions about who HIV affects, denial about one’s own susceptibility, and other factors can contribute to low perceptions of risk. Many studies and reports have documented low perceptions of risk among communities of color, youth, immigrants, and other populations.

**Discrimination.** Discrimination refers to social patterns of prejudice, rejection, and stigmatization. Discrimination can manifest in many ways, including laws and policies, attitudes or public opinions, violence, or in health and social service provision. Although the effects of discrimination on HIV risk have not been studied, some forms of discrimination that may affect HIV risk include racism, homophobia, biphobia, transphobia/gender identity-based discrimination, sexism, ageism, ableism, and discrimination against substance users or people with mental health issues. As a result of discrimination, people can become marginalized and experience barriers to accessing services. For example, discrimination against transgendered persons has resulted in insufficient transgender-specific and transgender-sensitive health and social services in San Francisco. Discrimination against drug users results in a lack of federal funding for needle exchange.

**Language Barriers and Low Literacy.** People whose first language is not English face barriers when prevention is delivered only in English. Some people speak but do not read or write English, and some people do not read or write in any language. Issues related to language and literacy that affect how HIV prevention messages are received include the cultural context in which messages are understood, the population’s perceptions about the relevance of the message, the population’s perception of the intent of the message sender, the value and associations that the population places on particular risk behaviors, the use of common terms rather than medical or technical vocabulary, and layout and visual aspects of printed materials. Prevention education and services must be available in the language of the recipient. Language and literacy issues affect both immigrants and U.S.-born individuals and are particularly salient for visually and hearing impaired people.

## Having HIV-Positive or High-Risk Sexual Partners

### Why Is Having HIV-Positive or High-Risk Sexual Partners an Important Cofactor?

Individuals who have HIV-positive or high-risk partners is where prevention efforts need to be focused, because these are the primary groups at risk for HIV. Clearly, unprotected sex with an HIV-positive person is a high-risk behavior for acquiring HIV. Similarly, sex with someone of unknown serostatus who is high risk (e.g., someone who has unsafe sex with multiple partners, someone who injects drugs) can also lead to HIV transmission. Individuals often have condom use patterns that differ depending on the type of partner and whether they perceive that individual to be at risk. Often, there is little or no condom use with primary partners and higher (but not necessarily frequent or consistent) condom use with casual or sex work partners.

## Factors that Affect Whether a Person Has HIV-Positive or High-Risk Partners

All of the cofactors discussed here affect whether a person is likely to encounter high-risk or HIV-positive partners in their sexual networks. Individuals from two different communities could engage in exactly the same risk behaviors, but one might have a much greater risk of contracting or transmitting HIV. Having a higher number of partners, anonymous partners, and how a person is connected sexually to others in their sexual network all affect the probability of exposure to HIV (CAPS Fact Sheet 2003, “How do sexual networks affect HIV/STD prevention?”). In addition, those who have sex with people in high-prevalence populations (e.g., gay men, IDUs) have a greater chance of exposure. For example, females who have sex with male IDUs are more likely to be exposed to HIV.

## Use of Public and Commercial Sex Venues

### Why Is Use of Public and Commercial Sex Venues an Important Cofactor?

Public sex environments include places where people “cruise” for sexual partners, such as parks. Commercial sex environments are places where an admission is paid for entrance, such as bathhouses and sex clubs. Unprotected sex between partners of opposite serostatus may occur in these environments, and safer sex negotiation may be inhibited by a number of factors, including secrecy of the sex and drug use. In fact, one study found that MSM attending commercial sex venues were more likely to be affected by many HIV-related cofactors, including depression and drug use, and reported higher levels of unprotected sex (Parsons & Halkitis 2002). However, this study also found that a minority of HIV-positive men who attended public or commercial sex venues reported sexual behaviors that would put their partners at highest risk for HIV.

A four-city study (including San Francisco) found that level of risk is different depending on the venue. MSM who reported sex in public cruising areas but not bathhouses were the least likely to report high-risk sex in public settings (Binson et al 2001). In contrast, MSM who went to both public cruising areas and bathhouses were most likely to report high-risk sex in these settings, suggesting that bathhouses would be an effective location for reaching MSM with prevention messages. Another study conducted in urban settings other than San Francisco found that there was a condom use norm in bathhouses, but there was also a norm of silence that precludes verbal negotiation of condom use (Elwood et al 2003). According to a Los Angeles study, interventions in bathhouse environments should pay attention to the distinct characteristics of the particular bathhouse, including its clientele, the sexual practices and condom use norms, norms regarding communication about sex and HIV status, bathhouse rules, and substance use (Mutchler et al 2003).

Commercial and public sex environments provide opportunities to reach people who might not be reached through other means with HIV prevention messages. More information is needed about populations that use commercial and public sex venues in San Francisco, in terms of their risk for HIV and their service needs. In both public and commercial venues where sex occurs, condoms, information, HIV testing, and education should be available through outreach programs. In addition, interventions aimed at promoting policies that support safer sex, such as “safe sex only” spaces in bathhouses, may be appropriate.

## Who Goes to Public and Commercial Sex Venues?

MSM, both those who identify as gay or bisexual and those who identify as heterosexual, are the primary populations at risk that patronize these venues. Marginalized populations, such as homeless persons, immigrants, sex workers and others who may not have anywhere else to have sex except in public environments may also use public environments for sex.

## APPENDIX 1

### Resource Inventory

Exhibits 30 through 32 present the current (2002) distribution of funds by resource allocation tier, by BRP, and by intervention type.

## EXHIBIT 30

### Distribution of Funds by Resource Allocation Tier, 2002\*

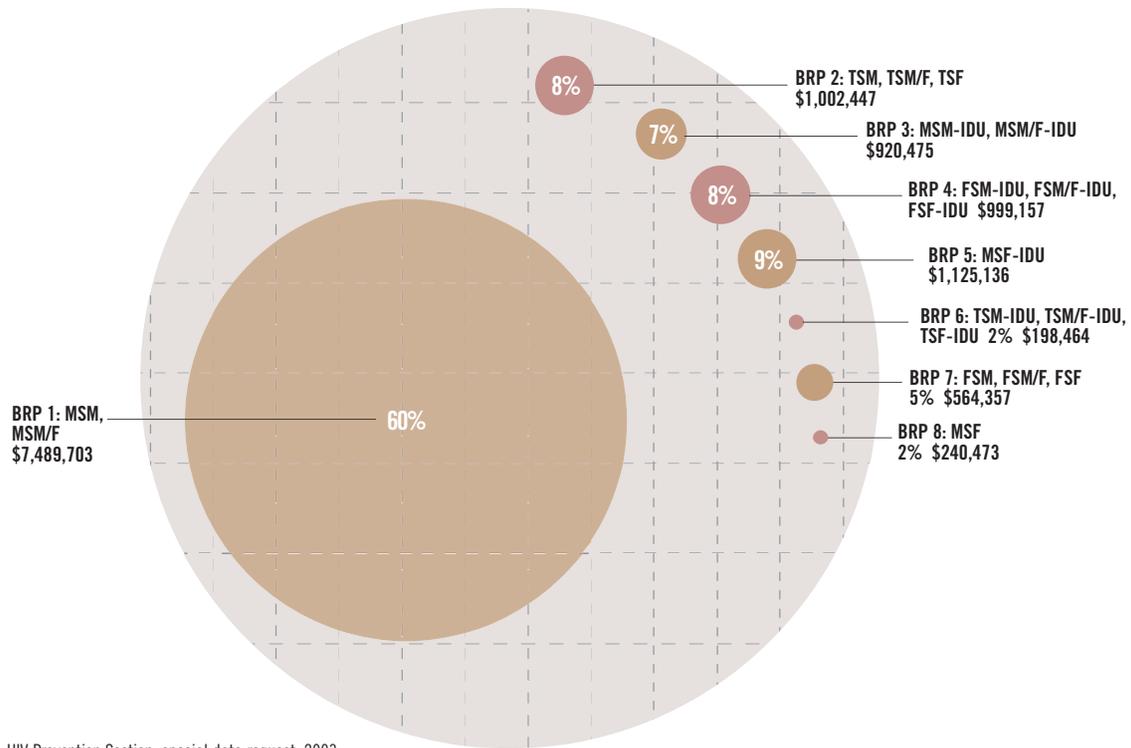
RESOURCE ALLOCATION TIER	BRPS	ESTIMATED PERCENT OF NEW INFECTIONS, 2001	HPPC RESOURCE ALLOCATION GUIDELINES	ACTUAL DISTRIBUTION OF FUNDING, 2002
<b>Tier 1</b>	<b>1.</b> MSM, MSM/F <b>2.</b> TSM, TSM/F, TSF, TST, TSM/T, TSF/T, MST, MST/M, MST/F	7.9%	7.3 - 8.1%	6.8%
<b>Tier 2</b>	<b>3.</b> MSM-IDU, MSM/F-IDU <b>4.</b> FSM-IDU, FSM/F-IDU FSF-IDU <b>5.</b> MSF-IDU <b>6.</b> TSM-IDU, TSM/F-IDU, TSF-IDU, TST-IDU, TSM/T-IDU, TSF/T-IDU MST-IDU, MST/M-IDU MST/F-IDU, FST-IDU	2.0%	1.8 - 2.2%	2.5%
<b>Tier 3</b>	<b>7.</b> FSM, FSM/F, FSF <b>8.</b> MSF	1%	1 - 5%	7%

Source: HPPC 2001, and HIV Prevention Section, special data request, 2003.

\*For more information on the 2004 resource allocation tiers and BRPs, see Chapter 4: Priority-Setting, pp. 142-143. Note that the 2004 funding tiers have changed slightly from the 2001 funding tiers presented in this Exhibit.

## EXHIBIT 31

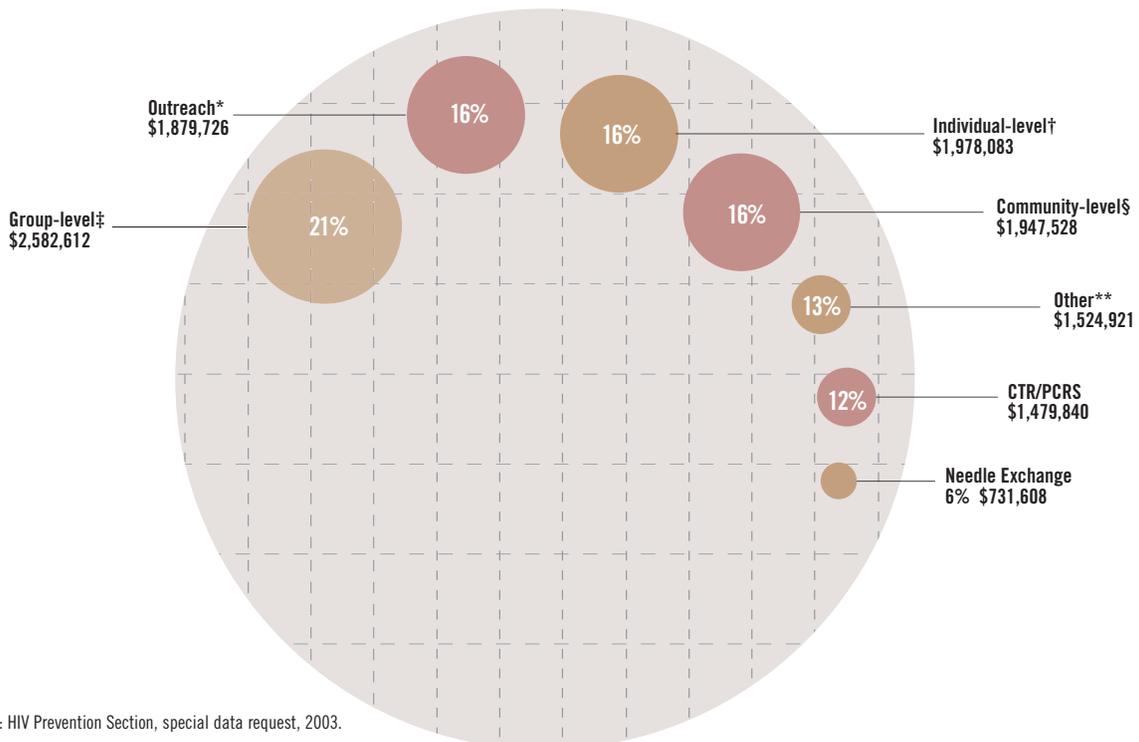
### Distribution of Funding by BRP, 2002



Source: HIV Prevention Section, special data request, 2003.

## EXHIBIT 32

### Distribution of Funding by Intervention Type, 2002



Source: HIV Prevention Section, special data request, 2003.

\*VBIO.

†PCM and IRRC.

‡SSG and MSW.

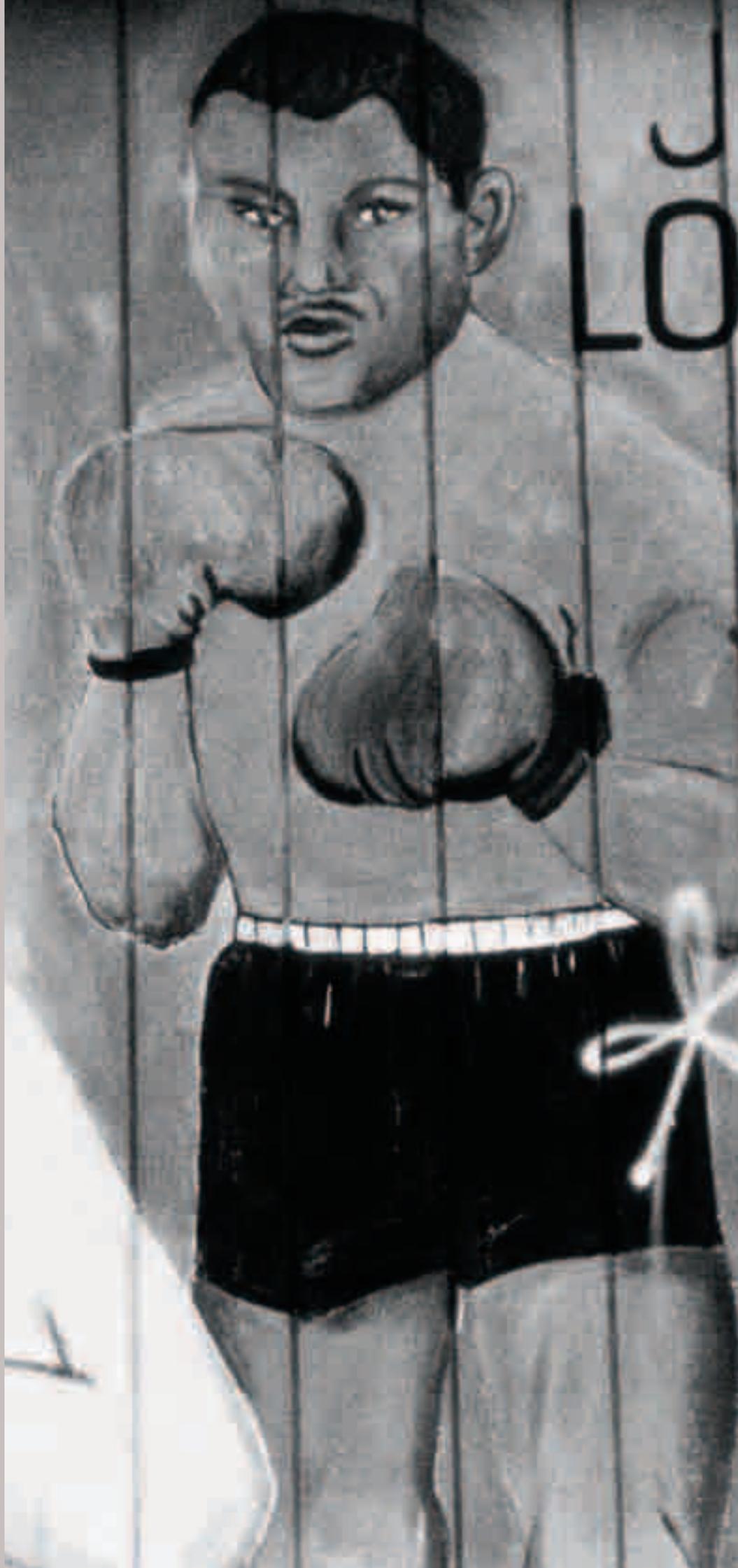
§Social marketing, hotline, VBGO, VBGOSE, and condom distribution.

\*\*Retreats, training, evaluation.



# JOE LOUIS,

The First  
**BLACK**  
HEAVYWEIGHT  
CHAMPION of  
the world for  
12 YEARS



### Purpose

The primary purpose of this chapter is to outline the priorities for HIV prevention funding in San Francisco. This chapter complements the Community Assessment chapter, which also outlines priorities. The difference is that the Priority-Setting chapter outlines *who and what issues* are prioritized for funding, whereas the Community Assessment chapter discusses the priorities for *how* to conduct HIV prevention with different populations.

The ultimate priority of HIV prevention is to eliminate new HIV infections. In order to accomplish this, HIV prevention must address the complex needs of people and communities. HIV prevention is challenging because it is no longer just about education – for example, handing out condoms and bleach kits and showing people how to use them. It is about dealing with a much broader set of issues in order to promote health and wellness among individuals and communities.

This chapter is the foundation for this expanded approach to HIV prevention. It identifies the highest priority populations and the highest priority issues that must be addressed in order to do effective prevention, and it directs the funding accordingly, from a planning perspective. It is supplemented by the Community Assessment chapter, which describes the broader HIV prevention needs and issues of people at risk for HIV. Together, these two chapters represent San Francisco's approach to HIV prevention.

### How to Read This Chapter

Readers who are familiar with the history and structure of San Francisco's priority-setting model may choose to focus on Section II, which outlines the priorities for 2004 and beyond. Readers needing more context for the model are invited to read the whole chapter.

## Terms and Definitions

<b>Cofactor</b>	A condition that can increase risk for HIV, increase susceptibility to infection, or decrease ability to receive and act upon HIV prevention messages.
<b>Priority-setting</b>	The process that community planning groups, such as the HPPC, use to determine recommendations for the distribution of available HIV prevention funds.
<b>Subpopulation</b>	A demographic group defined by race/ethnicity, age, gender, or other factor.

### **Section I: History of the Model**

Reviews the evolution of the priority-setting model since its inception in 1995.

### **Section II: Priorities for 2004 Through 2008**

Summarizes the priorities for 2004 through 2008 that result from the application of the priority-setting model.

### **Section III: Background and Rationale**

Outlines each step in the model, how and why it was developed, and how it was applied to establish the final priorities for 2004 through 2008.

### **Appendix 1: 2001 and 2004 Behavioral Risk Populations**

### **Appendix 2: Process for Determining Priority Subpopulations and Cofactors**

## SECTION I

### History of The Model

San Francisco's first priority-setting model was developed in 1995. Although it has gone through several iterations since then, the underlying philosophy has remained the same: The priorities for San Francisco are designed to reflect the local epidemic and are based on local epidemiologic evidence, research, and practice. Exhibit 1 presents the evolution of the model, along with a summary of its strengths and weaknesses over time.

The priority-setting model for 2004 through 2008 attempts to build on the strengths of the 2001 model, while simultaneously addressing its limitations. The new model is presented in Section III (pp. 146-152).

## EXHIBIT 1

### History of the HPPC's Priority-Setting Model

YEAR	COMPONENTS OF MODEL	STRENGTHS	LIMITATIONS
1995	<ul style="list-style-type: none"> <li>A population's level of risk was determined based on:               <ol style="list-style-type: none"> <li>(1) the odds of being exposed,</li> <li>(2) physiological cofactors, and</li> <li>(3) behavioral cofactors</li> </ol> </li> </ul>	<ul style="list-style-type: none"> <li>Accounted for both biological and social influences on risk</li> </ul>	<ul style="list-style-type: none"> <li>No specific criteria for setting funding priorities, so funding prioritization was subjective</li> </ul>
1997	<ul style="list-style-type: none"> <li>Twelve behavioral risk populations (BRPs) were created and then ranked by anticipated number of new HIV infections per year</li> </ul>	<ul style="list-style-type: none"> <li>Focused on behavior through identification of populations at risk</li> <li>Established specific epidemiologic criteria for setting priorities</li> <li>Provided an effective tool for planning</li> </ul>	<ul style="list-style-type: none"> <li>It was difficult to implement priorities effectively because existing data did not conform to the BRP categories</li> <li>Did not address important high-risk subpopulations within each BRP</li> </ul>
2001	<ul style="list-style-type: none"> <li>The twelve BRPs from the 1997 model were collapsed into eight BRPs, which were then ranked by anticipated number of new HIV infections per year</li> <li>Subpopulations within each BRP that had 8% or higher seroprevalence were identified and ensured funding</li> <li>BRPs were grouped into three tiers, and recommendations regarding the percentage of funding to be allocated to each tier were made</li> </ul>	<ul style="list-style-type: none"> <li>Focused on behavior through identification of populations at risk</li> <li>Included specific epidemiologic criteria for setting priorities</li> <li>Provided an effective tool for planning</li> <li>Identified high-risk subpopulations to be ensured funding</li> <li>Guided resource allocation in line with current epidemiology</li> <li>Used data and estimates that were reported in BRP format*</li> </ul>	<ul style="list-style-type: none"> <li>The model could tend to put too much emphasis on looking at the world in terms of BRPs, instead of promoting a holistic approach to HIV prevention that addresses what happens in the real world</li> </ul>
2004	<ul style="list-style-type: none"> <li>The eight BRPs are ranked by anticipated number of new infections per year</li> <li>Both subpopulations and cofactors are identified and prioritized for funding, based on prevalence, incidence, and behavioral data</li> <li>BRPs are grouped into four tiers, and recommendations regarding the percentage of funding to be allocated to each tier are made</li> </ul>	<ul style="list-style-type: none"> <li>Focuses on behavior through identification of populations at risk</li> <li>Includes specific epidemiologic criteria for setting priorities</li> <li>Provides an effective tool for planning</li> <li>Identifies high-risk subpopulations and cofactors to be prioritized for funding</li> <li>Guides resource allocation in line with epidemiology</li> <li>Uses data and estimates that are reported in BRP format</li> <li>Is accompanied by a community assessment that talks about the broader needs of individuals and communities, not limited to behavioral risk</li> </ul>	<ul style="list-style-type: none"> <li>Is based on consensus estimates developed three years ago, although epidemiologists believe that there has not been a substantial change in new infection rates since then</li> </ul>

\*At a 2001 convening of HIV researchers called the Consensus Meeting, communication and collaboration between the HPPC and researchers resulted in the generation of information that could be directly incorporated into the planning process.

### Overview of Priorities

Exhibits 2 and 3 present the priorities for 2004 through 2008, based on the new priority-setting model approved by the HPPC in 2003. (The model is explained in greater detail in Section IV.)

The priorities in Exhibits 2 and 3 are organized in the following manner:

- **Behavioral Risk Populations (BRPs).** BRPs are categories that define people by their risk behavior, not their demographics. The highest risk BRPs are the highest priorities. BRPs are listed from highest to lowest priority (Exhibit 2).
- **Subpopulations and Cofactors.** Within each BRP, the highest risk groups and issues are prioritized. Unlike BRPs, these groups are defined by demographics (subpopulations) or factors that increase risk for HIV (cofactors) (Exhibit 2).
- **Resource Allocation Tiers and Guidelines.** The BRPs are grouped into tiers, and a recommended proportion of funds is given for each tier (Exhibit 2). The higher the level of risk in the tier, the higher the recommended level of funding.
- **Other Considerations.** Additional considerations to guide the selection of proposals and allocation of resources are offered (Exhibit 3). When the HIV Prevention Section issues a request for proposals (RFP) for HIV prevention programs, these considerations should be taken into account when deciding which programs to fund.

### Interpretation of Priorities

Several points are important to remember when interpreting Exhibits 2 and 3:

- The HPPC reviewed a wealth of data to prioritize subpopulations and cofactors, looking at both unpublished and published studies, needs assessments, anonymous and confidential counseling and testing data, and many other data sources. The subpopulations and cofactors listed represent an objective review of as much data as was available.
- As the epidemic evolves over 2004 to 2008, the HPPC will adjust the priorities accordingly and issue updates to the community.
- The demographic subpopulations and cofactors listed in Exhibit 2 are the highest priorities for receiving funding. These are not the only priorities for HIV prevention in San Francisco. Proposals that address subpopulations or cofactors not on this list will still be considered for funding. (See Chapter 3: Community Assessment, pp. 45-136, for a full description of San Francisco's high-risk populations, the important cofactors, and the HPPC's priorities for how HIV prevention should be implemented with these populations.) For example, sex work is not a prioritized cofactor under BRP 2 due to lack of data to conclusively demonstrate that MTF transgendered sex workers are at higher risk than non-sex workers. However, the Community Assessment chapter recommends that risks related to sex work get addressed in prevention programs for MTF persons.

- Although the HPPC reviewed numerous sources of data, it is impossible to get access to all available data. Therefore, providers are invited to make a case in their applications for subpopulations or cofactors that meet the criteria outlined in Step 2 of the model (see pp. 148-149) but are not listed here. In addition, the HPPC will review new data and studies annually and/or prioritize needs assessments to determine if other high-risk subpopulations or cofactors should be included in the priorities.
- Although a demographic subpopulation or cofactor is listed, it does not necessarily mean that San Francisco needs a program that is designed specifically for that subpopulation or cofactor. It simply means that there is a need to ensure that this population is reached or the cofactor addressed. For example, under BRP 1: MSM, MSM/E, speed use is prioritized. However, it may be more effective to address speed use through a program designed to reach gay men, as opposed to implementing a program that only addresses speed use or speed users. (Further guidance on the prioritized HIV prevention approaches for these various subpopulations and cofactors can be found in Chapter 3: Community Assessment.)
- Exhibit 2 does not illustrate how the subpopulations and cofactors relate to each other or how HIV prevention should address them in the real world. Agencies are encouraged to develop programs that address the whole person and the complexity of risk, using the Community Assessment chapter to guide the focus of programs.

### Prevention with Positives As a Priority

HIV-positive individuals have been and continue to be a high priority in every BRP, in addition to high-risk HIV-negative individuals and those who do not know their serostatus. In order to bring about a reduction in new infections, it is of primary importance that programs reach HIV-positive individuals. HIV prevention is not just for HIV-negative people. Further, interventions for HIV-positive people (both those who know their status and those high-risk individuals who are unaware that they are positive) should be designed to meet their specific needs.

There are several examples of how HIV-positive people have been the focus of increased attention in recent years. An assessment of how existing HIV prevention programs address the needs of HIV-positive individuals was commissioned in 2002. The assessment found that many HIV prevention agencies in San Francisco have adjusted their programs to include messages or components relevant for HIV-positive people, even if they do not have a formal prevention with positives program or intervention (DeMayo 2003). Based on these findings, the HIV Prevention Section will implement a capacity-building plan in 2004 to train providers on standards and guidelines for conducting prevention with positives. These standards and guidelines are currently being developed through a collaboration between the HPPC and the HIV Health Services Planning Council (CARE Council), and the preliminary standards appear in Chapter 5: Strategies and Interventions (pp. 181-184). In addition, the priority HIV prevention needs of HIV-positive people are outlined in Chapter 3: Community Assessment (pp. 47-49).

## EXHIBIT 2

### Summary of Funding Priorities for HIV Prevention in San Francisco

BEHAVIORAL RISK POPULATION (BRP)	PRIORITIZED DEMOGRAPHIC SUBPOPULATIONS*	PRIORITIZED COFACTORS*	RESOURCE ALLOCATION TIER	RECOMMENDED FUNDING PERCENTAGE†
<b>1. MSM, MSM/F</b>	<ul style="list-style-type: none"> <li>• Gay men</li> <li>• African Americans</li> <li>• Asian/Pacific Islanders</li> <li>• Latinos</li> <li>• Native Americans</li> <li>• Whites</li> <li>• Age 29 and under</li> <li>• Age 30 and over</li> </ul>	<ul style="list-style-type: none"> <li>• Drug use (non-IDU)</li> <li>• Speed use</li> <li>• Poppers use</li> <li>• Homelessness/marginal housing</li> <li>• Incarceration</li> <li>• Sex work</li> <li>• STDs</li> <li>• Internet use</li> <li>• Having an HIV+ partner</li> <li>• Having an IDU partner</li> </ul>	1	73-81%
<b>2. TSM, TSM/F, TSF, TST, TSM/T, TSF/T</b>	<ul style="list-style-type: none"> <li>• African American MTF</li> <li>• Asian/Pacific Islander MTF</li> <li>• Latina MTF</li> <li>• Native American MTF</li> <li>• White MTF</li> <li>• MTF age 29 and under</li> <li>• MTF age 30 and over</li> </ul>	<ul style="list-style-type: none"> <li>• The formal data available does not provide enough evidence to prioritize any cofactors for funding. See Chapter 3: Community Assessment for the research that does exist and the important cofactors not listed here.</li> </ul>		
<b>3. MSM-IDU, MSM/F-IDU</b>	<ul style="list-style-type: none"> <li>• Gay men</li> <li>• Bisexual men</li> <li>• African Americans</li> <li>• Asian/Pacific Islanders</li> <li>• Latinos</li> <li>• Native Americans</li> <li>• Whites</li> <li>• Age 29 and under</li> <li>• Age 30 and over</li> </ul>	<ul style="list-style-type: none"> <li>• Drug use (non-IDU)</li> <li>• Speed use</li> <li>• Poppers use</li> <li>• Homelessness/marginal housing</li> <li>• Incarceration</li> <li>• Sex work</li> <li>• STDs</li> <li>• Internet use</li> <li>• Having an HIV+ male partner</li> <li>• Having an IDU partner</li> </ul>	2	18-22%
<b>4. FSM-IDU, FSM/F-IDU, FSF-IDU</b>	<ul style="list-style-type: none"> <li>• The formal data available does not provide enough evidence to prioritize any subpopulations for funding. See Chapter 3: Community Assessment for the research that does exist and the important subpopulations not listed here.</li> </ul>	<ul style="list-style-type: none"> <li>• Sex work</li> </ul>		

## EXHIBIT 2 (continued)

BEHAVIORAL RISK POPULATION (BRP)	PRIORITIZED DEMOGRAPHIC SUBPOPULATIONS*	PRIORITIZED COFACTORS*	RESOURCE ALLOCATION TIER	RECOMMENDED FUNDING PERCENTAGE†
5. MSF-IDU	<ul style="list-style-type: none"> <li>African Americans</li> <li>Age 30 and over</li> </ul>	<ul style="list-style-type: none"> <li>The formal data available does not provide enough evidence to prioritize any cofactors for funding. See Chapter 3: Community Assessment for the research that does exist and the important cofactors not listed here.</li> </ul>	2	18-22%
6. TSM-IDU, TSM/F-IDU, TSF-IDU, TST-IDU, TSM/T-IDU, TSF/T-IDU	<ul style="list-style-type: none"> <li>African American MTF</li> <li>Asian/Pacific Islander MTF</li> <li>Latina MTF</li> <li>Native American MTF</li> <li>White MTF</li> <li>MTF age 29 and under</li> <li>MTF age 30 and over</li> </ul>	<ul style="list-style-type: none"> <li>The formal data available does not provide enough evidence to prioritize any cofactors for funding. See Chapter 3: Community Assessment for the research that does exist and the important cofactors not listed here.</li> </ul>	2	18-22%
7. FSM, FSM/F, FSF	<ul style="list-style-type: none"> <li>African Americans</li> <li>Age 30 and over</li> </ul>	<ul style="list-style-type: none"> <li>Sex work</li> <li>STDs</li> <li>Having an HIV+ partner</li> <li>Having an IDU partner</li> </ul>	3	1-5%
8. MSF	<ul style="list-style-type: none"> <li>African Americans</li> <li>Age 30 to 39</li> </ul>	<ul style="list-style-type: none"> <li>Having an IDU partner</li> </ul>	4	<1%

Note: HIV-positive individuals are a priority in every BRP. See narrative for how this will be implemented.

\*See Chapter 3: Community Assessment for additional high-risk demographic subpopulations and cofactors that are of concern to the HPPC.

†Percent of total funding available.

Exhibit 3 offers guiding principles for SFDPH to use when selecting proposals to fund and in allocating resources. Not all of the guiding principles may be relevant to every proposed program, and the HIV Prevention Section should take into account only those that are appropriate for each proposal. Because this is a new step in the priority-setting model, the HPPC will review its impact every six months based on a report from the HIV Prevention Section to determine whether it is effective.

## EXHIBIT 3

### Guiding Principles for Proposal Selection and Resource Allocation\*

QUESTION	RATIONALE
1. Are the proposed programs effective?	Programs with documented effectiveness offer the best opportunity for reaching the overall goal of reducing new infections, especially if they can be shown to lead to behavior change. Examples of documentation include evaluations of existing programs and evaluations of similar programs (if the proposed program is new).
2. How well do the proposed programs address the range of needs that individuals have?	HIV prevention is no longer just about education – for example, giving people condoms and bleach kits and showing them how to use them. It is about addressing the multiple factors that affect risk – including drug use, mental health, poverty, skills-building, and a host of other issues. Programs should demonstrate their capacity to address the issues and cofactors that are relevant for the populations they are trying to reach.
3. How well do the proposed programs link clients to needed services that cannot be provided by the program?	Because programs cannot provide everything a client needs, HIV prevention programs must establish linkages to other programs within or outside of their agency. In addition, HIV prevention programs must have effective referral and follow-up procedures in place and a demonstrated ability to build and maintain appropriate referral networks. They must also have mechanisms for documenting referrals.
4. How well do the proposed programs work with people in the context of their lives, apart from meeting the needs of the BRP they are funded to serve?	Programs should work with people in the context of their lives, even if it means having to serve someone who does not fit neatly into a BRP. For example, a program working with female IDUs may find that the best HIV prevention for some clients includes working with their male sexual partners as well, even though the program is officially funded to serve only females. A client-driven approach to HIV prevention is encouraged.
5. How well do the proposed programs address the prevention needs of HIV+ individuals?	Stopping the spread of the epidemic means working with all affected individuals – high-risk HIV-negative individuals, HIV-positive individuals who know their status, and HIV-positive individuals who do not know they are HIV-positive. In the past, HIV prevention was implemented broadly, for both positive and negative individuals, followed by a period in which the specific needs of HIV-negative persons were the focus. Now we are in an era in which the specific needs of high-risk HIV-negative and HIV-positive persons, as well as those who do not know their serostatus, must be identified and addressed. Therefore, prevention with positives is a key strategy for the future.
6. How well do the proposed programs promote HIV testing among people who do not know their serostatus?	HIV testing is an opportunity to provide HIV prevention education and to link people to health care and social services (including testing for STDs), for both HIV-positive and HIV-negative individuals. Therefore, reaching people who have never been tested or who have not been tested recently is important.

## EXHIBIT 3 (continued)

QUESTION	RATIONALE
7. Have the proposed programs performed well in the past?	Solid past performance (e.g., ability to meet contractual requirements) suggests that a program will continue to perform well. However, new programs should not be penalized for not having had a previous contract with the HIV Prevention Section.
8. Are the proposed programs cost-effective?	In an era of uncertain resources, San Francisco needs to ensure that programs use their resources appropriately. Although San Francisco has not yet adopted a formal cost-effectiveness model, agencies may have their own anecdotes or evidence of program cost-effectiveness. For more on cost-effectiveness in HIV prevention, see a report prepared by the Rand Corporation “Maximizing the Benefit: HIV Prevention Planning Based on Cost-Effectiveness” at <a href="http://www.rand.org/publications/DRU/DRU3092.pdf">http://www.rand.org/publications/DRU/DRU3092.pdf</a> .
9. Are the grant award amounts allocated to individual programs sufficient to implement an effective program and meet SFDPH administrative requirements?	Target population size, accessibility of the population, administrative costs, and other factors should be taken into account when deciding on award amounts. For example, a small target population requires fewer resources overall than a larger target population. Difficult-to-reach populations may require a higher level of resources per person reached. Programs with multiple intervention types may require more evaluation resources.
10. How can San Francisco make the best use of all available resources to address the HPPC’s priorities?	As funding restrictions increase, San Francisco must be thoughtful about how it uses the available resources and how it can diversify its funding sources to ensure the needs are met.

\*It is recommended that the HIV Prevention Section take these guiding principles into account when issuing a request for proposals (RFP) to conduct HIV prevention programs and when reviewing agencies’ proposal submissions.

**Priority-Setting Model for 2004 Through 2008**

Exhibit 4 outlines the complete HPPC Priority-Setting Model for 2004 through 2008, which was developed by the HPPC Plan Policies Committee and approved by the HPPC, with input from providers who attended two focus groups in early 2003. Following Exhibit 4, the rationale and process behind each step is explained.

**EXHIBIT 4****HPPC Priority-Setting Model, 2004–2008**

<b>Step 1:</b>	BRPs shall be prioritized by incidence number (i.e., the estimated number of new infections).
<b>Step 2:</b>	<p>Subpopulations/cofactors within each BRP will be prioritized for funding if they meet one or more of the following criteria:*</p> <ul style="list-style-type: none"> <li>a) The subpopulation (or group affected by the cofactor) has a seroprevalence of 8% or higher;</li> <li>b) The subpopulation (or group affected by the cofactor) has an incidence rate that is at least 1.5 times greater than that of the BRP as a whole, based on repeat tester† counseling and testing data, detuned ELISA† counseling and testing data, and/or an incidence study; OR</li> <li>c) There is evidence from at least two relevant studies conducted in San Francisco demonstrating that the group is a high-risk subpopulation (i.e., behavioral risk among the subpopulation is greater than that for the BRP as a whole) or that a cofactor is associated with increased HIV risk (i.e., behavioral risk among people affected by the cofactor is greater than that for the BRP as a whole). This evidence may be qualitative or quantitative. The data must have been collected from a broad range of subjects (i.e., not just one agency's clients). The data collection must have been completed since the beginning of 1997. (If no relevant or local studies have been completed since 1997, earlier studies or national studies may be considered if relevance to San Francisco's current epidemic can be established.)</li> </ul>
<b>Step 3:</b>	Identify populations at high risk or with increasing incidence using behavioral and other data from researchers, providers, and community members.
<b>Step 4:</b>	Develop guidelines for allocating resources.
<b>Step 5:</b>	Develop a list of considerations for resource allocation that should be taken into account during the technical review of proposals, the proposal selection process, and the awarding of funds. These considerations should promote provider flexibility and ensure that San Francisco has cutting-edge, high quality HIV prevention programs and services.

\*No subpopulation or cofactor is "ensured" funding. "Prioritized for funding" means that these subpopulations and cofactors will receive first consideration for allocation of resources. Studies completed since 1997 were considered, and in some cases, earlier studies were considered. See Appendix 3 for more information.

†For an explanation of repeat tester and detuned ELISA data, see Chapter 2: Epidemiologic Profile, p. 41.

## Background and Rationale for Each Step in The Model

### Step 1: BRPs shall be prioritized by incidence number (i.e., the estimated number of new infections).

#### BACKGROUND AND RATIONALE

The ranking of the eight BRPs by incidence number lays the foundation for the allocation of resources based on current epidemiologic trends. Evaluation of the model’s effectiveness in 2001 indicated that it made planning and resource allocation relatively easy to implement at the citywide level.

The 2004 model includes one change to the BRP categories. In the 2001 model, the partners of transgendered persons were included in BRPs 2 and 6, along with transgendered persons themselves. In 2004, the partners are instead considered as possible subpopulations under Step 2 of the model. This was done to make these BRPs consistent with the rest of the model; partners are not included in the other BRPs (e.g., male partners of FSM are not included in BRP 7). Further, partners of transgendered persons have a lower level of risk, incidence, and prevalence than transgendered persons. Therefore, the male partners of MTF would be more appropriately placed as prioritized subpopulations (if they meet the model’s criteria) in the BRPs where their level of risk “matches” that of the BRP. Appendix 1 outlines the difference between the 2001 and 2004 BRPs.

#### RESULTS WHEN STEP 1 IS APPLIED

Exhibit 5 shows the BRPs in prioritized order based on incidence number. The data source for the anticipated number of new infections is the 2001 HIV Consensus Meeting. Although these numbers represent the anticipated incidence numbers for 2001, there is no evidence to suggest a shift in the epidemic that would alter the ranking of the BRPs for 2004, even if the exact numbers of new infections have changed slightly.

## EXHIBIT 5

### BRPs Ranked by Incidence Number

BRP	INCIDENCE NUMBER (ANTICIPATED NUMBER OF NEW INFECTIONS)
1. MSM, MSM/F	748
2. TSM, TSM/F, TSF, TST, TSM/T, TSF/T	102
3. MSM-IDU, MSM/F-IDU	87
4. FSM-IDU, FSM/F-IDU, FSF-IDU	48
5. MSF-IDU	45
6. TSM-IDU, TSM/F-IDU, TSF-IDU, TST-IDU, TSM/T-IDU, TSF/T-IDU	40
7. FSM, FSM/F, FSF	10
8. MSF	2

Note: For a more detailed table of prevalence, incidence, and population size for each BRP, see Chapter 2: Epidemiologic Profile, pp. 29-30.

**Step 2. Subpopulations/cofactors within each BRP will be prioritized for funding if they meet one or more of the following criteria: (a) the subpopulation (or group affected by the cofactor) has an 8% or higher seroprevalence; (b) the subpopulation (or group affected by the cofactor) has an HIV incidence rate 1.5 times higher than the BRP as a whole; or (c) the subpopulation (or group affected by the cofactor) has a behavioral risk greater than that of the BRP as a whole.**

#### BACKGROUND AND RATIONALE

The HPPC's inclusion of subpopulations and cofactors into the priority-setting model represents a recognition that certain groups are disproportionately impacted by HIV or by cofactors that affect HIV risk. Therefore, HIV prevention programs need to focus on these groups in order to have an impact on the city's HIV epidemic.

This step of the 2004 model improves upon the 2001 model because it expands the scope of the priorities. First, the new model expands the criteria under which subpopulations can be prioritized for funding. In 2001, only subpopulations with a documented HIV seroprevalence of 8% or higher (i.e., four times that of the citywide prevalence) could be considered for prioritization. The criteria were expanded for two reasons: (1) not all high-risk subpopulations have seroprevalence data, and they should not be excluded due to lack of research; and (2) providers may have their own relevant data that the HPPC is unaware of that could be used to justify the prioritization of a subpopulation.

148

Second, the new model considers not only demographic populations but also cofactors (i.e., conditions that put people at higher risk for HIV). The HPPC voted to include cofactors in the model because HIV prevention is not just about reaching populations, it is also about addressing the most important factors that affect HIV risk.

The prioritized subpopulations are listed in Exhibit 6. However, just because a population is not listed here does not mean it is excluded from the priorities. Providers are invited to make a case under this step of the model for prioritizing a population that they serve. This can be done by providing evidence that meet any of the three criteria in a proposal for funding (see Exhibit 4, Step 2, p. 146).

Finally, due to funding uncertainties, no subpopulation is "ensured" funding. Instead, these subpopulations are "prioritized" for funding, which means that pending available funds, they will receive first consideration for allocation of resources.

#### RESULTS WHEN STEP 2 IS APPLIED

Exhibit 6 lists the subpopulations and cofactors prioritized by the HPPC for 2004 through 2008. The precise methodology for how the model was applied to determine the subpopulations is described in detail in Appendix 2. Additional funding priorities may arise during the five-year period based on (1) new data, or (2) existing data to which the HPPC did not have access during the priority-setting process.

