



LATIN AMERICA

Although the patterns of the HIV epidemics are changing in some Latin American countries, the epidemics in this region overall remain stable, with new HIV infections totalling about 140 000 [100 000–410 000] and 65 000 [51 000–84 000] people dying of AIDS in 2006. Two thirds of the estimated 1.7 million [1.3 million–2.5 million] people living with HIV in Latin America reside in the four largest countries: **Argentina**, **Brazil**, **Colombia**, and **Mexico**. However, estimated HIV prevalence is highest in the smaller countries of Central America where it was just under 1% in **El Salvador**, **Guatemala** and **Panama**, 1.5% in **Honduras** and 2.5% in **Belize** in 2005 (UNAIDS, 2006).

Outbreaks of HIV are occurring among injecting drug users and men who have sex with men in South America.

HIV transmission is occurring in the context of factors common to most of Latin America: widespread poverty and migration, insufficient information about epidemic trends outside major urban areas and rampant homophobia. In particular, the role of unprotected sex between men in many of Latin America's epidemics tends to be publicly denied and ignored in HIV strategies—especially in Central America and in the Andean region of South America (Cohen, 2006a). Unprotected sex between men accounts for as much as 25%–35% of reported AIDS cases in countries such as **Argentina**, **Bolivia**, **Brazil**, **Guatemala** and **Peru** (Montano et al., 2005). In

addition, HIV-infected people face stigma and discrimination, even from health-care workers (Cohen, 2006). Meanwhile, HIV infection levels among female sex workers are widely varied. HIV prevalence is very low in some South American countries, such as **Chile** and **Venezuela** (Bautista et al., 2006), but prevalence rates of between 2.8% and 6.3% have been found in cities in **Argentina** (Montano et al., 2005; Bautista et al., 2006; Pando et al., 2006), and 6% prevalence has been reported among sex workers in parts of **Brazil** (Okie, 2006; Trevisol and da Silva, 2005).

The most populous country in Latin America, **Brazil**, is home to 620 000 [370 000–1 million] people living with HIV, one third of all persons living with the virus in Latin America (UNAIDS, 2006). The country's emphasis on prevention and treatment has helped to keep its HIV epidemic stable for the past several years (Okie, 2006). Amid the concerted promotion of sex education and AIDS prevention in schools, condom use, harm reduction and HIV testing, adult national HIV prevalence has remained steady at roughly 0.5% since 2000. While the percentage of young people who are sexually active changed little between 1998 and 2005, condom use rates increased dramatically—by more than one third among 15–24-year-old men and women (Berquo, 2005). Among Brazilians of all ages, condom use increased by almost 50% during the same period (Berquo, 2005).

HIV infections acquired during injecting drug use have declined in several cities, particularly those with older epidemics, alongside a general

shift away from the use of non-sterile injecting equipment. One large survey in 2004 found that more than three quarters of injecting drug users did not use non-sterile drug equipment or syringes (Okie, 2006). The decline in HIV infections among injecting drug users appears to be associated with the introduction of harm reduction programmes, changing drug use habits (especially an increase in the inhaling or smoking of 'crack' cocaine), and mortality among drug users (Fonseca et al., 2006).

Notwithstanding such achievements, HIV infection levels among injecting drug users are still high. In the south of the country, the epidemics among injecting drug users appear not to be abating (Hacker et al., 2006). Meanwhile, a cross-sectional study in the states of Bahia, Rio Grande do Sul and Sao Paulo, has found that 37% of injecting drug users were infected with HIV, and those infection levels were significantly associated with incarceration and having unprotected sex with other men (Caiaffa et al., 2006). In the latter study, more than one quarter (26%) of the injecting drug users reported having unprotected sex with other men, apparently as a means of financing their drug use. Such findings reinforce the need to address both sexual and drug-related risk practices in drug users (Ferreira et al., 2006). In addition, a strong association between crack use and HIV infection is apparent in several cities, including Porto Alegre (where 27% of crack users were found to be infected) (Pechansky et al., 2006).

