

## 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

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### 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<br>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).

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#### 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: SFDPH 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).

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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.

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## 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?

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## 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).

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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: SFDPH 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).

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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:

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- **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?

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#### 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%).

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**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**

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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     |

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## 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

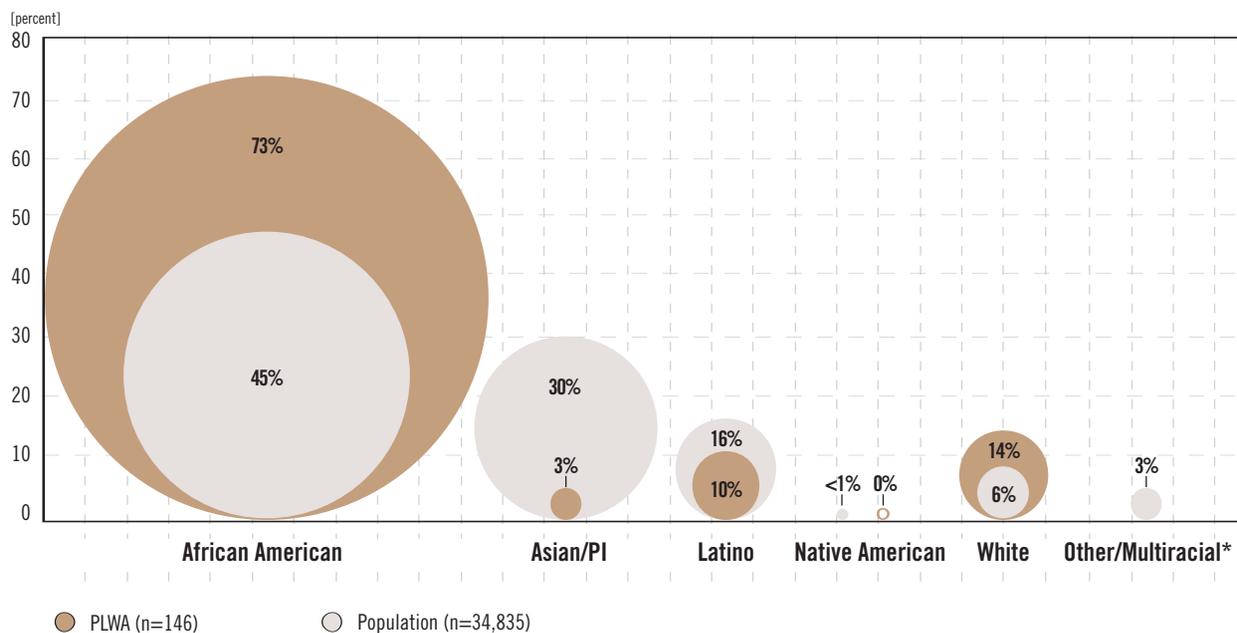
Although neighborhood-level HIV prevalence and incidence data does not exist, HIV counseling and testing data suggests that new infections are occurring in Bayview/Hunter's Point, particularly among MSM (HIV/AIDS Statistics and Epidemiology Section, special data request, 2003). Data on PLWA demonstrates 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