## EXHIBIT 6

### Prioritized Subpopulations and Cofactors Within Each BRP

BRP	PRIORITIZED DEMOGRAPHIC SUBPOPULATIONS	PRIORITIZED COFACTORS
1. MSM, MSM/F	<ul style="list-style-type: none"> <li>• Gay men</li> <li>• African Americans</li> <li>• Asian/Pacific Islanders</li> <li>• Latinos</li> <li>• Native Americans</li> <li>• Whites</li> <li>• Age 29 and under</li> <li>• Age 30 and over</li> </ul>	<ul style="list-style-type: none"> <li>• Drug use (non-IDU)</li> <li>• Speed use</li> <li>• Poppers use</li> <li>• Homelessness/marginal housing</li> <li>• Incarceration</li> <li>• Sex work</li> <li>• STDs</li> <li>• Internet use</li> <li>• Having an HIV+ partner</li> <li>• Having an IDU partner</li> </ul>
2. TSM, TSM/F, TSF, TST, TSM/T, TSF/T	<ul style="list-style-type: none"> <li>• African American MTF</li> <li>• Asian/Pacific Islander MTF</li> <li>• Latina MTF</li> <li>• Native American MTF</li> <li>• White MTF</li> <li>• MTF age 29 and under</li> <li>• MTF age 30 and over</li> </ul>	<ul style="list-style-type: none"> <li>• The formal data available does not provide enough evidence to prioritize any cofactors for funding. See Chapter 3: Community Assessment for the research that does exist and the important cofactors not listed here.</li> </ul>
3. MSM-IDU, MSM/F-IDU	<ul style="list-style-type: none"> <li>• Gay men</li> <li>• Bisexual men</li> <li>• African Americans</li> <li>• Asian/Pacific Islanders</li> <li>• Latinos</li> <li>• Native Americans</li> <li>• Whites</li> <li>• Age 29 and under</li> <li>• Age 30 and over</li> </ul>	<ul style="list-style-type: none"> <li>• Drug use (non-IDU)</li> <li>• Speed use</li> <li>• Poppers use</li> <li>• Homelessness/marginal housing</li> <li>• Incarceration</li> <li>• Sex work</li> <li>• STDs</li> <li>• Internet use</li> <li>• Having an HIV+ male partner</li> <li>• Having an IDU partner</li> </ul>
4. FSM-IDU, FSF-IDU, FSF/M-IDU	<ul style="list-style-type: none"> <li>• The formal data available does not provide enough evidence to prioritize any subpopulations for funding. See Chapter 3: Community Assessment for the research that does exist and the important subpopulations not listed here.</li> </ul>	<ul style="list-style-type: none"> <li>• Sex work</li> </ul>
5. MSF-IDU	<ul style="list-style-type: none"> <li>• African Americans</li> <li>• Age 30 and over</li> </ul>	<ul style="list-style-type: none"> <li>• The formal data available does not provide enough evidence to prioritize any cofactors for funding. See Chapter 3: Community Assessment for the research that does exist and the important cofactors not listed here.</li> </ul>
6. TSM-IDU, TSM/F-IDU, TSF-IDU, TST-IDU, TSM/T-IDU, TSF/T-IDU	<ul style="list-style-type: none"> <li>• African American MTF</li> <li>• Asian/Pacific Islander MTF</li> <li>• Latina MTF</li> <li>• Native American MTF</li> <li>• White MTF</li> <li>• MTF age 29 and under</li> <li>• MTF age 30 and over</li> </ul>	<ul style="list-style-type: none"> <li>• The formal data available does not provide enough evidence to prioritize any cofactors for funding. See Chapter 3: Community Assessment for the research that does exist and the important cofactors not listed here.</li> </ul>
7. FSM, FSF/M, FSF	<ul style="list-style-type: none"> <li>• African Americans</li> <li>• Age 30 and over</li> </ul>	<ul style="list-style-type: none"> <li>• Sex work</li> <li>• STDs</li> <li>• Having an HIV+ partner</li> <li>• Having an IDU partner</li> </ul>
8. MSF	<ul style="list-style-type: none"> <li>• African Americans</li> <li>• Age 30 to 39</li> </ul>	<ul style="list-style-type: none"> <li>• Having an IDU partner</li> </ul>

### **Step 3: Identify populations at high risk or with increasing incidence using behavioral and other data from researchers, providers, and community members.**

#### BACKGROUND AND RATIONALE

The purpose of this step is to provide a method for staying one step ahead of the epidemic. When new high-risk populations are identified, the HPPC shall consider how to best meet the needs of these groups. This step allows the model to be flexible throughout the five-year period of this plan, as the epidemic may shift during that time.

#### RESULTS WHEN STEP 3 IS APPLIED

There are two main mechanisms the HPPC has put in place to address this step in the model:

- Twice a year, epidemiologists or researchers present an update on the epidemic to the HPPC.
- When funds are available, the HPPC prioritizes needs assessments or other types of primary research with particular populations for whom there is little data.

As new data from these and other sources becomes available, the HPPC will issue updates on the priorities.

**Step 4: Develop guidelines for allocating resources.**

**BACKGROUND AND RATIONALE**

This step effectively links resource allocation with the epidemiologic data on new HIV infections in San Francisco. The purpose of the resource allocation guidelines is to provide guidance to the HIV Prevention Section when selecting proposals for funding.

**RESULTS WHEN STEP 4 IS APPLIED**

The HPPC recommends that resources be allocated to each of the four tiers as outlined in Exhibit 7. The tiers group the BRPs by high, medium, low, and very low numbers of new infections. The funding percentages correspond to the estimated percentage of new infections occurring within each tier. However, for Tiers 3 and 4, the funding percentages are comparatively greater than the proportion of new infections occurring in those tiers, because a substantial baseline dollar amount is required in order to do meaningful prevention for a group. A recommended range of funding for each tier is given as opposed to an exact percentage because it would be impossible for the HIV Prevention Section to allocate an exact percentage of funds.

**EXHIBIT 7**

**Resource Allocation Guidelines, 2004 – 2008**

TIER	BRPs	RECOMMENDED PERCENTAGE OF FUNDING
1	1. MSM, MSM/F 2. TSM, TSM/F, TSF, TST, TSM/T, TSF/T	73-81%
2	3. MSM-IDU, MSM/F-IDU 4. FSM-IDU, FSF-IDU, FSF/M-IDU 5. MSF-IDU 6. TSM-IDU, TSM/F-IDU, TSF-IDU, TST-IDU, TSM/T-IDU, TSF/T-IDU	18-22%
3	7. FSM, FSM/F, FSF	1-5%
4	8. MSF	<1%

**Step 5: Develop a list of considerations for resource allocation that should be taken into account during the technical review of proposals, the proposal selection process, and the awarding of funds. These considerations should promote provider flexibility and ensure that San Francisco has cutting-edge, high quality HIV prevention programs and services.**

#### BACKGROUND AND RATIONALE

The HPPC recognizes that doing effective HIV prevention in San Francisco means more than just implementing the details outlined in Steps 1 through 4 of the model. Steps 1 through 4 have epidemiology at their core, but there are some important considerations that go beyond epidemiology.

First, HIV prevention providers need to have the flexibility to use their experience to decide how best to provide HIV prevention to populations. During focus groups with providers conducted in early 2003 to obtain feedback on the 2001 San Francisco HIV Prevention Plan, providers noted that the main challenge associated with the 2001 priority-setting model was that it did not allow sufficient flexibility during program implementation. In other words, providers felt constrained in their ability to serve populations that do not “fit neatly” into the BRPs or subpopulations. For example, an agency funded to serve MTF transgendered persons may find that it is appropriate to include their male partners in programs, even if the agency is not funded for this population, because it would make the HIV prevention program stronger and more relevant.

152

Second, HIV prevention in San Francisco needs to be efficient and effective in order to reduce the number of new infections. It must also be delivered in the local cultural context – San Francisco’s at-risk populations have very different needs compared with other parts of the country. These factors need to be considered when resources are allocated.

To encourage and support these approaches, the HPPC added this fifth step to the priority-setting model.

#### RESULTS WHEN STEP 5 IS APPLIED

The HPPC developed a list of questions to consider during proposal selection and resource allocation. The list of questions was presented earlier, in Exhibit 3 on pp. 144-145).

EXHIBIT 8

2001 BRPs Compared with 2004 BRPs

2001 BRPs*	2004 BRPs, WITH PARTNERS OF TRANSGENDERED PERSONS REMOVED FROM BRPs 2 AND 6
<p>1. MSM, MSM/F</p> <ul style="list-style-type: none"> <li>• Males who have sex with Males</li> <li>• Males who have sex with Males and Females</li> </ul>	<p>1. MSM, MSM/F</p> <ul style="list-style-type: none"> <li>• Males who have sex with Males</li> <li>• Males who have sex with Males and Females</li> </ul>
<p>2. TSM, TSM/F, TSF, TST, TSM/T, TSF/T, MST, MST/M, MST/F, FST, FST/M, FST/F</p> <ul style="list-style-type: none"> <li>• Transgendered persons who have sex with Males</li> <li>• Transgendered persons who have sex with Males/Females</li> <li>• Transgendered persons who have sex with Females</li> <li>• Transgendered persons who have sex with Transgendered persons</li> <li>• Transgendered persons who have sex with Males/Transgendered persons</li> <li>• Transgendered persons who have sex with Females/Transgendered persons</li> <li>• Males who have sex with Transgendered persons</li> <li>• Males who have sex with Transgendered persons/Males</li> <li>• Males who have sex with Transgendered persons/Females</li> <li>• Females who have sex with Transgendered persons</li> <li>• Females who have sex with Transgendered persons/Males</li> <li>• Females who have sex with Transgendered persons/Females</li> </ul>	<p>2. TSM, TSM/F, TSF, TST, TSM/T, TSF/T</p> <ul style="list-style-type: none"> <li>• Transgendered persons who have sex with Males</li> <li>• Transgendered persons who have sex with Males/Females</li> <li>• Transgendered persons who have sex with Females</li> <li>• Transgendered persons who have sex with Transgendered persons</li> <li>• Transgendered persons who have sex with Males/Transgendered persons</li> <li>• Transgendered persons who have sex with Females/Transgendered persons</li> </ul>
<p>3. MSM-IDU, MSM/F-IDU</p> <ul style="list-style-type: none"> <li>• Males who have sex with Males and Inject Drugs</li> <li>• Males who have sex with Males and Females and Inject Drugs</li> </ul>	<p>3. MSM-IDU, MSM/F-IDU</p> <ul style="list-style-type: none"> <li>• Males who have sex with Males and Inject Drugs</li> <li>• Males who have sex with Males and Females and Inject Drugs</li> </ul>
<p>4. FSM-IDU, FSF-IDU, FSF/M-IDU</p> <ul style="list-style-type: none"> <li>• Females who have sex with Males and Inject Drugs</li> <li>• Females who have sex with Females and Inject Drugs</li> <li>• Females who have sex with Females and Males and Inject Drugs</li> </ul>	<p>4. FSM-IDU, FSF-IDU, FSF/M-IDU</p> <ul style="list-style-type: none"> <li>• Females who have sex with Males and Inject Drugs</li> <li>• Females who have sex with Females and Inject Drugs</li> <li>• Females who have sex with Females and Males and Inject Drugs</li> </ul>
<p>5. MSF-IDU</p> <ul style="list-style-type: none"> <li>• Males who have sex with Females and Inject Drugs</li> </ul>	<p>MSF-IDU</p> <ul style="list-style-type: none"> <li>• Males who have sex with Females and Inject Drugs</li> </ul>

2001 BRPs\*

6. TSM-IDU, TSM/F-IDU, TSF-IDU, TST-IDU, TSM/T-IDU, TSF/T-IDU, MST-IDU, MST/M-IDU, MST/F-IDU, FST-IDU, FST/M-IDU, FST/F-IDU
- Transgendered persons who have sex with Males and Inject Drugs
  - Transgendered persons who have sex with Males/Females and Inject Drugs
  - Transgendered persons who have sex with Females and Inject Drugs
  - Transgendered persons who have sex with Transgendered persons and Inject Drugs
  - Transgendered persons who have sex with Males/Transgendered persons and Inject Drugs
  - Transgendered persons who have sex with Females/Transgendered persons and Inject Drugs
  - Males who have sex with Transgendered persons and Inject Drugs
  - Males who have sex with Transgendered persons/Males and Inject Drugs
  - Males who have sex with Transgendered persons/Females and Inject Drugs
  - Females who have sex with Transgendered persons and Inject Drugs
  - Females who have sex with Transgendered persons/Males and Inject Drugs
  - Females who have sex with Transgendered persons/Females and Inject Drugs

7. FSM, FSF/M, FSF
- Females who have sex with Males
  - Females who have sex with Females and Males
  - Females who have sex with Females

8. MSF
- Males who have sex with Females

2004 BRPs, WITH PARTNERS OF TRANSGENDERED PERSONS REMOVED FROM BRPs 2 AND 6

6. TSM-IDU, TSM/F-IDU, TSF-IDU, TST-IDU, TSM/T-IDU, TSF/T-IDU
- Transgendered persons who have sex with Males and Inject Drugs
  - Transgendered persons who have sex with Males/Females and Inject Drugs
  - Transgendered persons who have sex with Females and Inject Drugs
  - Transgendered persons who have sex with Transgendered persons
  - Transgendered persons who have sex with Males/Transgendered persons and Inject Drugs
  - Transgendered persons who have sex with Females/Transgendered persons and Inject Drugs

7. FSM, FSF/M, FSF
- Females who have sex with Males
  - Females who have sex with Females and Males
  - Females who have sex with Females

8. MSF
- Males who have sex with Females

\*The RED TEXT indicates the populations that were removed from BRPs 2 and 6.

The HIV prevention community planning process combines scientific methods with community values. The Plan Policies Committee, which was charged with developing the 2004 priority-setting model, applied this principle to the prioritization of subpopulations/cofactors in the following manner:

1. The committee brainstormed subpopulations/cofactors within each BRP that they thought should be considered for prioritization based on their collective community experience.
2. Several themes were noted among these subpopulations/cofactors in terms of how they were defined (e.g., based on gender, race/ethnicity). The themes were:
  - Sexual orientation
  - Gender identity
  - HIV status
  - Age
  - Race/ethnicity
  - Substance use
  - Mental health
  - Incarceration
  - Housing status
  - STDs
  - Socioeconomic status
  - People with high-risk partners
  - People with HIV+ partners
3. The committee then made a final list of potential subpopulations/cofactors based on these themes. For example, for “age,” all age groups were considered for prioritization within each BRP.
4. The committee then reviewed available literature, studies, and data to see if each subpopulation/cofactor met any of the three criteria proposed in the model. Once a subpopulation/cofactor was found to meet one of the criteria, no further data was explored for that population (e.g., if a population or a population affected by a particular cofactor was documented to have 8% or higher seroprevalence, a literature review seeking two relevant behavioral studies was not pursued). Studies and data were considered relevant if they seemed on the face to be methodologically sound and did not have any serious limitations that might make the applicability of the results questionable.
5. The criteria were considered met under the following conditions:
  - a. Seroprevalence of 8% or higher.** A published or unpublished study had to document a seroprevalence of 8% or higher for the specific San Francisco subpopulation in question, or a group affected by a cofactor. There was no restriction regarding the date of data collection, unless there was evidence to suggest that the results of a study completed before 1997 were no longer applicable.

**b. Incidence 1.5 times that of the BRP as a whole.** Counseling and testing or other incidence data had to demonstrate an incidence rate 1.5 times greater than the BRP overall for a subpopulation or a group affected by a cofactor. The reference point used to measure the incidence rate for the BRP overall was from the data source under consideration, not the 2001 Consensus meeting estimates used to rank the BRPs. For example, if looking at detuned counseling and testing data for the subpopulation “MSM drug users (non-IDU),” the incidence rate had to be greater than the detuned incidence rate for the “MSM, MSM/F” BRP. This methodology was used to ensure that the committee compared “apples with apples,” as the Consensus Meeting estimates were derived from multiple data sources.

**c. Evidence of High-Risk Behavior.** Two scientifically sound behavioral studies, needs assessments, or other data had to demonstrate that the subpopulation was at higher risk than the BRP overall or that the group affected by a cofactor was at higher risk compared with the BRP overall. The determination regarding what constitutes “higher risk” was made by the committee.

6. In situations in which the evidence was not clear-cut, the committee made its best judgment based on the weight of the evidence regarding whether to prioritize a subpopulation/cofactor for funding.

## Chapter 5 Strategies and Interventions





Illustration by  
Suzanne  
Bodde

### Purpose

This chapter provides the tools that providers need to design and implement programs that (1) fit into San Francisco's reinvigorated approach to HIV prevention, and (2) address HIV prevention needs at multiple levels in accordance with the Spectrum of Prevention framework described in the first section of the chapter.

There are four “tool boxes” to assist providers:

- **Tool Box #1:** Program design and implementation principles
- **Tool Box #2:** Behavioral theory
- **Tool Box #3:** Strategies and interventions
- **Tool Box #4:** Standards of practice and quality assurance

Providers are invited to use these tools creatively in different combinations to meet the larger goal of establishing integrated, coordinated, and responsive HIV prevention programs for San Francisco's at-risk populations. It is indicated when there are mandates attached to specific tools (e.g., under many of the strategies and interventions, implementation requirements are listed). Other information is offered as guidance to programs and can be applied as relevant.

The information presented here attempts to summarize key points; thus, further research may be required for more detailed information (references are provided where applicable). This chapter does not provide guidance on the content or curricula for interventions. The types of prevention information, messages, and mode of delivery should be dictated by the specific and current prevention needs of populations, as identified by a needs assessment (see Chapter 3: Community Assessment for needs assessments with various populations, pp. 45–136) or other scientifically sound methods. Curricula can also be borrowed and adapted from other programs with demonstrated relevance and effectiveness. Two resources for program curricula are:

- The CDC's *REP+*: Replicating Effective Programs Plus Other Resources (<http://www.cdc.gov/hiv/projects/rep/default.htm>), which includes the Compendium of HIV Prevention Interventions with Evidence of Effectiveness, among other tools
- The CDC's Diffusion of Effective Behavioral Interventions for HIV Prevention (DEBI) (<http://www.effectiveinterventions.org/>)
- The UCSF Center for AIDS Prevention Studies Prevention Tool Kit (<http://www.caps.ucsf.edu/projects/curricula.html>)

### How to Read This Chapter

Because this chapter reflects a new approach to HIV prevention, it is recommended that all readers review Section I and II, which provide an overview of this new framework. In order to get a sense of the wide range of theories, strategies, and interventions that can be used to build HIV prevention programs, readers will find it useful to read the full chapter. Those seeking information about specific theories, strategies, or interventions are invited to use the index at the back of this Plan to locate the appropriate pages.

## Terms and Definitions

<b>Behavioral Theory</b>	A model or framework, developed through multiple observations over time, that depicts and predicts how people behave and that shows how the different factors that influence behavior are linked together.
<b>CTR</b>	Counseling, testing, and referral
<b>Intervention</b>	The type of service or prevention modality a program provides (e.g., outreach, social marketing)
<b>IRRC</b>	Individual risk reduction counseling
<b>MSW</b>	Multiple session workshop
<b>PCM</b>	Prevention case management
<b>PCRS</b>	Partner counseling and referral services
<b>PEP</b>	Post-exposure prevention
<b>SSG</b>	Single session group
<b>STD</b>	Sexually transmitted disease
<b>Strategy</b>	A prevention approach that can be applied across a spectrum of possible interventions (e.g., peer education)
<b>VBGO</b>	Venue-based group outreach
<b>VBIO</b>	Venue-based (street and community) individual outreach

## Chapter Outline

### **Section I: San Francisco's New Approach to HIV Prevention**

Outlines a framework for a comprehensive citywide approach to HIV prevention programs.

### **Section II: Tool Box #1: San Francisco's Principles of Program Design and Implementation**

Describes the unique attributes of San Francisco's approach to HIV prevention programs.

### **Section III: Tool Box #2: Behavioral Theory**

Outlines several behavioral theories that can be used as foundations for the development of HIV prevention programs.

### **Section IV: Tool Box #3: Strategies and Interventions**

Outlines a range of HIV prevention activities that can be combined and adapted to create HIV prevention programs tailored to the needs of specific populations.

### **Section V: Tool Box #4: Standards of Practice and Quality Assurance**

Highlights the key administrative elements of HIV prevention programs that are needed to ensure high-quality services.

### **Appendix 1: Update on Rapid Testing**

### **Appendix 2: Update on Prevention Technologies Under Development**

## Background

HIV prevention has seen many successes in San Francisco in recent decades, with new infections decreasing dramatically since the 1980s. Despite these successes, recent increases in new HIV infections among men who have sex with men (MSM) call for a reinvigorated approach to HIV prevention. This new approach is described in detail in Chapter 1: Community Planning: The History and the Future (pp. 1-10). Current and future HIV prevention programs need to be implemented in the spirit of this new approach, which means focusing on the following three areas:

- Improving overall health and wellness, including physical, mental, emotional, and spiritual health.
- Ensuring that prevention reaches and is relevant for both HIV-negative and HIV-positive people.
- Strengthening linkages and coordination to ensure that the whole spectrum of community and individual needs is met. This includes improved linkages to services for people living with HIV as well as high-risk HIV-negative individuals and those who do not know their serostatus. Examples include linkages to primary care, sexually transmitted disease (STD) detection and treatment, mental health services, substance use prevention and treatment, housing, financial assistance, social support services, and many others.

## San Francisco's Framework for Program Design and Implementation

To successfully make this shift in our approach, HIV prevention efforts must address the existing needs in multiple ways and at multiple levels. Cohen & Swift's (1999) Spectrum of Prevention framework (Exhibit 1), which was originally designed for injury prevention, provides a solid model for doing just that. This framework has been adopted by the Prevention Institute (<http://www.preventioninstitute.org/>), a well-renowned national center dedicated to improving community health and well-being by building momentum for effective prevention. Implementing interventions at all six levels in the framework represents a recognition that HIV prevention is not just about the individual; it is also about the service, community, and policy environment in which individuals live their lives.

Level 1 interventions are effective at changing behaviors for individuals, one at a time. If done well, they prevent HIV infections and can be cost-effective (Holtgrave et al 2002). Examples of Level 1 interventions are individual risk reduction counseling (IRRC) and single session groups (SSG).

However, the spread of HIV is a population-level phenomenon, and population-level trends cannot be changed with individual-level approaches alone. That is why we also need interventions in Levels 2 through 6. Level 2 interventions are aimed at promoting health and wellness at the community level. Level 3 interventions address provider training, and Level 4 interventions focus on coordination among providers. Level 5 interventions address structural barriers to services, such as the lack of substance abuse treatment slots, as well as structural and community-level practices or phenomena that affect HIV risk (e.g., discrimination, disenfranchisement). Level 6 interventions aim to change policies that may directly or indirectly affect HIV transmission, such as changing legislation that makes it challenging to implement rapid testing in community settings. HIV prevention is far more likely to impact populations if strong interventions are implemented at all these levels. It is not a requirement that each program address all levels in the framework, although some programs might do this. It is the responsibility of the SFDPH to

ensure that the programs selected for funding reflect the mix of approaches outlined in the Spectrum of Prevention, and it is the responsibility of the HPPC and the SFDPH to identify gaps on an ongoing basis and to make sure unmet needs get addressed.

Exhibit 2 gives an example of how this framework could be implemented.

## EXHIBIT 1

### The Spectrum of Prevention

#### LEVEL 1: THE INDIVIDUAL

Strengthening individual knowledge, skills, and ability to initiate and maintain behavior change

#### LEVEL 2: THE COMMUNITY

Promoting community education, skills building, and behavior change through reaching groups of people with HIV prevention messages and resources to promote health and wellness

#### LEVEL 3: THE INDIVIDUAL HIV PREVENTION PROVIDER

Educating providers to transmit skills and knowledge at Levels 1 and 2

#### LEVEL 4: THE COMMUNITY OF HIV PREVENTION PROVIDERS

Bringing together HIV prevention providers and their partners to reach broader goals and have a greater impact

#### LEVEL 5: STRUCTURAL BARRIERS

Changing organizational and systems-level practices to meet the multiple needs of people living with or at risk for HIV (e.g., substance use, mental health)

#### LEVEL 6: POLICY AND LEGISLATION

Developing strategies to change laws and policies to influence outcomes of HIV prevention efforts

Source: Adapted from Cohen and Swift (1999)

## EXHIBIT 2

### Implementing the Spectrum of Prevention: Example

#### **LEVEL 1: THE INDIVIDUAL**

Providing HIV counseling, testing, and referral using standard or rapid testing

#### **LEVEL 2: THE COMMUNITY**

Conducting a social marketing campaign to promote HIV counseling, testing, and referral among high-risk groups

#### **LEVEL 3: THE INDIVIDUAL HIV PREVENTION PROVIDER**

Providing training for HIV test counselors

#### **LEVEL 4: THE COMMUNITY OF HIV PREVENTION PROVIDERS**

Establishing a standard citywide protocol for HIV prevention programs to link their clients to HIV counseling, testing, and referral services

#### **LEVEL 5: STRUCTURAL BARRIERS**

Developing strategies to increase available mental health and substance use treatment resources to which people can be linked after receiving an HIV test

#### **LEVEL 6: POLICY AND LEGISLATION**

Developing strategies to ensure that state and federal policies require that counseling and referral always accompany HIV testing

There are several principles that underlie the creation of effective programs for San Francisco populations. The principles reflect the latest science as well as San Francisco's core values about how HIV prevention should be done in the local context. Both HIV prevention providers and the HIV Prevention Section play a role in ensuring that these principles are adhered to throughout the HIV prevention network of services. Providers must incorporate these elements into their programs, and the HIV Prevention Section must take a leadership role in creating and supporting referral networks and coordination among providers (especially between prevention and care services).

Because all of these principles are important, and because different HIV prevention providers might place different levels of importance on each depending on their programs, they are listed alphabetically and not in order of priority.

### Community Focus

There are multiple ways that providers can bring a community focus to HIV prevention:

- All prevention programs should strive to stimulate community involvement through cultivation of community trust over time (e.g., staff should be nonjudgmental, open, compassionate, trustworthy, responsive).
- Community members should be invited to participate in the development and implementation of programs when appropriate.
- Both the content and method of delivery of an intervention should be culturally appropriate for the population. This requires an understanding of, respect for, and attention to how people from a cultural group communicate and interact, as well as their values and beliefs. Cultural competency can be defined in many ways and is not limited to race/ethnicity and language.
- Providing incentives such as food, food vouchers, transportation tokens, t-shirts, or condoms, can be useful for recruiting some populations to participate in HIV prevention programs and can go a long way toward building community trust. Likewise, attention to recruitment and retention of staff and volunteers is critical for the continuity of programs, which contributes to agency credibility and helps promote trust.

### Cost Effectiveness

Cost-effectiveness of an intervention or program can determine whether it is cost-saving (i.e., the cost of the intervention per HIV infection averted is less than the lifetime cost of caring for a person with HIV) or cost-effective (i.e., the cost per HIV infection averted compares favorably with other preventive services, such as smoking cessation) (CAPS Fact Sheet 2002, "Can cost-effectiveness analysis help in HIV prevention?") In San Francisco, programs should be as cost-effective as possible. Some studies suggest that certain strategies and interventions are cost-effective, and this is indicated throughout this chapter. San Francisco is currently working on a local model for cost-effectiveness, which will help determine how best to use limited HIV prevention resources. When the model is completed, the HPPC will provide updates to the community. For more on cost-effectiveness in HIV prevention, see a report prepared by the Rand Corporation, "Maximizing the Benefit: HIV Prevention Planning Based on Cost-Effectiveness," at <http://www.rand.org/publications/DRU/DRU3092.pdf>.

## Defining the Population to Be Reached

How a target population is defined can influence how effective a program is. As a general rule, the more well-defined the population the more effective and cost-effective programs are. Populations can be defined by behavioral risk, gender, age, sexual orientation, ethnic or cultural identity, other factors, or a combination of these factors. However, providers might not define a population in the same way that the individuals in that population might think of themselves. For example, a provider might define its population to be reached as heterosexually identified African American MSM; however, to reach this population, a program might need to reach out to sexually active African American men overall, because individuals in this population do not self-identify as MSM. Regardless, interventions aimed at the general population are not effective or cost-effective in this era of the HIV epidemic in which not everyone is equally affected.

## Harm Reduction/Risk Reduction

A harm reduction approach to prevention accepts that harmful behavior exists, and the main goal is to reduce the negative effects of the behavior rather than ignore or pass judgment on the person or the behavior. The term “harm reduction” is used most often in the context of drug use, but the approach can be used with sexual risk behavior as well. A harm reduction approach encourages safer drug use or sexual practices among those engaging in high-risk behaviors and acknowledges the social and environmental factors that affect drug use and high-risk sexual behaviors, such as poverty, racism, and stigma. (See also the section on Harm Reduction, p. 201.)

## Linkages and Referrals

HIV prevention in San Francisco is part of a larger system of health and social services. In order for HIV prevention to be effective, each HIV prevention program should have in place a system for linking clients to appropriate resources within or outside the agency. The system must go beyond simply handing out a card with a name and phone number; the referral process must include providing support to the client to access the service he or she is being referred to, as well as tracking of referrals and referral follow-up. For many, if not most, individuals at risk, as well as affected communities, HIV is not the main priority; linkages are necessary because if a client's basic health and social service needs are not being met, HIV prevention is less likely to result in behavior change. Examples of appropriate referral resources include, but are not limited to: services for people living with HIV, behavior change counseling/skills-building, primary care, STD detection and treatment, mental health services, substance use prevention and treatment, housing, financial assistance, social support services, immigration services, legal services, shelter services, shelters for battered women and children, rape crisis counseling, child protective services, suicide prevention, job training and placement, youth and runaway services, family planning, and services for people with physical, emotional, and/or learning disabilities. The referral system should include policies and procedures for following up after a referral is given. Referrals are one mechanism to ensure that people receive needed services, and whoever delivers an intervention should be trained in community resources and referral mechanisms. The development of referral relationships should consider both individual needs (i.e., linking individuals with needed services) and community needs (i.e., creating change at the systems level to link under-served communities with the service system).

## Prevention Messages

Prevention messages should be appropriate to the population, concise, and delivered with frequency over an extended period of time for maximum effect. This is important regardless of where an intervention lies on the Spectrum of Prevention, and providers serving similar populations should collaborate with each other to ensure consistency in the messages. Attention to saturation is important, because hearing the same message over and over can lead to what some call prevention fatigue. Needs assessments and formative research can help determine when it is time to change a prevention message or give it a new look. For example, a community survey or focus groups could solicit participants' opinions about current social marketing campaigns, which could reveal if and how the intended audience is responding to a particular message.

## Science-based Programs

HIV prevention programs should have a strong scientific foundation. Program designs should be based on a needs assessment (i.e., a process that uses research methods to collect and analyze information to determine the educational and service needs of a population). Needs assessments for many populations are already provided in this Plan (see Chapter 3: Community Assessment, pp. 45-136). Providers may find it necessary to conduct additional research with their specific populations to assess risk behaviors, identify barriers to accessing services, and explore possible strategies and interventions. A needs assessment may include primary data (e.g., interviews) and/or secondary data (e.g., literature review). Once a needs assessment is completed, programs should be designed that include the following elements (HPPC 2001, p. 124):

164

- A clearly defined population to be reached (e.g., defined by behavioral risk population [BRP], subpopulation, race/ethnicity, gender, age)
- Clearly defined overall goals and specific objectives
- Theory as the foundation
- A focus on reducing specific risk behaviors through practicing skills (for individual-level interventions)
- A realistic timeline for implementing activities and achieving objectives

Finally, program implementation and program effectiveness should be evaluated using scientific tools, such as a survey. (For more on evaluation, see Chapter 6: Evaluation, pp. 231-251.)

## Special Needs

Some populations, or subgroups within a population, can be very difficult to access. Providers should use creative means to reach these groups. Groups that often get missed with conventional HIV prevention efforts include people who are visually or hearing impaired, people with developmental disabilities, people who do not read, people who speak English as a second language, and people who speak non-English languages. Local Special Populations Action Teams (SPATs) can provide training, technical assistance, advocacy, and support to ensure that HIV prevention education and services are accessible to persons in these special populations (<http://www.oc.ca.gov/hca/public/hiv/spat.htm>).

### Introduction

Behavioral theory can be helpful for developing effective HIV prevention programs. Both informal theories, which providers develop through working with their specific populations, and formal theories, which have been tested with many different populations, exist. Theories are important for HIV prevention because interventions based on sound theoretical models are the most effective at encouraging behavior change (Valdiserri et al 1992).

Although only formal theories are presented here, they are not the only existing theories. The Implicit Theory Project of the University of California, San Francisco Center for AIDS Prevention Studies (UCSF CAPS) (Freedman et al, under review) explored the informal theories that HIV prevention providers use as the foundation for their programs. The researchers interviewed several Bay Area providers about (1) what promotes risk behavior among their clients, and (2) how they think behavior change happens. The interviews revealed a diversity of theories underlying various programs, but three themes emerged across programs regarding their understanding of how to change clients' risk behavior:

- **Context.** HIV prevention is usually not the client's primary concern. Structural issues, such as racism, homophobia, poverty, and violence, have a greater impact on clients' daily lives and HIV prevention must be integrated into a process in which these larger concerns are addressed (although there are limitations to the extent to which providers are actually able to address these issues).
- **Community.** Building a sense of community and connectedness to others is an essential component of HIV prevention, because it contributes to building self-esteem, which in turn helps clients to engage in risk reduction practices.
- **Change.** Once the larger contextual issues are addressed and a sense of community is created, then providers are able to directly focus on supporting clients to reduce their HIV risk behaviors.

These findings reflect San Francisco's approach to HIV prevention – one in which addressing structural issues, maintaining community-driven programs, and focusing on behavior change are three central components. Providers are encouraged to develop programs based on either formal theories or implicit theories that they know work for their populations, based on their experience.

## Diffusion of Innovations

## COMPONENTS

**Diffusion:**

“The process by which an innovation is communicated through certain channels over time among the members of a social system.” This can refer to information about how to prevent HIV, or information about available HIV prevention programs or services. When people participate in HIV prevention activities, they tell others about the activity as well as what they learned.

**Innovation:**

“An idea, practice, or object that is perceived as new by an individual or other unit of adoption.”

**Innovators, early adopters, early majority adopters, late majority adopters, and laggards:**

The five categories of “adopters” according to how long it takes them to accept a new idea or implement a new behavior.

**Factors that influence the speed and extent of diffusion:**

Whether the innovation is better than the behavior or condition it will replace; whether it fits with the intended audience’s existing values, experiences, and needs; and how much commitment it takes to adopt the innovation.

## HIV PREVENTION EXAMPLES

Outreach or social marketing efforts help get the word out about new developments in HIV prevention, such as the new condoms on the market or a new HIV testing site.

In HIV prevention, this could be a new program or service, new prevention materials (such as new types of condoms available), or a new harm reduction approach to prevention that an agency is trying to promote.

Whatever the HIV prevention idea, practice, or object is that is being promoted, it reaches people in different ways and at different rates. This ranges from innovators (those who take on the new practice or idea right away) to laggards (who never take on the new practice or idea).

To successfully promote an HIV prevention idea, practice, or object, it must be promoted in way that is appropriate for the population an agency is trying to reach. In a way, the innovation has to be “marketed” or “spun” in whatever way will make it easier for the population to accept it.

(Oldenburg et al 1997)

## Empowerment Education Theory/Popular Education

COMPONENTS	HIV PREVENTION EXAMPLES
<p><b>Popular Education:</b> Interventions based on this theory, developed by Brazilian educator Paulo Freire, use a “problem-posing” and participatory methodology of education with a group of individuals from the community.</p>	<p>Giving people the chance to participate in a collective effort to address the cofactors that affect HIV risk (e.g., poverty, homelessness, drug use) can influence both individuals and communities. In HIV prevention, this method could be used in group interventions (e.g., single session groups [SSGs], multiple session workshops [MSWs]) that focus on addressing a specific issue or range of issues related to HIV prevention that the group defines for itself.</p>
<p><b>Dialogue:</b> In the dialogue process, everyone participates as “co-learners.” People discuss and share their experiences in a group.</p>	<p>In SSGs or MSWs, an HIV prevention agency could facilitate a dialogue among participants about their life experiences and how they have affected their risk for HIV.</p>
<p><b>Critical Consciousness:</b> Dialogue eventually leads to a process of critical reflection in which people begin to see and understand the social context for their personal problems.</p>	<p>Through such a discussion, participants might notice common themes that contribute to HIV risk in their community. For some groups, a theme might be how drug use relates to unsafe sex. For others, a theme might be depression or mental health. Identifying the themes helps the group understand the “bigger picture” of HIV and the multiple issues that play into HIV risk.</p>
<p><b>Praxis:</b> The ultimate goal is praxis, which is the continual interplay of discussion, critical thinking, problem solving, and action to promote individual and community change.</p>	<p>Ongoing discussions like this can lead to people internalizing what they have learned and begin to develop a sense of power in their own lives and in their communities. Over time, this process might lead to community organizing (see pp. 216-217) or changes in risk behaviors at the community level.</p>

(Freire 1970, Horton & Freire 1990)

## EXHIBIT 5

### Health Belief Model

#### COMPONENTS

**Perceived Susceptibility:**

People are motivated to change behavior when they believe that they are susceptible to the disease.

**Perceived Severity:**

People are motivated to change behavior when they believe that the disease generally has serious consequences.

**Perceived Benefits:**

People are motivated to change behavior when they believe that changing the behavior will reduce their risk.

**Perceived Barriers:**

People are motivated to change behavior when they believe that there are few or no negative consequences (e.g., expensive, dangerous, unpleasant, inconvenient) of changing the behavior.

**Cue to Action:**

A specific stimulus, such as a prevention intervention, is often required to trigger behavior change.

#### HIV PREVENTION EXAMPLES

Someone who sees first-hand the effects of HIV on their social circle or community might have a high perceived susceptibility because HIV is “close to home.” Someone who does not know anyone with HIV and who does not engage in high-risk behaviors might have a low perceived susceptibility.

Someone who perceives HIV to be a “manageable chronic illness” might have a lower level of perceived severity compared with someone who views HIV as a “fatal disease.”

People might be more willing to change their sexual or needle-sharing behaviors if they believe that it will help them. A belief that condoms protect against HIV would lead to high motivation to use them, but a belief that condoms do not protect against HIV might lead to low motivation to use them.

A belief that condoms reduce sensation during sex might be a perceived barrier to condom use. A belief that condom use is difficult to negotiate might be a perceived barrier to condom use.

Participating in an HIV prevention program might be just the thing a person needs to start a process of behavior change. Interventions such as outreach, individual counseling, or group sessions can act as the “cues to action” and give people the tools and support they need to change their behavior. In addition, media messages and social marketing campaigns can also act as cues to action.

(Strecher & Rosenstock 1997)

## EXHIBIT 6

### Social Cognitive Theory/Social Learning Theory

#### COMPONENTS

**Environment:**

Factors external to the person may influence behavior.

**Situation:**

A person's perception of their environment influences behavior.

**Behavioral Capability:**

A person's knowledge and skills to perform a behavior influence whether a person engages in a behavior.

**Outcome Expectations/Expectancies:**

A person expects certain results from engaging in a particular behavior and places a certain value on the results, and these factors affect their behavior.

**Self-efficacy:**

A person's confidence in performing the behavior affects whether they will engage in the behavior.

**Observational Learning:**

A person acquires new behaviors from watching the actions of others and observing the results.

**Reciprocal Determinism:**

The interaction of the person, the behavior, and the environment in which the behavior is performed affects a person's behavior.

#### HIV PREVENTION EXAMPLES

Social, economic, political, and a variety of other factors can affect a person's ability to engage in HIV protective behaviors. Examples are cofactors such as poverty, limited access to services, policies that prevent people from receiving treatment on demand for drugs or mental health issues, and a host of others.

The amount of control someone feels over their life situation could influence how they approach HIV risk reduction and whether they will engage in safer behaviors.

The more knowledgeable someone is regarding a prevention strategy or the more practice they have had, the better they will be at that behavior. For example, knowing that condoms help protect against HIV, knowing how to put them on, and having the skills to discuss condom use with a partner represents behavioral capability.

If a person believes that using condoms during sex will protect their partner from getting HIV, and it is very important to them to protect their partner, they will be more likely to use condoms.

The more a person feels they are capable of engaging in a behavior, the better they will be at it and the more likely they will be to do it – whether it relates to negotiating condom use, being able to keep sterile needles for injection on hand, or any other behavior.

Using drama or theater to deliver an HIV prevention message is an example of observational learning. Actors can model behaviors such as condom negotiation skills.

This overarching theme highlights how the environment can affect behavior and how behavior can affect the environment. A person who uses only sterile needles to inject drugs can support their friends to adopt the same practice. This in turn creates a social circle that is supportive of safer injection behaviors, which continues to motivate individuals in that circle and possibly in other circles to maintain this practice.

(Baranowski et al 1997)

## EXHIBIT 7

### Social Networks/Social Support/Peer Support Theories

COMPONENTS	HIV PREVENTION EXAMPLES
<p><b>Social Networks:</b> “Social networks” refers to the density, complexity, size, and other characteristics of a social group, and they are related to health and well-being.</p>	<p>How social networks are formed and how people relate to each other within those networks can influence individual behavior – ranging from drug and alcohol use, to sexual practices, to injection practices.</p>
<p><b>Social Support:</b> “Social support” refers to the positive emotional and practical products that people derive from their social networks, and it is related to health and well-being.</p>	<p>For someone who is trying to stop using drugs or alcohol or reduce their use, because they notice that it has negative effects on their health, support and encouragement from family and friends can be very helpful.</p>
<p><b>Peer Support:</b> “Peer support” refers to the social support received from peers (people with whom a person identifies because of similar age, race/ethnicity, culture, or other aspects of identity), and it is related to health and well-being.</p>	<p>Someone trying to reduce or quit using alcohol or drugs would have a harder time if all of their friends and peers use. However, someone with friends or social situations in which alcohol and drugs are not present might be better able to reduce their use or stop using.</p>

(Wohlfelder 1997)

## EXHIBIT 8

### Stages of Behavior Change Model

170

COMPONENTS	HIV PREVENTION EXAMPLES
<p><b>Precontemplation:</b> A person has no intention of changing a behavior within the near future.</p>	<p>Someone who has never used condoms and has not thought about starting to use them is in the precontemplation stage.</p>
<p><b>Contemplation:</b> A person intends to change a behavior within the near future.</p>	<p>A person who has thought about starting to use condoms, but has not done it yet, is in the contemplation stage. They might have been prompted to think about condom use because of something that happened in their life, such as having a friend disclose his or her HIV-positive status.</p>
<p><b>Preparation:</b> A person has begun to take a few steps toward changing a behavior.</p>	<p>Someone in this stage might purchase or find out where to get condoms or begin to discuss condom use with partners.</p>
<p><b>Action:</b> A person has made changes in a behavior.</p>	<p>Someone in the action stage has started to use condoms during sex at least some of the time.</p>
<p><b>Maintenance:</b> A person is able to continue the new behavior for an extended period of time.</p>	<p>In the maintenance stage, a person has incorporated condom use and discussions about condom use into their sexual encounters and this has gone on for some time.</p>
<p><b>Pros and Cons:</b> For people to move from one stage to the next, either the pros of changing the behavior must increase and/or the cons of changing the behavior must decrease.</p>	<p>For someone to move from preparation to action in terms of condom use, for example, the pros of condom use would have to increase (e.g., their partner says they would feel more comfortable having sex if condoms were used) and/or the cons would have to decrease (e.g., the person does not have to pay for condoms because they found a place to get them for free).</p>

(Prochaska et al 1997)

## EXHIBIT 9

### Theory of Reasoned Action

#### COMPONENTS

**Behavioral Intention:**

Whether a person intends to perform a behavior is the most important predictor of actual behavior.

**Attitude:**

A person's beliefs and values about the behavior determine his or her attitude about the behavior, and attitude affects behavioral intention.

**Subjective Norm:**

A person's perception of whether important individuals (e.g., peers) approve or disapprove of the behavior and whether he or she is motivated to act according to those people's opinions determine his or her subjective norm, and subjective norm affects behavioral intention.

(Montano et al 1997)

#### HIV PREVENTION EXAMPLES

Someone who actually plans ahead of time not to use drugs or alcohol during sex is more likely to succeed than someone who has no intention of abstaining or has not thought about their plans.