Unprotected sex between men remains a significant factor in HIV transmission and accounts for nearly half of the sexually transmitted HIV infections in Brazil. As HIV spreads from the most-at-risk populations to other lower-risk populations, women are increasingly being infected. In a study among pregnant women in 27 municipalities in southern Brazil in 2003, 0.5% HIV prevalence was reported (Cardoso et al., 2005) and women have been accounting for an increasing number of AIDS cases in recent years. Poorer sections of the population appear to be most vulnerable, with increasing HIV infection rates being found among poorly educated people in the lower socioeconomic strata (Cardoso et al., 2005; Fonseca et al., 2003).

It is estimated that one third of adults in Brazil have been tested for HIV (the majority of them women aged 25–39 years) (Paiva, Pupo, Barboza,

2006), and that about one in three HIV-infected Brazilians is aware of his or her HIV status (Okie, 2006). Antiretroviral provision is among the most comprehensive in the world, and is yielding positive results. Nationally, mother-to-child transmission of HIV declined substantially, from 16% in 1997 to less than 4% in 2002 (Dourado et al., 2006). AIDS mortality rates decreased by 50% between 1996 and 2002, while AIDS-related hospitalizations fell by 80% during the same period (Okie, 2006).

In **Argentina**, national adult HIV prevalence was an estimated 0.6% [0.3%–1.9%] in 2005. Most of the estimated 130 000 [80 000–220 000] people living with HIV are in the provinces of Buenos Aires, Cordoba and Santa Fe. In various studies up to 44% of injecting drug users (Vignoles et al., 2006), 7%–15% of men who have sex with men (Montano et al., 2005), and 6% of female sex workers (Montano, et al., 2005; Bautista et al., 2006) have been found to be HIV-infected. As much as one quarter (28%) of inmates in some city prisons have tested HIV-positive (Ministerio de Salud de Argentina, 2004).

Brazil's dual emphasis on prevention and treatment has helped to keep its HIV epidemic under control.

Due to a combination of factors (including the maturation of the epidemic and the effects of the 2001 economic crisis), unprotected sex has in recent years been the main mode of HIV transmission (Cohen, 2006b). It is estimated that unprotected sexual intercourse (mainly heterosexual) accounted for about four in five new HIV diagnoses in 2005. Men still outnumber women among the total reported HIV cases, but the male-to-female ratio for new HIV diagnoses has narrowed to 1.3:1 (from 15:1 in 1988) (National AIDS Programme, 2005; Ministerio de Salud Argentina, 2004).

Injecting drug use appears to have declined overall, especially after 2001 when many injecting drug users switched to smoking cheaper, low-grade cocaine paste. In Buenos Aires, for example, injecting drug users accounted for only 5% of new infections between 2003 and 2005 (Cohen, 2006b). But there are indications that injecting drug users have also been driven deeper under-

ground by the stigma that associates injecting drug use with AIDS and death. Many of the drug users who still inject drugs tend to do so on their own and the earlier injecting networks appear to have disintegrated. In addition, while AIDS mortality rates overall started to decline in Argentina after 1996, the same trend has not been observed among injecting drug users, who have experienced large numbers of deaths in recent years. This suggests that injecting drug users have not benefited sufficiently from the country's antiretroviral treatment programme (Rossi et al., 2006).

Approximately 9600 [4600–30 000] persons were living with HIV at the end of 2005 (UNAIDS, 2006) in **Uruguay**, where unprotected sex (mostly heterosexual) is the main route of HIV transmission (National AIDS Programme Uruguay, 2006). Nevertheless, infection levels are high among certain groups in the capital, Montevideo, where the epidemic is concentrated: 22% among men who have sex with men (Montano et al., 2005), 19% among injecting drug users and 10% among non-injecting drug users (Vignoles et al., 2006). Female sex workers appear to have lower prevalence levels and various studies show that between 0.3% and 1.3% have acquired HIV (Montano et al., 2005; Bautista et al., 2006). At least half of the people needing antiretroviral treatment were receiving it by mid-2006 (WHO/UNAIDS, 2006).