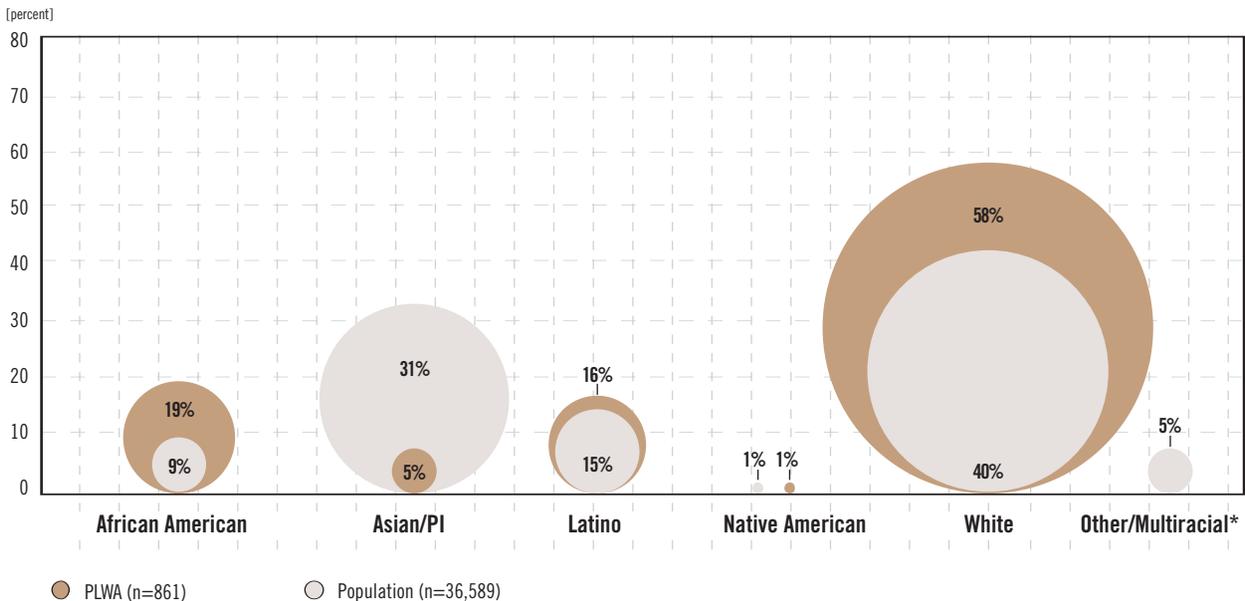
### What Are the HIV Prevention Needs in the Tenderloin?

#### 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-serviced 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).

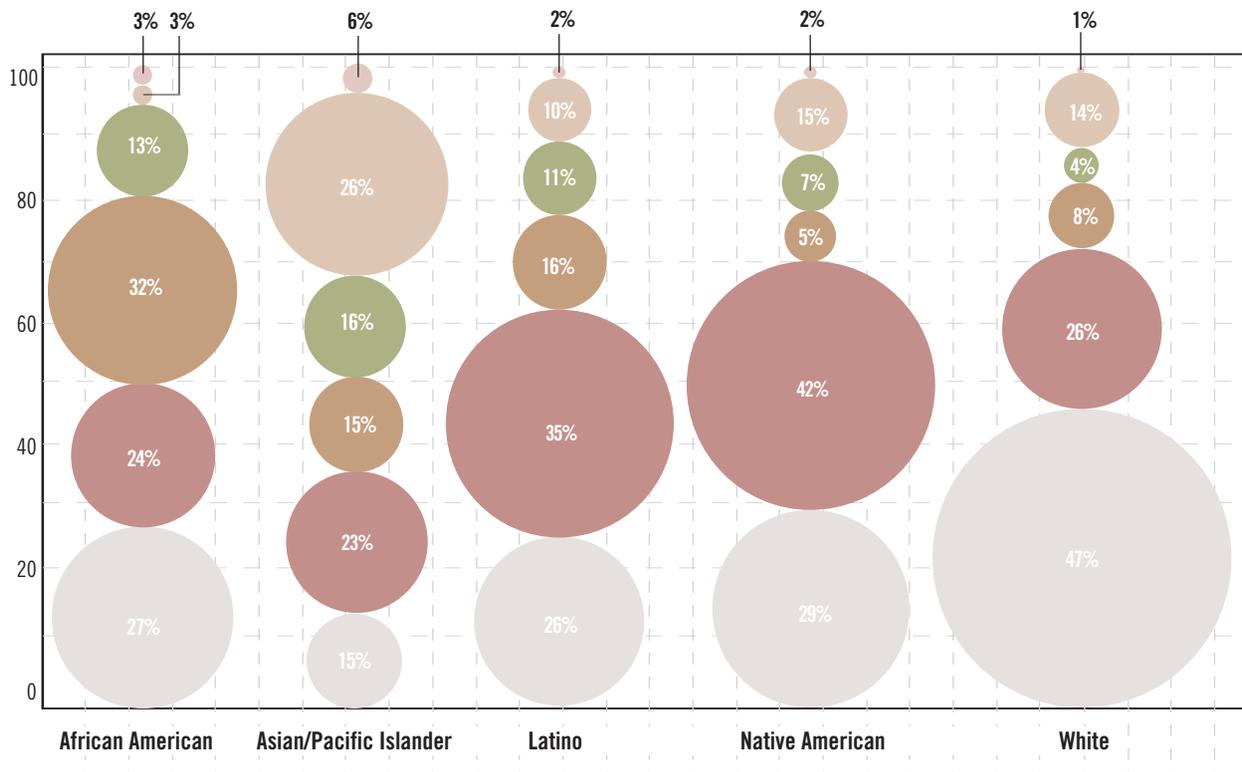
### Who Is Affected By Substance Use in San Francisco?