Someone who thinks using drugs or alcohol during sex is fun and exciting will have different behavioral intentions than someone who feels nervous about this behavior because it might lead to unsafe sex.

If friends think using drugs or alcohol during sex is fun, a person may be likely to believe that he or she should do the same.

## EXHIBIT 10

### AIDS Risk Reduction Model

#### COMPONENTS

**Labeling:**

A person must consciously identify a sexual behavior as high risk for contracting HIV before they will consider any change.

**Commitment:**

A person must commit to reducing high-risk sexual behavior and/or increase low-risk sexual behavior in order to carry out that change.

**Enactment:**

Seeking and enacting strategies to achieve the behavior change goals constitute enactment.

(Catania et al 1990)

#### HIV PREVENTION EXAMPLES

The more someone feels that anal sex can put them at risk for contracting HIV, the more likely they are to consider changing that behavior.

A person must make a commitment or agreement to not having anal sex as often, or increasing condom use when they have anal sex, in order for the behavior change to occur.

If this person purchased condoms or sought out partners willing to engage in other types of sex besides anal sex, this would constitute enactment.

## EXHIBIT 11

### IMB (Information, Motivation, Behavioral Skills) Model

COMPONENTS	HIV PREVENTION EXAMPLES
<b>Information:</b> People need information regarding HIV transmission and prevention in order to reduce their risk for HIV.	People need to know that HIV can be transmitted through sexual or blood-to-blood contact and that condom use and the use of sterile injection equipment can prevent transmission.
<b>Motivation:</b> How motivated a person is to change HIV risk behaviors affects whether they act on the information they receive.	Someone who wants to start practicing safer sex is more likely to be able to translate the idea that condoms can protect against HIV into actual behavior.
<b>Behavioral Skills:</b> The necessary skills to perform the behavior must be present in conjunction with information and motivation for behavior change to occur.	Having information and being motivated to change behavior will not be enough to result in behavior change unless a person knows how to talk to their partner about condom use, how to correctly put on and take off a condom, etc.

(Fisher & Fisher 1992)

### Introduction

There are numerous types of strategies and interventions for HIV prevention, and new ones are constantly evolving. The main strategies and interventions used in San Francisco and other urban settings are described here. (Two new prevention technologies still in development – microbicides and vaccines – are reviewed in Appendix 2 because if they become available, they will have important implications for prevention.) The strategies and interventions are organized into seven categories that reflect an expanded emphasis on activities and approaches that go beyond health education and risk reduction:

- Counseling, testing, and referral (CTR)
- Partner counseling and referral services (PCRS)
- Prevention with positives
- Health education and risk reduction strategies and interventions
- Public information and community-level strategies and interventions
- Structural interventions
- Perinatal transmission prevention

Although the most obvious audiences for the HIV prevention strategies and interventions described here are the populations at risk, providers may also consider designing programs for individuals or groups who serve the population at risk, such as health care providers and other non-HIV prevention service providers. Such programs may include cultural competency training, training on federal, state, or local standards and guidelines (e.g., for CTR), or training on how to educate and counsel patients about HIV-related issues (e.g., HIV training for STD providers). For more on provider training, see Section V: Standards of Practice and Quality Assurance (pp. 224–225).

The HIV Prevention Section must take a leadership role to ensure that the citywide mix of strategies and interventions complement each other, are not duplicative, and are regionally coordinated. For example, five late-night outreach programs for MSM who inject drugs in the Tenderloin may not be necessary. However, if each program is designed to reach a specific subpopulation of MSM injectors, or if each outreach program has a different goal, it may be appropriate to implement all programs, as long as they are coordinated. Because the HIV Prevention Section is the organization with the most comprehensive perspective in terms of citywide HIV prevention activities, it must be responsible for monitoring their coordination.

## Counseling, Testing, and Referral

### Overall Goal, 2004-2008

To promote early knowledge of HIV status (negative and positive) through HIV counseling, testing, and referral that also provides information regarding transmission, prevention, and the meaning of HIV test results.

#### BACKGROUND

Counseling, testing, and referral (CTR) is a key intervention for helping people learn their serostatus and linking them to appropriate HIV prevention and care services. Succinct overviews of CTR for both standard and rapid testing are given in Exhibits 12 and 13.

CTR is becoming an increasingly important component in combating the epidemic. To achieve the overall goal for CTR listed above, providers need to develop strategies to motivate high-risk individuals to get tested. Strategies with proven success at motivating people to seek testing include:

- On-the-street peer-based testing for adolescents (Johnson et al 2001)
- Availability of rapid testing for African Americans (Keenan & Keenan 2001), injection drug users (IDUs), MSM, and STD clinic patients (Spielberg et al 2003)
- Videotaped educational programs for low-income women of color (Apanovitch et al 2003)
- Post-visit follow up in the clinical setting for adolescents (Beckmann et al 2002)
- Among women, concern for family and significant others (Riess et al 2001)

Providers also need to identify and reduce barriers to testing, which include:

- Lack of accessibility for high-risk populations (CTR should address this barrier by providing services to high-risk populations in appropriate settings. For example, testing for drug users should be made available in drug treatment facilities, needle exchange sites, and shelters [Strauss et al 2003].)
- Denial of HIV risk factors (Kellerman et al 2002)
- Fear of being HIV-positive (Kellerman et al 2002, Spielberg et al 2003)
- Fear of discrimination (Spielberg et al 2003)
- Fear of name being reported to public health officials (Spielberg et al 2003)
- Inability to afford treatment if HIV-positive (Spielberg et al 2003)
- Anxiety while waiting for results (Spielberg et al 2003)
- Dislike of counseling (Spielberg et al 2003)
- Dislike of blood draws (Spielberg et al 2003)

There are two additional areas related to CTR that San Francisco will focus on in 2004 and beyond:

- **Ensure that HIV-infected individuals are offered and provided support for accessing medical care and other supportive services.** CTR providers need to strengthen linkages with primary care and other services for people living with HIV. Simply providing a list of resources to clients is not sufficient. Follow-up contact (through outreach if necessary) and the development of trusting relationships are critical for transitioning HIV-positive individuals into care settings, especially for youth (Martinez et al 2003). High-risk HIV-negative individuals should be transitioned into appropriate HIV prevention and social services in a similar manner.
- **Expand the availability of rapid testing.** See Appendix 1 (pp. 226-228) and Exhibit 13 (p. 177) for more information on the implementation of rapid testing. Many of the barriers to CTR can be addressed through rapid testing.

#### WHY DO HIV COUNSELING, TESTING, AND REFERRAL?

CTR is a highly effective intervention. It serves as a potential entry point to a multitude of services for individuals who might never access any other HIV prevention service. The most effective CTR services include cognitive-behavioral counseling (Dilley et al 2002) and referrals to services (Eichler et al 2002) prevention services for high-risk HIV-negative individuals and care and prevention services for HIV-positive individuals. CTR has been associated with reductions in sexual and drug use HIV risk behavior and/or reduced HIV transmission among serodiscordant couples (Choi & Coates 1994), HIV-positive IDUs (Colon et al 1996), and STD clinic patients (Elwy et al 2002). Post-test counseling that focuses on how to disclose serostatus to partners as well as how to discuss safer sex may lead to increases in condom use (Crepaz & Marks 2003). CTR is also an effective mechanism for transitioning HIV-positive individuals into care (Eichler et al 2002, Martinez et al 2003). Finally, making CTR available to pregnant women resulted in 93% of HIV-infected women in 25 states learning their HIV status before delivery (MMWR 2002). CTR and PCRS may be very cost-effective interventions (Pinkerton et al 2001), especially when targeted to high-risk populations, but it depends on a number of factors (e.g., HIV prevalence, the likelihood of behavior change after receiving a test result).

## Counseling, Testing, Referral (CTR) – Standard Testing

Strategy or Intervention?	Intervention
<b>Definition/Description</b>	CTR is a series of personalized, client-centered encounters in which individuals can learn their serostatus as well as obtain tools to assess their own risk. CTR includes helping clients initiate and sustain behavior changes that decrease risk for HIV and giving referrals and information relevant to clients' needs.
<b>Implementation Requirements</b>	<ul style="list-style-type: none"> <li>• Risk assessment (pre-test) and disclosure (post-test) counseling must always be provided that addresses: (1) behavior change or maintenance, and (2) linkages to appropriate services.</li> <li>• Collect CTR data as indicated in their HIV Prevention Section contract.</li> <li>• CTR providers must adhere to the following guidelines:               <ul style="list-style-type: none"> <li>• CDC's Revised Guidelines for Counseling, Testing, and Referral Standards and Guidelines (MMWR 2001b), <a href="http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5019a1.htm">http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5019a1.htm</a></li> <li>• California Department of Health Services, Office of AIDS, HIV Counseling and Testing Guidelines (1997)</li> <li>• HIV Prevention Section, HIV Counseling, Testing and Referral Program Policies and Procedures</li> </ul> </li> </ul>
<b>Resources</b>	<ul style="list-style-type: none"> <li>• UCSF HIV Insite provides links to additional information and guidelines: <a href="http://hivinsite.ucsf.edu/InSite.jsp?page=kbr-07-01-04">http://hivinsite.ucsf.edu/InSite.jsp?page=kbr-07-01-04</a></li> </ul>
<b>Strengths</b>	<ul style="list-style-type: none"> <li>• Suitable for all populations, although different groups may be reached through anonymous versus confidential testing or through different CTR venues.</li> <li>• Can be very inclusive when a provider offers anonymous, confidential, appointment-based, and drop-in services.</li> <li>• Can be provided in a variety of setting, including HIV/AIDS prevention providers, primary care facilities, drug treatment facilities, and from a mobile CTR site.</li> <li>• Having two visits (testing visit and disclosure visit) may (1) reinforce commitment to reducing risk and seeking supportive services among some clients, and (2) may be a good approach for clients who may be too anxious to take the test and receive results the same day (as is done with rapid testing).</li> </ul> <p><b>Confidential CTR services:</b></p> <ul style="list-style-type: none"> <li>• Expand the possibilities for follow-up and case management of the client getting tested.</li> </ul> <p><b>Anonymous CTR services:</b></p> <ul style="list-style-type: none"> <li>• Serve the needs of clients who do not want their name or identifying information on record.</li> </ul>
<b>Limitations</b>	<ul style="list-style-type: none"> <li>• May have fewer benefits for people who are isolated or lack social support or for people in an early stage of recovery from substance abuse (although CTR can become part of the recovery process).</li> <li>• May not be appropriate for communities in which there is stigma attached to HIV if it is offered at an HIV or AIDS service provider.</li> </ul>

## Counseling, Testing, Referral (CTR) – Rapid Testing

Strategy or Intervention?	Intervention
<b>Definition/Description</b>	As of 2003, CTR using rapid testing involves a fingerstick to capture a drop of blood for HIV antibody testing. Individuals receive their HIV test results the same day, in as little as 20 minutes. HIV-positive individuals receive a preliminary positive result the day of the test. These clients then have a confirmatory test done using a standard test. They return for their confirmatory test result in a week or two.
<b>Implementation Requirements</b>	<p>Rapid testing CTR providers must adhere to the following guidelines:</p> <ul style="list-style-type: none"> <li>• All those listed for Standard CTR (Exhibit 12)</li> <li>• CDC's Quality Assurance Guidelines for Testing Using the OraQuick® Rapid HIV-1 Antibody Test (2003): <a href="http://www.cdc.gov/hiv/rapid_testing/materials/QA-Guide.htm">http://www.cdc.gov/hiv/rapid_testing/materials/QA-Guide.htm</a></li> <li>• California Department of Health Services, Office of AIDS, Supplement to the HIV Counseling and Testing Guidelines (1997) – OraQuick Rapid HIV Testing in Counseling and Testing Settings (2003)</li> </ul>
<b>Resources</b>	<ul style="list-style-type: none"> <li>• HIV Prevention Section: rapid testing policies and procedures manuals</li> <li>• General Information: <a href="http://www.cdc.gov/hiv/rapid_testing/">http://www.cdc.gov/hiv/rapid_testing/</a></li> <li>• CLIA regulations: <a href="http://www.cms.hhs.gov/clia/">http://www.cms.hhs.gov/clia/</a></li> <li>• California Migden Bill AB 1557 information: <a href="http://www.dhs.cahwnet.gov/ps/ls/lfsb/html/Phlebotomy.htm">http://www.dhs.cahwnet.gov/ps/ls/lfsb/html/Phlebotomy.htm</a></li> </ul>
<b>Strengths</b>	<ul style="list-style-type: none"> <li>• Provides another CTR option for clients.</li> <li>• May be more appropriate than standard testing for clients who are less likely to return for results at a later date (e.g., homeless individuals, persons for whom there is stigma attached to testing).</li> <li>• Offers same-day opportunities for linking people to appropriate care, prevention, or other services, if they are offered on site.</li> <li>• Uses a fingerstick instead of a blood draw (a blood draw or Orasure is required to confirm a positive result).</li> <li>• Can be done anonymously or confidentially.</li> </ul>
<b>Limitations</b>	<ul style="list-style-type: none"> <li>• Can be challenging to implement in a non-medical community setting because of federal and state regulations (see Appendix 1, pp. 226-228).</li> <li>• Not yet well-known or understood by communities and providers in San Francisco.</li> <li>• If done anonymously, more difficult to follow up to give a confirmatory result for HIV-positive clients.</li> <li>• Can be an emotionally intense experience for counselors as well as clients and is therefore not appropriate for inexperienced counselors.</li> </ul>

Note: For an update on the implementation of rapid testing in San Francisco, see Appendix 1, pp. 226-228.

## Partner Counseling and Referral Services

### Overall Goal, 2004-2008

Offer PCRS to all individuals who are HIV-positive.

#### BACKGROUND

The intent of partner counseling and referral services (PCRS) is to reduce HIV transmission by offering the HIV-positive person options about informing their sexual or needle-sharing partners of possible exposure to HIV and to provide CTR and other services to those partners referred (Exhibit 14). PCRS is not just for use in the CTR setting among those testing positive for the first time. In San Francisco, PCRS has a broader scope and can be integrated into any HIV prevention program that works with HIV-positive people. In San Francisco, PCRS has been under-utilized. This may be due to negative community perceptions of PCRS, particularly among gay men. In addition, due to a lack of clarity around what PCRS should look like, effective training in PCRS methods has not occurred, limiting the ability of San Francisco's providers to maximize this intervention.

San Francisco's PCRS model requires that all publicly funded CTR providers offer PCRS, and that all clients who test positive will be offered more than one option for how their partners can be notified. San Francisco also encourages the use of this model among Ryan White CARE Act-funded providers, private medical providers, and non-CTR providers. There are at least three mechanisms for reaching the partners of infected persons:

- **Self referral.** The provider supports the HIV-positive person to develop disclosure skills to tell their own partner(s). This is the model on which San Francisco's demonstration project is based (see below).
- **Dual referral.** The provider acts as facilitator between the HIV-positive person and their partner(s).
- **Provider referral.** The provider asks for the names and identifying information of the HIV-positive individual's partner(s). The partner(s) are then contacted and notified that they might have been exposed to HIV. The infected individual's name is not released to the partner(s). CTR is then offered to the referred partners.

The SFDPH was funded by CDC to implement a PCRS demonstration project, which will begin in early 2004. This demonstration project will compare the effectiveness and community acceptability of two types of referral. The first type of referral is a new and innovative model based on self referral (Method 1 above), which will be administered by the HIV Prevention Section through a new Partner Disclosure and Assistance Program (PDAP). This approach will be compared with provider referral, implemented by City Clinic (City Clinic will continue to offer all three options above). All referred partners will be offered rapid testing. Final results from the demonstration project are expected in late 2005.

## WHY OFFER PARTNER COUNSELING AND REFERRAL SERVICES?

PCRS is a potentially effective intervention for reaching the approximately 20% of individuals in San Francisco who do not know they are HIV-positive. In studies of PCRS for HIV, 8% to 39% of partners tested were found to have previously undiagnosed HIV infection (Golden 2002). Further, a New York City study suggests that individuals might be willing to use PCRS services; nearly all respondents reported a willingness to notify their partners personally if they were HIV-positive, and 90% of heterosexuals and 80% of MSM reported they would be willing to provide partner contact information to their provider (Carballo-Dieiguez et al 2002). Finally partner notification was associated with higher condom use in one study (Hoxworth et al 2003).

In San Francisco, it is key that a variety of PCRS options be available to clients because no one approach will likely be acceptable to or effective for all populations. According to a review of the literature, provider referral is more effective than self referral at getting partners to come in for HIV testing (Mathews et al 2002). In San Francisco, however, it remains to be seen which PCRS options will have the most success and be the most widely accepted in the community. Finally, PCRS may be a very cost-effective intervention (Varghese et al 1999), especially when targeted to high-risk populations, but it depends on a number of factors (e.g., HIV prevalence, the likelihood of behavior change after receiving a test result).

## Partner Counseling and Referral Services (PCRS)

Strategy or Intervention?	Intervention
<b>Definition/Description</b>	<p>PCRS assist individuals in learning that they may have been exposed to HIV, based on information from an HIV-positive sexual or needle-sharing partner. PCRS can be provided in at least three ways: (1) self referral, where the provider supports the HIV-positive person to develop disclosure skills to tell their partner; (2) dual referral, where the provider acts as facilitator between partners, or (3) provider referral, where the provider contacts and notifies the partner. With method 3, PCRS is confidential; the infected individual's name is not released to the partner. CTR is then offered to the referred partners.</p>
<b>Implementation Requirements</b>	<p>All agencies providing PCRS must adhere to the following guidelines:</p> <ul style="list-style-type: none"> <li>• CDC's HIV Partner Counseling and Referral Services Guidance (1998): <a href="http://www.cdc.gov/hiv/pubs/pcrs.htm">http://www.cdc.gov/hiv/pubs/pcrs.htm</a></li> <li>• California Department of Health Services, Office of AIDS HIV Partner Counseling and Referral Services Guidelines (2000)</li> </ul> <p>All agencies providing PCRS must:</p> <ul style="list-style-type: none"> <li>• Collect PCRS data as indicated in their HIV Prevention Section contract.</li> </ul>
<b>Resources</b>	<ul style="list-style-type: none"> <li>• CDC's informational document on PCRS implementation: <a href="http://www.cdc.gov/hiv/partners/Interim/partnercounsel.htm">http://www.cdc.gov/hiv/partners/Interim/partnercounsel.htm</a></li> </ul>
<b>Strengths</b>	<ul style="list-style-type: none"> <li>• Can assist anyone wishing to inform partners of their HIV-positive status.</li> <li>• Can be especially valuable for clients wishing to notify a partner who is not currently in their life or who may have a violent or abusive reaction to hearing the news directly from the client.</li> <li>• May be the only means by which some people learn of their possible exposure to HIV.</li> <li>• Offers options to clients for how to inform partners.</li> <li>• PCRS is always provided in-person, allowing for on-the-spot counseling, testing, and referrals.</li> <li>• Can be used with rapid testing to reduce barriers for referred partners to get tested.</li> <li>• When a self referral approach is used, it promotes discussion of sex and sexuality between partners and affirms individual and community responsibility.</li> </ul>
<b>Limitations</b>	<ul style="list-style-type: none"> <li>• If the provider referral method is used, it can only reach those partners voluntarily mentioned by the testing client who wish to use this service.</li> <li>• Provider referral may discourage individuals from talking to their partners.</li> <li>• May not be perceived favorably by all populations.</li> </ul>

## Prevention with Positives

### Overall Goal, 2004-2008

Build the capacity of HIV prevention, care, and other providers to conduct prevention with positives.

#### BACKGROUND

Until recently, little attention has been paid to the unique HIV prevention needs of HIV-positive individuals. Although HIV-positive people have always been included in prevention interventions, the interventions have not always addressed issues such as health maintenance, discussion of serostatus with partners, how to cope with depression related to finding out one is HIV-positive, or other issues relevant for HIV-positive people. A recent assessment of HIV prevention programs found that many agencies have adjusted their HIV prevention programs to include messages or components relevant for HIV-positive people, even if they do not have a formal prevention with positives program or intervention (DeMayo 2003). This assessment also revealed that formal prevention with positives programs address most or all of eleven main content areas. These content areas are incorporated into the Implementation Recommendations listed in Exhibit 15.

In 2003, the HPPC held a joint meeting with the HIV Health Services Planning Council (also known as the CARE Council) to discuss collaboration around the design and implementation of prevention with positives programs. The two Councils agreed on the following definition of prevention with positives:

Prevention with positives is any intervention that addresses the specific prevention needs of HIV-positive persons. HIV-positive people should be involved in the planning and implementation of all prevention with positives programs.

The main goals of prevention with positives are:

- To reduce the spread of HIV and STDs
- To help HIV-positive people achieve and maintain physical, emotional, sexual, and reproductive health and well-being
- To assist those HIV-positive people who do not know they are positive in learning their HIV status

At the joint meeting, the Councils set the following priorities and recommendations for improving prevention with positives:

#### **Strengthen linkages from testing to care.**

- Counseling must always accompany testing, because this is when referrals are given and behavior change is discussed.
- A strong referral network must be in place that is recognized and utilized by all CTR sites.
- Barriers to utilizing care services must be addressed with the client, such as mental health issues, substance use issues, and lack of transportation. The CTR program's role in transitioning the person into

services might extend beyond the session at which the individual learns his or her status. The goal is to transition the client into primary care and other health and social services through appropriate means identified by the CTR program (e.g., providing more than one post-disclosure visit, having the HIV test counselor also serve as the client's case manager).

#### **Address information gaps.**

- A stronger focus is needed on the ways in which drug use (both IDU and non-IDU) can affect sexual risk behaviors.
- Clear and consistent messages need to be developed around issues such as: How does viral load affect infectiousness? What is superinfection?

#### **Improve substance use and mental health services for HIV-positive persons.**

- Improve access to substance use and mental health treatment for HIV-positive persons, through making changes to systems and policies.
- Train mental health and substance use workers in HIV and HIV prevention.

#### **Increase the use of PCRS.**

- Increase the availability of voluntary, client-centered, confidential, and community-driven PCRS.
- Train providers in (1) appropriate methods for assisting clients in disclosing their HIV status to their partners, and (2) dealing with the barriers to disclosing serostatus to partners (e.g., threat of domestic violence, threat of being reported to Immigration and Naturalization Service [INS]), and (3) resources available to support PCRS.
- For more on PCRS, see pp. 178-180.

#### **Integrate HIV prevention into care services.**

- Implement prevention with positives in the context of primary care, case management, and social/emotional support groups for people living with HIV/AIDS (PLWHA).
- In the primary care setting, prevention with positives can be facilitated by a doctor, nurse, health educator, or peer advocate.

Regarding the final priority, recent research shows that effective prevention in clinical settings is sorely lacking (Fisher et al 2002, Morin 2002, Wilson & Kaplan 2000). In San Francisco as well as other places, clinicians do not have a working understanding of prevention with positives, nor do clinicians generally have any specific discussions with their HIV-positive patients about safer sex or needle sharing (Morin 2002). Because prevention with positives has the potential to be extremely effective in the clinical setting, working with the primary care providers of PLWHA is a top priority. The SFDPH and the two Councils will provide leadership in this area over the next few years by outlining and implementing concrete strategies for improving this aspect of HIV prevention work.

It is important that San Francisco HIV prevention providers have the capacity to conduct prevention with positives, and capacity-building in this area is a top priority. The HIV Prevention Section will offer training and provide technical assistance in this area beginning in 2004.

## WHY DO PREVENTION WITH POSITIVES?

Prevention with positives interventions have proven effectiveness at increasing harm reduction and health promotion behaviors (Margolin et al 2003) and reducing risk behaviors (Grinstead et al 2001, Rotheram-Borus et al 2001). Further studies support the efficacy of prevention case management (PCM), an intervention commonly used with HIV-positive individuals (see section on PCM, pp. 188–189).

The number of research studies on the effectiveness of HIV prevention interventions for HIV-positive individuals has been steadily increasing over the last few years. Studies in progress at CAPS in San Francisco include:

- The Unity Project (<http://www.caps.ucsf.edu/unity/>) (Principal Investigator: Morin)
- Prevention with Positives Evaluation Center (Principal Investigator: Morin)
- Seropositive Urban Men’s Intervention Trial (Principal Investigator: Gomez)
- VOICE: A Prevention Intervention for HIV Seropositive Injection Drug Users (Principal Investigator: Gomez)
- Providing Prevention: An Intervention for HIV Medical Providers (Principal Investigator: Dawson Rose)

## Prevention with Positives

Strategy or Intervention?	Strategy
<b>Definition/Description</b>	<p>Prevention with positives is any intervention that addresses the specific prevention needs of HIV-positive persons. HIV-positive people should be involved in the planning and implementation of all prevention with positives programs.</p> <p>The main goals of prevention with positives are:</p> <ul style="list-style-type: none"> <li>• To reduce the spread of HIV and STDs</li> <li>• To help HIV-positive people achieve and maintain physical, emotional, sexual, and reproductive health and well-being</li> <li>• To assist those HIV-positive people who do not know they are positive in learning their HIV status</li> </ul>
<b>Implementation Recommendations</b>	<p>Prevention with positives programs should:</p> <ul style="list-style-type: none"> <li>• Be designed for HIV-positive people (prevention with positives can still be done in mixed serostatus groups, as long as the messages address the specific, unique needs of HIV-positive individuals).</li> <li>• Include multiple sessions, if it is an individual-level intervention, to promote long-term health and wellness (prevention with positives can also be done at the community level, e.g., social marketing).</li> <li>• Discuss how HIV-positive individuals might potentially put others at risk.</li> <li>• Include a comprehensive risk assessment (i.e., both behaviors and cofactors) and incorporate a risk reduction conversation about responsibility in not infecting others without promoting shame or stigma.</li> <li>• Incorporate skills-building techniques on how to protect others, rather than focusing only on how to protect oneself.</li> <li>• Train staff in both HIV prevention and sensitivity to HIV-positive individuals.</li> <li>• Include HIV-positive individuals in the design and delivery of programs.</li> <li>• Provide linkages to appropriate health and social services, including primary care, mental health, substance abuse, STD testing and treatment, HIV CTR, and other HIV prevention services.</li> <li>• Address the impact of cofactors (e.g., substance use, mental health, homelessness, domestic violence).</li> <li>• Incorporate harm reduction.</li> <li>• Address disclosure issues.</li> <li>• Empower individuals to make healthy choices.</li> <li>• Be tailored to the individual.</li> <li>• Help individuals cope with depression related to finding out one is HIV-positive.</li> <li>• Be integrated into HIV care services.</li> <li>• Be sensitive to who the best prevention messengers are for their particular population (e.g., HIV-positive peers, professional case managers).</li> </ul>
<b>Resources</b>	<ul style="list-style-type: none"> <li>• Collins et al 2000: <a href="http://www.caps.ucsf.edu/publications/pozmono.pdf">http://www.caps.ucsf.edu/publications/pozmono.pdf</a></li> <li>• “Incorporating HIV Prevention into the Medical Care of Persons Living with HIV” (MMWR 2003b): <a href="http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5212a1.htm">http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5212a1.htm</a></li> <li>• AIDS Research Institute, AIDS Policy Research Center, links to prevention with positives resources: <a href="http://ari.ucsf.edu/policy/pwp.htm">http://ari.ucsf.edu/policy/pwp.htm</a></li> <li>• U.S. Conference on AIDS Institute, “Prevention with HIV Positive People: What Is It? How To Do It!” (2002): <a href="http://ari.ucsf.edu/pdf/USCA.pdf">http://ari.ucsf.edu/pdf/USCA.pdf</a></li> <li>• California Department of Health Services, Office of AIDS, “Prevention with Positives: A Guide to Effective Programs” (2003): <a href="http://ari.ucsf.edu/policy/Effective_PWP_Programs.doc">http://ari.ucsf.edu/policy/Effective_PWP_Programs.doc</a></li> </ul>
<b>Strengths</b>	<ul style="list-style-type: none"> <li>• Involves HIV-positive individuals in the prevention of HIV transmission.</li> <li>• Can support links between prevention and care services.</li> <li>• Has demonstrated effectiveness among many populations.</li> <li>• Can be supported by both prevention and care funding sources, thus promoting collaboration at the city and provider levels.</li> </ul>
<b>Limitations</b>	<ul style="list-style-type: none"> <li>• Faces barriers to implementation, including legal (e.g., criminalization of non-disclosure of HIV status) and environmental barriers (e.g., stigma) (Shriver et al 2000).</li> </ul>

## Health Education and Risk Reduction Activities

### Overall Goal, 2004-2008

Include health education and risk reduction activities as part of larger programs that link individuals to HIV CTR and create community, structural, and policy change.

#### BACKGROUND

In addition to a renewed focus on CTR, PCRS, and prevention with positives, San Francisco will continue to support a broad range of individual-, group-, and community-level health education and risk reduction activities. All of the activities in this section have proven effectiveness at reducing sexual and/or injection-related risk behaviors. To maximize their effectiveness, these strategies and interventions should not function in a vacuum; they should be used in combination as appropriate, link individuals to CTR and PCRS services, and take a prevention with positives approach as necessary.

The centerpiece of the health education and risk reduction activities is venue-based individual outreach (VBIO). VBIO is a primary entry point for helping individuals access a broad range of HIV prevention and other services. In addition, VBIO in itself can be a stand-alone intervention when its goal is to provide risk reduction information or to distribute condoms. Using an outreach model to conduct other types of interventions, such as CTR or individual risk reduction counseling (IRRC), can be very effective for reaching populations that may face barriers in showing up for appointments (e.g., homeless persons). VBIO must be a high priority in order for HIV prevention to continue to reach high-risk populations in San Francisco.

VBIO should be nested within a larger network of health education and risk reduction strategies and interventions. Interventions can be individual-level (e.g., individual risk reduction counseling [IRRC], prevention case management [PCM], group-level (e.g., single session groups [SSGs], multiple session workshops [MSWs]), or community-level interventions (e.g., social marketing, community organizing). Strategies range from peer education to harm reduction to Internet-based approaches.

Providers must determine how best to combine the various health education and risk reduction strategies and interventions to create the most appropriate and effective programs for their consumers, based on scientific evidence as well as their experience. Regardless, at a citywide level, the whole spectrum of prevention must be covered, from individual-level to community level to structural interventions, in order for HIV prevention to be effective in this era of the epidemic. (See Exhibits 1 and 2 for more on the Spectrum of Prevention, which shows how health education and risk reduction activities can be incorporated into a program with a broader scope.)

## VENUE-BASED (STREET AND COMMUNITY) INDIVIDUAL OUTREACH

Venue-based individual outreach (VBIO) is highly effective for:

- Decreasing sexual risk behavior (Birkel et al 1993)
- Increasing condom use (Wendell et al 2003)
- Decreasing injection-related risk behavior (Buchanan et al 2003, Watters et al 1990, Weibel et al 1993)
- Reaching clients who might not otherwise be reached through traditional means and addressing their multiple needs (Tinsman et al 2001)
- Linking difficult-to-reach HIV-positive populations (e.g., high-risk youth) into care services (Martinez et al 2003)
- Providing access to HIV CTR and increasing HIV testing rates among high-risk youth, especially when the outreach workers are peers and on-the-street CTR is offered (Gleghorn et al 1997, Johnson et al 2001)

Outreach can also be cost-effective, according to one assessment of the cost-effectiveness of various interventions (Pinkerton et al 2001). For example, to avert the greatest number of infections among IDUs, as much as possible of available funds needs to be spent on outreach (Wilson & Kahn 2003).

In San Francisco, there is a pressing need for late night and early morning outreach for MSM drug users (non-IDU), sex workers, and other populations that HIV prevention might not otherwise reach (Pendo et al 2003). Outreach at these times could not only help to decrease risk behaviors but would also link individuals to needed services, such as drug treatment and HIV CTR. Such outreach must respect the fact that people are out late at night to have fun and should recognize the times when people are most open to intervention (e.g., before people hit the streets, when people are coming down from being high). Exhibit 16 describes outreach and how and when to implement it.

## Venue-Based (Street and Community) Individual Outreach (VBIO)

Strategy or Intervention?	Intervention
<b>Definition/Description</b>	<p>VBIO is a face-to-face interaction between an outreach worker (or a team of outreach workers) and a client or a small group of clients that takes place on the street or in venues where the population one is trying to reach may congregate* at appropriate times of the day, night, week, and year. VBIO may be a one-time intervention or part of a long-term relationship established by the outreach worker with clients in a particular community. It can be done as a brief encounter or more extended encounter during which HIV prevention education and referrals are given. It may also be used to recruit individuals into HIV prevention programs but must always include HIV education and referrals.</p>
<b>Implementation Requirements</b>	<p>All VBIO providers must:</p> <ul style="list-style-type: none"> <li>• Collect Evaluating Local Interventions (ELI) data as indicated in their HIV Prevention Section contract.</li> </ul>
<b>Implementation Recommendations</b>	<p>VBIO should:</p> <ul style="list-style-type: none"> <li>• Include the following: (1) distribution and demonstration of prevention materials, such as condoms and bleach kits, (2) assessment of client needs, (3) provision of health education/risk reduction information, (4) dialogue about a client's life issues that affect HIV risk, and (5) referrals to appropriate health and social services, including primary care, mental health, substance abuse, STD testing and treatment, and other HIV prevention services.</li> <li>• Work with the HIV Prevention Section to develop a method for tracking referrals made to other services to the extent possible.</li> <li>• Be a known and trusted resource.</li> <li>• Be used to engage client in other interventions, such as CTR, IRRC, or PCM when appropriate.</li> <li>• Be consistent and continuous and involve client follow-up when possible.</li> <li>• Reach high-risk populations at appropriate times, including late night and early morning hours, and at appropriate locations.</li> <li>• Consider including distribution of injection equipment.</li> <li>• Outreach workers should participate in the Institute for Community Health Outreach outreach worker trainings, as well as ongoing harm reduction trainings and the outreach providers meeting convened by the HIV Prevention Section.</li> </ul>
<b>Resources</b>	<ul style="list-style-type: none"> <li>• CDC's Guidelines for Health Education and Risk Reduction Activities under Street and Community Outreach (1995): <a href="http://www.phppo.cdc.gov/cdcRecommends/showarticle.asp?a_artid=P0000389&amp;TopNum=50&amp;CallPg=Adv">http://www.phppo.cdc.gov/cdcRecommends/showarticle.asp?a_artid=P0000389&amp;TopNum=50&amp;CallPg=Adv</a></li> </ul>
<b>Strengths</b>	<ul style="list-style-type: none"> <li>• Can reach large numbers of people.</li> <li>• Can be implemented creatively, in combination with other interventions.</li> <li>• Appropriate for nearly all populations, especially those who are marginalized, difficult to reach, and not connected to the service system.</li> <li>• Can link individuals to services.</li> <li>• Can be implemented as a longer encounter (up to 20 minutes) or a brief encounter (5 minutes).</li> </ul>
<b>Limitations</b>	<ul style="list-style-type: none"> <li>• May not be accepted or permitted in certain venues.</li> <li>• Can draw negative attention from uninformed law enforcement.</li> <li>• Cannot always meet clients' needs for services if there is a lack of available referral resources.</li> <li>• Is challenging to conduct outcome evaluation, in terms of behavior change and referral outcomes.</li> </ul>

\*Examples of venues are street corners, raves, schools, faith institutions, hospitals, sport leagues, gyms, the general assistance office, single room occupancy hotels (SROs), halfway houses, Internet chat rooms, outdoor cruising spots, bookstores, sex clubs, public housing, laundromats, crack houses, street fairs and other community events, massage parlors, porn theaters, bars, night clubs, community centers, and retail merchants.

## Prevention Case Management

Prevention case management (PCM) has only emerged in the last five years as a common approach to HIV prevention, and there are no published studies to date on its effectiveness. However, several studies are in progress. Some examples are:

- The SFDPH AIDS Office's PCM/Multiple Session Workshop (MSW) Outcome Study (Sebesta 2003)
- The New York City Department of Health's HIV PCM Evaluation  
(<http://www.hunter.cuny.edu/health/aidshp/prj.pcm.html>)

Preliminary results from the SFDPH study indicate that PCM is effective at decreasing the highest risk sexual and injection behaviors (Sebesta 2003, unpublished report). Risk behaviors among study participants decreased dramatically in the first month and remained low at four-month follow-up for both HIV-positive and HIV-negative individuals. However, PCM was no more effective at facilitating behavior change than MSW. Since MSWs can reach more people, they may be more cost-effective (see section on MSWs, pp. 196-197). However, PCM may be more appropriate than MSW for some individuals or populations (e.g., people in crisis, people with mental health and/or substance use issues, people needing intensive support around linking to ancillary services, people who would not feel comfortable attending a group intervention). Continuing analysis of data from this study will examine the efficacy of PCM in linking clients to needed substance use, mental health, primary care, prevention, and other health and social services. PCM is not intended to replace CARE case management for HIV-positive clients. The role of the prevention case manager is to work with the individual around prevention and behavioral change and to coordinate with the CARE case manager, who links the individual to CARE services.

PCM has some unique characteristics compared with IRRC and group-level interventions that may make it the most suitable intervention for some individuals. For example, PCM is more intensive and involves a more ongoing relationship with the provider than does IRRC. Unlike group interventions, it is also an individually tailored service. Therefore, individuals who need intensive one-on-one support for dealing with life issues may benefit more from PCM than other intervention types. HIV-positive individuals are one such group, and thus prevention with positives can be done using PCM. Exhibit 17 describes PCM and how and when to implement it.

## Prevention Case Management (PCM)

Strategy or Intervention?	Intervention
<b>Definition/Description</b>	<p>“PCM is a client-centered HIV prevention activity with the fundamental goal of promoting the adoption and maintenance of HIV risk-reduction behaviors by clients with multiple, complex problems and risk-reduction needs. PCM is intended for persons having or likely to have difficulty initiating or sustaining practices that reduce or prevent HIV acquisition, transmission, or reinfection. As a hybrid of HIV risk-reduction counseling and traditional case management, PCM provides intensive, ongoing, individualized prevention counseling, support, and service brokerage. This HIV prevention activity addresses the relationship between HIV risk and other issues such as substance abuse, STD treatment, mental health, and social and cultural factors” (CDC HIV Prevention Case Management Guidance, September 1997). PCM can be used with HIV-negative and HIV-positive individuals and can be provided in a face-to-face setting. PCM is a more intensive, longer-term intervention than individual risk reduction counseling (IRRC).</p>
<b>Implementation Requirements</b>	<p>All PCM providers must:</p> <ul style="list-style-type: none"> <li>• Collect Evaluating Local Interventions (ELI) data as indicated in their HIV Prevention Section contract.</li> <li>• Adhere to the HIV Prevention Case Management: Standards and Guidelines for the Delivery of Services of San Francisco, developed by the Prevention Case Management Standardization and Evaluation Project Community Advisory Board (2000). Available from the HIV Prevention Section.</li> </ul>
<b>Resources</b>	<ul style="list-style-type: none"> <li>• CDC Prevention Case Management Guidance (1997): <a href="http://www.phppo.cdc.gov/cdcRecommends/showarticle.asp?a_artid=1356++++&amp;TopNum=50&amp;CallPg=Adv">http://www.phppo.cdc.gov/cdcRecommends/showarticle.asp?a_artid=1356++++&amp;TopNum=50&amp;CallPg=Adv</a></li> <li>• CDC HIV Prevention Case Management Literature Review and Current Practice (1997): <a href="http://www.cdc.gov/hiv/pubs/hivpcml.htm">http://www.cdc.gov/hiv/pubs/hivpcml.htm</a></li> <li>• CDC review of PCM programs across the country: Purcell et al (1998)</li> </ul>
<b>Strengths</b>	<ul style="list-style-type: none"> <li>• Appropriate for HIV-positive individuals, high-risk HIV-negative individuals, and high-risk individuals who do not know their serostatus.</li> <li>• Suitable for people seeking some stability/regularity in their lives and people who are reaching an action stage in dealing with health concerns.</li> <li>• Can be implemented in a variety of settings (e.g., health care facilities, CBOs)</li> <li>• Provides personal attention to individuals for whom privacy and confidentiality are important.</li> <li>• Provides opportunities for linkages and referrals to other health and social services, including primary care, mental health, substance abuse, HIV CTR, STD testing and treatment, and other HIV prevention services, and referrals can be tracked and followed up on.</li> </ul>
<b>Limitations</b>	<ul style="list-style-type: none"> <li>• May not be appropriate for people who perceive themselves to be low risk or for individuals who are not able to keep appointments or commit to longer-term, one-on-one, intensive interactions or to a behavior change plan.</li> <li>• Insufficient for creating community-wide impact unless accompanied by outreach or other interventions.</li> <li>• May be challenging to find prevention case managers.</li> </ul>

## INDIVIDUAL RISK REDUCTION COUNSELING

Individual risk reduction counseling (IRRC) is an effective intervention for many populations at changing drug use and sexual risk behaviors, whether it is a brief single encounter, an extended more intensive encounter, or more than one encounter. Multiple encounters are more likely to result in behavior change. For example, Des Jarlais (1995) reported reductions in injection drug use risk behavior as a result of IRRC, with both a short basic knowledge intervention and an enhanced knowledge plus counseling intervention. Branson et al (1998) reported increased condom use and decreased number of partners among STD clinic patients receiving IRRC. A study by Kamb et al (1998) demonstrated an increase in 100% condom use and reduced repeat STD infections among heterosexual adolescent and adult STD clinic patients with both an enhanced and brief IRRC intervention compared with didactic instruction alone. IRRC sessions with HIV-positive women were effective at increasing self-efficacy and condom use in another study (Fogarty et al 2001). Although no cost-effectiveness information for this particular intervention was found in the literature, Kahn (1995) reports on one study that found an extended counseling intervention for IDUs to be cost-effective. Exhibit 18 describes IRRC and how and when to implement it.

## Individual Risk Reduction Counseling (IRRC)

Strategy or Intervention?	Intervention
<b>Definition/Description</b>	IRRC is a personalized, client-centered encounter between an individual and a trained counselor provided in a face-to-face or non-face-to-face setting. It can be a one-time intervention, or the client and counselor can meet more than once. IRRC is highly mobile and can take place in an outreach setting, a person's home, shelters, clinics, community centers, over the telephone, or on the Internet. IRRC is a time-limited intervention that can be used as a vehicle for transitioning clients into more intensive services.
<b>Implementation Requirements</b>	All IRRC providers must: <ul style="list-style-type: none"> <li>• Collect Evaluating Local Interventions (ELI) data as indicated in their HIV Prevention Section contract.</li> </ul>
<b>Implementation Recommendations</b>	IRRC should: <ul style="list-style-type: none"> <li>• Consist of counseling sessions that are at least 30 minutes long.</li> <li>• Include (1) HIV/STD information, (2) discussion of risk behaviors and a written risk reduction plan, (3) counseling, (4) skills building, and (5) referrals to appropriate health and social services, including primary care, mental health, substance abuse, HIV CTR, STD testing and treatment, and other HIV prevention services.</li> <li>• Track and follow up on referrals and linkages made.</li> </ul>
<b>Resources</b>	<ul style="list-style-type: none"> <li>• CDC's Guidelines for Health Education and Risk Reduction Activities (1995) under Risk Reduction Counseling:  <a href="http://www.phppo.cdc.gov/cdcRecommends/showarticle.asp?a_artid=P0000389&amp;TopNum=50&amp;CallPg=Adv">http://www.phppo.cdc.gov/cdcRecommends/showarticle.asp?a_artid=P0000389&amp;TopNum=50&amp;CallPg=Adv</a> </li> </ul>
<b>Strengths</b>	<ul style="list-style-type: none"> <li>• Generally suitable for all populations.</li> <li>• Can be implemented in a variety of settings (e.g., outreach, health care facilities, community-based organizations).</li> <li>• Provides personal attention to individuals for whom privacy and confidentiality are important.</li> <li>• Can help transition clients into more intensive services, such as PCM.</li> <li>• Provides opportunities for linkages and referrals to other health and social services, including primary care, mental health, substance abuse, HIV CTR, STD testing and treatment, and other HIV prevention services, and referrals can be tracked and followed up on.</li> </ul>
<b>Limitations</b>	<ul style="list-style-type: none"> <li>• Multi-session IRRC may not be appropriate for people who are not able to keep appointments.</li> </ul>

## NEEDLE EXCHANGE

A CDC report on needle exchange programs ([http://www.cdc.gov/idu/facts/aed\\_idu\\_syr.htm](http://www.cdc.gov/idu/facts/aed_idu_syr.htm)) published in 2002 quotes the following conclusion of the National Institutes of Health Consensus Panel on HIV Prevention:

“An impressive body of evidence suggests powerful effects from needle exchange programs.... Can the opposition to needle exchange programs in the United States be justified on scientific grounds? Our answer is a simple and emphatic no. Studies show reduction in risk behavior as high as 80%, with estimates of a 30% or greater reduction of HIV in IDUs.”