Paraguay's epidemic is of a similar scale, with about 13 000 [6200–41 000] people living with HIV at the end of 2005 (UNAIDS, 2006). Men comprise the majority of HIV cases (74%), with exposure to non-sterile drug injecting equipment and unprotected sex between men being the main modes of HIV transmission (National AIDS Programme Paraguay, 2006).

Unprotected sex, especially between men, is the main risk factor for HIV infection in the smaller epidemic in **Chile**, where about 28 000 [17 000–56 000] people were living with HIV at the end of 2005 (UNAIDS, 2006). Increasing numbers of women are acquiring HIV, many from male partners who acquired the virus during unprotected sex with other men.

In **Peru**, HIV appears to be mainly affecting men who have sex with men. HIV prevalence in that population group is high—10% in Iquitos and its surrounding area (Cohen, 2006c), and an average of 14% in six other cities (Lama et al., 2006), including the capital, Lima, where up to

23% of men who have sex with men have tested HIV-positive (Montano et al., 2005; Ministerio de Salud de Peru, 2005). Sexual risk behaviours in this group are common. In some coastal cities, more than two thirds of men report recent unprotected sex (Konda et al., 2006). When surveyed, almost half (47%) of the men who have sex with men said they also had sex with women—yet HIV prevalence among women has remained very low, at approximately 0.2% (Cohen, 2006d).

The epidemics in Central America are complex and growing, with prevalence in some countries the highest in Latin America; paid sex and sex between men are the main risk factors for HIV infection.

Sex between men is also the main risk factor for HIV infection in the epidemics in the other Andean countries, including **Bolivia** (HIV prevalence of 24% has been found in Santa Cruz among men who have sex with men), **Ecuador** (HIV prevalence of 28% in Guayaquil and 15% in Quito) and **Colombia** (HIV prevalence of 20% in Bogotá) (Montano et al., 2005). In none of these three countries does HIV prevalence exceed 4% among female sex workers, and it is well under 1% in several cities (Montano et al., 2005; Khalsa et al., 2003; Mejía et al., 2002). However, in a 2005 study among 120 sex workers in Barranquilla, Colombia, HIV prevalence of 3.3% was found—the highest HIV prevalence found to date in the country. A 2002 study in Bogotá, had found 0.7% prevalence among sex workers. HIV prevalence among injecting drug users was 1% in a 2003 study in Bogotá. Overall in Colombia, HIV prevalence in sentinel surveillance among pregnant women was 0.65% in 2005, up from 0.24% in 1999. While the majority of new HIV case reports continue to be among men, the male-to-female ratio has narrowed from close to 10:1 in the early 1990s to 2-3:1 in 2003–2005 (ONUSIDA y Ministerio de la Protección Social de Colombia, 2006). Men also comprise the majority of the 110 000 [54 000–350 000] people living with HIV in **Venezuela**, where most of the reported HIV infections to date occurred during unprotected sex between men (Ministerio de Salud de Venezuela, 2005).

Although incomplete, available HIV surveillance data show that the epidemics in **Central America** are complex and growing, with prevalence in some countries the highest in Latin America. Sex between men and the commercial sex trade appear to be the major risk factors for HIV infection. At the same time there is evidence of more generalized HIV transmission, especially along transport corridors and in areas along the Caribbean coast of the region. Many of the countries of **Central America** have hidden epidemics of HIV among men who have sex with men, including **Belize**, Costa Rica, **El Salvador**, **Guatemala**, **Nicaragua** and **Panama**. In **Nicaragua**, for example, 7.6% of men who have sex with men were found to be HIV-infected (and 11% had syphilis), while 15% tested HIV-positive in **El Salvador**. In both countries, one in five men also reported having had sex with a female partner in the previous six months (Soto et al., 2006). In **Guatemala**, 12% HIV prevalence was found among men who have sex with men, half of whom regarded themselves as heterosexual or bisexual (Ministerio de Salud Pública y Asistencia Social de Guatemala, 2003; Proyecto Acción SIDA de Centroamérica, 2003). The female partners of many of those men are therefore at risk of acquiring HIV from them.