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



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○ 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

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| 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.

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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.

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## 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 (SFDPH 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?

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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.

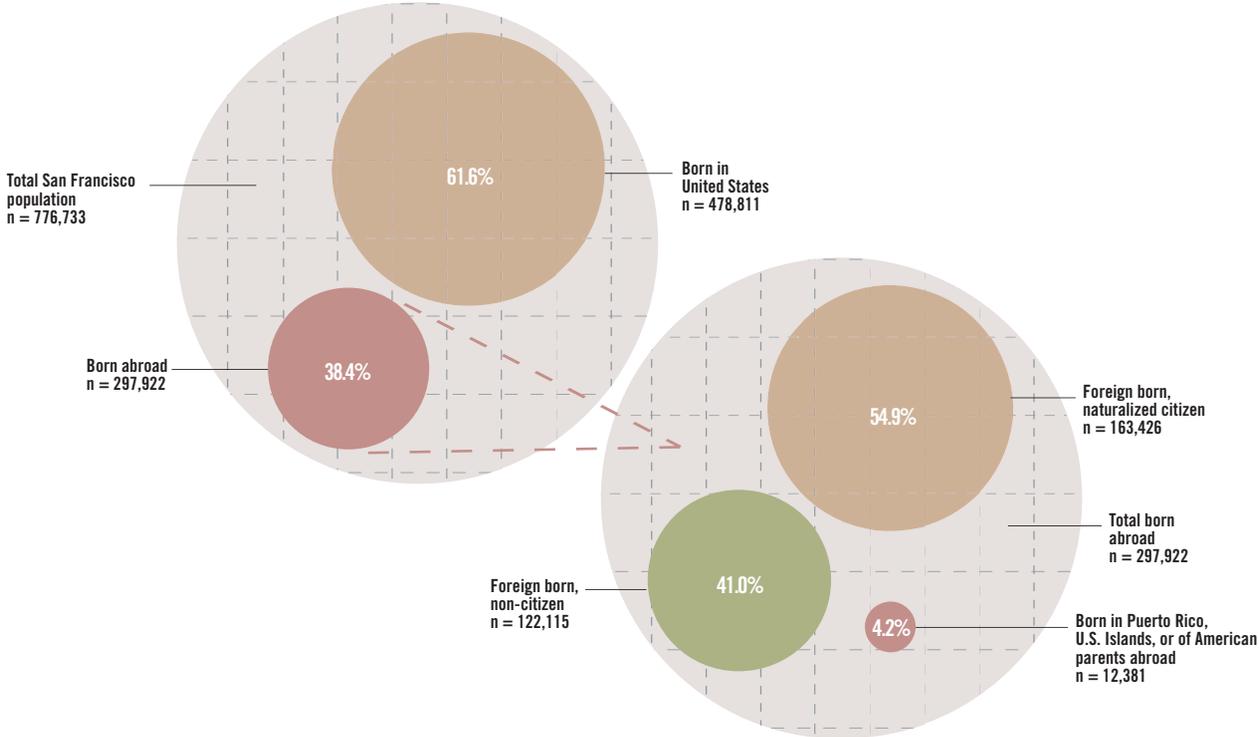
**Who Are San Francisco’s Immigrants and What Languages Do They Speak?**