This same CDC report concludes that needle exchange programs do not encourage drug use, and they have demonstrated effectiveness in the following areas:

- Providing opportunities for IDUs to use sterile syringes and share less often
- Linking hard-to-reach IDUs with public health services, including tuberculosis and STD treatment
- Helping IDUs stop using drugs, through referrals to substance use treatment

Further, several studies have found use of needle exchange to be associated with reduced needle sharing and other injection-related risk reduction behaviors (Guydish et al 1995, Hagan et al 1991, UC Berkeley School of Public Health, undated report, Watters et al 1994). A few studies suggest reduced HIV transmission as a result of needle exchange (Heimer et al 1996), but it is unlikely that any study will ever show this conclusively because of barriers related to sample size and randomization (UC Berkeley School of Public Health, undated report). A review of the literature, including government reports, overwhelmingly supports the effectiveness of needle exchange (Vlahov & Junge 1998). It is also a cost-effective approach in terms of new infections averted (Holtgrave et al 1998, Lurie et al 1998, UC Berkeley School of Public Health, undated report). Most cost-effectiveness studies suggest that the cost per HIV infection averted is far below the \$119,000 lifetime cost of treating an HIV-infected person (UC Berkeley School of Public Health, undated report).

It is widely believed that the availability of needle exchange in San Francisco is responsible for keeping new HIV infections at endemic as opposed to epidemic levels among IDUs, although no formal studies provide conclusive evidence to this effect. Even in the absence of such data, which would be nearly impossible to generate for the reasons explained earlier, needle exchange programs are clearly justifiable in the context of an epidemic of a highly lethal, preventable infectious disease (UC Berkeley School of Public Health, undated report). Needle exchange is therefore a high priority intervention for IDUs, and needle exchange providers should consider how best to meet the needs of different IDU subpopulations. Exhibit 19 describes needle exchange and how to implement it.

## Needle Exchange

Strategy or Intervention?	Intervention
<b>Definition/Description</b>	Needle exchange programs are community or street-based programs that provide sterile needles and other injection equipment to IDUs and hormone, steroid, vitamin, and insulin users. Needle exchange can be primary (i.e., individuals exchange their own needles) or secondary (i.e., individuals exchange needles for friends or a group of people).
<b>Implementation Requirements</b>	Needle exchange sites must provide, at a minimum, the following materials and services: <ul style="list-style-type: none"> <li>• Safer injection supplies, including syringes.</li> <li>• Condoms and safer sex supplies.</li> </ul>
<b>Implementation Recommendations</b>	<p>Needle exchange sites should provide some combination of the following services/materials, depending on what is appropriate for the site:</p> <ul style="list-style-type: none"> <li>• Materials (e.g., alcohol swabs) to help prevent abscesses and other bacterial infections.</li> <li>• HIV CTR.</li> <li>• Sexual and injection risk reduction education.</li> <li>• Substance use treatment and other health and social services, either on-site or through referral.</li> <li>• Crisis intervention.</li> <li>• Screening for tuberculosis, hepatitis B, hepatitis C, and other infections, either on-site or through referral.</li> </ul> <p>Needle exchange programs should:</p> <ul style="list-style-type: none"> <li>• Be adequately staffed.</li> <li>• Promote their services through creative channels, to ensure that those who need or want services know when and where to get them.</li> <li>• Have a designated health education and referral and resource person.</li> <li>• Offer passes that reserve spots in drug treatment programs (i.e., drug treatment vouchers) to interested clients, when possible.</li> <li>• Meet the safety needs of clients (e.g., minimizing police presence, having a protective and vigilant staff).</li> <li>• Collaborate and/or develop memoranda of understanding with HIV prevention education agencies and other health and social service providers (e.g., SFDPH wound care) to provide services at the needle exchange site.</li> <li>• Provide referrals to appropriate health and social services not offered on site, including primary care, mental health, substance abuse, STD testing and treatment, and other HIV prevention services.</li> <li>• Be tailored to IDU subpopulations (e.g., needle exchange for speed-using gay men might need to be different from needle exchange for transgendered persons).</li> <li>• Advocate for policies that increase access to clean needles (see CDC's article on "Policy Efforts to Increase IDU's Access to Sterile Syringes": <a href="http://www.cdc.gov/idu/facts/aed_idu_pol.htm">http://www.cdc.gov/idu/facts/aed_idu_pol.htm</a>)</li> </ul>
<b>Strengths</b>	<ul style="list-style-type: none"> <li>• Can be tailored to the needs of a particular neighborhood or IDU subpopulation.</li> <li>• Provides a bridge to other prevention, health, and social services.</li> <li>• Can be useful for people who inject hormones (e.g., transgendered persons), steroids, or vitamins, as well as for IDUs.</li> <li>• May be more appropriate than pharmaceutical outlets for higher-risk populations that may benefit from linkages to services.</li> <li>• Can reduce transmission of hepatitis B and C as well as HIV.</li> </ul>
<b>Limitations</b>	<ul style="list-style-type: none"> <li>• Site locations and hours may not be known among all IDUs.</li> <li>• May not always be perceived as safe, due to fear of law enforcement, agencies that have the power to remove children from their homes, INS, or other government authorities.</li> <li>• May not be appropriate in the context of a 24-hour residential treatment program and abstinence-based drug treatment programs.</li> <li>• Cannot currently be funded with federal funds.</li> <li>• Can face resistance from neighbors where the site is located.</li> </ul>

## SINGLE SESSION GROUPS

A number of studies have shown that single session groups (SSGs) can be effective at reducing sexual risk behavior in many different populations. They have also been shown to be cost-effective with some populations and in some contexts (Pinkerton et al 2001). However, multi-session interventions are more likely to have an impact (see the section on MSW, pp. 196–197). Because of this, providers need to justify why they would implement an SSG when an MSW or other multi-session intervention would be appropriate and feasible. In some contexts, multi-session interventions may not be feasible (e.g., when clients are unlikely to attend multiple sessions), and in these cases SSG can be used. SSGs can be implemented as drop-in groups or as more structured interventions.

Several effective SSG interventions have been described in the literature. Many of them use a peer-led approach, which is likely part of the reason for their effectiveness (see the section on Peer Education, pp. 202–203). Populations that have reported decreases in HIV risk behavior after participating in SSGs include:

- African-American male adolescents in Philadelphia (Jemmott et al 1992)
- Gay and bisexual men in Philadelphia (Valdiserri et al 1989)
- Gay Asian/Pacific Islander men in San Francisco (Choi et al 1996)
- Adolescents (Kennedy et al 2000a)
- Incarcerated individuals (Grinstead et al 1999)

Exhibit 20 describes SSGs and how to implement them.

## EXHIBIT 20

### Single Session Groups (SSGs)

Strategy or Intervention?	Intervention
<b>Definition/Description</b>	<p>An SSG is a one-time intensive session that focuses on information about HIV (e.g., transmission, behavior change), motivational activities, skills-building, self-esteem issues, social support, and/or community building. It may also touch on other relevant issues specific to the population. This intervention may be implemented as planned groups, impromptu groups, drop-in groups, support groups, a mobile intervention using vans as session sites, or other method.</p>
<b>Implementation Requirements</b>	<p>All SSG providers must:</p> <ul style="list-style-type: none"> <li>• Collect Evaluating Local Interventions (ELI) data as indicated in their HIV Prevention Section contract.</li> </ul>
<b>Implementation Recommendations</b>	<p>SSGs should:</p> <ul style="list-style-type: none"> <li>• Be advertised and promoted through media and outreach.</li> <li>• Recruit participants via other activities, both HIV- and non-HIV-related.</li> <li>• Be followed by additional support, follow-up groups, and/or “booster” groups.</li> <li>• Include ground rules created and adopted by participants.</li> <li>• Include discussions about issues beyond just HIV as appropriate (e.g., racism, homophobia).</li> <li>• Be provided in community venues that are accessible to the population.</li> <li>• Provide referrals to appropriate health and social services, including primary care, mental health, substance abuse, STD testing and treatment, and other HIV prevention services.</li> </ul>
<b>Resources</b>	<ul style="list-style-type: none"> <li>• CDC’s Guidelines for Health Education and Risk Reduction Activities (1995) under Individual and Group Interventions:  <a href="http://www.phppo.cdc.gov/cdcRecommends/showarticle.asp?a_artid=P0000389&amp;TopNum=50&amp;CallPg=Adv">http://www.phppo.cdc.gov/cdcRecommends/showarticle.asp?a_artid=P0000389&amp;TopNum=50&amp;CallPg=Adv</a> </li> </ul>
<b>Strengths</b>	<ul style="list-style-type: none"> <li>• Appropriate for populations that cannot commit to multiple sessions.</li> <li>• Can be run as one-time skills-building workshops.</li> <li>• Can recruit clients for other prevention-oriented activities.</li> <li>• Can contribute to shifting community norms when offered frequently and focused on particular topics of interest to the community.</li> </ul>
<b>Limitations</b>	<ul style="list-style-type: none"> <li>• Not as effective as MSW at changing HIV risk behavior.</li> <li>• Less helpful for people with serious mental health issues, for the highest-risk populations, and for those most in denial about their risk.</li> <li>• Difficult to conduct outcome evaluation in terms of behavior change if client is not linked to additional services.</li> </ul>

## MULTIPLE SESSION WORKSHOP

A multiple session workshop (MSW) is a very versatile intervention because the content can be tailored to almost any population. Further, the MSW has demonstrated effectiveness at reducing a variety of sexual risk taking behaviors as well as affecting knowledge and attitudes about HIV among several populations, especially when compared with SSGs:

- Homeless adolescents (Rotheram-Borus et al 1991)
- Gay and bisexual men in general (Roffman et al 1998)
- Young African American women (DiClemente & Wingood 1995)
- Low-income African American women (Carey et al 2000)
- Incarcerated African American and white women (St. Lawrence et al 1997)
- STD clinic patients (Branson et al 1998)
- Immigrant Latina women (Gomez et al 1999)
- Middle school students (Levy et al 1995)
- Incarcerated HIV-positive men (Grinstead et al 2001)
- Heterosexual men (Elwy et al 2002)
- HIV-positive women (Fogarty et al 2001)
- HIV-positive and HIV-negative IDUs (Latkin et al 2003)
- HIV-positive youth (Rotheram-Borus et al 2001)

Finally, an MSW is likely a cost-effective intervention, depending on the specific population and the context in which it is implemented (Pinkerton et al 2001, Pinkerton et al 2002). In addition, preliminary results from a local study show that MSW is no more or less effective at creating behavior change than PCM. Because PCM only reaches one individual at a time and MSW can reach multiple people, the MSW may be a more cost-effective intervention for people who would attend a group-level intervention and do not need or want more intensive one-on-one counseling and support (see also the section on PCM, pp. 188-189). Exhibit 21 describes MSWs and how to implement them.

## EXHIBIT 21

### Multiple Session Workshop (MSW)

Strategy or Intervention?	Intervention
<b>Definition/Description</b>	<p>An MSW is a series of workshops, groups, or meetings that introduce HIV issues and link them to other life issues not as easily or immediately understood as relating to HIV. The expectation is that the same individuals will attend all workshops in a series. Workshop topics usually build on each other from session to session. Groups may be mixed or serostatus-specific, structured, or need/issue-driven groups for risk reduction and psychosocial support. Groups can be held in a variety of community settings.</p>
<b>Implementation Requirements</b>	<p>All MSW providers must:</p> <ul style="list-style-type: none"> <li>• Collect Evaluating Local Interventions (ELI) data as indicated in their HIV Prevention Section contract.</li> </ul>
<b>Implementation Recommendations</b>	<p>The MSW should:</p> <ul style="list-style-type: none"> <li>• Be advertised and promoted through media and outreach.</li> <li>• Recruit participants via other activities, both HIV- and non-HIV-related.</li> <li>• Be followed by additional support, follow-up groups, and/or “booster” groups.</li> <li>• Include ground rules created and adopted by participants.</li> <li>• Include discussions about issues beyond just HIV as appropriate (e.g., racism, homophobia).</li> <li>• Be provided in community venues that are accessible to the population.</li> <li>• Provide referrals to appropriate health and social services, including primary care, mental health, substance abuse, STD testing and treatment, and other HIV prevention services.</li> </ul>
<b>Resources</b>	<ul style="list-style-type: none"> <li>• CDC’s Guidelines for Health Education and Risk Reduction Activities (1995) under Individual and Group Interventions: <i><a href="http://www.phppo.cdc.gov/cdcRecommends/showarticle.asp?a_artid=P0000389&amp;TopNum=50&amp;CallPg=Adv">http://www.phppo.cdc.gov/cdcRecommends/showarticle.asp?a_artid=P0000389&amp;TopNum=50&amp;CallPg=Adv</a></i></li> </ul>
<b>Strengths</b>	<ul style="list-style-type: none"> <li>• Better than SSGs for addressing HIV risk reduction issues and strategies in greater depth, dealing with the underlying causes of unsafe behavior, and creating behavior change.</li> <li>• Attracts people seeking connection with others who have shared experiences and interests (e.g., gay men seeking social contacts and support outside of the gay bar scene).</li> <li>• Suitable for people with high perception of personal risk, people who are already highly motivated to attend groups, people who desire structure (e.g., some homeless and/or jobless people), and people who can commit to attending sessions on an ongoing basis.</li> <li>• Provides an opportunity for people to talk about sexual and drug-related behaviors with their peers.</li> <li>• Feasible to conduct in institutional settings (e.g., schools, treatment centers, prisons/jails).</li> <li>• Can contribute to shifting community norms when focused on particular topics of interest to the community.</li> </ul>
<b>Limitations</b>	<ul style="list-style-type: none"> <li>• May have limited effectiveness with populations who are unlikely to disclose or discuss their risk behaviors (e.g., MSM who live heterosexual lives, people engaging in survival sex).</li> <li>• May not be as effective or appropriate for mentally ill populations or people with limited free time (e.g., people who are struggling to hold onto housing/employment or juggling house, kids, education, or work).</li> <li>• May pose challenges regarding retention.</li> </ul>

## INTERNET

The Internet is a vehicle for conducting nearly every other intervention described here, including outreach, IRRC, SSG, MSW, social marketing (e.g., banner ads), and others. Use of the Internet to deliver HIV prevention messages and promote behavior change is becoming increasingly popular for at least two reasons: (1) it has the potential to reach large numbers of people, and (2) interventions can be targeted to high-risk groups, such as those seeking sex via websites and chat rooms.

Because this approach is relatively new, its effectiveness has not clearly been established. Evidence in support of its effectiveness, especially for gay men, includes the following:

- The Internet plays a central role in many gay men's lives of meeting sexual partners, and frequent unprotected anal sex is reported among gay male Internet users (Rebchook et al 2003).
- Many people report that they would access a website (61%) or chat room (30%) for HIV prevention information (Bull et al 2001).
- MSM and people with STD histories are more likely than others to report a willingness to get HIV prevention through a website or chat room (Bull et al 2001).
- A community-based organization serving Asian men in Alameda County piloted a chat room-based HIV prevention outreach intervention, which was well-accepted and well-used by over 200 MSM clients over a one-year period (Huang & Hottes 2003).
- Internet outreach to gay men conducted in San Francisco has also been met with a positive community response (Knapper 2003).

Internet users, particularly MSM, may be at higher risk for HIV than their counterparts who do not seek sexual partners on line (see Chapter 3: Community Assessment, p. 54). However, this does not necessarily mean that Internet-based interventions are always sufficient or appropriate for these high-risk men. There may be underlying factors that contribute to increased unsafe sex among this group (e.g., mental health, sexual compulsivity, community norms regarding disclosure of HIV status and condom use), and these are best addressed through in-person interventions. Exhibit 22 describes how to use the Internet as a strategy for HIV prevention.

## Internet

Strategy or Intervention?	Strategy
<b>Definition/Description</b>	<p>The Internet is one vehicle for implementing many of the strategies and interventions described in this chapter. Listservs, chat rooms, electronic bulletin boards, banner ads, email, and websites are some examples of Internet mediums that can be used to deliver HIV prevention messages. Examples of conducting an intervention using the Internet include:</p> <ul style="list-style-type: none"> <li>• Outreach and information given in chat rooms</li> <li>• Risk reduction support provided over email</li> <li>• IRRC, SSG, or MSW done in a chat room</li> <li>• Social marketing banner ads promoting healthy behaviors</li> <li>• Listing of available HIV and STD services on websites</li> <li>• Online syphilis testing, in which individuals can print a lab form, take it to a designated provider, have their blood drawn, and access their results on line</li> </ul>
<b>Implementation Recommendations</b>	<p>Internet-based interventions should:</p> <ul style="list-style-type: none"> <li>• Be tailored to a particular population.</li> <li>• Provide referrals to appropriate health and social services, including primary care, mental health, substance abuse, STD testing and treatment, and other HIV prevention services.</li> <li>• Be voluntary (e.g., chat room interventions should not coerce people into engaging in conversations they do not wish to have).</li> <li>• Follow all the rules of each Internet venue (e.g., chat room or website rules of conduct).</li> </ul>
<b>Resources</b>	<ul style="list-style-type: none"> <li>• Web outreach training manuals are available from the HIV Prevention Section.</li> </ul>
<b>Strengths</b>	<ul style="list-style-type: none"> <li>• Can reach large numbers of people over a wide geographic area.</li> <li>• Presents opportunities for prevention using the same channels people use to solicit sex partners (e.g., chat rooms).</li> <li>• May be appealing for populations desiring anonymity.</li> </ul>
<b>Limitations</b>	<ul style="list-style-type: none"> <li>• Will not reach those without Internet access or computer skills, who may be low-income or marginalized groups and at high risk for HIV.</li> <li>• May not reach those who are high-risk but do not use the Internet to meet sexual partners.</li> <li>• Has the potential to compromise anonymity/confidentiality if identifying information is requested or given over the Internet.</li> <li>• May be interpreted as intrusive if individuals have accessed a website/chat room for another purpose.</li> <li>• Effectiveness not yet established.</li> <li>• Limited by the rules of the Internet service provider or chat room being used.</li> <li>• Health Insurance Portability and Accountability Act (HIPAA) regulations may limit certain types of electronic correspondence when identifying information is used.</li> </ul>

## CONDOM AND LUBRICANT DISTRIBUTION

A CDC fact sheet on condoms concludes that “Latex condoms, when used consistently and correctly, are highly effective in preventing transmission of HIV, the virus that causes AIDS” (<http://www.cdc.gov/hiv/pubs/facts/condoms.pdf>). Lubrication, or “lube,” should also accompany condom distribution, as use of lube may lower condom failure rates. Condom and lubrication distribution ensures their availability and accessibility, and condom distribution has also been associated with increased condom use among African American men and women in one community-level, targeted distribution effort (Cohen et al 1999). The cost savings to the health care system and society per condom used consistently and correctly is \$27 for high-risk heterosexuals and at least \$530 per condom for MSM (HPPC 2001), making this a highly cost-effective strategy. A study of cost-effectiveness of various interventions also determined condom distribution to be cost-effective for high-risk men and women (Pinkerton et al 2001). Exhibit 23 describes condom distribution and how to implement it.

### EXHIBIT 23

#### Condom and Lubricant Distribution

Strategy or Intervention?	Strategy
<b>Definition/Description</b>	Condoms (female and/or male), lubrication, and other harm reduction materials for reducing sexual risk for HIV distributed to members of the population one is trying to reach.
<b>Implementation Recommendations</b>	<p>Condom distribution should:</p> <ul style="list-style-type: none"> <li>• Be used in combination with other strategies or interventions (i.e., it is not an intervention in itself).</li> <li>• Be accompanied by instructions for proper use, either verbal or written.</li> <li>• Be accompanied by information about the risks of nonoxynol-9*, if condoms with nonoxynol-9 are distributed.</li> <li>• Include referrals to appropriate health and social services, including primary care, mental health, substance abuse, HIV CTR, STD testing and treatment, and other HIV prevention services.</li> <li>• Make available new condoms being marketed and sold, as technology improves.</li> </ul>
<b>Strengths</b>	<ul style="list-style-type: none"> <li>• May reduce barriers to safer sex for some populations (e.g., for those who cannot afford condoms, those who are uncomfortable buying condoms such as teens).</li> <li>• Can increase ease of access to condoms (e.g., picking up condoms on the way into or out of a bar).</li> </ul>
<b>Limitations</b>	<ul style="list-style-type: none"> <li>• May have limited effectiveness in some populations unless accompanied by other interventions or strategies.</li> <li>• May be controversial or prohibited in some settings (e.g., schools, correctional facilities).</li> </ul>

\*Nonoxynol-9 is no longer recommended by the CDC as an effective means for preventing HIV transmission (<http://www.cdc.gov/hiv/pubs/mmwr/mmwr11aug00.htm>).

## HARM REDUCTION OPTIONS

Several studies establish the effectiveness of a harm reduction approach in regard to high-risk injection behaviors and sexual behaviors, particularly when used in combination with counseling and health education (Brette 1991). Examples of harm reduction for injection drug use include methadone maintenance and needle exchange. Studies show that methadone maintenance harm reduction programs are associated with lower levels of risk behavior (Margolin et al 2003) and lower seroconversion rates (Moss et al 1994). Needle exchange has been shown to be a highly effective and cost-effective harm reduction approach as well (see the section on Needle Exchange, pp. 192-193).

Condom use is an example of a harm reduction approach to sexual behavior and is an extremely effective harm reduction intervention. Other harm reduction approaches in relation to sexual behavior include withdrawal before ejaculation and negotiating to engage in oral sex instead of anal sex. Exhibit 24 describes harm reduction and how to incorporate it into HIV prevention programs.

### EXHIBIT 24

#### Harm Reduction

Strategy or Intervention?	Strategy
<b>Definition/Description</b>	A harm reduction approach to prevention accepts that harmful behavior exists, and the main goal is to reduce the negative effects of the behavior rather than ignore or pass judgment on the person or the behavior. The term “harm reduction” is used most often in the context of drug use, but the approach can be used with sexual risk behavior as well. A harm reduction approach encourages safer drug use or sexual practices among those engaging in high-risk behaviors and acknowledges the social and environmental factors that affect drug use and high-risk sexual behaviors, such as poverty, racism, and stigma.
<b>Implementation Recommendations</b>	Agencies should: <ul style="list-style-type: none"> <li>• Attempt to reach clients “where they’re at” to assist them in making healthy choices.</li> <li>• Be attentive to the health and well-being of the entire person in considering when to use harm reduction options.</li> <li>• Should tailor harm reduction options to the needs of the population, taking into consideration the population’s norms and behaviors.</li> <li>• Provide referrals to appropriate health and social services, including primary care, mental health, substance abuse, STD testing and treatment, and other HIV prevention services.</li> </ul>
<b>Implementation Requirements</b>	Agencies must comply with the San Francisco Health Commission’s Resolution on Harm Reduction: <a href="http://www.dph.sf.ca.us/HCRes/Resolutions/2000Res/HCRes10-00.shtml">http://www.dph.sf.ca.us/HCRes/Resolutions/2000Res/HCRes10-00.shtml</a>
<b>Strengths</b>	<ul style="list-style-type: none"> <li>• Accepts the stage where a person is and promotes skills for decreasing risk.</li> <li>• Can be used in an institutional (e.g., drug treatment facility) or community (e.g., outreach) setting.</li> <li>• Can encourage safer injection practices and sexual risk reduction.</li> <li>• Can encourage positive risk reduction attitudes.</li> <li>• Can provide linkages to drug treatment.</li> </ul>
<b>Limitations</b>	<ul style="list-style-type: none"> <li>• Does not eliminate the potential harmful effects of a behavior.</li> <li>• May not be as useful for individuals not ready to change harmful behaviors.</li> <li>• May lead to increased harmful behavior if not individually tailored (e.g., promoting withdrawal before ejaculation with someone who already uses condoms consistently could inadvertently lead to decreased condom use).</li> </ul>

## PEER EDUCATION

Numerous studies have shown that peer education is an effective approach to HIV prevention and can be cost-effective as well (Pinkerton et al 2001). This strategy may be more effective in many situations than interventions delivered via non-peers (Catania et al 1991, Coates & Greenblatt 1990, Dorfman et al 1992), especially for adolescents (Lem et al 1994), because peers may be viewed as more credible, more sensitive, and better able to understand youth. Recent studies of interventions that used a peer approach found that it resulted in:

- Increased consistent condom use among HIV-positive women (Fogarty et al 2001).
- Increased HIV testing among high-risk youth (Johnson et al 2001).
- Cost-effective risk reduction for young gay and bisexual men (The Mpowerment Project, Kahn JG et al 2001).
- Reduced injection and sexual risk for HIV-positive and HIV-negative drug users (Latkin et al 2003).
- Reduced HIV risk behaviors among homeless and marginally housed women (Nyamathi et al 2001).
- Increased condom use and reduced unprotected sex among women living in low-income inner-city neighborhoods (Sikkema et al 2000).

Peer education can also have an impact on the peer educators themselves, in terms of knowledge, attitudes, and risk reduction (Pearlman et al 2002), which benefits them personally and promotes their credibility as educators.

202

Peer education is not always the most appropriate approach for every population or situation. For example, if an individual or population has multiple and complex issues (e.g., substance use, mental health), the benefits that an experienced professional social worker or counselor could bring may outweigh the benefits of peer-based intervention. Ideally, HIV prevention programs using a peer education approach would seek to involve professionals who are also peers in the delivery of interventions. Exhibit 25 describes peer education and how to integrate it into HIV prevention programs.

## Peer Education

<b>Strategy or Intervention?</b>	Strategy
<b>Definition/Description</b>	Services are provided to a population by individuals recruited from that population, which may be defined by behavior, culture, race, age, ethnicity, gender identification, or other salient factors.
<b>Implementation Recommendations</b>	<p>Agencies should:</p> <ul style="list-style-type: none"> <li>• Provide counseling, supervision, safety and support structures, and adequate wages or incentives for their peer educators.</li> <li>• Incorporate feedback and experiences of peer educators into program development.</li> <li>• Ensure diversity among peer educators and make sure they are perceived as credible and as true peers by the population one is trying to reach.</li> <li>• Train peer educators to address behavior change as well as provide information.</li> <li>• Provide referrals to appropriate health and social services, including primary care, mental health, substance abuse, STD testing and treatment, and other HIV prevention services.</li> </ul>
<b>Resources</b>	<ul style="list-style-type: none"> <li>• CDC's Guidelines for Health Education and Risk Reduction (1995) under Individual and Group Interventions:  <a href="http://www.phppo.cdc.gov/cdcRecommends/showarticle.asp?a_artid=P0000389&amp;TopNum=50&amp;CallPg=Adv">http://www.phppo.cdc.gov/cdcRecommends/showarticle.asp?a_artid=P0000389&amp;TopNum=50&amp;CallPg=Adv</a> </li> </ul>
<b>Strengths</b>	<ul style="list-style-type: none"> <li>• Has a theoretical foundation in diffusion of innovations theory.</li> <li>• Draws on established social networks to disseminate information.</li> <li>• Can be used with individual, group, and community-level interventions and with all populations.</li> <li>• Can assist in changing the perception of norms regarding HIV and HIV risk behaviors.</li> <li>• Can assist in creating social networks that support and encourage self-protective behaviors.</li> <li>• Especially suited for populations who do not initially perceive themselves to be at risk.</li> <li>• Can lead to behavior change for the peer educators themselves.</li> </ul>
<b>Limitations</b>	<ul style="list-style-type: none"> <li>• May not be appropriate for small or close communities where stigma may still be attached to HIV concerns or people desiring anonymity. (Some groups may prefer to receive HIV prevention services from people outside of their immediate community, so that they can talk more freely and not fear disclosure of information.)</li> <li>• May not be as effective as an intervention delivered by a professional if an individual or population has multiple or complex issues (e.g., substance abuse, mental health).</li> <li>• Could be less effective if peer educators do not themselves adopt the behaviors and norms they are trying to promote.</li> <li>• Can be challenging to sustain due to burn-out or, among youth peers, growing too old to be perceived as a peer.</li> </ul>

## HIV PREVENTION IN STD DETECTION AND TREATMENT SETTINGS

A 2001 report from the CDC concluded that “testing and treatment of STDs can be an effective tool in preventing the spread of HIV” ([http://www.cdc.gov/nchstp/dstd/Fact\\_Sheets/facts\\_std\\_testing\\_and\\_treatment.htm](http://www.cdc.gov/nchstp/dstd/Fact_Sheets/facts_std_testing_and_treatment.htm)). The report outlines the following critical points:

- Studies have shown STD detection and treatment to be an effective tool for HIV prevention because (1) when a person is treated for an STD, it reduces his or her ability to transmit or acquire HIV, and (2) STD treatment reduces the spread of HIV infection in communities.
- Studies indicate that continuous interventions that focus on increasing access to STD services are likely more effective than intermittent interventions, such as periodic community-wide non-targeted campaigns to encourage screening.
- STD treatment is most effective in reducing HIV transmission in areas where STD rates are high, as they are among some San Francisco populations.
- Treatment of symptomatic STDs in particular is a critical component of an effective STD detection and treatment program.

Further, when a person seeks testing and treatment for an STD, it is an ideal opportunity to provide HIV prevention education, HIV CTR, linkages to risk reduction services, and PCRS for HIV and STDs. Exhibit 26 describes STD detection and treatment and how it can be used as an HIV prevention method. For more information on the link between STDs and HIV, see Chapter 3: Community Assessment, pp. 115-117).

## HIV Prevention in STD Detection and Treatment Settings

<b>Strategy or Intervention?</b>	Strategy. The actual STD testing and treatment service is not sufficient to be considered an HIV prevention intervention. The STD testing and treatment setting offers opportunities to conduct many of the other HIV prevention interventions discussed in this chapter (e.g., IRRRC, HIV CTR). Therefore, it is considered a strategy (i.e., an approach that cuts across interventions).
<b>Definition/Description</b>	HIV prevention conducted in STD detection and treatment settings is any intervention provided to individuals that involves testing and/or treatment for STDs, including but not limited to chlamydia, gonorrhea, syphilis, and herpes. The actual STD testing and treatment represents a primary prevention strategy for HIV-positive and negative individuals (people are more susceptible to acquiring or transmitting HIV if they have an STD) and a secondary prevention strategy for HIV-positive individuals (HIV-positive people may be more susceptible to HIV superinfection when they have an STD and STDs may have more severe consequences for people with compromised immune systems). However, the STD testing and treatment itself needs to be supplemented by a specific HIV prevention intervention.
<b>Implementation Recommendations</b>	<p>HIV prevention activities in the STD detection and treatment setting may include any of the following:</p> <ul style="list-style-type: none"> <li>• HIV CTR or referrals to HIV CTR.</li> <li>• Client-centered HIV risk assessment and risk reduction counseling (e.g., IRRRC).</li> <li>• Discussion and promotion of sexual health and well-being.</li> <li>• Referrals to appropriate services for high-risk HIV-negative individuals and HIV-positive individuals.</li> </ul>
<b>Strengths</b>	<ul style="list-style-type: none"> <li>• Can serve as a bridge to HIV CTR for high-risk individuals.</li> <li>• May increase a person's perception of their own HIV risk if they are found to have an STD.</li> <li>• Can be done in street-based locations.</li> <li>• Can use new screening technologies.</li> <li>• Can be effective at changing community STD rates when targeted appropriately, which could in turn impact HIV transmission rates.</li> </ul>
<b>Limitations</b>	<ul style="list-style-type: none"> <li>• Must be accompanied by HIV CTR to maximize its effectiveness.</li> <li>• Will not reach people who do not get regular STD screening, those who do not have access to regular medical care, or those who do not have any symptoms and therefore do not seek screening (unless the intervention is mobile).</li> </ul>

## POST-EXPOSURE PREVENTION (PEP)

Post-exposure prevention (PEP) involves administering anti-HIV therapy to an individual who suspects that he or she has been exposed to HIV, within hours to days after the exposure. PEP has been used to prevent HIV seroconversion among (1) health care workers who have been exposed during their jobs (e.g., accidental needle sticks), and (2) individuals who may have been exposed through sexual contact or through sharing of injection equipment.

Regarding occupational exposure, PEP has been shown to reduce the risk of HIV infection among exposed health care workers by 81% (Cardo et al 1997). The U.S. Public Health Service has established guidelines for the use of PEP in such situations (MMWR 2001c). PEP is most cost-effective for occupational exposure when targeted to those exposed to known HIV-positive sources and those with severe exposures (Marin et al 1999).

The use of PEP to prevent seroconversion among those who were exposed through sexual contact or injection drug use has been less well investigated. No data supporting PEP's effectiveness at preventing seroconversions exists, and there are numerous practical and ethical considerations that would make conducting such a study challenging. However, feasibility studies have been done. One recent study in San Francisco has documented that it is feasible to implement a PEP program for nonoccupational exposure (Kahn JO et al 2001). Study participants included 401 individuals potentially exposed to HIV and 64 of their partners through whom they may have been exposed. Most study participants were between 20 and 60 years old, white, and male. Among the individuals enrolled in the study, there were four known seroconversions in the 12 months following PEP administration, and none of these had occurred by 6 months. All of the seroconversions appear to have occurred not as a result of the exposure incident for which they received PEP, but as a result of engaging in high-risk behaviors after receiving PEP (Roland 2003). Further, approximately 80% of MSM and female participants reported decreases in HIV risk behaviors at 6-month and 12-month follow-up (Martin et al, in press).

How PEP is implemented could have substantial public health implications. For example, if people believe that PEP is available, would they be less likely to practice safer sex? The potential public health implications related to PEP should be considered as the guidelines and recommendations for the administration of PEP for sexual/injection drug use exposure evolve.

For sexual exposure, assuming its efficacy, PEP was determined to be cost-effective in one study, but only for individuals who report receptive anal intercourse with a partner of unknown serostatus (Pinkerton et al 2001). Exhibit 27 describes PEP and how to implement it.

## Post-Exposure Prevention (PEP)\*

Strategy or Intervention?	Intervention
<b>Definition/Description</b>	This intervention consists of administering anti-HIV therapy to a person within 72 hours after they have been exposed or potentially exposed to HIV (the sooner the better). It also includes the provision of or referrals to HIV CTR. For individuals exposed through sexual contact or injection drug use, PEP also includes HIV risk reduction counseling and referrals to appropriate health and social services, including primary care, mental health, substance abuse, and other HIV prevention services.
<b>Implementation Requirements</b>	Occupational exposure: <ul style="list-style-type: none"> <li>• “Updated U.S. Public Health Service Guidelines for the Management of Occupational Exposures to HBV, HCV, and HIV and Recommendations for Postexposure Prophylaxis” (MMWR 2001c), <a href="http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5011a1.htm">http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5011a1.htm</a></li> </ul>
<b>Resources</b>	Nonoccupational exposure: <ul style="list-style-type: none"> <li>• “Management of Possible Sexual, Injecting-Drug-Use, or Other Nonoccupational Exposure to HIV, Including Considerations Related to Antiretroviral Therapy: Public Health Service Statement” (MMWR 1998): <a href="http://www.cdc.gov/mmwr/preview/mmwrhtml/00054952.htm">http://www.cdc.gov/mmwr/preview/mmwrhtml/00054952.htm</a></li> <li>• PEP following sexual assault: Bamberger et al 1999, Katz &amp; Gerberding 1998, Myles &amp; Bamberger 2001</li> <li>• Review of literature and guidelines: Roland 2003, <a href="http://hivinsite.ucsf.edu/InSite.jsp?doc=kb-07-02-07">http://hivinsite.ucsf.edu/InSite.jsp?doc=kb-07-02-07</a></li> <li>• California state guidelines are under development as of November 2003</li> </ul>
<b>Strengths</b>	<ul style="list-style-type: none"> <li>• Has been favorably received by gay and bisexual men, especially those at highest risk (Kalichman 1998).</li> <li>• People exposed through sexual means with high-risk exposures are willing to use PEP (Kahn JO et al 2001).</li> <li>• Provides opportunities for risk reduction counseling and referrals to ongoing HIV prevention services.</li> </ul>
<b>Limitations</b>	<ul style="list-style-type: none"> <li>• May act as a deterrent to risk reduction among high-risk populations if made widely available (Kahn JO et al 2001).</li> <li>• Associated with many logistical and ethical issues that remain unresolved (e.g., who should administer PEP, who is eligible for PEP, how many times can a person get PEP).</li> <li>• May not be as accessible to those exposed through injection drug use-related behaviors (Kahn JO et al 2001).</li> <li>• May have long-term effects that are as of yet unknown.</li> </ul>

\*Sometimes referred to as post-exposure prophylaxis.

## HIV PREVENTION IN PRIMARY CARE SETTINGS

Integrating HIV prevention into primary medical care is yet another way to reach high-risk HIV-negative and HIV-positive individuals, especially those who might not otherwise be reached by HIV prevention messages. Primary care-based interventions may be an especially effective way to conduct prevention with positives, since approximately 80% of HIV-positive people in San Francisco are in care. Recent local studies have documented that some HIV-positive individuals are at high risk for transmitting HIV (Fisher et al 2002) and that Ryan White Act-funded clinics are missing critical opportunities to deliver HIV prevention messages to their patients (Morin 2002).

HIV prevention in the primary care setting can involve a number of interventions, all of which are described elsewhere in this chapter. HIV prevention services that can be offered in primary care settings include (MMWR 2003b):

- Providing HIV CTR (see the section on Counseling, Testing, and Referral, pp. 174-177)
- Asking patients about their sexual and drug use risk behaviors, counseling them to reduce their risk, and reinforcing behavior change (see sections on interventions such as Individual Risk Reduction Counseling, pp. 190-191, Prevention Case Management, pp. 188-189, and Prevention with Positives, pp. 181-184)
- Referring patients to other services such as substance abuse or mental health treatment (see the section on Linkages and Referrals, p. 163)
- Facilitating partner counseling and referral services (see the section on PCRS, pp. 178-180)
- Identifying and treating STDs (see the section on STD Detection and Treatment, pp. 204-205)

When HIV CTR is offered in the primary care setting in San Francisco, all of the requirements that apply to other CTR sites must be followed (see the section on Counseling, Testing, and Referral, pp. 174-177). This includes the requirement that all HIV tests be accompanied by pre- and post-test counseling. Exhibit 28 describes HIV prevention in primary care settings.

## HIV Prevention in Primary Care Settings

Strategy or Intervention	Strategy
<b>Definition/Description</b>	This HIV prevention strategy involves any HIV prevention activity done in the context of primary medical care. Doctors, nurses, health educators or others can conduct the intervention.
<b>Implementation Requirements</b>	<ul style="list-style-type: none"> <li>• See requirements for the particular intervention being provided.</li> </ul>
<b>Resources</b>	<ul style="list-style-type: none"> <li>• “Incorporating HIV Prevention into the Medical Care of Persons Living with HIV: Recommendations of CDC, the Health Resources and Services Administration, the National Institutes of Health, and the HIV Medicine Association of the Infectious Diseases Society of America” (MMWR 2003b): <a href="http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5212a1.htm">http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5212a1.htm</a></li> </ul>
<b>Strengths</b>	<ul style="list-style-type: none"> <li>• Has the potential to reach individuals who might not otherwise be reached by HIV prevention services.</li> <li>• May be especially effective for conducting prevention with positives.</li> <li>• May support the credibility of prevention messages.</li> <li>• Broadens medical care by personalizing prevention messages through connecting them to health and well-being.</li> <li>• Can be integrated into the primary care setting in multiple ways, using various staff as the prevention messengers (e.g., doctors, nurses, Physician’s Assistants, health educators).</li> <li>• May be effective for individuals who feel comfortable sharing confidential information with their primary care provider.</li> <li>• Provides opportunities to link patients with other services on site (e.g., HIV CTR, STD testing and treatment, mental health or substance abuse treatment and counseling).</li> <li>• Has been shown to be effective in other areas of health promotion, such as smoking cessation.</li> </ul>
<b>Limitations</b>	<ul style="list-style-type: none"> <li>• May be challenging to implement in medical settings, due to restricted time available to meet with each patient.</li> <li>• May not be effective for individuals who do not feel comfortable going to the doctor or who do not trust the medical system.</li> <li>• Medical providers may be reluctant or uncomfortable discussing sexual and drug use behaviors with patients.</li> <li>• May require additional staffing, especially if routine HIV CTR is offered.</li> <li>• May require primary care providers to attend additional training.</li> </ul>

## Public Information and Other Community-Level Interventions

### Overall Goal, 2004-2008

To promote locally relevant and appropriate HIV prevention messages and interventions designed to influence large groups of individuals or entire communities.

#### BACKGROUND

Public information campaigns generally aim to increase community knowledge about an issue. Community-level interventions, in contrast, have broader goals. They aim to change the social networks and social norms that influence people's knowledge, attitudes, beliefs, skills, and behaviors. These interventions attempt to change specific behaviors on a group level, as opposed to an individual level, by using social networks to disseminate HIV prevention risk reduction messages.

Any of the strategies and interventions described here can be implemented as public information campaigns or as broader community-level interventions. Because changing knowledge or behaviors at the community level takes time, results do not happen overnight but rather over the course of months and years.

#### SOCIAL MARKETING

Social marketing is about more than providing information and messages. It is a holistic community-level approach that uses commercial marketing techniques to benefit individuals and society, with the goal of achieving changes in behaviors, attitudes, and community norms to promote health.

Social marketing has been used extensively in many developing countries to promote maternal and child health and was then extended to HIV prevention. In the U.S., social marketing has been successful in the areas of tobacco control, teen pregnancy, and other issues, as well as HIV prevention. Examples of successful local and other social marketing campaigns related to HIV prevention include the following:

- An evaluation of a San Francisco social marketing campaign called “HIV Stops with Me” revealed that the campaign was widely viewed, well-recalled, and persuasive. Fifty-four percent of survey respondents reported that they were more likely to use condoms with HIV-negative or unknown serostatus partners after viewing the campaign (Better World Advertising 2002).
- In an evaluation of a campaign to increase awareness of HIV risk among same gender loving African American men engaging in sex/drug exchange in the Tenderloin, the majority of survey respondents reported that the ads reflected their daily environment and caused them to stop and think about HIV transmission when exchanging drugs for sex (David Binder Research 2003).

- A review of calls to the San Francisco HIV/AIDS hotline revealed that during a social marketing campaign to promote testing, overall call volume increased, the number of calls resulting in referrals to HIV CTR increased, and the percentage of callers citing television or bus ads/billboards (the locations where the campaign ads appeared) as the impetus for calling increased (Keith Hocking, San Francisco HIV/AIDS Hotline, personal communication, November 2003).
- Social marketing has also been used successfully in non-San Francisco locales to recruit gay men from multiple subgroups, including men of color, youth, and closeted men, for HIV prevention counseling (Fisher et al 1996), to increase dialogue and awareness of HIV among gay men (Dawson & Hartfield 1996), to motivate gay men to get tested for HIV (Dawson & Hartfield 1996), and to increase condom use among adolescents (Kennedy et al 2000b).