As in several other Central American countries, less is known about the HIV epidemic outside **Guatemala's** capital or among its indigenous (mainly Mayan) peoples who represent nearly half the total population. Available data indicate the widespread presence of HIV among the indigenous population, but not necessarily at higher levels than among the Ladino (a mixed Amerindian-Spanish) population. Sentinel surveillance among pregnant women in 2003 found slightly lower HIV rates among Mayan women than among Ladino women (Hernandez and Aguilar, 2004). In HIV cases and AIDS cases reported to the Health Ministry in 2004, Ladinos represented 74% of cases while Mayans accounted for 22%—while in 2005, Ladinos were 69% of the total and Mayans 28% (Garcia, 2005). Nevertheless, Mayan populations account for the majority of HIV cases and AIDS cases in eight of Guatemala's 22 departments, and HIV has been found in these populations in every department nationwide—a serious concern given that these groups already face high levels of poverty and maternal mortality, as well as scant access to health-care services (Presidential Secretariat for

Planning and Programming Guatemala, 2006). Adding weight to such concerns are the study findings among tuberculosis patients (three quarters of them Mayan) in Quetzaltenango, which show HIV infection levels tripled (from 4.2% to 12%) between 1995 and 2002 (Cohen, 2006d).

In **Honduras**, the epidemic seems especially severe among ethnic minorities—in this case, the Garifuna, the Afro-Honduran descendants of West African slaves. Studies conducted among Garifuna communities have found HIV prevalence of 8%–14% (Secretaria de salud de Honduras, 1998). However, HIV infection has spread widely in Honduras. Infection levels are highest among men who have sex with men (13% of whom have tested HIV-positive in a 2005 study), female sex workers (up to 11% of whom have been found to be HIV-infected) (Secretaria de salud de Honduras, 2003a; Secretaria de salud de Honduras, 2003b; Ghee et al., 2006), and prisoners (HIV prevalence of 8%) (Cohen, 2006e). But the epidemic is increasingly affecting women, who comprised just under half (47%) of recorded HIV cases in 2004. Nationally, HIV prevalence in antenatal clinic attendees was 1.4% in 2004, but reached as high as 3%–4% in Valle de Sula (Ministry of Health Honduras, 2006). An estimated 63 000 [35 000–99 000] Hondurans were living with HIV at the end of 2005 (UNAIDS, 2006).

Unprotected sex between men features centrally in the epidemics of most Latin American countries.

Mexico's large population means that despite a low adult national HIV prevalence—estimated at 0.3% [0.2%–0.7%], there were 180 000 [99 000–440 000] people living with HIV in 2005 (UNAIDS, 2006; Bravo-Garcia, Magis-Rodriguez, Saavedra, 2006). Mexico's epidemic is concentrated primarily among men who have sex with men, sex workers and their clients, and injecting drug users. Sex between men is believed to account for more than half (57%) the HIV infections recorded to date (Bravo-Garcia, Magis-Rodriguez, Saavedra, 2006a), though there are indications of increasing risk for HIV infection among women (Magis-Rodriguez et al., 2004).

HIV prevalence of 4% has been found among injecting drug users in Tijuana (Magis-Rodriguez et al., 2005), and there are some indications that HIV infections may be increasing in some cities along with the United States of America border where sex work and injecting drug use are widespread. In Tijuana and Vera Cruz, 6% of female sex workers were found to be HIV-infected in a 2003 study (Magis et al., 2006a), while in Tijuana and Ciudad Juarez, a 2004–2006 study found HIV prevalence of 6% among female sex workers—and 16% among those who injected drugs (Patterson et al., 2006). High prevalence has also been found among male sex workers: 25% in Monterrey, for example, in a 2005 study (Gayet et al., 2006a) and 20% in Guadalajara and Mexico City (Magis et al., 2006b). A study among male long-distance truck drivers in Monterrey found 0.7% were HIV-infected (double the estimated national adult HIV prevalence). More than one quarter of them had paid for sex in the previous year and one sixth of them had never used a condom (Gayet et al., 2006b). There is also evidence of significant HIV spread in rural parts of the country, with migration (including migration between Mexico and the United States of America) apparently a contributing factor (Cohen, 2006f).