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**

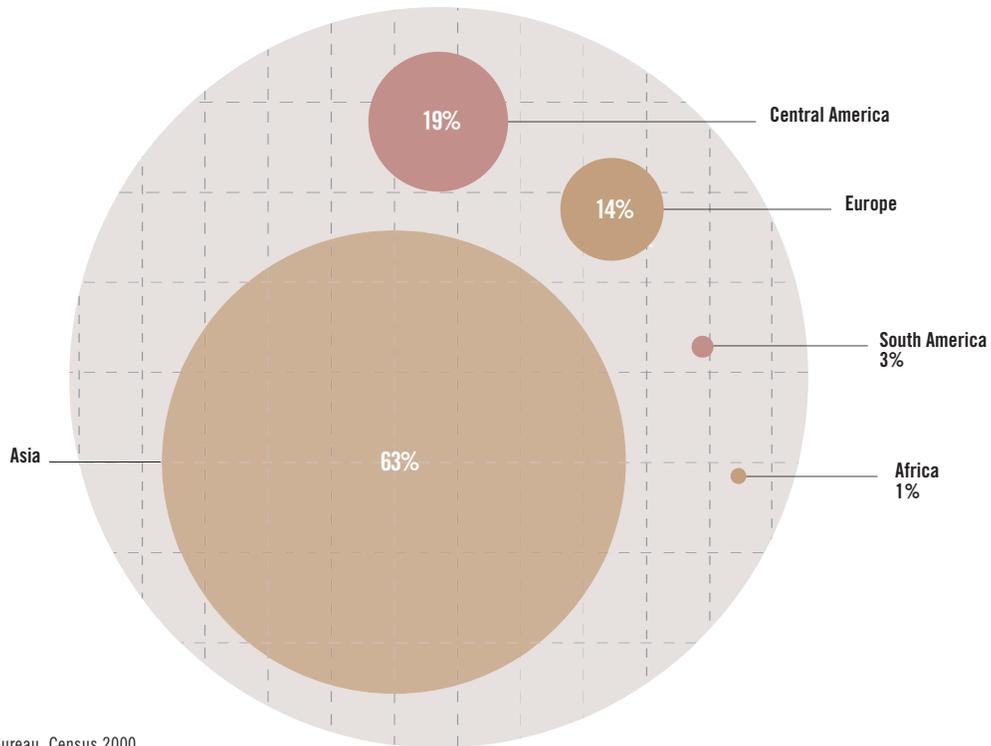
San Francisco Residents by Place of Birth, 2000



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

EXHIBIT 25

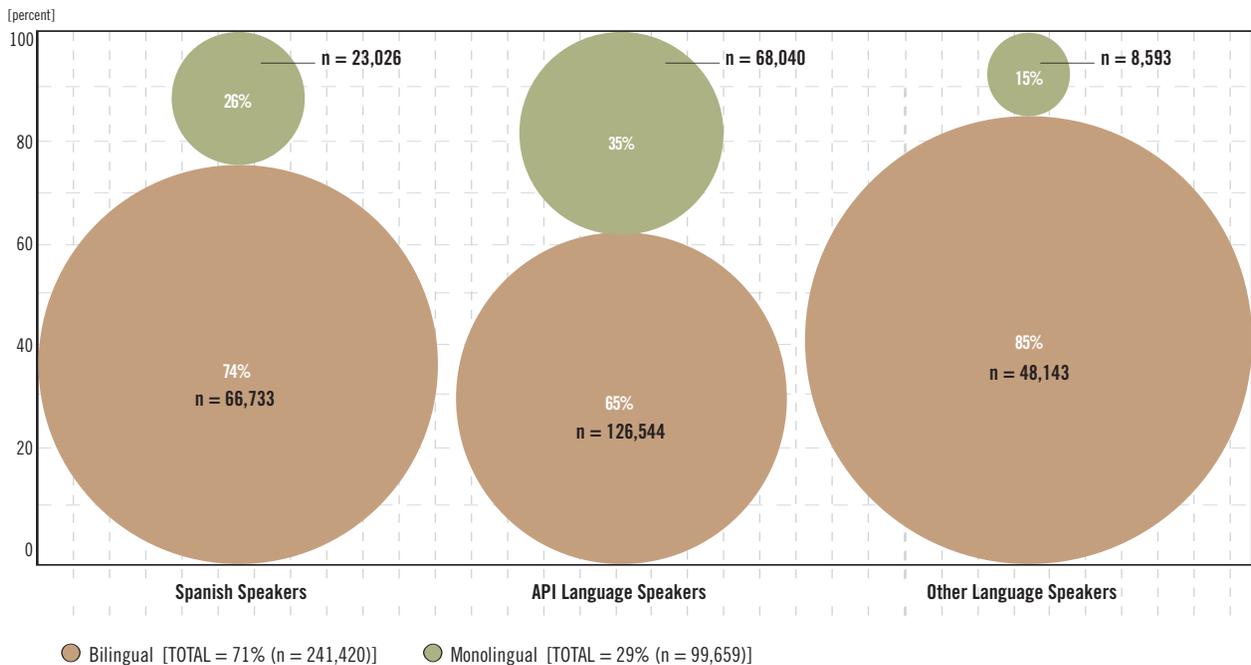
Region of Origin of San Francisco's Immigrants, 2000



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?