Social marketing campaigns are based on and guided by research with the population one is trying to reach. The first step is to gain an in-depth understanding from and about the population through primary and secondary research. Based on the findings from this research, the appropriate behavioral objectives, interventions, messages, materials, programs, and evaluations can be designed. All these elements are based on intimate knowledge of the population and their lifestyles, values, beliefs, attitudes, fears and hopes. It is also important to understand how social marketing messages could be crafted to successfully “compete” with other messages the intended audience is receiving. For example, a social marketing campaign promoting condom use among gay male drug users must compete with community norms that do not support condom use. Campaigns that are more focused (i.e., on a particular issue among a particular audience) have a greater potential for impact if they can achieve a significant level of visibility among the population.

Social marketing campaigns must include what are called the “4 P’s” of marketing: product, price, place, and promotion. The 4 P’s are defined as follows:

- **Product.** The behavior or idea the campaign is trying to promote. The product must be presented in a way that addresses benefits that are relevant and motivating to the intended audience. For example, if a campaign is trying to encourage people to get an HIV test, the campaign must speak to the benefits of getting tested from the perspective of the intended audience, which might include benefits such as peace of mind, empowerment, and caring for oneself and one’s partner.
- **Price.** The monetary and other costs/disadvantages associated with adopting the behavior or idea. For example, the costs of adopting safer sex practices might include money (for condoms), time (to discuss condom use with partners), the perception that pleasure will be reduced, and fear of rejection or abuse resulting from asking a partner to use a condom. Social marketing campaigns must attempt to show how the benefits outweigh the costs.
- **Place.** Whether people are in the right frame of mind to attend to the message, where people will act on the message, and if the campaign is promoting a product or service (such as HIV CTR) where the product or service is provided. Research done prior to implementing a social marketing campaign

must explore what the best places are for the intended population (e.g., at bars, in sex clubs, on the streets, through social service agencies). For example, a campaign to promote HIV testing should consider what changes, improvements, and preparations need to be made at HIV CTR sites within the area the campaign is being implemented.

- **Promotion.** Which media channels and communication methods will be used to disseminate the message. Social marketing campaigns can use a number of methods to get the message out. Some of these methods are television (e.g., public service announcements), radio, posters (e.g., on bus shelters), billboard ads, newspaper ads, Internet, brochures, pamphlets, palm cards, videos, and other creative promotional items.

Exhibit 29 describes social marketing and how to implement it.

## Social Marketing

Strategy or Intervention?	Intervention
<b>Definition/Description</b>	<p>“Social marketing is the use of marketing principles and techniques to influence a target audience to voluntarily accept, reject, modify, or abandon a behavior for the benefit of individuals, groups, or society as a whole” (Kotler et al 2002). Social marketing campaigns can aim to impact behavior through influencing knowledge, beliefs, attitudes, or norms. A social marketing program is research-based and is designed to achieve a specific HIV prevention objective. Social marketing strategies require attention to the four “Ps”: product (the behavior or idea you are trying to promote), price (the monetary and other costs/disadvantages associated with adopting the behavior or idea), promotion (which media channels you will use), and place (whether people are in the right frame of mind to attend to the message, where people will act on the message, and where the product or service the campaign is promoting is provided).</p>
<b>Implementation Requirements</b>	<p>All social marketing agencies must:</p> <ul style="list-style-type: none"> <li>• Collect Evaluating Local Interventions (ELI) data as indicated in their HIV Prevention Section contract.</li> </ul>
<b>Implementation Recommendations</b>	<p>A social marketing campaign should:</p> <ul style="list-style-type: none"> <li>• Be based on consumer research that illuminates consumers’ lifestyles, values, attitudes, hopes, and fears about HIV and how the disease is understood in the context of their lives.</li> <li>• Clearly link to, and support, HIV prevention objectives.</li> <li>• Identify the behaviors the program will seek to promote or reduce/eliminate. These should be behavior(s) that can be realistically achieved, and the campaign should focus on those people most receptive to change.</li> <li>• Be visible enough and sustained over enough time to make an impact.</li> <li>• Link the population to appropriate resources.</li> <li>• Affirm health-promoting social norms of the population.</li> </ul>
<b>Resources</b>	<ul style="list-style-type: none"> <li>• CDC’s Guidelines for Health Education and Risk Reduction Activities (Centers for Disease Control and Prevention, 1995): <i><a href="http://www.phppo.cdc.gov/cdcRecommends/showarticle.asp?a_artid=P0000389&amp;TopNum=50&amp;CallPg=Adv">http://www.phppo.cdc.gov/cdcRecommends/showarticle.asp?a_artid=P0000389&amp;TopNum=50&amp;CallPg=Adv</a></i></li> <li>• CDCynergy – Social Marketing Edition, a planning tool for developing and implementing social marketing campaigns). Available from: <i><a href="http://www.cdc.gov/communication/cdcynergy_edu.htm">http://www.cdc.gov/communication/cdcynergy_edu.htm</a></i></li> </ul>
<b>Strengths</b>	<ul style="list-style-type: none"> <li>• Reflects the life context of the population and the messages they think are best, because research with the population forms the basis for the campaign.</li> <li>• Can have a broader impact than individual-level interventions because it addresses the community norms and values that influence behavior.</li> <li>• When implemented effectively (e.g., appropriate visibility and message), can become sufficiently memorable and motivating to be self-sustaining (i.e., the campaign message becomes known throughout the community, for example, “Friends Don’t Let Friends Drive Drunk”).</li> <li>• Can be accessible to those who are difficult to reach through traditional prevention channels because it can reach large and diverse segments of the population (e.g., Mizuno et al 2002).</li> </ul>
<b>Limitations</b>	<ul style="list-style-type: none"> <li>• Can be costly. Campaigns have high start-up costs and funding must be sustained over time for campaigns to exist long enough (i.e., months and years) to have an impact.</li> <li>• Evaluation of social marketing can be costly, and it is challenging to link resulting behavior changes directly to the effects of the campaign.</li> <li>• May result in little or no impact if sufficient research is not conducted up front.</li> <li>• Can be challenging to implement, because campaigns must take complex issues and behaviors and translate them into short and simple messages.</li> <li>• May be unsuccessful with those who are isolated and do not identify with the messages or people depicted in the campaign.</li> <li>• May not be effective for people with low literacy if written materials are used.</li> </ul>

## VENUE-BASED GROUP OUTREACH

Venue-based group outreach (VBGO) has been found to be an effective intervention for reaching certain consumers that might not otherwise have access to HIV prevention. It differs from VBIO in that the focus of the intervention is to reach large numbers of people with multiple approaches, as opposed to spending concentrated time with individuals. VBGO has the potential to impact knowledge, attitudes, and behavioral intention. It is difficult to say whether it leads to behavior change because most VBGO events do not have a post-intervention follow-up component to track participants' behaviors. A few studies have examined the effectiveness of this intervention. For example, group presentations provided to lesbian and bisexual women in bars and clubs in San Francisco were found to be "effective in prompting interest in HIV prevention information and intent to change behavior" (Stevens 1994). In another study, VBGO was found to be more effective for reaching high-risk young gay men compared with small group workshops (Kegeles et al 1996). Exhibit 30 describes VBGO and how to implement it.

## Venue-Based Group Outreach (VBGO)

Strategy or Intervention?	Intervention
<b>Definition/Description</b>	<p>VBGO is outreach conducted with the goal of reaching large numbers of people with multiple approaches in community settings, including commercial venues and public events. Examples of locations and events at which VBGO could be conducted include street corners, public forums, speakers' bureaus, bars, sex clubs, street fairs, health fairs, and parades. VBGO can take a variety of forms, including information booths, community theater, or brief skits or role plays, that are designed to promote HIV risk reduction among audience members. The distribution of appropriate prevention materials (e.g., condoms, lube) may also be a component of these activities.</p>
<b>Implementation Requirements</b>	<p>All VBGO providers must:</p> <ul style="list-style-type: none"> <li>• Collect Evaluating Local Interventions (ELI) data as indicated in their HIV Prevention Section contract.</li> </ul>
<b>Implementation Recommendations</b>	<p>VBGO events should:</p> <ul style="list-style-type: none"> <li>• Respect the operating conditions at, and contribute to the spirit of, the venue/event.</li> <li>• Be interactive and engaging.</li> <li>• Emphasize community unity, creating a positive environment in which participants can socialize and mingle.</li> <li>• Encourage networking among members of different communities, through sharing of information and resources.</li> <li>• Be held in a safe environment for the intended audience.</li> <li>• Provide an opportunity for confidential, one-on-one referrals to HIV prevention or other services before or after the intervention.</li> </ul>
<b>Strengths</b>	<ul style="list-style-type: none"> <li>• Can reach people who identify with a community, group scene, or social group.</li> <li>• Suitable for groups with multiple issues and barriers to change, groups with a lack of access to services, people with a low perception of risk, people needing basic information and referrals, and people that have never experienced another intervention.</li> <li>• Can provide a forum for dialogue between friends and family (community-building).</li> <li>• Can encourage individuals and communities to participate in other prevention activities.</li> <li>• Can address people at various stages of change (see the section on Stages of Change Theory, p. 170).</li> </ul>
<b>Limitations</b>	<ul style="list-style-type: none"> <li>• May not be as effective for reaching people who do not identify with a group or community.</li> <li>• Unclear whether it can impact behavior.</li> <li>• Is challenging to evaluate.</li> </ul>

## COMMUNITY ORGANIZING

A number of studies have indicated that community organizing is an effective HIV prevention strategy and can also be cost-effective (Kahn 1995). Results from studies of some programs that used this strategy include decreases in unprotected anal sex among gay men (Coates & Greenblatt 1990, Kegeles et al 1996), higher willingness to give HIV prevention advice to drug-using friends and relatives among Latina/Latinos and non-Latino Whites (Marin et al 1992), individual and community-level behavior change among gay and bisexual men (Bueling et al 1995), and increased knowledge and behavior change among Mexican gay men (Zimmerman et al 1997). Furthermore, community organizing has been identified as an important strategy of HIV prevention among IDUs (Deren et al 2002). Community organizing can also be used to mobilize communities around policy issues, such as advocating for federal funding for needle exchange (James 1998). Exhibit 31 described community organizing and how to implement it.

## Community Organizing

Strategy or Intervention?	Strategy
<b>Definition/Description</b>	Community organizing encompasses a wide range of strategies that involve community-wide efforts to create change and promote social justice. Community organizing can follow an action model (e.g., bringing together community members to advocate for a particular issue related to policy or resources), a popular education model (see the section on Empowerment Education Theory/Popular Education, p. 167), or other models. Examples of community organizing for HIV prevention include community-wide campaigns to promote safer sex and drug use practices, to improve city treatment on demand policies, or to address the effects of racism on HIV risk.
<b>Implementation Recommendations</b>	<p>Agencies conducting community organizing campaigns should:</p> <ul style="list-style-type: none"> <li>• Allow the problem, the solution, and the course of action to be defined by the community.</li> <li>• Facilitate the process, participate in dialogue regarding HIV information, and secure resources to promote community involvement and assist the community in attaining its goals.</li> <li>• Address multiple needs of communities or collaborate with other agencies that can address those issues.</li> <li>• Acknowledge and give consideration to existing strategies that are working in a community.</li> <li>• Implement campaigns that develop and strengthen social norms for health-promoting behaviors.</li> <li>• Include components that increase participants' self advocacy skills and sense of personal control and power.</li> </ul>
<b>Resources</b>	<ul style="list-style-type: none"> <li>• CDC's Guidelines for Health Education and Risk Reduction Activities (1995) under Community Level Intervention: <a href="http://www.phppo.cdc.gov/cdcRecommends/showarticle.asp?a_artid=P0000389&amp;TopNum=50&amp;CallPg=Adv">http://www.phppo.cdc.gov/cdcRecommends/showarticle.asp?a_artid=P0000389&amp;TopNum=50&amp;CallPg=Adv</a></li> </ul>
<b>Strengths</b>	<ul style="list-style-type: none"> <li>• Has a strong theoretical foundation.</li> <li>• Is community driven.</li> <li>• Addresses community-level obstacles to HIV risk reduction.</li> <li>• Creates networks that can be used to conduct other interventions.</li> <li>• Can contribute to health-promoting social norms.</li> <li>• Suitable for communities that have a strong identification (e.g., geographically, culturally), isolated populations, and groups with multiple issues.</li> </ul>
<b>Limitations</b>	<ul style="list-style-type: none"> <li>• More difficult to implement with isolated populations than with groups with a strong identity.</li> <li>• May be challenging to organize populations that could be endangered as a result of the organizing (e.g., undocumented immigrants or commercial sex workers could face consequences due to their illegal status/activities).</li> </ul>

DRAMA, THEATER, AND ROLE-PLAY

Although drama and theater are being used more widely as HIV prevention strategies, especially for youth, their effectiveness has not been thoroughly studied (Elliott et al 1996). Recent studies on effectiveness come mostly from non-U.S. countries. For example, a theater intervention conducted in high schools in South Africa resulted in more changes in knowledge, attitudes, and behaviors compared with written information alone (Harvey et al 2000). Some U.S.-based theater interventions have been reported on, and they have resulted in increases in knowledge (Skinner et al 1991, Valente & Bharath 1999) and intent to change behavior (Skinner et al 1991). Role play has also been used effectively; for example, an intervention with low-income African-American mothers used role play to validate their experiences and explore steps toward behavior change (Downing et al 1999). Exhibit 32 describes drama, theater, and role play and how to implement them.

EXHIBIT 32

Drama, Theater, and Role-Play

Strategy or Intervention?	Strategy
<b>Definition/Description</b>	This strategy encompasses any activities that use acting, theater, music, story-telling, puppetry, role-play, or other dramatization techniques to deliver HIV prevention interventions. Drama and theater can be used in small group (e.g., SSG) or community-level interventions (e.g., VBGO). The drama may be performed by professional or amateur actors as an intervention for the audience (e.g., a formal theatrical presentation). Role play can be used in individual-level (e.g., IRRC), small group, or community-level interventions as a strategy to impact their own behaviors.
<b>Implementation Recommendations</b>	<p><b>Drama and Theater:</b> Actors should:</p> <ul style="list-style-type: none"> <li>• Be available to answer questions and give referrals after the presentation.</li> </ul> <p>Dramatizations should:</p> <ul style="list-style-type: none"> <li>• Depict realistic scenarios.</li> <li>• Integrate communication of accurate HIV and AIDS information into the performance.</li> <li>• Address the intended audiences' attitudes and beliefs about HIV transmission.</li> </ul> <p><b>Role Play:</b> Role play should:</p> <ul style="list-style-type: none"> <li>• Be grounded in realistic scenarios.</li> <li>• Incorporate practice of skills (e.g., condom negotiation).</li> <li>• Be followed by discussion.</li> </ul>
<b>Strengths</b>	<ul style="list-style-type: none"> <li>• Can be effective for promoting sex-positive messages and changing attitudes and behaviors related to HIV.</li> <li>• Can model and encourage condom use.</li> <li>• Creates opportunities for skills-building (e.g., negotiating condom use).</li> <li>• Can be effective for reaching individuals who do not speak or read English.</li> <li>• Can address the multiple issues people face in their lives that affect HIV risk behavior.</li> </ul>
<b>Limitations</b>	<ul style="list-style-type: none"> <li>• May be limited in its ability to affect behavior if not accompanied by linkages to HIV prevention and other services.</li> </ul>

## OPINION LEADERS

Opinion leader strategies have been shown to be effective for different populations. Opinion leaders can be peers of the population a program is trying to reach, celebrities, or other people who have the potential to influence a community's opinions and norms. One study of an opinion leader intervention among gay men showed decreases in the percent engaging in unprotected anal sex, increases in condom use, and decreases in the percent reporting multiple sex partners (Kelly et al 1991). Use of popular opinion leaders in an intervention for women living in low-income inner-city neighborhoods resulted in increased condom use and reduced unprotected sex (Sikkema et al 2000). This strategy was deemed very cost-effective in two studies (Grossberg et al 1993, Kahn 1995). Exhibit 33 describes the opinion leader strategy.

### EXHIBIT 33

#### Opinion Leaders

Strategy or Intervention?	Strategy
<b>Definition/Description</b>	Key people who are recognized as influential and charismatic members of a community or communities are identified to help influence the opinions and behaviors of a particular population through modeling of those opinions and behavior.
<b>Implementation Recommendations</b>	Opinion leaders should: <ul style="list-style-type: none"> <li>• Be identified and determined by the population one is trying to reach.</li> <li>• Be individuals who have the capacity to truly influence social norms.</li> </ul>
<b>Resources</b>	<ul style="list-style-type: none"> <li>• CDC's Guidelines for Health Education and Risk Reduction Activities (1995) under Community Level Intervention: <a href="http://www.phppo.cdc.gov/cdcRecommends/showarticle.asp?a_artid=P0000389&amp;TopNum=50&amp;CallPg=Adv">http://www.phppo.cdc.gov/cdcRecommends/showarticle.asp?a_artid=P0000389&amp;TopNum=50&amp;CallPg=Adv</a></li> </ul>
<b>Strengths</b>	<ul style="list-style-type: none"> <li>• Appropriate for people with a group identification, those who recognize community leaders, those who value media heroes (e.g., youth), those with perceptions of low risk, and those groups in which social stigma exists for homosexuality or injection drug use.</li> <li>• Can affect the behaviors of the opinion leaders as well as the intended audience.</li> </ul>
<b>Limitations</b>	<ul style="list-style-type: none"> <li>• May not be as effective for those without a particular community identification.</li> <li>• May increase awareness and knowledge of HIV and AIDS, but may not result in behavior change.</li> <li>• May be ineffective if the opinion leaders do not engage in HIV preventive behaviors themselves.</li> </ul>

## HOTLINE

Hotlines are an effective method for disseminating accurate information about HIV, a critical component of HIV prevention (Kalichman & Belcher 1997), but it is unclear to what extent they are linked to behavior change. One survey of repeat callers to the Southern California AIDS Hotline found that 50% of callers reported that they had increased their practice of safer sex, and for 72% of all callers the hotline had been the only source of HIV/AIDS information since their last call (AIDS Project Los Angeles 1993). One study looking at reasons people called a hotline indicated that many people called because of fears related to actual risk behaviors they had engaged in, indicating that this may be a good source of prevention information for some individuals (Kalichman & Belcher 1997). Further, hotlines may be a key method for linking people to HIV CTR, especially those who might not be accessing other services where they would receive a referral to CTR. For example, a local hotline was a primary resource that individuals turned to in order to find out where to get an HIV test during a citywide campaign to promote testing (Keith Hocking, personal communication, 2003). Exhibit 34 describes hotlines.

## EXHIBIT 34

### Hotline

<b>Strategy or Intervention?</b>	Intervention
<b>Definition/Description</b>	A hotline is a confidential telephone service functioning as an education, referral, and help line for anonymous callers. Hotlines offer up-to-the-minute information on HIV and related issues, crisis intervention and counseling, and direction to other social services, as appropriate to client need.
<b>Implementation Requirements</b>	All hotlines must: <ul style="list-style-type: none"> <li>• Collect Evaluating Local Interventions (ELI) data as indicated in their HIV Prevention Section contract.</li> </ul>
<b>Implementation Recommendations</b>	Hotlines should: <ul style="list-style-type: none"> <li>• Deliver consistent prevention messages and make sure the messages are also consistent with those disseminated by other organizations.</li> <li>• Link people to HIV CTR and other appropriate services.</li> </ul>
<b>Resources</b>	<ul style="list-style-type: none"> <li>• CDC's Guidelines for Health Education and Risk Reduction Activities (1995) under Public Information: <a href="http://www.phppo.cdc.gov/cdcRecommends/showarticle.asp?a_artid=P0000389&amp;TopNum=50&amp;CallPg=Adv">http://www.phppo.cdc.gov/cdcRecommends/showarticle.asp?a_artid=P0000389&amp;TopNum=50&amp;CallPg=Adv</a></li> </ul>
<b>Strengths</b>	<ul style="list-style-type: none"> <li>• Widely applicable to all groups at risk for HIV and particularly appropriate for people desiring anonymity, people in crisis, people needing basic information and answers, and people whose needs are not addressed by other HIV education efforts.</li> <li>• Targets a wider geographical area than most interventions and thus can reach more diverse and isolated populations.</li> <li>• Often provides a first link to prevention and care services.</li> <li>• Serves preventive as well as de-stigmatizing functions.</li> </ul>
<b>Limitations</b>	<ul style="list-style-type: none"> <li>• May have limited usefulness in directly promoting behavior change.</li> <li>• Can be expensive to operate.</li> <li>• Is not as accessible for people without telephones.</li> <li>• Cannot reach people who do not comfortably speak the language(s) offered.</li> </ul>

## Structural and Policy Strategies

### Overall Goal, 2004-2008

Coordinate efforts among providers to develop goals for structural and policy change and to implement activities to reach those goals.

#### WHAT ARE STRUCTURAL AND POLICY STRATEGIES?

Structural and policy strategies aim to change the social, political, and economic systems that affect HIV risk (CAPS Fact Sheet 2003, “What is the role of structural interventions in HIV prevention?”). For example, city policies on homelessness affect who and how many people are homeless, and homelessness increases risk for HIV. Another example is the statewide laws related to disclosure of HIV status; in California, it is a felony for an HIV-positive person to “willfully expose” another person to HIV through unprotected sex. This law does not take into account the complex issues that affect whether a person discloses and criminalizes sexual behavior without addressing the underlying reasons that people engage in unsafe sex. A final example is the lack of sufficient treatment slots for individuals with drug or alcohol addiction in San Francisco. Since drug use during sex is clearly linked to unsafe behavior, access to drug treatment is a critical HIV prevention strategy. All of these issues are potential targets for structural or policy change.

222

Often, the structural factors that influence HIV transmission are not obvious. For example, how might hiring an additional 100 police officers in San Francisco affect HIV transmission? If there are more police on the streets, commercial sex workers are more likely to be seen and targeted for arrest. In response, they would be more likely to trade sex secretly, making it more difficult for outreach workers to reach them with safer sex messages, condoms, and other support services. The rates of unsafe sex would likely increase, resulting in increased HIV transmission. This example illustrates why it is important for the HIV prevention community to have a voice in all areas that affect the social and economic environment. One strategy that HIV prevention providers might use to prevent potential harm in this situation would be to work closely with and provide training to police officers about the purpose and benefits of outreach to sex workers. Engaging their support in HIV prevention efforts for sex workers might ultimately improve the effectiveness of outreach.

Examples of HIV prevention structural and policy strategies that have been used in the past include:

- A “100% condom use” campaign in Thailand to mandate that all brothels enforce the use of condoms during sex (Celentano et al 1998).
- Advocating for passage of laws that allow syringes to be distributed to pharmacies without a prescription.
- Advocating to make needle exchange legal and fundable (with General Fund monies) in San Francisco.
- Promoting and supporting sex clubs that have sex-positive environments and promote safer sex.
- Allocation of funding to eliminate drug treatment waiting lists.

## BARRIERS TO STRUCTURAL AND POLICY APPROACHES TO CHANGE

Because these types of strategies often involve advocacy, they can be difficult to fund with government money. However, HIV prevention providers engage in advocacy around social and policy issues on a daily basis, even if it is not part of a specific funded intervention. The goal is to coordinate these efforts in San Francisco and to develop common targets for social and policy change so that we can maximize our impact. The HPPC and SFDPH will provide leadership and coordination in this area over the next five years. The San Francisco Leadership Initiative represents a first step toward this goal (see Chapter 1: Community Planning in San Francisco: The History and the Future, pp. 1-10).

### Perinatal Transmission Prevention

#### Overall Goal, 2004-2008

Eliminate perinatal transmission of HIV.

Perinatal transmission in San Francisco is rare. Between 1997 and 2002, only four HIV-infected infants were born in San Francisco. The goal is to reduce this number to zero through promoting voluntary CTR and PCRS services among four groups:

- Women seeking prenatal care
- Women who deliver babies but who have not had any prenatal care
- Male partners of women seeking prenatal care/delivering babies
- High-risk women of child-bearing age who are not currently pregnant

If pregnant women learn their HIV status before delivery, medications can be administered that reduce the chance of transmission. Women who are not pregnant may also benefit from learning their status, as it can help them make informed decisions about pregnancy.

All HIV prevention providers, regardless of the type of intervention or program, must have in place procedures for referring all high-risk individuals, including the above four groups, to CTR services. In addition, all public health care facilities must implement procedures for ensuring that all pregnant women are counseled about the importance of HIV testing and offered an HIV test.

For HIV prevention to be effective and appropriate, it is imperative that HIV prevention providers adhere to certain standards of practice, as well as conduct quality assurance. Standards of practice and quality assurance procedures are often specific to an agency or program. They are generally determined during contract negotiations and thus become part of the provider's contractual obligation. However, there are some issues that are common to all providers, regardless of the nature of the service provided. These are outlined here.

### Standards of Practice for HIV Prevention Programs

- **Access to a Continuum of Care.** All providers must have in place referral networks that allow clients full access to a wide range of HIV prevention and other services, including (but not limited to) behavior change counseling and skills-building, CTR, mental health treatment, substance use treatment, housing services, financial assistance, domestic violence services, and many others. The referral systems in place must reflect the needs of the client population, and all HIV prevention staff must receive training on referral procedures. (See also the section on Linkages and Referrals, p. 163.)
- **Confidentiality.** Rules of confidentiality should be appropriate to the intervention provided. For example, in group settings, participants and facilitators can set ground rules that address issues for disclosure of personal information. In all cases, California reporting requirements and Health Insurance Portability and Accountability Act (HIPAA) regulations must be adhered to. Agencies should develop their own policies and procedures related to confidentiality for all interventions.
- **Cultural Competency.** HIV prevention programs need to be designed and delivered in a culturally appropriate manner. This includes attention to appropriate approaches to communication, languages spoken by clients, and the particular needs of different groups (e.g., by race/ethnicity, gender, sexual orientation). All programs must meet the city and county's cultural competency requirements.
- **Policies and Procedures.** All prevention providers should develop and write a comprehensive policies and procedures manual. Critical policies include a confidentiality policy (see above), a feedback and grievance procedure, and safety policies for staff and volunteers. It is important to encourage continuous input and feedback from clients and volunteers about their perceptions of the agency's sensitivity to the populations it serves. Formal grievance procedures outlining how complaints or disputes are resolved should also be developed. Other policies and procedures may include step-by-step instructions for how to deliver an intervention, protocols for reporting unusual incidents such as injuries, and workplace rules and regulations.

## Quality Assurance

- **Capacity Building.** The goal of capacity building is to strengthen and broaden the foundation of experience and expertise within an agency so that it can ensure its success and longevity. Capacity-building, when used appropriately, can help ensure that clients receive quality services. Some areas for capacity building include resource development, fundraising, board development, organizational development, and program planning. Agencies may seek outside assistance through resources provided by the SFDPH or other resources to incorporate capacity-building activities into their work. Two areas for capacity-building that the HPPC and the SFDPH will focus on in the coming years are prevention with positives and evaluation.
- **Provider Training.** Training is an essential element of any prevention program and should be incorporated into both proposals and contracts. Training should be available for and provided to all staff and volunteers. Three main types of training are necessary: (1) training on HIV and HIV prevention, (2) training related to an individual's job function, and (3) training on standards of practice for the program (e.g., training on how to give referrals, cultural competency training). All providers must adhere to the staff and volunteer training program outlined in their contract.
- **Evaluation.** Evaluation activities are another critical component of quality assurance. Evaluation helps providers know whether they are doing a good job. Evaluation requirements are outlined in contracts (e.g., Evaluating Local Interventions [ELI], client satisfaction surveys, outcome objectives). However, simply collecting the required data is not quality assurance. To conduct quality assurance, providers must critically analyze the results of their evaluation activities and make changes to their programs as necessary. Technical assistance for analysis is available from the SFDPH.

It should be noted that rapid testing technology is improving every day, and it is likely that by the time this is printed the following information will be incomplete if not out of date.

### New Testing Technologies

Until recently, the only CTR technology available required individuals to have their blood drawn and then return for results one to two weeks later. Recent advances in CTR technology include:

- **OraSure®.** This test uses a sample of oral mucus obtained with a cotton pad instead of a blood sample, and results are given within one to two weeks. This test was approved by the FDA in 1996 and has been used in multiple CTR settings throughout the country.
- **OraQuick® Rapid HIV-1 Antibody Test® (Rapid Testing).** This test uses a finger stick to capture a drop of blood for HIV antibody testing, instead of drawing a vial of blood using a needle. Individuals are able to receive their HIV test results in as little as 20 minutes. HIV-positive individuals receive a preliminary result, which is then confirmed with a standard test (using either a blood draw or Orasure). Clients can return for their standard test result in a week or two. (For more information on rapid testing, see [http://www.cdc.gov/hiv/rapid\\_testing/.](http://www.cdc.gov/hiv/rapid_testing/))

### Rapid Testing

The availability of rapid testing in particular has the potential to revolutionize HIV counseling and testing. For high-risk populations that may face more barriers to returning at a later date for test results, rapid testing could improve their ability to learn their serostatus and be linked with care services if HIV-positive, or risk reduction services if HIV-negative (Keenan & Keenan 2001). HIV test sites that have low rates of return for results may improve their return rate with rapid testing. Rapid testing is preferred by many groups, including IDUs, MSM, and STD clinic patients, because the period of anxiety while awaiting results is much shorter (Spielberg et al 2003).

At the time of this writing, only preliminary results from one pilot test of rapid testing are available. The results of this pilot test conducted at Glide Health Clinic in 2003 suggest that rapid testing may be highly effective and popular in San Francisco for some populations. Anecdotal data from other providers currently implementing rapid testing indicates that it may not be as acceptable among some populations (e.g., high-risk youth who have a lot going on in their lives and cannot cope with the emotional intensity of receiving a same-day test result). In addition, rapid testing may be highly acceptable among low-risk populations, although this might not be the ideal population for rapid testing.

Nevertheless, there may be something to learn from the Glide pilot test, even if the findings are not applicable across rapid testing providers or across all populations. The main successes and challenges that arose during that pilot test, as well as recommendations for the future, are as follows (Peter Morris, Glide Health Clinic, personal communication, 2003):

## SUCSESSES

- Of 92 individuals offered rapid testing versus standard testing, all chose rapid testing.
- Of seven positive results given, two were testing to confirm a positive result they received from a standard test. All seven learned their preliminary result and six of the seven received their confirmatory result eight days later.
- Anecdotally, many clients reported they might not have gotten tested otherwise (because of the anxiety that builds during the two-week wait for results) or might have gotten tested but not returned for results. Rapid testing is especially effective for marginalized populations, such as homeless individuals, who are less likely to return for results.
- Both clients and HIV test counselors at Glide prefer rapid testing because of the intense rapport that is developed between client and counselor. (With standard testing, the pre-test counseling and results may be given by two different counselors; with rapid testing, the client meets with one counselor for both.)
- HIV-positive clients can be transitioned into services immediately. They receive an “I Just Tested Positive” packet, an appointment with a case manager is scheduled during the week in which they await their confirmatory result, and they are referred to appropriate mental health and social support services.
- Clients who receive a preliminary positive result on the rapid test interpret the result the same way they would interpret a standard positive test result; that is, they consider themselves to be HIV-positive and therefore are willing to move along the path to care services right away.
- The counseling portion of CTR becomes even more important with rapid testing because of the intense emotions that occur in such a short timeframe, especially when a positive result is given. The pilot test was successful because it had a strong counseling component that ensured that individuals received emotional support both during and in the weeks after disclosure of results from counselors.
- Partner counseling and referral services can be offered the same way they would be with standard testing.

## CHALLENGES

- Transitioning test counselors from standard to rapid testing involves a learning curve and buy-in.
- Not all standard test counselors are suited for doing rapid test counseling. With standard testing, all counselors can do pre-test counseling and deliver negative results, but only experienced counselors deliver positive results. In contrast, all rapid test counselors have to be prepared to deliver positive results. This means that all rapid test counselors need to be experienced counselors, and it is helpful to have more than one rapid test counselor available at any given time. In addition, they must undergo specific training for rapid testing.
- Not many people know about the availability of rapid testing yet (only 13% in one study among high-risk populations [Greensides et al 2003]). Those who do know tend to be those most familiar with the latest trends in HIV and testing technologies – i.e., gay men outside of the Tenderloin, where Glide is located. Rapid testing will become more widely available beginning in November 2003. Social marketing is needed to promote its use.
- Several legislative barriers make it difficult to implement rapid testing in a community setting (e.g., CLIA regulations: <http://www.cms.hhs.gov/clia/>, the Migden Bill: <http://www.dhs.cahwnet.gov/ps/ls/lfsb/html/Phlebotomy.htm>). Further, rapid testing technology may be more difficult to use in settings that are subject to high/low temperatures (e.g., mobile vans).

## RECOMMENDATIONS

- Sites implementing rapid testing for the first time should roll out the program slowly, initially offering rapid testing no more than one day per week.
- Staff counselors should be screened for experience and ability to handle the potential emotional intensity of client encounters before doing rapid testing.
- Counseling is a critical component during the rapid testing process and cannot be curtailed.
- Extensive start-up time should be allotted to transition counseling staff from a standard testing environment to a rapid testing environment, because of the learning curve in dealing with a new set of logistics and the need to gain staff buy-in to the process.

In 2004, when more information about the implementation of rapid testing becomes available, the HPPC will host a community forum at which providers offering rapid testing, as well as clients who have used rapid testing, can share their experiences to facilitate improvements in the implementation process.

## Vaccines

### DEFINITION

There are two types of vaccines being studied – preventive and therapeutic. A preventive vaccine is designed to prevent HIV-negative individuals from acquiring HIV. Preventive vaccines may also work in another way. An HIV-negative person who has been vaccinated might still become infected with the virus, but the vaccine makes them less likely to transmit HIV to another uninfected person and/or slows their own disease progression. Therapeutic vaccines, in contrast, are for HIV-positive people. They reduce the likelihood of transmission or slow disease progression. This section focuses on preventive vaccines.

### CURRENT TRIALS

There are several vaccine trials currently in progress and several more trials planned, but no vaccine has yet been approved for use. Trials occur in three phases:

- **Phase I trials** assess the vaccine's safety and are done with a small number of healthy individuals. More than 60 Phase I HIV vaccine trials have taken place.
- **Phase II trials** assess the vaccine's ability to produce an immune response among several hundred individuals, and continue to evaluate its safety. Seven Phase II HIV vaccine trials have taken place.
- **Phase III trials** test the vaccine in several hundred to several thousand individuals to look at the drug's efficacy, benefits, and the range of possible adverse reactions. After a Phase III trial is completed, the drug company can request Food and Drug Administration (FDA) approval for marketing the drug. One such trial has been completed.

The results of the first Phase III vaccine trial were released in 2003 (<http://www.vaxgen.com/pressroom/index.html>). The vaccine tested is called AIDSVAX, produced by VaxGen. Overall, the vaccine did not result in a reduction in new HIV infections among the study population.

The company reported that African Americans, Asians, and people classified as ethnicity “other,” did appear to benefit from the vaccine and seemed to produce higher levels of antibodies after vaccination than white or Latino participants. This trial, however, was not designed to test the vaccine's efficacy in different racial groups; 86% of trial participants were white. While the findings are interesting, there is general agreement among National Institutes of Health (NIH) and CDC researchers that small sample size, statistical error, or problems with randomization led to these findings. Therefore, this data does not provide enough evidence that AIDSVAX is more effective in some populations compared with others.

The fact that different racial groups produced different levels of antibodies in response to the vaccine is nevertheless a noteworthy discovery. Researchers from the NIH and CDC are reviewing data from previous vaccine trials to see whether those findings are consistent with previous trials. Whether increased production of antibodies is protective against HIV is still in question.

VaxGen is not the only hope. Chiron, Merck, the Vaccine Research Center, and Aventis-Pasteur, among others, all have promising products that are currently being tested in Phases I and II. UCSF's Pipeline Project (<http://chi.ucsf.edu/vaccines/>) has up-to-date information about all of the vaccines currently in testing.

#### IMPLICATIONS FOR HIV PREVENTION

It is crucial that the HIV prevention community prioritizes education about HIV vaccines because an HIV vaccine will probably not be 100% effective. That could mean that no individual will be completely protected by an HIV vaccine, or that not all individuals will be protected. Although a vaccine that is less than 30% effective will not be approved by the FDA, it is still essential that whenever a vaccine becomes available, it is given in a context of behavioral counseling and risk reduction.

The HIV prevention community must:

- Insist that vaccinated individuals receive education about the limits of protection a vaccine could provide.
- Advocate for a vaccine that is considered a powerful tool to complement, rather than replace, existing prevention programs.
- Always ask clients if they are enrolled in vaccine trials, as this may affect their behaviors.

#### Microbicides

230

Microbicides are gels, creams, films, or suppositories that prevent the transmission of HIV and other STDs when applied topically (e.g., in the vagina or rectum). Nonoxynol-9 is an example of a microbicide, but it is no longer recommended for protection against HIV (<http://www.cdc.gov/hiv/pubs/mmwr/mmwr11aug00.htm>).

Over 60 microbicides are in various stages of human testing, but none are currently available for general use. Microbicides, when they become available, will become a critical HIV prevention method, especially during sexual encounters where there may be imbalances of power that prevent open communication about safer sex. This is because microbicides can be applied and used without the partner's knowledge, unlike condoms. Another benefit compared with condoms is that microbicides can be woman-controlled.

Further information on microbicides can be found at <http://www.microbicide.org/>.



PEACE



### Purpose

This chapter has two main purposes: (1) to provide an overview of San Francisco’s approach to evaluation of HIV prevention efforts, and (2) to outline the specific objectives, activities, and timeline related to evaluation for 2004 through 2008.

This chapter is intended to help all who are involved in HIV prevention – consumers, providers, the San Francisco Department of Public Health (SFDPH), researchers, and others – to understand the HIV Prevention Planning Council (HPPC) perspective on the role of evaluation and research in combating the epidemic. Historically, researchers have not always conducted their research in an ethical or community-friendly manner, and so even the mention of the words “evaluation” and “research” can create anxiety among consumers and service providers. In contrast to this approach, the HPPC supports evaluation that is community-oriented, community-driven, collaborative, and inclusive.

This chapter also attempts to reconcile the multiple evaluation requirements imposed by local, state, and federal institutions with the need to keep evaluation efforts in line with the HPPC’s philosophy. Evaluation is how we know what we know about HIV and HIV prevention; therefore, it is essential that San Francisco find a way to meet these requirements, in addition to collecting locally relevant data, while avoiding unduly burdening service providers and consumers. One of the first tasks the HPPC will take on in 2004 is to have a community dialogue about these challenges, using the ideas in this chapter as a starting place for finding solutions.

Evaluation can help us claim ownership of our successes – it provides a way for the San Francisco HIV prevention community to demonstrate how well we do what we do. It helps us keep pace with the changing local epidemic. San Francisco can use evaluation to show that the innovative HIV prevention models used here are effective and can serve as models for the rest of the nation.

### How to Read This Chapter

Those interested in an overview of San Francisco’s approach to HIV prevention evaluation should focus on Sections II and III. Those interested in the step-by-step plan and timeline for evaluation activities should also read Section IV. Service providers are invited to read the chapter in its entirety to understand how their data collection requirements fit into the overall picture of evaluation, but specific attention should be paid to Exhibit 6 on pp. 243-244, which lists evaluation requirements. Appendix 3 provides a list of resources that providers can use to help them design and implement program evaluations.

<b>ELI</b>	Evaluating Local Interventions. California’s statewide web-based data collection and entry system developed to meet the CDC’s 2000 Evaluation Guidance.
<b>Logic Model</b>	A framework for understanding program development, implementation, and evaluation.
<b>Needs Assessment</b>	A research method used to assess HIV-related knowledge, attitudes, and behavior among specific populations. A needs assessment provides information that informs the prioritization of populations and the development of appropriate interventions.
<b>Outcome Evaluation</b>	Determines whether a particular intervention (as opposed to some other factor) is causing changes in knowledge, behavior, attitudes, or beliefs, using a scientific research design, usually with a control group.
<b>Outcome Monitoring</b>	Reveals what progress individual clients are making toward an intervention’s objectives. It measures change in behavior (or other factors, such as knowledge or attitudes) but cannot determine with certainty what is causing the behavior change (it might be the intervention, or it might be some other factor).
<b>PEMS</b>	Program Evaluation and Monitoring System. CDC’s national web-based data collection and entry system for tracking national prevention indicators developed in 2002.
<b>Performance Indicators</b>	CDC’s new set of 20 indicators for HIV prevention for which all jurisdictions are required to collect data.
<b>Prevention Indicator</b>	A data element that points to trends in the HIV epidemic (e.g., STD data). Prevention indicators can provide information about where prevention efforts should be focused.
<b>Process Evaluation</b>	An evaluation process used to improve the delivery of HIV prevention interventions and programs. Process evaluation answers the questions: Is the prevention program being implemented as planned? How many people are being served? What are the demographics of the people being served? Is the intervention reaching its intended population?
<b>Surveillance</b>	The ongoing process of collecting, analyzing, and interpreting data related to a disease on a large scale to provide a “big picture.”

### **Section I: San Francisco's Evaluation Approach**

Reviews San Francisco's evaluation philosophy, current approach to evaluation, and vision for the future of evaluation.

### **Section II: San Francisco's Evaluation Framework for 2004 - 2008**

Presents a model to guide evaluation for the next five years.

### **Section III: Implementation Plan for Evaluation**

Outlines the requirements, activities, timeline, and party responsible for evaluation efforts in 2004 - 2008.

### **Appendix 1: Evaluation Successes in San Francisco**

### **Appendix 2: CDC Performance Indicators**

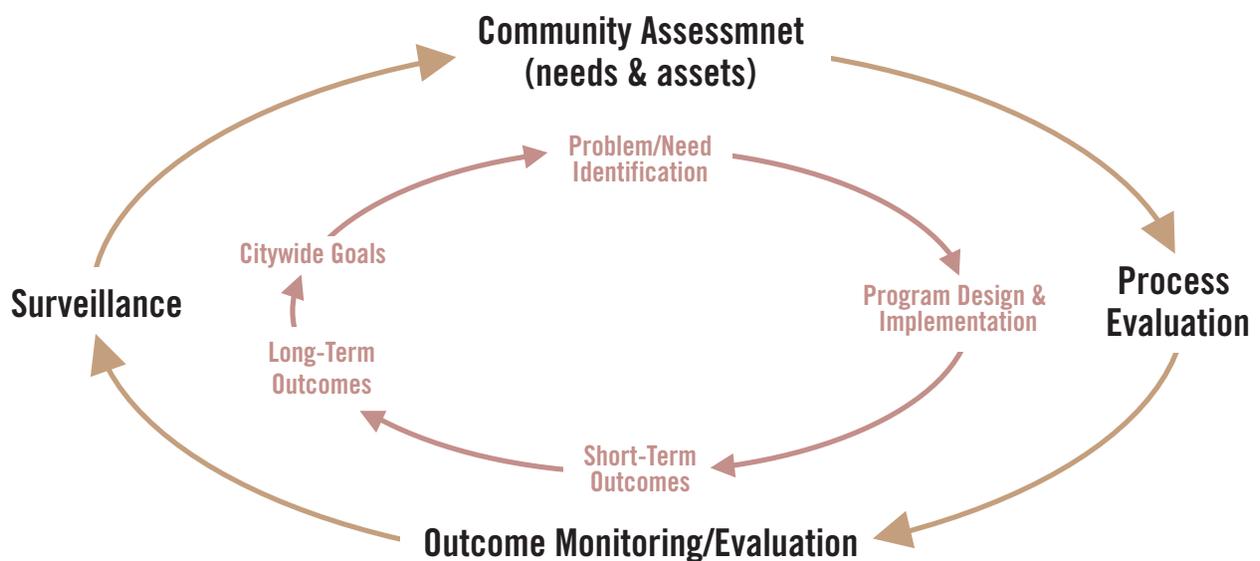
### **Appendix 3: Resources for Implementing Program Evaluation**

**What is Evaluation?**

Evaluation is the process of collecting and analyzing information using scientific research methods to better understand an issue, a population, a program or service, or any other phenomenon. For example, in HIV prevention, the evaluation process can be used to:

- Identify the needs of at-risk populations
- Show whether HIV prevention programs and interventions are effective
- Determine whether new HIV infections are increasing or decreasing

In summary, evaluation is one of the ways we know what we know about HIV and HIV prevention, and it can help guide us in our efforts to address the epidemic. Evaluation can be thought of as an ongoing process that follows the path of program development and implementation. For each step in program implementation, there is a corresponding evaluation component. Exhibit 1 depicts this evaluation cycle.