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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

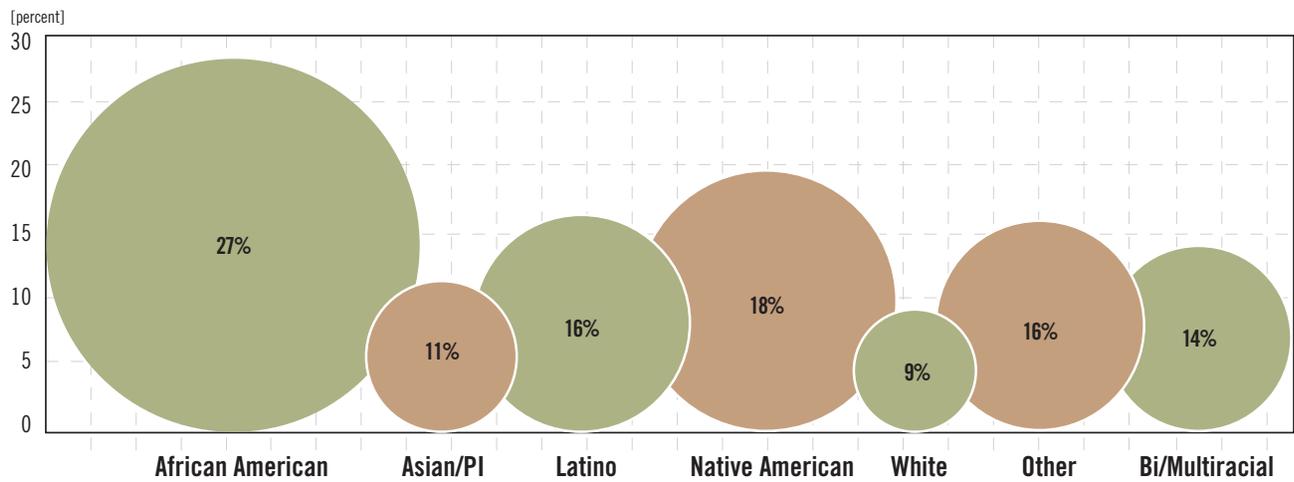
### Poverty Status of Individuals and Families in San Francisco, 2000

| 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.

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## 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\*

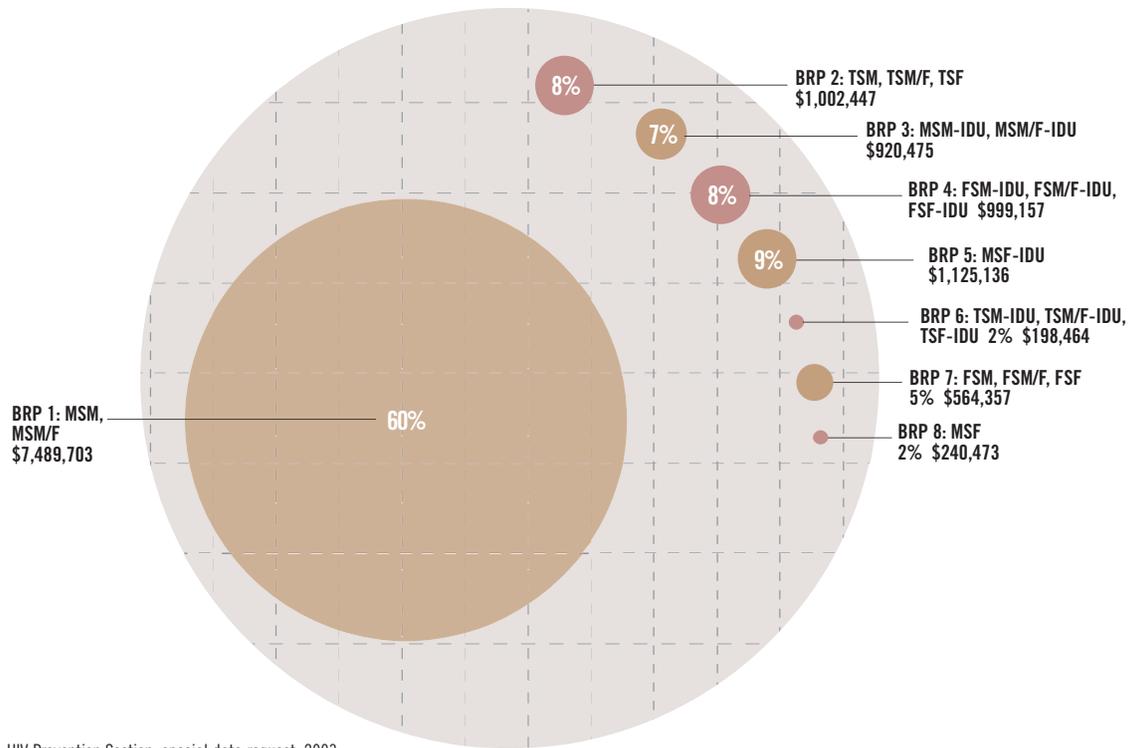
| RESOURCE ALLOCATION TIER | BRPS   | ESTIMATED PERCENT OF NEW INFECTIONS, 2001 | HPPC RESOURCE ALLOCATION GUIDELINES | ACTUAL DISTRIBUTION OF FUNDING, 2002 |
|--------------------------|--|---|-------------------------------------|--------------------------------------|
| <b>Tier 1</b>            |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

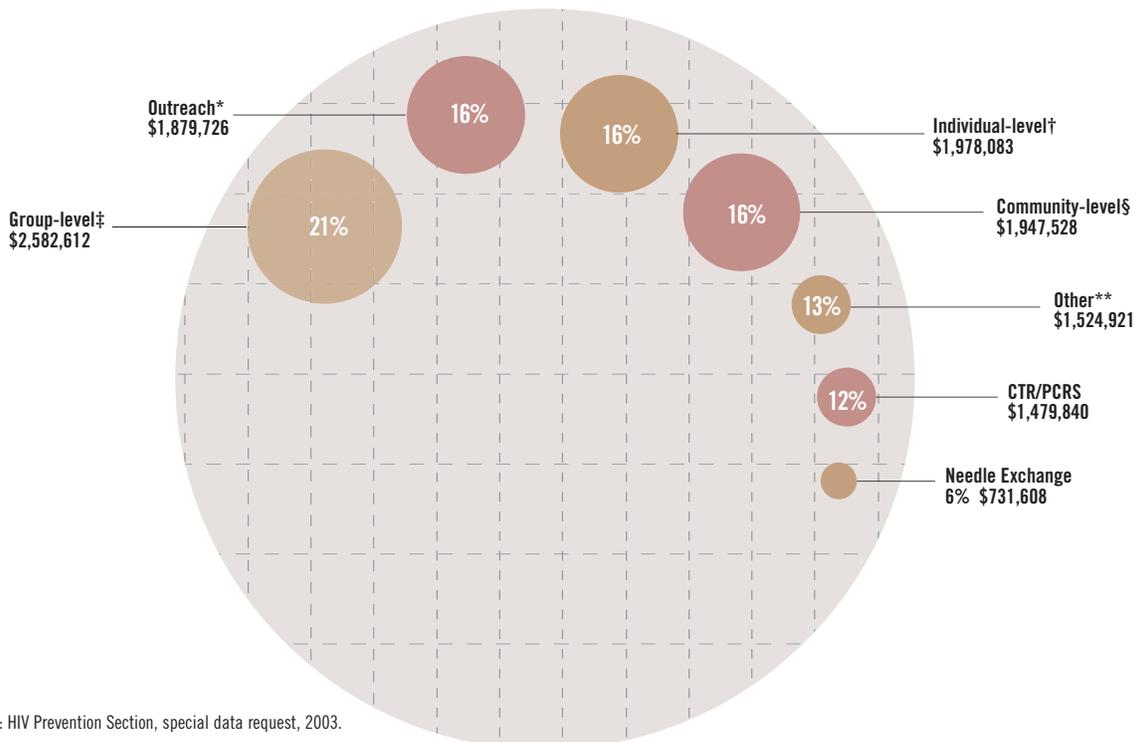
### Distribution of Funding by BRP, 2002



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.