**EXHIBIT 1****The Evaluation Cycle**

Note: The inner circle indicates program activities; the outer circle indicates the corresponding evaluation activities.

## Evaluation Rationale and Philosophy

Overall, the HPPC's commitment to evaluation stems from a desire to better understand: Where have we succeeded and why? Where have we failed and why? What lessons have we learned? How can we do better? Specifically, there are five benefits of evaluation that represent the HPPC's rationale for why HIV prevention evaluation is important for San Francisco:

- 1. Evaluation is critical for reducing the transmission of HIV.** Evaluation research is used to (1) determine whether individual HIV prevention programs are working; (2) improve the design and implementation of programs; (3) inform front-line workers and managers how to improve their work; (4) ascertain which interventions reduce different risk behaviors in different populations; and (5) identify gaps in services. These benefits of evaluation all facilitate the goal of eliminating the transmission of HIV in San Francisco.
- 2. In this rapidly changing epidemic, evaluation is the only way to ensure that prevention efforts meet the changing needs of affected groups.** Evaluation activities can (1) determine whether prevention programs are responding to consumer perceptions about issues such as HIV transmission, HIV “curability,” and vaccine availability; (2) demonstrate whether prevention efforts are keeping pace with the changing epidemiologic distribution of HIV infection and risk behaviors in the city; and (3) show whether new, creative, and innovative programs are effective in the context of the changing epidemic.
- 3. Evaluation data can improve prevention planning and resource allocation.** Evaluation results (1) demonstrate whether individual programs are reaching their intended populations, meeting client needs, and are effective at reducing risk behaviors; (2) show which interventions work best in which populations; and (3) indicate trends in HIV infection and risk behavior over time at the citywide level. Thus, evaluation can help HIV prevention planners make informed decisions about the most effective and efficient use of scarce funding and technical assistance resources.
- 4. Evaluation gives a voice to consumers of HIV prevention services.** Collecting information from those using services allows their perceptions and experiences to be heard by prevention providers, researchers, policy makers, and funders. Good evaluation (1) continually integrates the consumer voice into design, implementation, and analysis; and (2) considers consumer needs and perspectives when conducting evaluation research.
- 5. Evaluation gives credibility to the local HIV prevention strategy.** The San Francisco HIV Prevention community knows that local HIV prevention efforts are effective because providers can see the results in their everyday interactions with clients and communities. Evaluation offers an important opportunity for the city to (1) define “effectiveness” from a local perspective, and (2) showcase and promote its innovative community-based HIV prevention model using scientific methods designed to truly capture the essence of the local work.

## Current Evaluation Approach (Through 2003)

### EVALUATION APPROACH

To date, San Francisco’s HIV prevention evaluation efforts have been focused in three primary areas: (1) documenting numbers, demographics, and risk behaviors of consumers of HIV prevention services, (2) measuring behavioral outcomes associated with particular types of interventions, and (3) tracking the course of the epidemic through surveillance and HIV prevention indicators (Exhibit 2). These methods have provided a solid foundation for the ongoing evaluation and improvement of HIV prevention in San Francisco.

## EXHIBIT 2

### San Francisco’s Evaluation Framework (Through 2003)

EVALUATION FOCUS	RATIONALE	SOURCES OF DATA
Documenting numbers, demographics, and risk behaviors of consumers served	To ensure that: <ul style="list-style-type: none"> <li>• HIV prevention interventions are reaching high-risk populations (i.e., the populations identified in the HPPC’s priority-setting model)</li> <li>• HIV prevention providers are meeting the goals and objectives set out in their contracts</li> <li>• Services to high-risk populations not identified among the HPPC’s priorities are being documented, to inform future priorities</li> </ul>	<ul style="list-style-type: none"> <li>• Service data that providers enter into the ELI system</li> <li>• Provider monitoring reports</li> <li>• Needs assessments with particular populations</li> </ul>
Assessing behavioral outcomes	To ensure that: <ul style="list-style-type: none"> <li>• Consumer needs are being met</li> <li>• Interventions are effective at addressing the behaviors that lead to HIV transmission</li> <li>• Resources are allocated to the most effective interventions for affected populations</li> </ul>	<ul style="list-style-type: none"> <li>• Behavioral outcomes measured by providers</li> <li>• Outcome evaluation studies conducted by researchers</li> </ul>
Tracking the course of the epidemic	<ul style="list-style-type: none"> <li>• To assess to what extent HIV prevention efforts are contributing to the overall goal of reducing new HIV infections</li> <li>• To monitor changes in the epidemic that might require a shift in prevention focus or resources</li> </ul>	<ul style="list-style-type: none"> <li>• HIV prevention indicators (e.g., community-wide behavioral surveys, STD trends)</li> <li>• HIV counseling and testing data on new infections (detuned ELISA and repeat tester data)</li> <li>• Population-based studies</li> <li>• AIDS case data</li> </ul>

## Partnerships and Accountability

### SUMMARY

San Francisco's current approach to HIV prevention evaluation is based on the principles of partnership, collaboration, and feedback loops. The HPPC and the HIV Prevention Section encourage and facilitate collaborative efforts for evaluation with the following partners.

- Consumers of HIV prevention services in San Francisco
- The HIV-affected community in San Francisco
- HIV prevention providers in San Francisco
- Academic research institutions, such as the University of California, San Francisco's (UCSF) Center for AIDS Prevention Studies (CAPS), that conduct prevention research with San Francisco populations
- Centers for Disease Control and Prevention (CDC)
- State of California Office of AIDS
- SFDPH (e.g., evaluation researchers, epidemiologists, Program Managers, support staff to the HPPC)
- HIV Health Services Planning Council
- Consultants (e.g., contractors to HIV prevention providers and the HPPC)

Some examples of evaluation successes as a result of such collaborations include the following (a comprehensive list of evaluation-related achievements is presented in Appendix 1):

- Completion of several studies and needs assessments prioritized by the HPPC
- Implementation of Evaluating Local Interventions (ELI), a web-based data system for tracking the demographic and behavioral characteristics of HIV prevention consumers
- HIV prevention provider documentation of client behavioral outcomes since 1998

It is critical that linkages, collaboration, communication, accountability, and feedback loops be in place among all stakeholders in order for HIV prevention evaluation to be successful in San Francisco. One of the mechanisms HPPC has implemented to ensure that HIV prevention evaluation and research findings translate into improved programs is to hear an update on the epidemic twice annually, presented by researchers, after which action steps are brainstormed (e.g., how to make appropriate adjustments to the priority-setting model).

## PARTNERSHIPS WITH RESEARCHERS

Scientific research, including behavioral, outcome evaluation, and epidemiologic studies, provides the foundation for the priorities outlined in this Plan. Therefore, an ongoing dialogue among the HPPC, researchers, and community members about gaps in information and research priorities is necessary for continual improvement of HIV prevention. Two HPPC committees developed recommendations designed to facilitate this dialogue:

- **Guiding Principles for Research.** In 2002, the HPPC Research Committee adopted a set of guiding principles for research, borrowed from *Communities Creating Knowledge – A Consensus Statement on Community-Based Research* from The International Network for Community-Based Research on HIV/AIDS (<http://hiv-cbr.net/files/1032743040/CCK%20eng%20statement.pdf>). These guiding principles are outlined in Exhibit 3.
- **Requirements for Researchers.** In 2000, the HPPC’s Strategic Evaluation Committee outlined the requirements for researchers funded by SFDPH through the Cooperative Agreement with CDC, those conducting HPPC-prioritized studies, and those seeking letters of support from the HPPC (Exhibit 4). All researchers conducting HIV prevention-related studies are strongly encouraged to share results with the larger San Francisco community.

Overall, the HPPC concurs with the overarching philosophy stated in *Communities Creating Knowledge – A Consensus Statement on Community-Based Research*: “We believe that all research must be conducted according to accepted ethical standards.” The information presented in Exhibits 3 and 4 supports this philosophy.

For more information on the HPPC’s specific research priorities, see Chapter 3: Community Assessment, pp. 45-136.

### Vision for the Future

The evaluation plan presented in the rest of this chapter builds on the strengths of San Francisco’s current approach by (1) mapping out a more detailed framework for evaluation, and (2) presenting the objectives, activities, timelines, and roles and responsibilities for implementing this improved framework in 2004 - 2008. The HPPC’s vision is that a comprehensive evaluation framework will be in place that assesses the effectiveness of HIV prevention efforts at many different levels and that provides ongoing information so improvements can be made continually.

## EXHIBIT 3

### The HPPC's Guiding Principles for Research\*

GUIDING PRINCIPLE	DESCRIPTION
Community Benefit	Community-based research is research conducted by and for communities. Its purpose is to build community capacities that will provide knowledge with which to improve community conditions.
Capacity Building	In its conduct, community-based research promotes and develops the inquiry skills of all participants. The aim of community-based research is to build sustainable capacities within communities for self-informed, self-inspired transformation.
Collaboration	A community's experience is a resource that belongs to the community. As such, research initiatives should invite community participation as early as possible in their formation, to shape cooperative agreements about ethical issues, the treatment of data and the dissemination of findings.

\*From "Communities Creating Knowledge – A Consensus Statement on Community-Based Research" from The International Network for Community-Based Research on HIV/AIDS (<http://hiv-cbr.net/files/1032743040/CCK%20eng%20statement.pdf>).

## EXHIBIT 4

### Requirements for Researchers Conducting CDC- Or HPPC-Supported Research and for Researchers Seeking Letters of Support From the HPPC

REQUIREMENT*	DESCRIPTION
Hold a community forum	Convene at least one community forum and at least one provider forum (they may be done jointly as one forum) that allow a diversity of viewpoints regarding the study and its results to be shared. The forum(s) shall be appropriately publicized and advertised.
Prepare a written report for a community audience	Disseminate a final written community report to all appropriate stakeholders (e.g., providers, SFDPH, community members, other researchers) and anyone requesting a report.
Present results to the HPPC	Request to present results at an HPPC meeting.
Make results available on the Internet	Post results on the Internet and inform community members about the site.

\*Researchers are required to complete these tasks within six months of the conclusion of data analysis. If researchers who receive a letter of support from the HPPC do not fulfill the above requirements within this time frame, the HPPC will write a letter of concern stating such, indicating that the researchers' failure to fulfill the requirements will be considered should they request letters of support in the future.

## SECTION II

### San Francisco's Evaluation Framework for 2004 - 2008

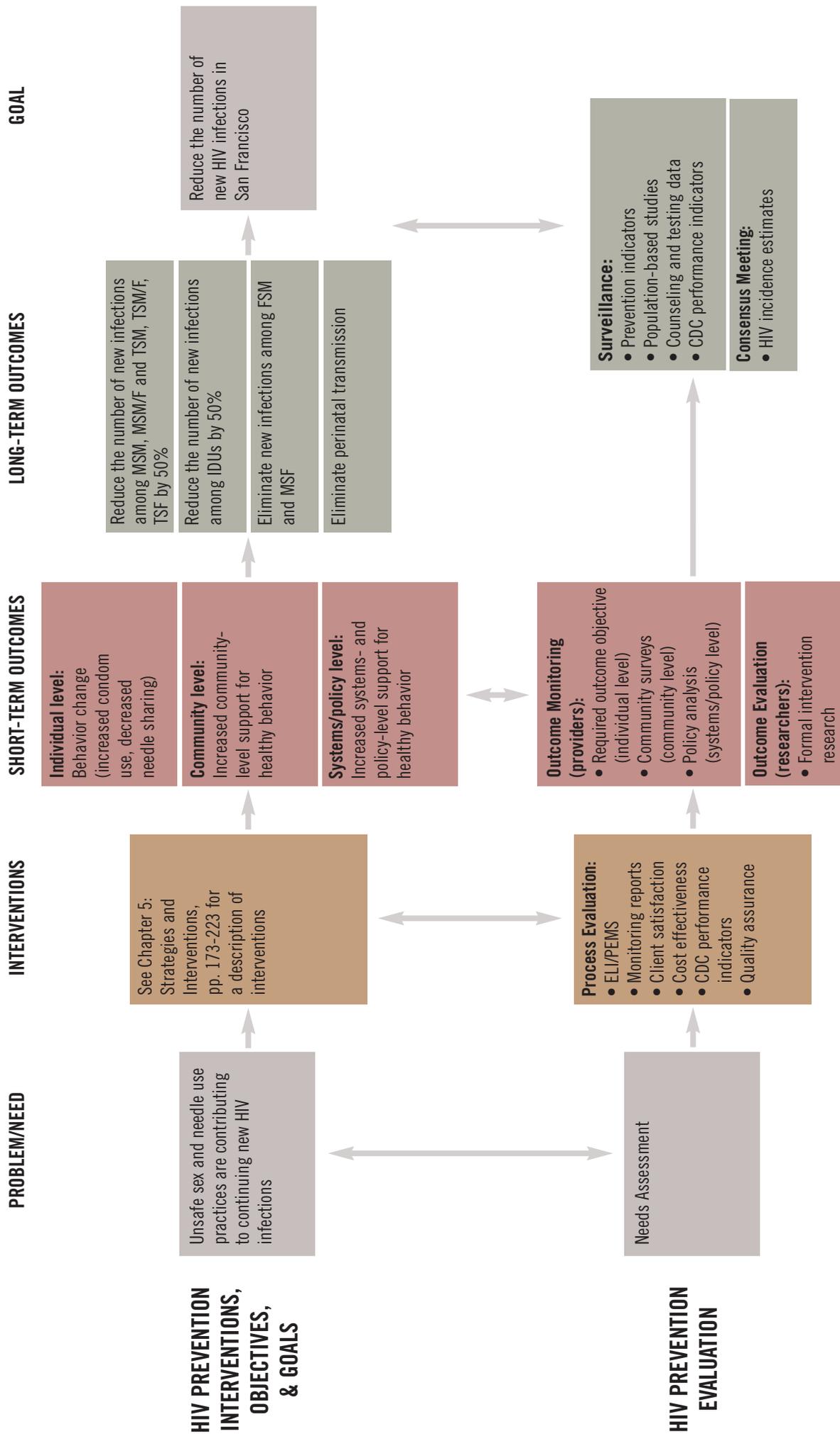
A detailed depiction of San Francisco's evaluation framework is presented in Exhibit 5 (Exhibit 1 presents a simpler version of the framework). This logic model illustrates the relationships between HIV prevention program planning, implementation, and evaluation in San Francisco. It outlines the HIV prevention needs, interventions, objectives, and goals (top row) and the corresponding evaluation activities (indicated by matching colors) implemented at each stage (bottom row). In Section III, the evaluation activities are described in more detail according to who is responsible for their implementation.

As discussed earlier, evaluation activities do not exist in a vacuum; they are part of a feedback loop, which leads to continual program improvement. At every stage – needs assessment, process evaluation, outcome monitoring, and outcome evaluation – information is given to the HPPC and the HIV Prevention Section. This information is then used to:

- Prioritize needs assessments and outcome evaluation studies.
- Identify new areas for HIV prevention focus (e.g., the effects of non-injection drug use on sexual risk behavior).
- Update and revise the HPPC's priority populations, strategies, and interventions
- Allocate resources in accordance with epidemiologic trends.
- Support HIV prevention providers in providing the most effective HIV prevention interventions for their populations.
- Inform HIV-affected communities about the current state of the epidemic and priorities for HIV prevention.

# EXHIBIT 5

## A Logic Model for HIV Prevention in San Francisco



### Introduction

This section outlines the required evaluation activities for San Francisco for 2004 through 2008, who is responsible for implementing them, and the timeframe for implementation. The activities represent a combination of CDC, State, and SFDPH requirements. (HPPC does not set the final evaluation requirements; however, many of the SFDPH evaluation requirements are based on HPPC recommendations.)

The three groups responsible for evaluation are HIV prevention providers, SFDPH, and HPPC. Exhibit 6 summarizes the requirements (without timeframes) for each of these groups, according to the type of evaluation. Exhibits 7 through 11 outline the specific activities necessary to meet each requirement with timeframes for completion. The theme that links the evaluation activities into a coherent whole is the feedback loop, which continually ensures that evaluation and research findings are disseminated in a way that can be used to improve HIV prevention. Therefore, several activities relate to collaborating with or sharing information and data among the HPPC, SFDPH, and HIV prevention providers.

Beginning in 2004, CDC is implementing two new requirements:

- The collection, entry, and reporting of data using a web-based system called the Program Evaluation and Monitoring System (PEMS). The overall goal for implementing PEMS is to find a mechanism to combine it with the ELI requirements to avoid duplication in data collection and entry.
- The collection and reporting of data related to a set of 20 CDC-defined performance indicators (Appendix 2).

In order to plan for implementation of these new requirements, as well as the other evaluation requirements, the HPPC will form an Evaluation Committee in 2004 to work closely with SFDPH. The activities outlined in the HPPC column of Exhibit 6 represent a recommended scope of work for this committee. Special effort will be made to ensure that non-HPPC providers and consumers are represented on the committee.

## Requirements, Activities, Timeframe, and Party Responsible

### EXHIBIT 6

## San Francisco's Evaluation Requirements by Type of Evaluation and Party Responsible

	HPPC	SFDPH*	HIV PREVENTION PROVIDERS
<b>Needs Assessment</b>	<ul style="list-style-type: none"> <li>Prioritize needs assessments in accordance with Step 3 of the priority-setting model (see Chapter 4: Priority-Setting, p. 150)§</li> </ul>	<ul style="list-style-type: none"> <li>Conduct needs assessments as prioritized by HPPC</li> </ul>	<ul style="list-style-type: none"> <li>Participate in needs assessment by assisting with participant recruitment§</li> </ul>
<b>Process Evaluation</b>	<i>Measuring CDC Performance Indicators</i>		
	<ul style="list-style-type: none"> <li>Review SFDPH's annual reports to CDC on progress toward meeting performance indicator targets and recommend any necessary action steps</li> <li>Work with SFDPH to develop a set of locally relevant indicators and/or evaluation processes</li> </ul>	<ul style="list-style-type: none"> <li>Report on progress toward performance indicator targets to CDC†</li> <li>Develop and track a set of locally relevant indicators and/or evaluation processes</li> </ul>	N/A
	<i>Implementing ELI and PEMS</i>		
	<ul style="list-style-type: none"> <li>Work with SFDPH to explore and implement procedures for streamlining data collection while meeting CDC, State, and local requirements</li> </ul>	<ul style="list-style-type: none"> <li>Explore and implement procedures for streamlining data collection while meeting CDC, State, and local requirements</li> <li>Provide technical assistance to HIV prevention providers for implementing ELI/PEMS</li> </ul>	<ul style="list-style-type: none"> <li>Provide input to SFDPH regarding streamlining data collection</li> <li>Collect and enter data on all funded interventions according to ELI/PEMS requirements†,‡,§</li> </ul>
	<i>Evaluating the Community Planning Process</i>		
	<ul style="list-style-type: none"> <li>Work with SFDPH to collect and report on CDC performance indicators for community planning</li> </ul>	<ul style="list-style-type: none"> <li>Collect and report on CDC performance indicators for community planning†</li> <li>Evaluate the community planning process with respect to parity, inclusion, and representation†</li> </ul>	N/A
	<i>Conducting Quality Assurance</i>		
	<ul style="list-style-type: none"> <li>Work with SFDPH to develop quality assurance policies and procedures</li> </ul>	<ul style="list-style-type: none"> <li>Develop and implement quality assurance policies and procedures (both for program performance and data collection), including assessing cost-effectiveness†</li> </ul>	<ul style="list-style-type: none"> <li>Adhere to quality assurance policies and procedures</li> </ul>

## EXHIBIT 6 (continued)

	HPPC	SFDPH*	HIV PREVENTION PROVIDERS
<b>Process Evaluation (cont.)</b>	<i>Assessing Client Satisfaction</i>		
	N/A	<ul style="list-style-type: none"> <li>Provide technical assistance to HIV prevention providers for implementing client satisfaction surveys or other activities</li> </ul>	<ul style="list-style-type: none"> <li>Implement and report on results of client satisfaction surveys or other activities†</li> </ul>
<b>Outcome Monitoring</b>	<ul style="list-style-type: none"> <li>Review SFDPH's annual reports to CDC on provider behavioral outcomes and recommend any necessary action steps</li> </ul>	<ul style="list-style-type: none"> <li>Report results of provider behavioral outcomes to CDC annually†</li> </ul>	<ul style="list-style-type: none"> <li>Measure and report on behavioral outcomes for at least one funded intervention§</li> </ul>
<b>Outcome Evaluation</b>	<ul style="list-style-type: none"> <li>Prioritize one outcome evaluation study</li> </ul>	<ul style="list-style-type: none"> <li>Complete one outcome evaluation study†</li> </ul>	<ul style="list-style-type: none"> <li>Collaborate with SFDPH and HPPC as necessary to conduct an outcome evaluation study</li> </ul>
<b>Surveillance</b>	<ul style="list-style-type: none"> <li>Hear a presentation twice annually on trends in the epidemic, including surveillance data, and develop any necessary action steps§</li> </ul>	<ul style="list-style-type: none"> <li>Respond to HPPC and HIV Prevention Section needs for surveillance data, including any data related to the CDC performance indicators†</li> </ul>	N/A

\*In addition to its own evaluation responsibilities, SFDPH will also provide support to, collaborate with, and provide technical assistance to HPPC and HIV prevention providers to fulfill their evaluation responsibilities.

†CDC requirement.

‡State requirement.

§SFDPH or HPPC requirement.

244

## EXHIBIT 7

### Needs Assessment: Requirements, Activities, Timeframe, and Party Responsible

PARTY RESPONSIBLE	REQUIREMENT	ACTIVITIES (TIMEFRAME)
The HPPC will:	1. Prioritize needs assessments in accordance with Step 3 of the priority-setting model (see Chapter 4: Priority-Setting, p. 150)	<ol style="list-style-type: none"> <li>1a. Review current data (annually)</li> <li>1b. Identify populations with possible increasing incidence (annually)</li> <li>1c. Recommend up to two needs assessments to SFDPH (annually)</li> </ol>
SFDPH will:	2. Conduct needs assessments as prioritized by HPPC	<ol style="list-style-type: none"> <li>2a. Review HPPC recommendations for needs assessments (annually)</li> <li>2b. Assess logistical and financial feasibility (annually)</li> <li>2c. Secure funding (annually)</li> <li>2d. Conduct needs assessment (pending funding)</li> <li>2e. Disseminate findings to HPPC, other researchers, and community members (within six months of completion)</li> </ol>
HIV Prevention Providers will:	3. Participate in needs assessments by assisting with recruitment of participants	<ol style="list-style-type: none"> <li>3a. Identify whether agency clients may be eligible to participate in needs assessments (as applicable)</li> <li>3b. Refer potentially eligible clients to needs assessment researchers (as applicable)</li> </ol>

## EXHIBIT 8

### Process Evaluation: Requirements, Activities, Timeframe, and Party Responsible

PARTY RESPONSIBLE	REQUIREMENT	ACTIVITIES (TIMEFRAME)
<b>Planning for Process Evaluation</b>		
SFDPH (with input from HPPC and HIV prevention providers) will:	1. Explore and implement procedures for streamlining data collection while meeting CDC, State, and local requirements	1a. Work with the 2004 HPPC Evaluation Committee to develop a plan for meeting both ELI and PEMS requirements while minimizing provider and client burden (January – March 2004) 1b. Identify and secure financial and other resources to implement plan (April – June 2004) 1c. Implement plan (ongoing beginning in July 2004)
<b>Measuring CDC Performance Indicators</b>		
SFDPH (with feedback from HPPC) will:	2. Report on progress toward performance indicator targets to CDC	2a. Identify baselines and targets for CDC performance indicators and submit report to CDC (annually, by July 15) 2b. Analyze relevant ELI/PEMS data (annually, by February) 2c. Present annual report to HPPC on progress toward CDC performance indicator targets and obtain feedback regarding improving HIV prevention efforts and improving data collection on the performance indicators (annually, March) 2d. Submit report on progress toward performance indicator targets (annually, by April 1)
	3. Develop and track a set of locally relevant indicators and/or evaluation processes	3a. Identify indicators/evaluation processes that will document local successes and areas for improvement (January – December 2004) 3b. Assess availability of data and resources to measure these indicators (January – March 2005) 3c. Implement regular tracking of these indicators (ongoing beginning in April 2005)
<b>Implementing ELI and PEMS</b>		
HIV Prevention Providers (with technical assistance from SFDPH) will:	4. Collect and enter data on all funded interventions according to ELI/PEMS requirements	4a. Collect required data on all funded interventions as specified in the most current Units of Service document (ongoing) 4b. Enter all data into the ELI system within two weeks after it is collected (ongoing) 4c. Make any adjustments to ELI data collection and entry to meet PEMS requirements (as necessary)

PARTY RESPONSIBLE	REQUIREMENT	ACTIVITIES (TIMEFRAME)
<b><i>Evaluating the Community Planning Process</i></b>		
SFDPH (with input from HPPC) will:	5. Collect and report on CDC performance indicators for community planning	<p>5a. Work with HPPC 2004 Evaluation Committee to develop targets for CDC performance indicators and a plan for measuring them (January – June 2004)</p> <p>5b. Present data on progress toward performance indicators to HPPC for feedback (annually)</p> <p>5c. Submit report to CDC on progress toward performance indicators (annually)</p>
	6. Evaluate the community planning process with respect to parity, inclusion, and representation	6a. Contract with an external process evaluator to observe HPPC processes and provide feedback to HPPC and the HPPC Co-chairs (annually, by January)
<b><i>Conducting Quality Assurance</i></b>		
SFDPH (with input from HPPC) will:	7. Develop and implement quality assurance policies and procedures (both for program performance and data collection), including assessing cost-effectiveness	<p>7a. Work with HPPC 2004 Evaluation Committee to develop quality assurance policies and procedures for (1) delivery of interventions/programs, and (2) collection and entry of required data (July – December 2004)</p> <p>7b. Train providers on quality assurance policies and procedures (January – March 2005)</p> <p>7c. Include new quality assurance requirements in provider contracts (ongoing, beginning in July 2005)</p>
<b><i>Assessing Client Satisfaction</i></b>		
HIV Prevention Providers (with technical assistance from SFDPH) will:	8. Implement and report on results of client satisfaction surveys or other activities	<p>8a. Conduct a client satisfaction survey or other activity as specified in their contracts (annually)</p> <p>8b. Report results of client satisfaction activity in monitoring reports (annually)</p>

## EXHIBIT 9

### Outcome Monitoring: Requirements, Activities, Timeframe, and Party Responsible

PARTY RESPONSIBLE	REQUIREMENT	ACTIVITIES (TIMEFRAME)
HIV Prevention Providers (with technical assistance from SFDPH) will:	1. Measure and report on behavioral outcomes for at least one funded intervention	<ul style="list-style-type: none"> <li>1a. Select one intervention for which behavioral outcomes will be measured (during program development)</li> <li>1b. Work with HIV Prevention Section Program manager to write an outcome objective and design a plan for measuring it (during contract negotiations)</li> <li>1c. Collect data on outcome objective (ongoing)</li> <li>1d. Report data on outcome objective in monitoring reports (annually)</li> </ul>
SFDPH (with input from HPPC) will:	2. Review and report on results of provider behavioral outcomes to CDC	<ul style="list-style-type: none"> <li>2a. Assemble behavioral outcome data from provider monitoring reports and assess overall progress toward outcomes (annually)</li> <li>2b. Present provider behavioral outcome data to HPPC to obtain feedback on action steps (annually)</li> <li>2c. Report results of provider behavioral outcomes to CDC (annually)</li> </ul>

## EXHIBIT 10

### Outcome Evaluation: Requirements, Activities, Timeframe, and Party Responsible

PARTY RESPONSIBLE	OBJECTIVE	ACTIVITIES (TIMEFRAME)
The HPPC will:	1. Prioritize one outcome evaluation study by 2004	<ul style="list-style-type: none"> <li>1a. Develop a list of potential topics for outcome evaluation (June 2004)</li> <li>1b. Present the list to the HPPC Steering Committee for prioritization of one of the listed studies (August 2004)</li> <li>1c. Present prioritized study to HPPC for a vote (December 2004)</li> </ul>
SFDPH will:	2. Complete one outcome evaluation study by 2008	<ul style="list-style-type: none"> <li>2a. Identify a principal investigator (March 2005)</li> <li>2b. Develop a research proposal (December 2005)</li> <li>2c. Secure funding (March 2006)</li> <li>2d. Implement study (2006 – 2008)</li> </ul>

## EXHIBIT 11

### Surveillance: Requirements, Activities, Timeframe, and Party Responsible

PARTY RESPONSIBLE	OBJECTIVE	ACTIVITIES (TIMEFRAME)
SFDPH will:	1. Respond to HPPC and HIV Prevention Section needs for surveillance data	1a. Provide data upon request to HPPC, HIV Prevention Section staff, and the HPPC Technical Support Consultant (ongoing)
HPPC will:	2. Hear a presentation twice annually on trends in the epidemic, including surveillance data, and develop any necessary action steps	2a. Request a presentation from an SFDPH or other epidemiologist/researcher (twice annually, by January and by June) 2b. Review draft of presentation and give feedback (twice annually, by February and by July) 2c. Schedule presentation (twice annually, by March and by August)

- SFDPH has completed several studies and needs assessments prioritized by the HPPC, including:
  - The Transgender Community Health Project study (Clements et al 1999, Clements-Nolle et al 2001)
  - The Prevention Case Management (PCM) Outcome Study (Sebesta 2003)
  - The Party & Play Study (Pendo et al 2003)
  - Needs assessments with men who have sex with male-to-female (MTF) transgendered persons (Coan et al, in press), Latino immigrant MSM (Harder+Company 2001), heterosexually identified African American and Latino MSM (Harder+Company 2004a), Native American two spirit individuals (result available in 2004), and male and MTF homeless and marginally housed sex workers in the Tenderloin (Harder+Company 2004b)
  - Investigation of the High HIV Prevalence in the Transgender African American Community in San Francisco (2003)
  - An assessment of existing Prevention with Positives programs (DeMayo 2003)
  - HIV prevention capacity assessments in two San Francisco neighborhoods: Bayview/Hunter's Point (Harder+Company 2004c) and Tenderloin (Harder+Company 2004d)
- The HIV Prevention Section, in collaboration with HIV prevention providers, the State Office of AIDS, and technical assistance consultants, has implemented Evaluating Local Interventions (ELI), a web-based data system for tracking the demographic and behavioral characteristics of HIV prevention consumers.
- The HPPC and the HIV Health Services Planning Council have joined forces to explore opportunities for assessing, implementing, and evaluating prevention with positives programs, as well as to collaborate in conducting needs assessments.
- HIV prevention providers have been measuring behavioral outcomes for their HIV prevention interventions for several years.
- CAPS and other UCSF researchers have supported the HPPC in its needs assessment efforts by sharing survey protocols, brainstorming to avoid duplication of efforts, and making recommendations for recruitment and implementation.
- Evaluation has documented the effectiveness of needle exchange, which has helped promote continued local funding for needle exchange programs. This has helped keep HIV incidence stable and relatively low among IDUs in San Francisco.
- The implementation of regular HIV Consensus Meetings resulting from a collaboration between SFDPH, the HPPC, and researchers, has generated critical data for the HPPC's planning and prioritization processes.

## EXHIBIT 12

## CDC's HIV Prevention Program Performance Indicators

PROGRAM PERFORMANCE INDICATOR	AREA OF INTEREST
<b>Overall HIV</b>	
A.1: Number of newly diagnosed HIV infections.	
A.2: Number of newly diagnosed HIV infections, 13–24 years of age.	
<b>Counseling, Testing, and Referral Services</b>	
B.1: Percent of newly identified, confirmed HIV-positive test results among all tests reported by HIV counseling, testing, and referral sites.	Overall HIV positive test yield
B.2: Percent of newly identified, confirmed HIV-positive test results returned to clients.	Knowledge of HIV positive serostatus
B.3: Percent of facilities reporting a prevalence of HIV positive tests equal to or greater than the jurisdiction's target set in B.1.	Targeted services
<b>Partner Counseling and Referral Services</b>	
C.1: Percent of contacts with unknown or negative serostatus receiving an HIV test after PCRS notification.	Contact use of services
C.2: Percent of contacts with a newly identified, confirmed HIV-positive test among contacts who are tested.	Knowledge of serostatus by newly identified HIV positive contacts
C.3: Percent of contacts with a known, confirmed HIV-positive test among all contacts.	Contacts known to be HIV positives
<b>Perinatal Transmission Prevention</b>	
<i>Applicable only to those jurisdictions with supplemental funding for perinatal transmission prevention through the Health Department Cooperative Agreement</i>	
D.1: Proportion of women who receive an HIV test during pregnancy.	Pregnant women's knowledge of their serostatus
D.2: Proportion of HIV-infected pregnant women who receive appropriate interventions to prevent perinatal transmission.	Provision of preventive treatment to minimize perinatal HIV transmission
D.3: Proportion of HIV-infected pregnant women whose infants are perinatally infected.	Perinatal HIV transmission
<i>All jurisdictions</i>	
D.4: Proportion of women who receive an HIV test during pregnancy.	Pregnant women's knowledge of their serostatus

## EXHIBIT 12 (continued)

PROGRAM PERFORMANCE INDICATOR	AREA OF INTEREST
<b>Community Planning</b>	
<b>E.1:</b> Proportion of populations most at risk (up to 10), as documented in the epidemiologic profile and/or the priority populations in the Comprehensive Plan, that have at least one CPG member that reflects the perspective of each population.	Representativeness
<b>E.2:</b> Proportion of key attributes of an HIV prevention planning process that CPG membership agreed have occurred.	Community planning implementation
<b>E.3:</b> Percent of prevention interventions/other supporting activities in the health department CDC funding application specified as a priority in the comprehensive HIV prevention plan.	Linkages between community planning priorities and funding priorities
<b>E.4:</b> Percent of health department-funded prevention interventions/other supporting activities that correspond to priorities specified in the comprehensive HIV prevention plan	Linkages between community planning priorities and resource allocation
<b>Evaluation</b>	
<b>F.1:</b> Proportion of providers reporting representative process monitoring data to the health department in compliance with CDC program announcement.	Capacity to monitor programs
<b>Capacity Building</b>	
<b>G.1:</b> Proportion of providers who have received at least one health department supported capacity building assistance, specifically in the form of trainings/workshops in the design, implementation or evaluation of science-based HIV prevention interventions.	Capacity building assistance in the design, implementation or evaluation of science based HIV prevention interventions.
<i>In the future, an indicator will be developed to measure increased capacity to design, implement, or evaluate science based HIV prevention interventions</i>	
<b>Health Education/Risk Reduction</b>	
<b>H.1:</b> Proportion of persons that completed the intended number of sessions for each of the following interventions: individual level interventions (ILI), group level interventions (GLI), and Prevention Case Management (PCM).	Retention
<b>H.2:</b> Proportion of the intended number of the target populations to be reached with any of the following specific interventions (ILI or GLI or PCM) who were actually reached.	Reach of intended target populations
<b>H.3:</b> The mean number of outreach contacts required to get one person to access any of the following services: Counseling & Testing, Sexually Transmitted Disease Screening & Testing, ILI, GLI or PCM.	Impact of outreach and utilization of services
<b>Prevention for HIV Infected Persons</b>	
<b>I.1:</b> Proportion of HIV infected persons that completed the intended number of sessions for Prevention Case Management.	Retention among infected persons
<b>I.2:</b> Percent of HIV infected persons who, after a specified period of participation in Prevention Case Management, report a reduction in sexual or drug using risk behaviors or maintain protective behaviors with seronegative partners or with partners of unknown status.	Impact of PCM among infected persons

### On-Line Needs Assessment Resources

- National Minority AIDS Council needs assessment guide  
[http://www.nmac.org/tech\\_assistance/ta\\_resources/Org\\_Effectiveness/NdsAmt.pdf](http://www.nmac.org/tech_assistance/ta_resources/Org_Effectiveness/NdsAmt.pdf)
- Synergy Project APDIME Tool Kit  
<http://www.synergyaids.com/apdime/index.htm>

### On-Line Program Evaluation Resources

- National Minority AIDS Council program evaluation guide  
[http://www.nmac.org/tech\\_assistance/ta\\_resources/Org\\_Effectiveness/ProgEva.pdf](http://www.nmac.org/tech_assistance/ta_resources/Org_Effectiveness/ProgEva.pdf)
- UCSF Center for AIDS Prevention Studies, “Developing and Evaluating HIV Prevention Programs”  
<http://www.caps.ucsf.edu/toolbox/devindex.html>
- Synergy Project APDIME Tool Kit  
<http://www.synergyaids.com/apdime/index.htm>
- Sociometrics Corporation  
<http://www.socio.com/eval.htm>

### Resources for Trainings on Evaluation

- Academy for Educational Development, Center for Applied Behavioral and Evaluation Research, Washington DC  
<http://caber.aed.org/>, 202-884-8796
- California HIV/STD Prevention Training Center, Berkeley, CA  
<http://www.stdhivtraining.org/cfm/staff.cfm>, (510) 883-6600
- Sociometrics Corporation, Los Altos, CA  
<http://www.socio.com/eval.htm>, 650-949-3282





- AIDS Project Los Angeles. (1993) Statistics and conclusions from Southern California HIV/AIDS hotline, third quarter. AIDS Project Los Angeles, Los Angeles.
- Anderson JE, Cheney R, Clatts M, et al. (1996) HIV risk behavior, street outreach, and condom use in eight high-risk populations. *AIDS Educ Prev* 8(3):191-204.
- Anonymous. (1999) The poppers-HIV connection. *Focus* 14(4):5-6.
- Apanovitch AM, McCarthy D, Salovey P. (2003) Using message framing to motivate HIV testing among low-income, ethnic minority women. *Health Psychol* 22(1):60-67.
- Associated Press. (2002) 'Crazy drug' getting into U.S. - "Ya Ba". <http://thepointprogram.com/forums/Parenting/posts/49.html>
- Baldwin JA, Trotter RT, Martinez D, et al. (1999) HIV/AIDS risks among Native American drug users: Key findings from focus group interviews and implications for intervention strategies. *AIDS Educ Prev* 11(4):279-292.
- Baldwin JA, Maxwell CJ, Fenaughty AM, et al. (2000) Alcohol as a risk factor for HIV transmission among American Indian and Alaska Native drug users. *Am Indian Alsk Native Ment Health Res* 9(1):1-16.
- Bamberger JD, Waldo CR, Gerberding JL, et al. (1999) Postexposure prophylaxis for human immunodeficiency virus (HIV) infection following sexual assault. *Am J Med* 106(3):323-326.
- Bamberger JD, Unick J, Klein P, et al. (2000) Helping the urban poor stay with antiretroviral HIV drug therapy. *Am J Public Health* 90(5):699-701.
- Baranowski T, Perry CL, Parcel GS. (1997) How individuals, environments, and health behavior interact: Social cognitive theory. In Glanz K, Lewis FM, Rimer B (Eds.): *Health Behavior and Health Education: Theory Research and Practice*, pp. 153-178. Jossey-Bass, San Francisco.
- Bauer HM, Gibson P, Hernandez M, et al. (2002) Intimate partner violence and high-risk sexual behaviors among female patients with sexually transmitted diseases. *Sex Transm Dis* 29(7):411-416.
- Beckmann KR, Melzer-Lange MD, Cuene B, et al. (2002) The effectiveness of a follow-up program at improving HIV testing in a pediatric emergency department. *Wisconsin Med J* 101(8):30-34.
- Better World Advertising. (2002) *HIV Stops With Me: Year Three Evaluation Results* [report]. Available from the HIV Prevention Section, San Francisco, CA.
- Bingham T, McFarland W, Shehan D, et al. (2002) Unrecognized HIV infection, risk behaviors, and perceptions of risk among young black men who have sex with men: Six US cities, 1994-1998. *MMWR Morb Mortal Wkly Rep* 51(33):733-736.
- Binson D, Woods WJ, Polack L, et al. (2001) Differential HIV risk in bathhouses and public cruising areas. *Am J Public Health* 91(9):1482-1486.
- Birkel RC, Golaszewski T, Koman JJ, et al. (1993) Findings from the Horizontes Acquired Immune Deficiency Syndrome Education Project: The impact of indigenous outreach workers as change agents for injection drug users. *Health Educ Q* 20(4):523-538.
- Bluthenthal RN, Kral AH, Gee L, et al. (2001) Trends in HIV seroprevalence and risk among gay and bisexual men who inject drugs in San Francisco, 1988 to 2000. *J Acquir Immune Defic Syndr* 28(3):264-269.
- Bockting WO, Robinson BE, Rosser BR. (1998) Transgender HIV prevention: A qualitative needs assessment. *AIDS Care* 10(4):505-525.
- Boles J, Elifson KW. (1994) The social organization of transvestite prostitution and AIDS. *Soc Sci Med* 39(1):85-93.
- Branson BM, Peterman TA, Cannon RO, et al. (1998) Group counseling to prevent sexually transmitted disease and HIV: A randomized controlled trial. *Sex Transm Dis* 25(10):553-560.
- Brette R.P. (1991) HIV and harm reduction for injection drug users. *AIDS* 5(2):125-136.
- Brown E, Ponce N, Rice T, et al. (2002) The State of Health Insurance in California: Findings from the 2001 California Health Interview Survey. UCLA Center for Health Policy Research, Los Angeles. <http://www.healthpolicy.ucla.edu/pubs/publication.asp?pubID=28>
- Buchanan D, Shaw S, Teng W, et al. (2003) Neighborhood differences in patterns of syringe access, use, and discard among injection drug users: Implications for HIV outreach and prevention education. *J Urban Health* 80(3):438-454.
- Bueling D, Hoff C, Coates TJ. (1995) Speak to your brothers: A community level HIV prevention model for gay and bisexual men in the 90s. Presented at the 17th National Lesbian and Gay Health Conference, Minneapolis, MN.
- Bull SS, McFarlane M. (2000) Soliciting sex on the Internet: What are the risks for sexually transmitted diseases and HIV? *Sex Transm Dis* 27(9):545-550.

- Bull SS, McFarlane M, King D. (2001) Barriers to STD/HIV prevention on the Internet. *Health Educ Res* 16(6):661-670.
- Caetano R, Hines AM. (1995) Alcohol, sexual practices, and risk of AIDS among blacks, Hispanics, and whites. *J Acquir Immune Defic Syndr Hum Retrovirol* 10(5):554-561.
- Campsmith ML, Nakashima AK, Jones JL. (2000) Association between crack cocaine use and high-risk sexual behaviors after HIV diagnosis. *J Acquir Immune Defic Syndr* 25(2):192-198.
- CAPS. CAPS facts sheets. UCSF Center for AIDS Prevention Studies, San Francisco, CA. <http://www.caps.ucsf.edu/FSindex.html>
- Carballo-Diequez A, Remien R, Benson DA, et al. (2002) Intention to notify sexual partners about potential HIV exposure among New York City STD clinics' clients. *Sex Transm Dis* 29(8):465-471.
- Cardo DM, Culver DH, Ciesielski CA, et al. (1997) A case-control study of HIV seroconversion in health care workers after percutaneous exposure: Centers for Disease Control and Prevention Needlestick Surveillance Group. *N Engl J Med* 337(21):1485-1490.
- Carey MP, Braaten LS, Maisto SA, et al. (2000) Using information, motivational enhancement, and skills training to reduce the risk of HIV infection for low-income urban women: A second randomized clinical trial. *Health Psychol* 19(1):3-11.
- Catania JA, Kegeles SM, Coates TJ (1990) Towards an understanding of risk behavior: An AIDS risk reduction model (ARRM). *Health Educ Q* 17(1):53-72.
- Catania JA, Coates TJ, Stall R, et al. (1991) Changes in condom use among homosexual men in San Francisco. *Health Psychol* 10(3):190-199.
- Catania JA, Osmond D, Stall RD, et al. (2001) The continuing HIV epidemic among men who have sex with men. *Am J Public Health* 91(6):907-914.
- CDC. (2002a) Cases of HIV infection and AIDS in the United States, 2002. HIV/AIDS Surveillance Report, Vol.14. <http://www.cdc.gov/hiv/stats/hasr1402.htm>
- CDC. (2002b) Young people at risk: HIV/AIDS among America's youth. <http://www.cdc.gov/hiv/pubs/facts/youth.pdf>
- Celentano DD, Nelson KE, Lyles CM, et al. (1998) Decreasing incidence of HIV and sexually transmitted diseases in young Thai men: Evidence for success of the HIV/AIDS control and prevention program. *AIDS* 12(5):F29-F36.
- Charlebois E, Clark RA, Robertson MJ, et al. (2000) HIV seroprevalence among homeless and marginally housed adults in San Francisco. Presented at the San Francisco HIV Consensus Meeting, Emeryville, CA, May 15-16.
- Chen SY, Gibson S, Katz MH, et al. (2002) Continuing increases in sexual risk behavior and sexually transmitted diseases among men who have sex with men: San Francisco, Calif., 1999- 2001, USA. *Am J Public Health* 92(9):1387-1388.
- Chen SY, Weide D, McFarland W. (2003) Are the recent increases in sexual risk behavior among older or younger men who have sex with men? Answer: both. *AIDS* 17(6):942-943.
- Chesney MA, Barrett DC, Stall R. (1998) Histories of substance use and risk behavior: Precursors to HIV seroconversion in homosexual men. *Am J Public Health* 88(1):113-116.
- Choi K. (2003) High sexual risk but low HIV prevalence among Asian and Pacific Islander (API) men who have sex with men (MSM). Presented at the Annual CAPS Conference, San Francisco, CA, April.
- Choi KH, Coates TJ. (1994) Prevention of HIV infection. *AIDS* 8(10):1371-1389.
- Choi KH, Coates TJ, Catania JA, et al. (1995) High HIV risk among gay Asian and Pacific Islander men in San Francisco. *AIDS* 9(3):306-308.
- Choi KH, Lew S, Vittinghoff E, et al. (1996) The efficacy of brief group counseling in HIV risk reduction among homosexual Asian and Pacific Islander men. *AIDS* 10(1):81-87.
- Choi KH, Han CS, Hudes ES, et al. (2002) Unprotected sex and associated risk factors among young Asian and Pacific Islander men who have sex with men. *AIDS Educ Prev* 14(6):472-481.
- Choi KH, Operario D, Gregorich SE, et al. (2003) Age and race mixing patterns of sexual partnerships among Asian men who have sex with men: Implications for HIV transmission and prevention. *AIDS Educ Prev* 15(1 suppl A):53-65.
- Chu PL, McFarland W, Gibson S, et al. (2003) Viagra use in a community-recruited sample of men who have sex with men, San Francisco. *J Acquir Immune Defic Syndr* 33(2):191-193.
- Cicarone DH, Kanouse DE, Collins RL, et al. (2003) Sex without disclosure of positive HIV serostatus in a US probability sample of persons receiving medical care for HIV infection. *Am J Public Health* 93(6):949-954.

- Clements K, Gleghorn A, Garcia D, et al. (1997) A risk profile of street youth in Northern California: Implications for gender-specific human immunodeficiency virus prevention. *J Adolesc Health* 20(5):343-353.
- Clements K, Kitano K, Wilkinson W, et al. (1999) HIV prevention and health service needs of the transgender community in San Francisco. *Int J Transgenderism* 3(1+2).
- Clements-Nolle K, Marx R, Guzman R, et al. (2001) HIV prevalence, risk behaviors, health care use, and mental health status of transgender persons: Implications for public health intervention. *Am J Public Health* 91(6):915-921.
- Coan D, Schragger W, Packer T. (in press) The role of male sexual partners in HIV infection among male-to-female transgendered individuals. *Int J Transgenderism*.
- Coates TJ, Greenblatt R. (1990) Behavioral change using interventions at the community level. In Holmes KP, Mardh PF, Sparling, et al. (Eds.): *Sexually Transmitted Diseases*, pp. 1075-1080. McGraw-Hill, New York.
- Cohen DA, Farley TA, Bedimo-Etame JR, et al. (1999) Implementation of condom social marketing in Louisiana, 1993 to 1996. *Am J Public Health* 89(2):204-208.
- Cohen L, Swift S. (1999) The spectrum of prevention: Developing a comprehensive approach to injury prevention. *Inj Prev* 5(3):203-207.
- Colfax GN, Mansergh G, Guzman R, et al. (2001) Drug use and sexual risk behavior among gay and bisexual men who attend circuit parties: A venue-based comparison. *J Acquir Immune Defic Syndr* 28(4):373-379.
- Colfax GN, Buchbinder SP, Cornelisse PG, et al. (2002) Sexual risk behaviors and implications for secondary HIV transmission during and after HIV seroconversion. *AIDS* 16(11):1529-1535.
- Collins C, Morin SF, Shriver MD, et al. (2000) *Designing Primary Prevention for People Living with HIV*. Policy Monograph Series. AIDS Policy Research Center & Center for AIDS Prevention Studies, and the AIDS Research Institute, San Francisco, CA, March.
- Colon HM, Robles RR, Marrero CA, et al. (1996) Behavioral effects of receiving HIV test results among injecting drug users in Puerto Rico. *AIDS* 10(10):1163-1168.
- Conviser R, Murray M, Lau D (2000) Medicaid managed care reimbursement for HIV and its implications for access to care. *Am J Manag Care* 6(9):990-999.
- Copeland AL, Sorensen JL. (2001) Differences between methamphetamine users and cocaine users in treatment. *Drug Alcohol Depend* 62(1):91-95.
- Crepaz N, Marks G. (2003) Serostatus disclosure, sexual communication and safer sex in HIV-positive men. *AIDS Care* 15(3):379-387.
- Crosby G, Grofe M. (2001) Study of HIV sexual risk among disenfranchised African American MSM. In *Science to Community, Prevention #8*, a publication of UCSF CAPS and the AIDS Research Institute, San Francisco, CA, March.  
<http://www.caps.ucsf.edu/capsweb/publications/TESS2C.pdf>
- Cummings GL, Battle R, Barker J, et al. (1997) HIV risk among low-income African American mothers of elementary school children. *J Health Soc Policy* 8(3):27-39.
- Cunningham WE, Hays RD, Williams KW, et al. (1995) Access to medical care and health-related quality of life for low-income persons with symptomatic human immunodeficiency virus. *Med Care* 33(7):739-754.
- Dausey DJ, Desai RA. (2003) Psychiatric comorbidity and the prevalence of HIV infection in a sample of patients in treatment for substance abuse. *J Nerv Ment Dis* 191(1):10-17.
- David Binder Research. (2003) Evaluation of the Black Brothers Esteem Social Marketing Campaign [report]. Available from the San Francisco AIDS Foundation, San Francisco, CA.
- Dawson C, Hartfield K. (1996) Developing a cost-effective media campaign addressing unprotected anal sex among gay men. *AIDS Educ Prev* 8(4):285-293.
- DeMayo M. (2003) Prevention with Positives: An Assessment of Agency Response in San Francisco [report]. Available from the HIV Prevention Section, San Francisco, CA.
- Denizet-Lewis B. (2003) Double lives on the down low. *New York Times Magazine*, August 3.
- Deren S, Efthimiou-Mordaunt A, Rhodes F, et al. (2002) Prevention of HIV among drug users. *Subst Use Misuse* 37(8-10):1215-1227.
- Des Jarlais D. (1995) HIV/AIDS Prevention for Injecting Drug Users: The Effectiveness of AIDS Prevention Efforts [report]. Prepared for OTA assessment. Available from the HIV Prevention Section, San Francisco, CA.

- Diamond C, Davidson A, Sorvillo F, et al. (2001) HIV-infected American Indians/Alaska natives in the Western United States. *Ethn Dis* 11(4):633-644.
- Díaz RM, Stall RD, Hoff C, et al. (1996) HIV risk among Latino gay men in the Southwestern United States. *AIDS Educ Prev* 8(5):415-429.
- Díaz RM, Morales E, Bein E, et al. (1999). Predictors of sexual risk in Latino gay/bisexual men: The role of demographic, developmental, social cognitive and behavioral variables. *Hispanic J Beh Sci* 21(4): 481-501.
- DiClemente RJ, Wingood GM. (1995) A randomized controlled trial of an HIV sexual risk-reduction intervention for young African-American women. *JAMA* 274(16):1271-1276.
- Dilley JW, Woods WJ, Sabatino J, et al. (2002) Changing sexual behavior among gay male repeat testers for HIV: A randomized, controlled trial of a single-session intervention. *J Acquir Immune Defic Syndr* 30(2):177-186.
- Dilley JW, Woods WJ, Sabatino J, et al. (2003) Availability of combination therapy for HIV: Effects on sexual risk taking in a sample of high-risk gay and bisexual men. *AIDS Care* 15(1):27-37.
- Do T. (2003) HIV testing patterns and unrecognized HIV infection among API MSM. Presented at the Annual CAPS Conference, San Francisco, CA, April.
- Dolcini P, Harper G, Catania J, et al. (2003) Project ORE [project description]. UCSF CAPS. <http://www.caps.ucsf.edu/pdfs/ORE1.pdf>
- Dorfman LE, Derish PA, Cohen JB (1992) Hey girlfriend: An evaluation of AIDS prevention among women in the sex industry. *Health Educ Q* 19(1):25-40.
- Downing M, Knight KR, Vernon KA, et al. (1999) This is my story: A descriptive analysis of a peer education HIV/STD risk reduction program for women living in housing developments. *AIDS Educ Prev* 11(3):243-261.
- Edlin BR, Irwin KL, Faruque S, et al. (1994) Intersecting epidemics--crack cocaine use and HIV infection among inner-city young adults: Multicenter Crack Cocaine and HIV Infection Study Team. *N Engl J Med* 331(21):1422-1427.
- Edlin BR, Lorvick J, Kral AH, et al. (2001) Urban Health Study: Community-Based Research with Injection Drug Users. In *Science to Community, Prevention #10*, a publication of UCSF CAPS and the AIDS Research Institute, San Francisco, CA, March. <http://ari.ucsf.edu/pdf/S2Community/UHS.pdf>
- Eichler MR, Ray SM, del Rio C. (2002) The effectiveness of HIV post-test counselling in determining healthcare-seeking behavior. *AIDS* 16(6):943-945.
- Ekstrand ML, Coates TJ, Guydish JR, et al. (1994) Are bisexually identified men in San Francisco a common vector for spreading HIV infection to women? *Am J Public Health* 84(6):915-919.
- Ekstrand ML, Stall RD, Paul JP, et al. (1999) Gay men report high rates of unprotected anal sex with partners of unknown or discordant HIV status. *AIDS* 13(12):1525-1533.
- Elliott L, Gruer L, Farrow K, et al. (1996) Theatre in AIDS education: A controlled study. *AIDS Care* 8(3):321-340.
- Elwood WN, Greene K, Carter KK. (2003) Gentlemen don't speak: communication norms and condom use in bathhouses. *J Appl Commun Res* 31(4):277-297.
- Elwy AR, Hart GJ, Hawkes S, et al. (2002) Effectiveness of interventions to prevent sexually transmitted infections and human immunodeficiency virus in heterosexual men: A systematic review. *Arch Intern Med* 162(16):1818-1830.
- Elze DE, Auslander W, McMillen C, et al. (2001) Untangling the impact of sexual abuse on HIV risk behaviors among youths in foster care. *AIDS Educ Prev* 13(4):377-389.
- Evans JL, Hahn JA, Page-Shafer K, et al. (2003) Gender differences in sexual and injection risk behavior among active young injection drug users in San Francisco (the UFO Study). *J Urban Health* 80(1):137-146.
- Fisher DS, Ryan R, Esacove AW, et al. (1996) The social marketing of Project ARIES: Overcoming challenges in recruiting gay and bisexual males for HIV prevention counseling. *Journal of Homosexuality* 31(1-2):177-202.
- Fisher JD, Fisher WA. (1992) Changing AIDS-risk behavior. *Psychol Bull* 111(3):455-474.
- Fisher W, Cornman D, Amico R (2002) The Options Project: Physician-delivered intervention for HIV+ patients in clinical care. Presented at the CDC Prevention Conference. <http://ari.ucsf.edu/pdf/Options.ppt>
- Fogarty LA, Heilig CM, Armstrong K, et al. (2001) Long-term effectiveness of a peer-based intervention to promote condom and contraceptive use among HIV-positive and at-risk women. *Public Health Rep* 116(suppl 1):103-119.

- Freedman B, Binson D, Ekstrand M, et al. (under review) Uncovering implicit theories of HIV prevention providers: It takes a community.
- Freire P. (1970) *Pedagogy of the Oppressed*. Seabury Press, New York.
- Galanti GA. (2003) The Hispanic family and male-female relationships: An overview. *J Transcult Nurs* 14(3):180-185.
- Gellert GA, Maxwell RM, Higgins KV, et al. (1995) HIV/AIDS knowledge and high risk sexual practices among southern California Vietnamese. *Genitourin Med* 71(4):216-223.
- Gleghorn A, Clements K, Marx R, et al. (1997) The impact of intensive outreach on HIV prevention activities of homeless, runaway, and street youth in San Francisco: The AIDS Evaluation of Street Outreach Project (AESOP). *AIDS Beh* 1(4):261-271.
- Gleghorn AA, Marx R, Vittinghoff E, et al. (1998) Association between drug use patterns and HIV risks among homeless, runaway, and street youth in northern California. *Drug Alcohol Depend* 51(3):219-227.
- Golden MR. (2002) HIV partner notification: A neglected prevention intervention [editorial]. *Sex Transm Dis* 29(8):472-475.
- Gomez CA. (1995) Culture and sexual behavior. *Focus* 10(4):5-6.
- Gomez CA, Hernandez M, Faigeles B. (1999) Sex in the New World: An empowerment model for HIV prevention in Latina immigrant women. *Health Educ Behav* 26(2):200-212.
- Gomez C, Mandic CG, Martinez A, et al. (2003) Intergenerational HIV Prevention Initiative for Latina Women: "De Madre a Hija: Protegiendo Nuestra Salud" [project description]. UCSF CAPS. <http://www.caps.ucsf.edu/portfolio/>
- Green J, Rachlin K. (2001) Utilization of health care among FTMs in the United States. From the XVII Harry Benjamin International Gender Dysphoria Association Symposium, Galveston, TX. [http://www.symposion.com/ijt/hbigda/2001/07\\_green.htm](http://www.symposion.com/ijt/hbigda/2001/07_green.htm)
- Greensides DR, Berkelman R, Lansky A, et al. (2003) Alternative HIV testing methods among populations at high risk for HIV infection. *Public Health Rep* 118(6):531-539.
- Greenwood GL, White EW, Page-Shafer K, et al. (2001) Correlates of heavy substance use among young gay and bisexual men: The San Francisco Young Men's Health Study. *Drug Alcohol Depend* 61(2):105-112.
- Greenwood, GL, Relf MV, Huang B, et al. (2002) Battering victimization among a probability-based sample of men who have sex with men. *Am J Public Health* 92(12):1964-1969.
- Grinstead O, Zack B, Faigeles B, et al. (1999) Reducing post-release HIV risk among male prison inmates: a peer-led intervention. *Criminal Justice Beh* 26:453-465.
- Grinstead O, Zack B, Faigeles B. (2001) Reducing postrelease risk behavior among HIV seropositive prison inmates: The health promotion program. *AIDS Educ Prev* 13(2):109-119.
- Grossberg PM, Tillotson TS, Roberts CM, et al. (1993) Training opinion leaders to promote safer sex. *J Am Coll Health* 41(6):273-274.
- Guydish JR, Clark G, Garcia D, et al. (1995) Evaluation of needle exchange using street-based survey methods. *J Drug Issues* 25(1):33-41.
- Hagan H, Des Jarlais DC, Purchase D, et al. (1991) The Tacoma syringe exchange. *J Addict Dis* 10:81-88.
- Hahn JA, Page-Shafer K, Lum PJ, et al. (2002) Hepatitis C virus seroconversion among young injection drug users: Relationships and risks. *J Infect Dis* 186(11):1558-1564.
- Halkitis PN, Parsons, JT, Stirratt MJ. (2001) A double epidemic: crystal methamphetamine drug use in relation to HIV transmission among gay men. *J Homosex* 41(2):17-35.
- Halkitis PN, Parsons JT, Wolitski RJ, et al. (2003) Characteristics of HIV antiretroviral treatments, access and adherence in an ethnically diverse sample of men who have sex with men. *AIDS Care* 15(1):89-102.
- Harawa NT, Bingham TA, Cochran SD, et al. (2002) HIV prevalence among foreign- and US-born clients of public STD clinics. *Am J Public Health* 92(12):1958-1963.
- Harder+Company Community Research. (2001) Needs assessment among Latino immigrant MSM and MSM/F [report]. Available from the HIV Prevention Section, San Francisco, CA.
- Harder+Company Community Research. (2004a) HIV risk behaviors and prevention needs of heterosexually identified men who have sex with men [report]. Available from the HIV Prevention Section, San Francisco, CA.
- Harder+Company Community Research. (2004b) HIV risk behaviors and prevention needs of Tenderloin-based, marginally housed MSM and MTF sex workers [report]. Available from the HIV Prevention Section, San Francisco, CA.

- Harder+Company Community Research. (2004c) Systems Capacity Assessment by Neighborhood: Bayview/Hunter's Point [report]. Available from the HIV Prevention Section, San Francisco, CA.
- Harder+Company Community Research. (2004d) Systems Capacity Assessment by Neighborhood: Tenderloin [report]. Available from the HIV Prevention Section, San Francisco, CA.
- Harvey B, Stuart J, Swan T. (2000) Evaluation of a drama-in-education programme to increase AIDS awareness in South African high schools: A randomized community intervention trial. *Int J STD AIDS* 11(2):105-111.
- Hays RB, Paul J, Ekstrand M, et al. (1997) Actual versus perceived HIV status, sexual behaviors and predictors of unprotected sex among young gay and bisexual men who identify as HIV- negative, HIV-positive and untested. *AIDS* 11(12):1495-1502.
- Heimer R, Khoshnood K, Stephens PC, et al. (1996) Evaluating a needle exchange programme: Models for testing HIV-1 risk reduction. *Int J Drug Policy* 7(2). <http://www.drugtext.org/library/articles/96727.htm>
- Heumann KS, Marx R, Lawrence SJ, et al. (2001) Cost-effectiveness of prevention referrals for high-risk HIV-negatives in San Francisco. *AIDS Care* 13(5):637-642.
- Hirsch JS, Higgins J, Bentley ME, et al. (2002) The social constructions of sexuality: Marital infidelity and sexually transmitted disease-HIV risk in a Mexican migrant community. *Am J Public Health* 92(8):1227-1237.
- Hobfoll SE, Bansal A, Schurg R, et al. (2002) The impact of perceived child physical and sexual abuse history on Native American women's psychological well-being and AIDS risk. *J Consult Clin Psychol* 70(1):252-257.
- Holtgrave DR, Pinkerton SD, Jones TS, et al. (1998) Cost and cost-effectiveness of increasing access to sterile syringes and needles as an HIV prevention intervention in the United States. *Acquir Immune Defic Syndr Hum Retrovirol* 18(suppl 1):S133-S138.
- Holtgrave DR, Pinkerton SD, Merson M (2002) Estimating the cost of unmet HIV-prevention needs in the United States. *Am J Prev Med* 23(1):7-12.
- Hooley J. (1996) The Transgender Project [report]. Central Sydney Area Health Service, Sydney.
- Horton M, Freire P. (1990) *We Make the Road by Walking: Conversations on Education and Social Change*. Temple University Press, Philadelphia.
- Hoxworth T, Spencer NE, Peterman TA, et al. (2003) Changes in partnerships and HIV risk behaviors after partner notification. *Sex Transm Dis* 30(1):83-88.
- HPPC. (2001) 2001 San Francisco HIV Prevention Plan. <http://www.dph.sf.ca.us/HIVPrevPlan/page2.htm>
- Hsu LC, Vittinghoff E, Katz MH, et al. (2001) Predictors of use of highly active antiretroviral therapy (HAART) among persons with AIDS in San Francisco, 1996-1999. *J Acquir Immune Defic Syndr* 28(4):345-350.
- Huang P, Hottes T. (2003) DigiTechniCyberNetic HIV prevention: Strategies, approaches, lessons. Presented at the Annual CAPS Conference, San Francisco, CA, April.
- James J. (1998) Community organizing by email: Needle exchange mobilization example. *AIDS Treat News*, Issue 294.
- James JS. (1999) Poppers: more evidence of suppressed immunity. *AIDS Treat News*, Issue 325, p. 8.
- Jemmott J, Jemmott L, Fong J. (1992) Reductions in HIV risk-associated sexual behaviors among black male adolescents: Effects of an AIDS prevention intervention. *Am J Public Health* 84:1918-1922.
- Johnson KM, Alarcon J, Watts DM, et al. (2003) Sexual networks of pregnant women with and without HIV infection. *AIDS* 17(4):605-612.
- Johnson RL, Stanford PD, Douglas W Jr., et al. (2001) High-risk sexual behaviors among adolescents engaged through a street-based peer outreach program - The Adolescent HIV Project. *J Natl Med Assoc* 93(5):170-177.
- Jones DL, Irwin KL, Inciardi J, et al. (1998) The high-risk sexual practices of crack-smoking sex workers recruited from the streets of three American cities: The Multicenter Crack Cocaine and HIV Infection Study Team. *Sex Transm Dis* 25(4):187-193.
- Kahn JG. (1995) Summary of cost-effectiveness analyses of HIV prevention in U.S. [unpublished report].
- Kahn JG, Gurvey J, Pollack LM, et al. (1997) How many HIV infections cross the bisexual bridge? An estimate from the United States. *AIDS* 11(8):1031-1037.
- Kahn JG, Kegeles SM, Hays R, et al. (2001) Cost-effectiveness of the Mpowerment Project, a community-level intervention for young gay men. *J Acquir Immune Defic Syndr* 27(5):482-491.

- Kahn JG, Zhang X, Cross LT, et al. (2002) Access to and use of HIV antiretroviral therapy: Variation by race/ethnicity in two public insurance programs in the U.S. *Public Health Rep* 117(3):252-262; discussion 231-232.
- Kahn JO, Martin JN, Roland ME, et al. (2001) Feasibility of postexposure prophylaxis (PEP) against human immunodeficiency virus infection after sexual or injection drug use exposure: The San Francisco PEP Study. *J Infect Dis* 183(5):707-714.
- Kail BL, Watson DD, Ray S. (1995) Needle-using practices within the sex industry: National AIDS Research Consortium. *Am J Drug Alcohol Abuse* 21(2):241-255.
- Kalichman SC. (1998) Post-exposure prophylaxis for HIV infection in gay and bisexual men: Implications for the future of HIV prevention. *Am J Prev Med* 15(2):120-127.
- Kalichman SC, Belcher L. (1997) AIDS information needs: Conceptual and content analyses of questions asked of AIDS information hotlines. *Health Educ Res* 12(3):279-288.
- Kamb ML, Fishbein M, Douglas JM, et al. (1998) Efficacy of risk-reduction counseling to prevent human immunodeficiency virus and sexually transmitted diseases: a randomized controlled trial: Project RESPECT Study Group. *JAMA* 280(13):1161-1167.
- Katz M, Gerberding J. (1998) The care of persons with recent sexual exposure to HIV. *Ann Intern Med* 128(4):306-312.
- Katz MH, McFarland W, Guillin V, et al. (1998) Continuing high prevalence of HIV and risk behaviors among young men who have sex with men: The Young Men's Survey in the San Francisco Bay Area in 1992 to 1993 and in 1994 to 1995. *J Acquir Immune Defic Syndr Hum Retrovirol* 19(2):178-181.
- Keenan PA, Keenan JM. (2001) Rapid HIV testing in urban outreach: A strategy for improving posttest counseling rates. *AIDS Educ Prev* 13(6):541-550.
- Kegeles SM, Hays RB, Pollack L, et al. (1996) Community mobilization reduces HIV risk among young gay men: A two-community study. Presented at the 11th World AIDS Conference, Vancouver, Canada.
- Kellerman SE, Lehman JS, Lansky A, et al. (2002) HIV testing within at-risk populations in the United States and the reasons for seeking or avoiding HIV testing. *J Acquir Immune Defic Syndr* 31(2):202-210.
- Kellogg TA, McFarland W, Perlman JL, et al. (2001) HIV incidence among repeat HIV testers at a county hospital, San Francisco, California, USA. *J Acquir Immune Defic Syndr* 28(1):59-64.
- Kelly JA, St Lawrence JS, Diaz YE, et al. (1991) HIV risk behavior reduction following intervention with key opinion leaders of population: An experimental analysis. *Am J Public Health* 81(2):168-171.
- Kennedy MG, Mizuno Y, Hoffman R, et al. (2000a) The effect of tailoring a model HIV prevention program for local adolescent target audiences. *AIDS Educ Prev* 12(3):225-238.
- Kennedy MG, Mizuno Y, Seals BF, et al. (2000b) Increasing condom use among adolescents with coalition-based social marketing. *AIDS* 14(12):1809-1818.
- Kim A, McFarland W, Kellogg T, et al. (2001a) Incidence and prevalence of HIV and STD among incarcerated persons upon intake: Implications for prevention and treatment [unpublished data].
- Kim AA, Kent C, McFarland W, et al. (2001b) Cruising on the Internet highway. *J Acquir Immune Defic Syndr* 28(1):89-93.
- Kim AA, Kent CK, Klausner JD. (2002) Increased risk of HIV and sexually transmitted disease transmission among gay or bisexual men who use Viagra, San Francisco 2000-2001. *AIDS* 16(10):1425-1428.
- Kim AA, Kent CK, Klausner JD. (2003) Risk factors for rectal gonococcal infection amidst resurgence in HIV transmission. *Sex Transm Dis* 30(11):813-817.
- Klausner JD, McFarland W, Bolan G, et al. (2001) Knock-knock: A population-based survey of risk behavior, health care access, and Chlamydia trachomatis infection among low-income women in the San Francisco Bay area. *J Infect Dis* 183(7):1087-1092.
- Klitzman RL, Pope HG Jr., Hudson JL. (2000) MDMA ("Ecstasy") abuse and high-risk sexual behaviors among 169 gay and bisexual men. *Am J Psychiatry* 157(7):1162-1164.
- Klitzman RL, Greenberg JD, Pollack LM, et al. (2002) MDMA ('ecstasy') use, and its association with high risk behaviors, mental health, and other factors among gay/bisexual men in New York City. *Drug Alcohol Depend* 66(2):115-125.
- Knapper K. (2003) Online research and Internet based HIV/STD prevention strategies for MSM. Presented at the Annual CAPS Conference, San Francisco, CA, April.

- Koblin BA, Chesney MA, Husnik MJ, et al. (2003) High-risk behaviors among men who have sex with men in 6 US cities: Baseline data from the EXPLORE Study. *Am J Public Health* 93(6):926-932.
- Kotler P, Roberto N, Lee N. (2002) *Social Marketing: Improving the Quality of Life*, 2nd Ed. Sage Publications, Thousand Oaks, CA.
- Kral AH, Molnar BE, Booth RE, et al. (1997) Prevalence of sexual risk behaviour and substance use among runaway and homeless adolescents in San Francisco, Denver and New York City. *Int J STD AIDS* 8(2):109-117.
- Kral AH, Bluthenthal RN, Booth RE, et al. (1998) HIV seroprevalence among street-recruited injection drug and crack cocaine users in 16 US municipalities. *Am J Public Health* 88(1):108-113.
- Kral AH, Lorvick J, Edlin BR. (2000) Sex- and drug-related risk among populations of younger and older injection drug users in adjacent neighborhoods in San Francisco. *J Acquir Immune Defic Syndr* 24(2):162-167.
- Kral AH, Bluthenthal RN, Lorvick J, et al. (2001) Sexual transmission of HIV-1 among injection drug users in San Francisco, USA: Risk-factor analysis. *Lancet* 357(9266):1397-1401.
- Kral AH, Lorvick J, Gee L, et al. (2003) Trends in human immunodeficiency virus seroincidence among street-recruited injection drug users in San Francisco, 1987-1998. *Am J Epidemiol* 157(10):915-922.
- Latkin CA, Sherman S, Knowlton A. (2003) HIV prevention among drug users: Outcome of a network-oriented peer outreach intervention. *Health Psychol* 22(4):332-339.
- Lem H, Sumaraga L, Packer T. (1994) Youth peer education program: An HIV/STD perspective, Presented at the Annual Meeting of the American Public Health Association.
- Lemp GF, Hirozawa AM, Givertz D, et al. (1994) Seroprevalence of HIV and risk behaviors among young homosexual and bisexual men: The San Francisco/Berkeley Young Men's Survey. *JAMA* 272(6):449-454.
- Levy SR, Perhats C, Weeks K, et al. (1995) Impact of a school-based AIDS prevention program on risk and protective behavior for newly sexually active students. *J School Health* 65(4):145-151.
- Lichtenstein B. (2000) Secret encounters: Black men, bisexuality, and AIDS in Alabama. *Med Anthropol Q* 14(3):374-393.
- Lifson AR, Halcon LL, Hannan P, et al. (2001) Screening for sexually transmitted infections among economically disadvantaged youth in a national job training program. *J Adolesc Health* 28(3):190-196.
- Lollis CM, Strothers HS, Chitwood DD, et al. (2000) Sex, drugs, and HIV: Does methadone maintenance reduce drug use and risky sexual behavior? *J Behav Med* 23(6):545-557.
- Lurie P, Gorsky R, Jones TS, et al. (1998) An economic analysis of needle exchange and pharmacy-based programs to increase sterile syringe availability for injection drug users. *J Acquir Immune Defic Syndr Hum Retrovirol* 18(suppl 1):S126-S132.
- Mansergh G, Colfax GN, Marks G, et al. (2001) The Circuit Party Men's Health Survey: Findings and implications for gay and bisexual men. *Am J Public Health* 91(6):953-958.
- Mansergh G, Marks G, Colfax GN, et al. (2002) "Barebacking" in a diverse sample of men who have sex with men. *AIDS* 16(4):653-659.
- Margolin A, Avants SK, Warburton LA, et al. (2003) A randomized clinical trial of a manual-guided risk reduction intervention for HIV-positive injection drug users. *Health Psychol* 22(2):223-228.
- Marin B, Marin G, Juarez et al. (1992) Intervention from family members as a strategy for preventing HIV transmission among intravenous drug users. *J Commun Psychol* 20:90-97.
- Marin BV. (2003) HIV prevention in the Hispanic community: Sex, culture, and empowerment. *J Transcult Nurs* 14(3):186-192.
- Marin MG, Van Lieu J, Yee A, et al. (1999) Cost-effectiveness of a post-exposure HIV chemoprophylaxis program for blood exposures in health care workers. *J Occupational Environ Med* 41(9):754-760.
- Marks G, Crepaz N. (2001) HIV-positive men's sexual practices in the context of self-disclosure of HIV status. *J Acquir Immune Defic Syndr* 27(1):79-85.
- Martin JN, Roland ME, Neilands TB, et al. (in press) Use of post-exposure prophylaxis against HIV infection following sexual exposure does not lead to increases in high-risk behavior. *AIDS*.
- Martinez J, Bell D, Dodds S, et al. (2003) Transitioning youths into care: linking identified HIV-infected youth at outreach sites in the community to hospital-based clinics and or community-based health centers. *J Adolesc Health* 33(2 suppl):23-30.
- Martinez TE, Gleghorn A, Marx R, et al. (1998) Psychosocial histories, social environment, and HIV risk behaviors of injection and noninjection drug using homeless youths. *J Psychoactive Drugs* 30(1):1-10.

Mason T. (1995) Gender identity support services for transgenders [report]. Beacon Hill Multicultural Psychological Association. Prepared for the Massachusetts Department of Public Health HIV/AIDS Bureau.

Mathews C, Coetzee N, Zwarenstein M, et al. (2002) A systematic review of strategies for partner notification for sexually transmitted diseases, including HIV/AIDS. *Int J STD AIDS* 13(5):285-300.

Mattison AM, Ross MW, Wolfson T, et al. (2001) Circuit party attendance, club drug use, and unsafe sex in gay men. *J Subst Abuse* 13(1-2):119-126.

McFarland W. (2003) Current trends in the HIV/AIDS epidemic in San Francisco: Data for priority-setting. Presentation to the HPPC, June 11, 2003.

McFarland W, Chen S, Weide D, et al. (in press) Gay Asian men in San Francisco follow the international trend: Increases in rates of unprotected anal intercourse and sexually transmitted diseases, 1999-2002.

McGowan CK. (2000) Transgender Needs Assessment [report]. The City of New York Department of Health, New York.

Midgley SJ, Heather N, Best D, et al. (2000) Risk behaviours for HIV and hepatitis infection among anabolic- androgenic steroid users. *AIDS Care* 12(2):163-170.

Mitchell CM, Kaufman CE. (2002) Structure of HIV knowledge, attitudes, and behaviors among American Indian young adults. *AIDS Educ Prev* 14(5):401-418.

Mizuno Y, Kennedy M, Weeks-Norton K, et al. (2002) An examination of adolescents who were and were not exposed to "Teens Stopping AIDS": reaching the hard-to-reach. *J Health Commun* 7(3):197-203.

MMWR. (1998) Management of possible sexual, injecting-drug use, or other nonoccupational exposure to HIV, including considerations related to antiretroviral therapy public health service statement. *MMWR Morb Mortal Wkly Rep* 47(RR17):1-14.

MMWR. (2001a) HIV incidence among young men who have sex with men - seven U.S. cities, 1994-2000. *MMWR Morb Mortal Wkly Rep* 50(21):440-444.

MMWR. (2001b) Revised guidelines for HIV counseling, testing, and referral. *MMWR Morb Mortal Wkly Rep* 50(RR19):1-58.

MMWR. (2001c) Updated U.S. Public Health Service guidelines for the management of occupational exposures to HBV, HCV, and HIV and recommendations for postexposure prophylaxis. *MMWR Morb Mortal Wkly Rep* 50(RR11):1-42.

MMWR. (2002) HIV testing among pregnant women - United States and Canada, 1998-2001. *MMWR Morb Mortal Wkly Rep* 51(45):1013-1016.

MMWR. (2003a) Advancing HIV prevention: New strategies for a changing epidemic - United States, 2003. *MMWR Morb Mortal Wkly Rep* 52(15):329-332.

MMWR. (2003b) Incorporating HIV prevention into the medical care of persons living with HIV. *MMWR Morb Mortal Wkly Rep* 52(RR12):1-24.

Montano DE, Kasprzyk D, Taplin SH. (1997) The theory of reasoned action and the theory of planned behavior. In Glanz KE, Lewis M, Rimer B (Eds.): *Health Behavior and Health Education: Theory, Research, and Practice*, pp. 85-112. Jossey-Bass, San Francisco, CA.

Moon MW, Binson D, Page-Shafer K, et al. (2001) Correlates of HIV risk in a random sample of street youths in San Francisco. *J Assoc Nurses AIDS Care* 12(6):18-27.

Morin S. (2002) Missed opportunities for preventing HIV transmission: A study of Ryan White clinics [PowerPoint presentation]. Preliminary results from AIDS Research Institute study. <http://ari.ucsf.edu/pdf/MissedOpportunities.ppt>

Morin S, Vernon K, Harcourt J, et al. (2003) Why HIV infections have increased among men who have sex with men and what to do about it: Findings from California focus groups. *AIDS Beh* 7(4):353-362.

Morrison-Beedy D, Carey MP, Lewis BP, et al. (2001) HIV risk behavior and psychological correlates among native American women: an exploratory investigation. *J Womens Health Gend Based Med* 10(5):487-494.

Moss AR, Vranizan K, Gorter R, et al. (1994) HIV seroconversion in intravenous drug users in San Francisco, 1985-1990. *AIDS* 8(2):223-231.

Mutchler MG, Bingham T, Chion M, et al. (2003) Comparing sexual behavioral patterns between two bathhouses: implications for HIV prevention intervention policy. *J Homosex* 44(3-4):221-242.

Myers HF, Javanbakht M, Martinez M, et al. (2003) Psychosocial predictors of risky sexual behaviors in African American men: implications for prevention. *AIDS Educ Prev* 15(1 suppl A):66-79.

- Myles J, Bamberger J. (2001) Offering HIV prophylaxis following sexual assault: Recommendations for the state of California. The California HIV PEP after Sexual Assault Task Force in conjunction with the California State Office of AIDS, San Francisco, CA.
- Namaste V. (1999) HIV/AIDS and female to male transsexuals and transvestites: Results from a needs assessment in Quebec. *Int J Transgenderism* 3(1+2).
- Nemoto T, Aoki B, Huang K, et al. (1999a) Drug use behaviors among Asian drug users in San Francisco. *Addict Behav* 24(6):823-838.
- Nemoto T, Luke D, Mamo L, et al. (1999b) HIV risk behaviours among male-to-female transgenders in comparison with homosexual or bisexual males and heterosexual females. *AIDS Care* 11(3):297-312.
- Nemoto T, Aoki B, Huang K, et al. (2000) HIV risk behaviors among Asian drug users in San Francisco. *AIDS Educ Prev* 12(2):126-140.
- Nemoto T, Operario D, Soma T. (2002a) Risk behaviors of Filipino methamphetamine users in San Francisco: Implications for prevention and treatment of drug use and HIV. *Public Health Rep* 117(suppl 1):S30-S38.
- Nemoto T, Keatley J, Operario D, et al. (2002b) Psychosocial factors affecting HIV risk behaviors among male-to-female transgenders (MTF TGs) in San Francisco. Presented at the 14th World AIDS Conference, Barcelona, Spain.
- Nemoto T, Operario D, Soma T, et al. (2003a) HIV risk and prevention among Asian/Pacific Islander men who have sex with men: Listen to our stories. *AIDS Educ Prev* 15(1 suppl A):7-20.
- Nemoto T, Operario D, Takenaka M, et al. (2003b) HIV risk among Asian women working at massage parlors in San Francisco. *AIDS Educ Prev* 15(3):245-256.
- NIMH. (2001) A test of factors mediating the relationship between unwanted sexual activity during childhood and risky sexual practices among women enrolled in the NIMH Multisite HIV Prevention Trial. *Women Health* 33(1-2):163-180.
- Nyamathi A, Flaskerud JH, Leake B, et al. (2001) Evaluating the impact of peer, nurse case-managed, and standard HIV risk-reduction programs on psychosocial and health-promoting behavioral outcomes among homeless women. *Res Nurs Health* 24(5):410-422.
- Ochoa KC, Hahn JA, Seal KH, et al. (2001) Overdosing among young injection drug users in San Francisco. *Addict Behav* 26(3):453-460.
- Oldenburg B, Hardcastle D, Kok G. (1997) Diffusion of innovations. In Glanz KF, Lewis M, Rimer B (Eds.): *Health Behavior and Health Education: Theory, Research, and Practice*, pp. 270-286. Jossey-Bass, San Francisco, CA.
- O'Leary A, Purcell D, Remien RH, et al. (2003) Childhood sexual abuse and sexual transmission risk behaviour among HIV- positive men who have sex with men. *AIDS Care* 15(1):17-26.
- Operario D. (2003) Substance use among API MSM. Presented at the Annual CAPS Conference, San Francisco, CA, April.
- Operario D, Hall V. (2003) Exploring the cultural and social context of HIV risk among Filipinos in San Francisco [project description]. UCSF CAPS. <http://www.caps.ucsf.edu/portfolio>
- Organista K, Carillo H, Ayala G. (under review) HIV prevention with Mexican migrants: Review, critique and recommendations.
- Osmond DH, Page K, Wiley J, et al. (1994) HIV infection in homosexual and bisexual men 18 to 29 years of age: The San Francisco Young Men's Health Study. *Am J Public Health* 84(12):1933-1937.
- Parillo KM, Freeman RC, Collier K, et al. (2001) Association between early sexual abuse and adult HIV-risky sexual behaviors among community-recruited women. *Child Abuse Negl* 25(3):335-346.
- Parsons JT, Halkitis PN. (2002) Sexual and drug-using practices of HIV-positive men who frequent public and commercial sex environments. *AIDS Care* 14(6):815-826.
- Paul JP, Stall R, Davis F. (1993) Sexual risk for HIV transmission among gay/bisexual men in substance-abuse treatment. *AIDS Educ Prev* 5(1):11-24.
- Paul JP, Catania J, Pollack L, et al. (2002) Suicide attempts among gay and bisexual men: Lifetime prevalence and antecedents. *Am J Public Health* 92(8):1338-1345.
- Pearlman DN, Camberg L, Wallace LJ, et al. (2002) Tapping youth as agents for change: Evaluation of a peer leadership HIV/AIDS intervention. *J Adolesc Health* 31(1):31-39.
- Pendo M, Marx R, Clements-Nolle K, et al. (2003) The Party & Play Study: HIV Risk in a Late-Night Population of MSM [report]. Available from the HIV Prevention Section, San Francisco, CA.
- Perkins R, Griffin A, Jakobsen J. (1994) Lifestyles and HIV/AIDS risk: National transgender HIV/AIDS needs assessment project [report]. School of Sociology, University of New South Wales, New South Wales, Australia.

Pinkerton S, Johnson-Masotti A, Holtgrave D, et al. (2001) Using cost-effectiveness league tables to compare interventions to prevent sexual transmission of HIV. *AIDS* 15(7):917-928.

Pinkerton S, Holtgrave D, Johnson-Masotti A, et al. (2002) Cost-effectiveness of the NIMH Multisite HIV Prevention intervention. *AIDS Beh* 6:83-96.

Prochaska JO, Redding CA Evers KE (1997) The transtheoretical model and stages of change. In Glanz KE, Lewis M, Rimer B (Eds.): *Health Behavior and Health Education: Theory, Research, and Practice*, pp. 60-84. Jossey-Bass, San Francisco, CA.

Purcell D, DeGross AS, Wolitski R. (1998) HIV prevention case management: Current practice and future directions. *Health Soc Work* 23(4):282-289.

Ramirez JR, Crano WD, Quist R, et al. (2002) Effects of fatalism and family communication on HIV/AIDS awareness variations in Native American and Anglo parents and children. *AIDS Educ Prev* 14(1):29-40.

Rebchook G, Curotto A Kegeles SM. (2003) A qualitative study of MSM who use Internet chat rooms. Presented at the 2003 Annual CAPD Conference.

Reece M. (2003) Sexual compulsivity and HIV serostatus disclosure among men who have sex with men. *Sex Addict Compulsivity* 10(1):1-11.

Renzi C, Douglas JM Jr., Foster M, et al. (2003) Herpes simplex virus type 2 infection as a risk factor for human immunodeficiency virus acquisition in men who have sex with men. *J Infect Dis* 187(1):19-25.

Reynolds GL, Fisher DG, Estrada AL, et al. (2000) Unemployment, drug use, and HIV risk among American Indian and Alaska Native drug users. *Am Indian Alsk Native Ment Health Res* 9(1):17-32.

Rhodes F, Deren S, Wood MM, et al. (1999) Understanding HIV risks of chronic drug-using men who have sex with men. *AIDS Care* 11(6):629-648.

Rich JD, Dickinson BP, Feller A, et al. (1999) The infectious complications of anabolic-androgenic steroid injection. *Int J Sports Med* 20(8):563-566.

Riess TH, Kim C, Downing M. (2001) Motives for HIV testing among drug users: An analysis of gender differences. *AIDS Educ Prev* 13(6):509-523.

Rietmeijer CA, Wolitski RJ, Fishbein M, et al. (1998) Sex hustling, injection drug use, and non-gay identification by men who have sex with men: Associations with high-risk sexual behaviors and condom use. *Sex Transm Dis* 25(7):353-360.

Rietmeijer CA, Bull SS, McFarlane M, et al. (2003) Risks and benefits of the internet for populations at risk for sexually transmitted infections (STIs): Results of an STI clinic survey. *Sex Transm Dis* 30(1):15-19.

Riley ED, Perry S, Bangsberg D, et al. (2002) Characteristics of HIV-infected homeless individuals who do not receive HAART. Presented at the 14th World AIDS Conference, Barcelona, Spain. [ari.ucsf.edu/pdf/Posters/barcelona/riley1.pdf](http://ari.ucsf.edu/pdf/Posters/barcelona/riley1.pdf)

Roffman RA, Stephen RS, Curtin L, et al. (1998) Relapse prevention as an interventional model for HIV risk reduction in gay and bisexual men. *AIDS Educ Prev* 10(1):1-18.

Roland M. Prophylaxis Following Nonoccupational Exposure to HIV. In: Peiperl L, Volberding PA (Eds.): *HIV InSite Knowledge Base* [textbook on-line], Revised 2003. Available at <http://hivinsite.ucsf.edu/InSite.jsp?doc=kb-07-02-07>

Romanelli F, Smith KM, Pomeroy C. (2003) Use of club drugs by HIV-seropositive and HIV-seronegative gay and bisexual men. *Top HIV Med* 11(1):25-32.

Rose V, Scheer S, Balls J, et al. (2002) Investigation of the high HIV prevalence in the African American transgender community in San Francisco. Presented at the 14th World AIDS Conference, Barcelona, Spain.

Rotheram-Borus MJ, Koopman C, Haignere C, et al. (1991) Reducing HIV sexual risk behaviors among runaway adolescents. *JAMA* 266(9):1237-1241.

Rotheram-Borus MJ, Marelich WD, Srinivasan S. (1999) HIV risk among homosexual, bisexual, and heterosexual male and female youths. *Arch Sex Behav* 28(2):159-177.

Rotheram-Borus MJ, Lee MB, Murphy DA, et al. (2001) Efficacy of a preventive intervention for youths living with HIV. *Am J Public Health* 91(3):400-405.

Ruiz J. (2002) HIV prevalence, risk behaviors and access to care among young Latino MSM in San Diego, California, and Tijuana, Mexico. Presented at the Binational Conference on HIV/AIDS, Oakland, CA.

San Francisco AIDS Foundation. (1997) 3,400 HIV/AIDS homeless means S.F. must act now. *OUTReach* newsletter, July. [http://www.sfaf.org/aboutsfaf/outreach/index.html?july97/pw\\_homeless.html~frontpage](http://www.sfaf.org/aboutsfaf/outreach/index.html?july97/pw_homeless.html~frontpage)

- Scheer S, Peterson I, Page-Shafer K, et al. (2002) Sexual and drug use behavior among women who have sex with both women and men: results of a population-based survey. *Am J Public Health* 92(7):1110-1112.
- Scheer S, Parks C, McFarland W, et al. (2003) Self-reported sexual identity, sexual behaviors, and health risks: Examples from a population-based survey of young women. *J Lesbian Studies* 7(1):69-83.
- Schwarcz SK, Kellogg TA, McFarland W, et al. (2002) Characterization of sexually transmitted disease clinic patients with recent human immunodeficiency virus infection. *J Infect Dis* 186(7):1019-1022.
- Sebesta D. (2003) Comparative outcome evaluation of HIV prevention interventions: Prevention case management/multiple session workshops [report]. Available from the HIV Prevention Section, San Francisco, CA.
- SFDPH. (1997) Data from the TREAT study. In: HIV Consensus Meeting Report.
- SFDPH. (1998a) Men of Color Needs Assessment [report]. Available from the HIV Prevention Section, San Francisco, CA.
- SFDPH. (1998b) 1998 Annual AIDS Surveillance Report. <http://www.dph.sf.ca.us/PHP/RptsHIVAIDS/survrpt.pdf>
- SFDPH. (2001a) HIV Consensus Meeting Report, San Francisco. Available from the HIV Prevention Section, San Francisco, CA.
- SFDPH. (2001b) 2001 HIV/AIDS Epidemiology Annual Report. <http://www.dph.sf.ca.us/Reports/STD/HIVAIDSAnnRpt2001.pdf>
- SFDPH. (2002a) 2002 HIV/AIDS Epidemiology Annual Report. <http://www.dph.sf.ca.us/Reports/STD/HIVAIDSAnnRpt2001.pdf>
- SFDPH. (2002b) San Francisco Sexually Transmitted Disease Annual Summary, 2002. <http://www.dph.sf.ca.us/Reports/STD/SFSTDAnnSum2002.pdf>
- Shafer KP, Hahn JA, Lum PJ, et al. (2002) Prevalence and correlates of HIV infection among young injection drug users in San Francisco. *J Acquir Immune Defic Syndr* 31(4):422-431.
- Shafer MA, Boyer CB. (1991) Psychosocial and behavioral factors associated with risk of sexually transmitted diseases, including human immunodeficiency virus infection, among urban high school students. *J Pediatr* 119(5):826-833.
- Shoop LG. (1993) Health based exclusion grounds in United States immigration policy: Homosexuals, HIV infection and the medical examination of aliens. *J Contemp Health Law Policy* 9:521-544.
- Shoptaw S, Reback CJ, Freese TE. (2002) Patient characteristics, HIV serostatus, and risk behaviors among gay and bisexual males seeking treatment for methamphetamine abuse and dependence in Los Angeles. *J Addict Dis* 21(1):91-105.
- Shriver MD, Everett C, Morin SE (2000) Structural interventions to encourage primary HIV prevention among people living with HIV. *AIDS* 41(suppl 1):S57-S62.
- Sikkema KJ, Kelly JA, Winett RA, et al. (2000) Outcomes of a randomized community-level HIV prevention intervention for women living in 18 low-income housing developments. *Am J Public Health* 90(1):57-63.
- Skinner D, Metcalf CA, Seager JR, et al. (1991) An evaluation of an education programme on HIV infection using puppetry and street theatre. *AIDS Care* 3(3):317-329.
- Sneed CD, Morisky DE, Rotheram-Borus MJ, et al. (2001) 'Don't know' and 'didn't think of it': Condom use at first intercourse by Latino adolescents. *AIDS Care* 13(3):303-308.
- Snyder RE, Cunningham W, Nakazono TT, et al. (2000) Access to medical care reported by Asians and Pacific Islanders in a West Coast physician group association. *Med Care Res Rev* 57(2):196-215.
- Spielberg F, Branson BM, Goldbaum GM, et al. (2003) Overcoming barriers to HIV testing: Preferences for new strategies among clients of a needle exchange, a sexually transmitted disease clinic, and sex venues for men who have sex with men. *J Acquir Immune Defic Syndr* 32(3):318-327.
- St. Lawrence JS, Brasfield TL. (1995) HIV risk behavior among homeless adults. *AIDS Educ Prev* 7(1):22-31.
- St. Lawrence JS, Eldridge GE, Shelby MC, et al. (1997) HIV risk reduction for incarcerated women: A comparison of brief interventions based on two theoretical models. *J Consulting Clin Psychol* 65(3):504-509.
- Stall R, Paul JP, Greenwood G, et al. (2001) Alcohol use, drug use and alcohol-related problems among men who have sex with men: the Urban Men's Health Study. *Addiction* 96(11):1589-1601.
- Stall R, Williamson J, Mills T, et al. (2002) Co-occurring psychosocial health problems among urban American men who have sex with men (MSM) are interacting to increase vulnerability to HIV transmission. Presented at the 14th World AIDS Conference, Barcelona, Spain.

- Stevens PE. (1994) HIV prevention education for lesbians and bisexual women: A cultural analysis of a community intervention. *Soc Sci Med* 39(11):1565-1578.
- Stevens PE, Hall JM. (2001) Sexuality and safer sex: the issues for lesbians and bisexual women. *J Obstet Gynecol Neonatal Nurs* 30(4):439-447.
- Stevens SJ, Estrada AL, Estrada BD. (2000) HIV drug and sex risk behaviors among American Indian and Alaska Native drug users: Gender and site differences. *Am Indian Alsk Native Ment Health Res* 9(1):33-46.
- Strauss SM, Des Jarlais DC, Astone J, et al. (2003) On-site HIV testing in residential drug treatment units: results of a nationwide survey. *Public Health Rep* 118(1):37-43.
- Strecher VJ, Rosenstock IM. (1997) The health belief model. In Glanz KE, Lewis M, Rimer B (Eds.): *Health Behavior and Health Education: Theory, Research, and Practice*, pp. 41-59. Jossey-Bass, San Francisco, CA.
- Swanson J, Cooper A. (2002) Dangerous liaison: Club drug use and HIV/AIDS. *IAPAC Monthly* 8(12), a publication of the International Association of Physicians in AIDS Care. <http://www.aegis.com/pubs/iapac/2002/LA021202.html>
- Thoroughman DA, Frederickson D, Cameron HD, et al. (2002) Racial misclassification of American Indians in Oklahoma State surveillance data for sexually transmitted diseases. *Am J Epidemiol* 155(12):1137-1141.
- Tinsman PD, Bullman S, Chen X, et al. (2001) Factors affecting client response to HIV outreach efforts. *J Subst Abuse* 13(1-2):201-214.
- Turner KR, McFarland W, Kellogg TA, et al. (2003) Incidence and prevalence of herpes simplex virus type 2 infection in persons seeking repeat HIV counseling and testing. *Sex Transm Dis* 30(4):331-334.
- UC Berkeley School of Public Health Institute for Health Policy Studies, UC San Francisco. (undated report) The Public Health Impact of Needle Exchange Programs in the United States and Abroad: Summary, Conclusions and Recommendations. Prepared for CDC. <http://www.caps.ucsf.edu/publications/needlereport.html>
- Valdiserri RO, Lyter DW, Leviton LC, et al. (1989) AIDS prevention in homosexual and bisexual men: Results of a randomized trial evaluating two risk reduction interventions. *AIDS* 3(1):21-26.
- Valdiserri RO, West GR, Moore M, et al. (1992) Structuring HIV prevention service delivery on the basis of social science theory. *J Commun Health* 17(5):259-269.
- Valente TW, Bharath U. (1999) An evaluation of the use of drama to communicate HIV/AIDS information. *AIDS Educ Prev* 11(3):203-211.
- Valleroy LA, MacKellar DA, Karon JM, et al. (2000) HIV prevalence and associated risks in young men who have sex with men: Young Men's Survey Study Group. *JAMA* 284(2):198-204.
- van der Straten A, Gomez CA, Saul J, et al. (2000) Sexual risk behaviors among heterosexual HIV serodiscordant couples in the era of post-exposure prevention and viral suppressive therapy. *AIDS* 14(4):F47-F54.
- Varghese B, Peterman TA, Holtgrave DR. (1999) Cost-effectiveness of counseling and testing and partner notification: A decision analysis. *AIDS* 13(13):1745-1751.
- Vernon IS, Jumper-Thurman P. (2002) Prevention of HIV/AIDS in Native American communities: Promising interventions. *Public Health Rep* 117(suppl 1):S96-S103.
- Vittinghoff E, Hessel NA, Bacchetti P, et al. (2001) Cofactors for HIV disease progression in a cohort of homosexual and bisexual men. *J Acquir Immune Defic Syndr* 27(3):308-314.
- Vlahov D, Junge B. (1998) The role of needle exchange programs in HIV prevention. *Pub Health Rep* 113(suppl 1):75-80.
- Waldo CR, McFarland W, Katz MH, et al. (2000) Very young gay and bisexual men are at risk for HIV infection: The San Francisco Bay Area Young Men's Survey II. *J Acquir Immune Defic Syndr* 24(2):168-174.
- Walters KL, Simoni JM, Harris C. (2000) Patterns and predictors of HIV risk among urban American Indians. *Am Indian Alsk Native Ment Health Res* 9(2):1-21.
- Walters KL, Simoni JM, Evans-Campbell T. (2002) Substance use among American Indians and Alaska natives: Incorporating culture in an "indigenist" stress-coping paradigm. *Public Health Rep* 117(suppl 1):S104-S117.
- Watters JK, Downing M, Case P, et al. (1990) AIDS prevention for intravenous drug users in the community: Street-based education and risk behavior. *Am J Commun Psychol* 18(4):587-596.

- Watters JK, Estilo MJ, Kral AH, et al. (1994a) HIV infection among female injection drug users recruited in community settings. *Sex Transm Dis* 21(6):321-328.
- Watters JK, Estilo MJ, Clark GL, et al. (1994b) Syringe and needle-exchange as HIV/AIDS prevention for injection drug users. *JAMA* 271(2):115-120.
- Weibel W, Jimenez A, Johnson W, et al. (1993) Positive effect on HIV seroconversion of street outreach interventions with IDUs in Chicago (abstract) Presented at the 14th World AIDS Conference, Berlin, Germany.
- Weinberg MS, Shaver FM, Williams CJ. (1999) Gendered sex work in the San Francisco Tenderloin. *Arch Sex Behav* 28(6):503-521.
- Weinstock H, Dale M, Gwinn M, et al. (2002) HIV seroincidence among patients at clinics for sexually transmitted diseases in nine cities in the United States. *J Acquir Immune Defic Syndr* 29(5):478-483.
- Wendell DA, Cohen DA, LeSage D, et al. (2003) Street outreach for HIV prevention: Effectiveness of a state-wide programme. *Int J STD AIDS* 14(5):334-340.
- Wilson AR, Kahn JG. (2003) Preventing HIV in injection drug users: Choosing the best mix of interventions for the population. *J Urban Health* 80(3):465-481.
- Wilson IB, Kaplan S. (2000) Physician-patient communication in HIV disease: the importance of patient, physician, and visit characteristics. *J Acquir Immune Defic Syndr* 25(5):417-425.
- Wingood GM, DiClemente RJ. (1997) The effects of an abusive primary partner on the condom use and sexual negotiation practices of African-American women. *Am J Public Health* 87(6):1016-1018.
- Wohl AR, Johnson D, Jordan W, et al. (2000) High-risk behaviors during incarceration in African-American men treated for HIV at three Los Angeles public medical centers. *J Acquir Immune Defic Syndr* 24(4):386-392.
- Wohl AR, Johnson DF, Lu S, et al. (2002) HIV risk behaviors among African American men in Los Angeles County who self-identify as heterosexual. *J Acquir Immune Defic Syndr* 31(3):354-360.
- Wohlfeiler D. (1997) Community organization and community building among gay and bisexual men. In Minkler M. (Ed.): *Community Organizing and Community Building for Health*, pp. 230-243. Rutgers University Press, New Brunswick.
- Wold C, Seage GR, 3rd, Lenderking WR, et al. (1998) Unsafe sex in men who have sex with both men and women. *J Acquir Immune Defic Syndr Hum Retrovirol* 17(4):361-367.
- Wong W, Tambis JA, Hernandez MT, et al. (2003) Prevalence of sexually transmitted diseases among Latino immigrant day laborers in an urban setting-San Francisco. *Sex Transm Dis* 30(8):661-663.
- Woods WJ, Lindan CP, Hudes ES, et al. (2000) HIV infection and risk behaviors in two cross-sectional surveys of heterosexuals in alcoholism treatment. *J Stud Alcohol* 61(2):262-266.
- Woody GE, Donnell D, Seage GR, et al. (1999) Non-injection substance use correlates with risky sex among men having sex with men: data from HIVNET. *Drug Alcohol Depend* 53:197-205.
- Woody GE, VanEtten-Lee ML, McKirnan D, et al. (2001) Substance use among men who have sex with men: Comparison with a national household survey. *J Acquir Immune Defic Syndr* 27(1):86-90.
- Yi JK. (1998) Vietnamese American college students' knowledge and attitudes toward HIV/AIDS. *J Am Coll Health* 47(1):37-42.
- Young H. (1995) Integrating HIV/AIDS into First Nations health services. *AIDS STD Health Promot Exch* 4:3.
- Zack B, Bancroft C, Blea L, et al. (2001) Collaborative research to prevent HIV among male prison inmates and their female partners. In *Science to Community, Prevention #7*, a publication of UCSF CAPS and the AIDS Research Institute, San Francisco, CA, March. <http://ari.ucsf.edu/pdf/S2Community/prison.pdf>
- Zimmerman MA, Ramirez-Valles J, Suarez E, et al. (1997) An HIV/AIDS prevention project for Mexican homosexual men: An empowerment approach. *Health Educ Beh* 24(2):177-190.
- Zolopa AR, Hahn JA, Gorter R, et al. (1994) HIV and tuberculosis infection in San Francisco's homeless adults: Prevalence and risk factors in a representative sample. *JAMA* 272(6):455-461.

**A**

- abusive relationships, role in HIV risk, 113
- access to services, 131-133
  - factors that affect access to services, 132-133
  - role in HIV risk, 131-133
- Advancing HIV Prevention (CDC's Initiative), 3
- African American people, 77-82
  - as a priority for funding, 142-143
  - epidemiologic data, 21-22, 30, 77-79
  - HIV cofactors, 80-82
  - HIV prevalence, 30, 78
  - HIV incidence, 78-79
  - HIV prevention needs, 77-82
  - HIV prevention priorities, 82
  - people living with AIDS, 21-22, 78
  - research priorities, 82
  - risk behaviors, 79
- AIDS data (see also under particular populations)
  - people living with AIDS, 16-26
    - by age, 25
    - by behavioral risk, 26
    - by gender, 20
    - by race/ethnicity, 21-22
  - recent AIDS cases, 43-44
  - summary of HIV and AIDS in San Francisco, 14-15
- AIDS Risk Reduction Model, 171
- alcohol, role in HIV risk, 110
- Asian/Pacific Islander people, 83-86
  - as a priority for funding, 142-143
  - epidemiologic data, 21-22, 30, 83
  - HIV cofactors, 84-85
  - HIV prevalence, 30, 83
  - HIV incidence, 83
  - HIV prevention needs, 83-86
  - HIV prevention priorities, 86
  - people living with AIDS, 21-22, 83
  - research priorities, 86
  - risk behaviors, 84

**B**

- Bayview/Hunter's Point, 99-103
  - epidemiologic data, 99-100
  - HIV cofactors, 100-102
  - HIV prevention needs, 99-103
  - HIV prevention priorities, 103
  - people living with AIDS, 100
  - risk behaviors, 100
  - SCAN results, 101-103
- Behavioral Risk Populations (see also under particular BRPs)
  - acronyms (see foldout from back cover)
  - complete list of, 153-154
  - definition, 140
- behavioral theories for HIV prevention, 165-172
- bisexual men, 56-57
  - as a priority for funding, 142-143
  - epidemiologic data, 56
  - HIV cofactors, 56-57
  - HIV prevention needs, 56-57
  - HIV prevention priorities, 57
  - research priorities, 57
  - risk behaviors, 56-57
- bisexual women (see under women)
- BRP (see under behavioral risk populations)

**C**

- childhood sexual abuse, role in HIV risk, 113
- chlamydia rates, 116
- cocaine, role in HIV risk, 109
- cofactors for HIV, 108-135

- commercial sex work (see under sex work)
- commercial sex venues, role in HIV risk, 134-135
- community-level interventions, 210-221
- community planning, history of, 1-10
- community organizing, 216-217
- Consensus Meeting data, 27-30
- condom distribution, 200-201
- cost-effectiveness of HIV prevention interventions, 145, 162
- counseling, testing, and referral, 174-177
  - rapid testing, 177, 226-228
  - standard testing, 176
- crack cocaine, role in HIV risk, 109
- crystal meth, role in HIV risk, 109
- CTR, 174-177

**D**

- demographics of San Francisco population, 16-26
  - age, 25
  - gender, 20
  - race/ethnicity, 21-24
  - overall, 16-17
- depression, role in HIV risk, 113
- Diffusion of Innovations theory, 166
- discrimination, role in HIV risk, 133
- drama as an HIV prevention strategy, 218
- drug use, 108-112 (see also under substance use),
  - among gay men, 52-53
  - injection drug users, 74-77
  - role in HIV risk, 108-112

**E**

- ecstasy, role in HIV risk, 110
- ELI (Evaluating Local Interventions), 242-244
- Empowerment Education Theory, 167
- epidemiologic data, 11-44
  - citywide profile, 13-14
  - counseling and testing data, 31
  - HIV incidence, 27-39
  - HIV prevalence, 27-39
  - people living with AIDS, 16-26
    - by age, 25
    - by behavioral risk, 26
    - by gender, 20
    - by neighborhood, 19
    - by race/ethnicity, 21-22
    - total, 16-18
  - summary of HIV and AIDS in San Francisco, 14
  - trends in new HIV infections by behavioral risk population, 32-39
    - FSM, FSM/E, FSF (including IDUs), 36-37
    - MSF (including IDUs), 38
    - MSM, MSM/F (including IDUs), 32-34
    - TSM, TSM/E, TSF (including IDUs), 35
- Evaluation, 231-252
  - CDC-required performance indicators, list of, 250-252
  - CDC requirements, description of, 242-244
  - definition, 234
  - ELI (Evaluating Local Interventions), 242-244
  - framework for local evaluation, 2004 - 2008, 240-241
  - guiding principles for San Francisco, 238-239
  - needs assessment, implementation plan for 2004 -2008, 244
  - outcome evaluation, implementation plan for 2004 -2008, 247
  - outcome monitoring, implementation plan for 2004 -2008, 247
  - PEMS (Program Evaluation and Monitoring System), 242-244
  - process evaluation, implementation plan for 2004 -2008, 245-246
  - rationale for, 235
  - requirements for HIV prevention providers, 243-244
  - requirements for HPPC, 243-244
  - requirements for SFDPH, 243-244
  - requirements for researchers seeking letters of support, 239
  - successes in San Francisco, 249

surveillance, implementation for 2004–2008, 248  
 technical assistance resources, 252  
 exchange sex (see under sex work)

## F

female-to-male transgendered persons (see under transgendered persons, female-to-male)  
 females (see under women; FSM, FSM/F, FSF; FSM-IDU, FSM/F-IDU, FSF-IDU)  
 FSM, FSM/F, FSF (see also under women)  
   as a priority for funding, 142–143  
   HIV incidence, 29  
   HIV prevalence, 29–30  
   people living with AIDS, 26  
   resource allocation guidelines, 142–143, 151  
   trends in new HIV infections, 36–37  
 FSM-IDU, FSM/F-IDU, FSF-IDU (see also under women; injection drug users)  
   as a priority for funding, 142–143  
   HIV incidence, 29  
   HIV prevalence, 29–30  
   people living with AIDS, 26  
   resource allocation guidelines, 142–143, 151  
   trends in new HIV infections, 36–37  
 funding priorities, 140–145

## G

gay men, 50–55  
   as a priority for funding, 142–143  
   drug use rates, 52–53  
   epidemiologic data, 32–34, 50  
   HIV cofactors, 51–55  
   HIV incidence, 32–34, 50  
   HIV prevalence, 32–34, 50  
   HIV prevention needs, 50–55  
   HIV prevention priorities, 55  
   research priorities, 55  
   risk behaviors, 51  
 GHB (gamma-hydroxybutyrate), role in HIV risk, 110  
 gonorrhea rates, 115

## H

harm reduction, 163, 201  
 Health Belief Model, 168  
 health education/risk reduction activities, 185–209  
 hepatitis B rates, 117  
 hepatitis C rates, 117  
 heroin, role in HIV risk, 109  
 heterosexuals (see under heterosexual men; women)  
 heterosexual men, 58–61, 72–73  
   heterosexual men who have sex only with women, 72–73  
     as a priority for funding, 142–143  
     epidemiologic data, 72  
     HIV cofactors, 73  
     HIV incidence, 38, 72  
     HIV prevalence, 72  
     HIV prevention needs, 72–73  
     HIV prevention priorities, 73  
     research priorities, 73  
     risk behaviors, 73  
   heterosexually identified men who have sex with men, 58–61  
     epidemiologic data, 58–59  
     HIV cofactors, 60–61  
     HIV prevalence, 58–59  
     HIV prevention needs, 58–61  
     HIV prevention priorities, 61  
     research priorities, 61  
     risk behaviors, 59–60  
 heterosexual women (see under women)

high-risk partners, role in HIV risk, 133–134  
 HIV cofactors, 108–135  
 HIV data, 27–39 (see also under particular populations)  
   HIV incidence, 27–39  
   HIV prevalence, 27–39  
   trends in new HIV infections, 32–39  
 HIV incidence data, 27–39 (see also under particular populations)  
 HIV-positive sexual partners, role in HIV risk, 133–134  
 HIV-positive persons, 47–49  
   as a priority for funding, 141  
   epidemiologic data, 47  
   HIV cofactors, 48  
   HIV prevention needs, 47–49  
   HIV prevention priorities, 49  
   prevention with positives, 141, 181–184  
   research priorities, 49  
   risk behaviors, 47–48  
 HIV prevalence data, 27–39 (see also under particular populations)  
 HIV testing (see under counseling, testing, and referral)  
 homelessness, 120–122  
   as a funding priority, 142–143  
   HIV prevalence among homeless people, 121  
   role in HIV risk, 120–122  
   who is affected by homelessness in San Francisco, 121–122  
 hormone use, role in HIV risk, 110  
 hotline, 220–221

## I

immigrants, HIV prevention needs of, 125–126 (see also under immigration)  
 immigration, 122–126  
   Asian/Pacific Islanders, 125  
   demographics of San Francisco's immigrant population, 123–124  
   languages spoken among immigrants, 123–124  
   Latinos, 125–126  
   role in HIV risk, 122–126  
 incarceration, 118–119  
   as a funding priority, 142–143  
   HIV prevalence among incarcerated persons, 119  
   role in HIV risk, 118–119  
   who is affected by incarceration in San Francisco, 119  
 incidence data, 27–39 (see also under particular populations)  
 income, role in HIV risk, 129–131  
 individual risk reduction counseling, 190–191  
 Information, Motivation, Behavioral Skills Model, 172  
 injection drug users, 74–77  
   as a priority for funding, 142–143  
   epidemiologic data, 29–30, 32–38, 74  
   HIV cofactors, 76–77  
   HIV incidence, 29–30, 32–38, 74  
   HIV prevalence, 29–30, 74  
   HIV prevention needs, 74–77  
   HIV prevention priorities, 77  
   injection-related risk behaviors, 75–76  
   sexual risk behaviors, 75  
   research priorities, 77  
 Internet  
   as an HIV cofactor for gay men, 54  
   as an HIV prevention strategy, 198–199  
 interventions for HIV prevention, 173–223  
 IRRIC, 190–191

## K

ketamine, role in HIV risk, 110

## L

language barriers  
   English-speaking ability of San Francisco residents, 124  
   role in HIV risk, 133

Latino/Latina people, 86-89  
 as a priority for funding, 142-143  
 epidemiologic data, 21-22, 30, 86-87  
 HIV cofactors, 88-89  
 HIV prevalence, 30, 87  
 HIV incidence, 87  
 HIV prevention needs, 86-89  
 HIV prevention priorities, 89  
 people living with AIDS, 21-22, 86  
 research priorities, 89  
 risk behaviors, 87-88

lesbians (see under women)

linkages to health and social services, 163

---

**M**

male-to-female transgendered persons (see under transgendered persons, male-to-female)

male partners of MTF transgendered persons, 65-66  
 epidemiologic data, 65  
 HIV cofactors, 65-66  
 HIV prevention needs, 65-66  
 HIV prevention priorities, 66  
 research priorities, 66  
 risk behaviors, 65-66

males (see under men; gay men; heterosexual men)

marijuana, role in HIV risk, 110

men (see also under MSM, MSM/F; MSF)  
 bisexual men, 56-57 (see also under bisexual men)  
 gay men, 50-55 (see also under gay men)  
 heterosexual men, 58-61, 72-73 (see also under heterosexual men)  
 partners of MTF transgendered persons, 65-66 (see also under male partners of MTF transgendered persons)

mental health, 112-114  
 mental health issues that affect HIV risk, 113-114  
 role in HIV risk, 112-114  
 who is affected by mental health issues in San Francisco, 114

methamphetamine, role in HIV risk, 109

microbicides, 230

MSF (see also under men; heterosexual men)  
 as a priority for funding, 142-143  
 HIV incidence, 29  
 HIV prevalence, 29-30  
 people living with AIDS, 26  
 resource allocation guidelines, 142-143, 151  
 trends in new HIV infections, 38

MSF-IDU (see also under men; heterosexual men; injection drug users)  
 as a priority for funding, 142-143  
 HIV incidence, 29  
 HIV prevalence, 29-30  
 people living with AIDS, 26  
 resource allocation guidelines, 142-143, 151  
 trends in new HIV infections, 38

MSM, MSM/F (see also under men; gay men; bisexual men)  
 as a priority for funding, 142-143  
 HIV incidence, 29  
 HIV prevalence, 29-30  
 people living with AIDS, 26  
 resource allocation guidelines, 142-143, 151  
 trends in new HIV infections, 32-34

MSM-IDU, MSM/F-IDU (see also under men; gay men; bisexual men; injection drug users)  
 as a priority for funding, 142-143  
 HIV incidence, 29  
 HIV prevalence, 29-30  
 people living with AIDS, 26  
 resource allocation guidelines, 142-143, 151  
 trends in new HIV infections, 32-34

MSW, 196-197

multiple session workshop, 196-197

**N**

Native American people, 90-92  
 as a priority for funding, 142-143  
 epidemiologic data, 21-22, 30, 90  
 HIV cofactors, 91  
 HIV prevalence, 30, 90  
 HIV prevention needs, 90-92  
 HIV prevention priorities, 92  
 people living with AIDS, 21-22, 90  
 research priorities, 92  
 risk behaviors, 90-91

needle exchange, 191-193

needs assessment (see under evaluation)

new San Franciscans, HIV prevention needs, 106-107

non-San Franciscans, HIV prevention needs, 106-107

---

**O**

objectives for HIV prevention, 9

opinion leaders as an HIV prevention strategy, 219

outreach  
 individual, 186-187  
 group, 214-215

---

**P**

partner counseling and referral services, 178-180

PCM, 188-189

PCRS, 178-180

pediatric HIV and AIDS, 39

peer education, 202-203

peer support theories, 170

PEMS (Program Evaluation and Monitoring System), 242-244

PEP, 206-207

perinatal HIV prevention, 223

policy approaches to HIV prevention, 222-223

poppers, role in HIV risk, 109

Popular Education theory, 167

post-exposure prevention, 206-207

poverty, 129-131  
 role in HIV risk, 129-131  
 who is affected by poverty in San Francisco, 130-131

prevalence, 27-39 (see also under particular populations)

prevention case management, 188-189

prevention with positives, 47-49, 141, 181-184  
 as a funding priority, 141  
 description and implementation recommendations, 181-184

primary care, HIV prevention within, 208-209

priorities for funding, 140-145

priority-setting history, 138-139

priority-setting model for 2004, 140-145, 146-152

public information campaigns, 210-221

public sex venues, role in HIV risk, 134-135

---

**Q**

quality assurance, 224-225

---

**R**

rape, role in HIV risk, 113

referrals to health and social services, 163

research priorities (see under particular populations)

resource allocation guidelines, 142-143, 151

role-play as an HIV prevention strategy, 218

---

**S**

San Francisco Leadership Initiative, 3-4

SCAN (systems capacity assessment by neighborhood)  
 Bayview/Hunter's point results, 101-103  
 Tenderloin results, 105-106

self-esteem, role in HIV risk, 113

sex work, 126-129

needs of sex workers in the Polk district, 127-129  
 role in HIV risk, 126-129  
 who is affected by sex work in San Francisco, 129

sexual abuse, role in HIV risk, 113

sexually transmitted diseases (see under STDs)

single session groups, 194-195

Social Cognitive Theory, 169

Social Learning Theory, 169

social marketing, 210-213

social networks theories, 170

social support  
   role in HIV risk, 113  
   theories, 170

special needs populations, 164

Spectrum of Prevention, 159-161

speed, role in HIV risk, 109

Special K, role in HIV risk, 110

SSG, 194-195

Stages of Behavior Change Model, 170

STDs, 115-117  
   chlamydia rates, 116  
   detection and treatment as an HIV prevention strategy, 204-205  
   gonorrhea rates, 115  
   hepatitis B rates, 117  
   hepatitis C rates, 117  
   role in HIV risk, 115-117  
   STD prevalence among people living with AIDS, 117  
   syphilis rates, 116  
   who is affected by STDs in San Francisco, 115-117

steroids, role in HIV risk, 110

strategies for HIV prevention, 173-223

structural approaches to HIV prevention, 222-223

substance use, 108-112  
   drugs that affect HIV risk, 109-110  
   drugs with unclear links to HIV risk, 110-111  
   role in HIV risk, 108-112  
   who is affected in San Francisco, 112

surveillance (see under evaluation)

syphilis rates, 116

systems capacity assessment by neighborhood (see under SCAN)

## T

Tenderloin, 104-106  
   epidemiologic data, 104  
   HIV cofactors, 105  
   HIV prevention needs, 104-106  
   HIV prevention priorities, 106  
   people living with AIDS, 104  
   risk behaviors, 105  
   SCAN results, 105-106

theater as an HIV prevention strategy, 218

Theory of Reasoned Action, 171

transgendered persons (see also under TSM, TSM/E, TSF, TST, TSM/T, TSF/T)  
   female-to-male, 67-68  
     epidemiologic data, 67  
     HIV cofactors, 67  
     HIV prevention needs, 67-68  
     HIV prevention priorities, 68  
     research priorities, 68  
     risk behaviors, 67  
   male-to-female, 62-64  
     as a priority for funding, 142-143  
     epidemiologic data, 20, 35, 62  
     HIV cofactors, 63-64  
     HIV incidence, 35, 62  
     HIV prevalence, 62  
     HIV prevention needs, 62-64  
     HIV prevention priorities, 64

    research priorities, 64  
     risk behaviors, 62-63  
   male partners of transgendered persons (see under male partners of MTF transgendered persons)

TSM, TSM/E, TSF, TST, TSM/T, TSF/T (see also under transgendered persons)  
   as a priority for funding, 142-143  
   HIV incidence, 29  
   HIV prevalence, 29-30  
   people living with AIDS, 26  
   resource allocation guidelines, 142-143, 151  
   trends in new HIV infections, 35

TSM-IDU, TSM/F-IDU, TSF-IDU, TST-IDU, TSM/T-IDU, TSF/T-IDU (see also under transgendered persons; injection drug users)  
   as a priority for funding, 142-143  
   HIV incidence, 29  
   HIV prevalence, 29-30  
   people living with AIDS, 26  
   resource allocation guidelines, 142-143, 151  
   trends in new HIV infections, 35

## V

vaccines for HIV, 229-230

VBGO, 214-215

VBIO, 186-187

venue-based group outreach, 214-215

venue-based individual outreach, 186-187

Viagra, role in HIV risk, 110

## W

white people, 92-94  
   as a priority for funding, 142-143  
   epidemiologic data, 21-22, 30, 92-93  
   HIV cofactors, 93-94  
   HIV prevalence, 30, 93  
   HIV incidence, 93  
   HIV prevention needs, 92-94  
   HIV prevention priorities, 94  
   people living with AIDS, 21-22, 92  
   research priorities, 94  
   risk behaviors, 93-94

women, 68-72 (see also under FSM, FSM/E, FSF)  
   as a priority for funding, 142-143  
   epidemiologic data, 20, 36-37, 68-69  
   HIV cofactors, 70-71  
   HIV incidence, 36-37, 69  
   HIV prevalence, 69  
   HIV prevention needs, 68-72  
   HIV prevention priorities, 71-72  
   research priorities, 71-72  
   risk behaviors, 69-70

## Y

youth, 95-99  
   as a priority for funding, 142-143  
   epidemiologic data, 25, 95-96  
   HIV cofactors, 98  
   HIV prevalence, 95-96  
   HIV prevention needs, 95-99  
   HIV prevention priorities, 99  
   MSM, 95-98  
   people living with AIDS, 25, 96  
   research priorities, 99  
   risk behaviors, 97

## Acknowledgments

Special thanks and appreciation go to the many individuals and organizations who contributed countless hours to HIV prevention planning in San Francisco.

### San Francisco HIV Prevention Planning Council Members

#### 2003

##### Community Co-chairs

Israel Nieves-Rivera  
& Gwen Smith

##### DPH Co-chair

Steven Tierney

##### Council Members

Barbara Adler  
Chata Ashley  
Ari Bachrach  
Teresa Betancourt  
Erick Brown  
Gayle Burns  
Edward Byrom  
Rev. William Cochran  
Aaron Cohen  
Michael Cooley  
Michael Discepola  
Lyn Fischer  
Keith Folger  
Steve Gibson  
Robert Gomez  
Tamika Gonzales  
Manny Grueso  
Paul Harkin  
Janetta Johnson  
Thomas Knoble  
Joani Marinoff  
Loris Mattox  
Marcel Miranda  
John Newmeyer  
Israel Nieves-Rivera  
Ken Pearce  
Renol Ratchford  
Perry Rhodes III  
Andre Robertson  
Rebecca Rodriguez  
Gail Sanabria  
Mike Schement  
Gwen Smith  
Tae-Wol Stanley  
Frank Strona  
Steven Tierney  
Edward Velasco  
Hank Wilson

##### Community Members

Wanetta Davis  
Dave Hook  
Derrick Mapp  
Community Co-chairs:  
DPH Co-chair: Steven Tierney

#### 2002

##### Community Co-chairs

Janetta Johnson, Edd Lee,  
Israel Nieves-Rivera  
& Gwen Smith

##### DPH Co-chair

Steven Tierney

##### Council Members

Chata Ashley  
Ari Bachrach  
Teresa Betancourt  
Erick Brown  
Gayle Burns  
Maria Castillo  
Armel Crocker  
Al Cunningham  
Michael Discepola  
Lyn Fischer  
Rev. Yvette Flunder  
Ed Gallagher  
Steve Gibson  
Robert Gomez  
Amber Gray  
Paul Harkin  
Janetta Johnson  
Jenn Kaufman  
Thomas Knoble  
Edd Lee  
Michael Meehan  
Marcel Miranda  
John Newmeyer  
Israel Nieves-Rivera  
Deborah Oliver-Wilson  
J. Colin Partridge  
Ken Pearce  
Rebecca Rodriguez  
Gail Sanabria  
Mike Schement  
Gwen Smith  
Tae-Wol Stanley  
Patrick Stephens  
Steven Tierney  
Hank Wilson

##### Community Members

Kyung-Hee Choi  
Brenda Escobar  
Trena Patton

#### 2001

##### Community Co-chairs

Michael Discepola,  
Janetta Johnson, Maria Rinaldi  
& Martha Ugarte-Ortiz

##### DPH Co-chair

Steven Tierney

##### Council Members

Teresa Betancourt  
Erick Brown  
Carla Clynes  
Al Cunningham  
Michael Discepola  
Lyn Fischer  
Jo Ellen Fisher  
Rev. Yvette Flunder  
Ed Gallagher  
Steve Gibson  
Robert Gomez  
Sr. Marymae Himm  
Janetta Johnson  
Edd Lee  
La Mildred Mackabee-Anderson  
Mazdak Mazerei  
Michael Meehan  
John Newmeyer  
Deborah Oliver-Wilson  
Jorge Ortiz  
J. Colin Partridge  
Maria Rinaldi  
Gail Sanabria  
Fr. River Sims  
Gwen Smith  
Tae-Wol Stanley  
Steven Tierney  
Martha Ugarte-Ortiz  
John Blake West  
Rheena Yangson

##### Community Members

Kyung-Hee Choi  
Brenda Escobar  
Mike Shriver  
Hank Wilson

##### AIDS Office Staff

Tracey Packer  
Betty Chan Lew  
Eileen Loughran  
Lisa Reyes  
Sanny Chen  
Ling Chin-Hsu  
Elizabeth Davis  
Erik Dubon  
Vincent Fuqua  
Tim Kellogg  
Charles Klein  
Priscilla Lee Chu  
Willi McFarland  
Jimmie Naritomi  
John Pabustan  
Michael Pendo  
Marise Rodriguez  
Valerie Rose  
Susan Scheer  
Sandy Schwarcz  
Laura Thomas  
Steven Tierney

##### Consultant Support

###### HARDER+COMPANY COMMUNITY RESEARCH

Dara Coan  
Hieu Ngo  
Alex Armenta  
Rick Bradford  
Aimee F. Crisostomo  
Kym Dorman  
Abby Lopez  
Maricela Piña  
Susanne Ross  
Allison Weston

###### COMMUNITY HEALTH STUDIES GROUP

###### (PROCESS EVALUATION)

Kathleen Roe  
Kevin Roe  
Emalie Huriaux  
Pamela Washington

###### MEETING MINUTES

Stacy Gratton  
David Weinman

###### PLAN DESIGN AND PRODUCTION

Project Management: Z Communications  
Design: 499 COMMUTE  
Production: Jessica Berardi  
Photography: Brian Moore

## Behavioral Risk Population (BRP) Abbreviations

BRPs are categories that describe behavioral risk for HIV. The HPPC uses these to identify who is at risk for HIV in San Francisco and how HIV prevention priorities should be set. To understand the BRP abbreviations, use the following general rules:

<b>M = MALES</b>	<b>F = FEMALES</b>	<b>/ = AND</b>
<b>T = TRANSGENDERED PERSONS</b>	<b>S = WHO HAVE SEX WITH</b>	<b>IDU = AND INJECT DRUGS</b>

<b>FSF</b> Females who have sex with females	<b>MSM</b> Males who have sex with males	<b>TSM</b> Transgendered persons who have sex with males
<b>FSF-IDU</b> Females who have sex with females and inject drugs	<b>MSM-IDU</b> Males who have sex with males and inject drugs	<b>TSM-IDU</b> Transgendered persons who have sex with males and inject drugs
<b>FSM</b> Females who have sex with males	<b>MSM/F</b> Males who have sex with males and females	<b>TSM/F</b> Transgendered persons who have sex with males and females
<b>FSM-IDU</b> Females who have sex with males and inject drugs	<b>MSM/F-IDU</b> Males who have sex with males and females and inject drugs	<b>TSM/F-IDU</b> Transgendered persons who have sex with males and females and inject drugs
<b>FSM/F</b> Females who have sex with males and females	<b>TSF</b> Transgendered persons who have sex with females	<b>TSM/T</b> Transgendered persons who have sex with males and transgendered persons
<b>FSM/F-IDU</b> Females who have sex with males and females and inject drugs	<b>TSF-IDU</b> Transgendered persons who have sex with females and inject drugs	<b>TSM/T-IDU</b> Transgendered persons who have sex with males and transgendered persons and inject drugs
<b>MSF</b> Males who have sex with females	<b>TSF/T</b> Transgendered persons who have sex with females and transgendered persons	<b>TST</b> Transgendered persons who have sex with transgendered persons
<b>MSF-IDU</b> Males who have sex with females and inject drugs	<b>TSF/T-IDU</b> Transgendered persons who have sex with females and transgendered persons and inject drugs	<b>TST-IDU</b> Transgendered persons who have sex with transgendered persons and inject drugs

## Other Common Abbreviations

<b>AIDS</b> Acquired immune deficiency syndrome	<b>CARE</b> Ryan White Comprehensive AIDS Resources Emergency Act	<b>MTF</b> Male-to-female transgendered person
<b>API</b> Asian/Pacific Islander	<b>CDC</b> Centers for Disease Control and Prevention	<b>PLWHA</b> Person living with HIV or AIDS
<b>BRP</b> Behavioral risk population	<b>FTM</b> Female-to-male transgendered person	<b>PLWA</b> Person living with AIDS
<b>HIV</b> Human immunodeficiency virus	<b>HAART</b> Highly active antiretroviral therapy	<b>SFDPH</b> San Francisco Department of Public Health
<b>CAPS</b> Center for AIDS Prevention Studies	<b>HPPC</b> HIV Prevention Planning Council	<b>STD</b> Sexually transmitted disease
		<b>UCSF</b> University of California San Francisco

