07

Caribbean

AIDS epidemic update
Regional Summary

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HIV prevalence reached or surpassed 1% in the **Bahamas**, **Barbados**, **Belize**, **Guyana**, **Haiti**, **Jamaica**, **Suriname** and **Trinidad and Tobago** (UNAIDS, 2006). Most countries in the region show declines or stabilization of HIV prevalence, primarily in urban areas, whereas changes in semi-urban and rural areas have been slight. But HIV inadequate surveillance systems in several countries are making it difficult to gauge recent trends in their epidemics.

The primary mode of HIV transmission in this region is intercourse; unprotected sex between sex workers and clients is a key factor in the spread of HIV. The Caribbean epidemics occur in the context of high levels of poverty and unemployment, gender and other inequalities, and considerable stigma—all of which can aid the spread of HIV, as well as hinder efforts to control the epidemics. Young girls are at high risk of exposure to HIV. An important contributing factor to their susceptibility is the common practice of young girls maintaining relationships with older men, who, by virtue of their age, are more likely to have acquired HIV (CAREC, 2007a). Unsafe injecting drug use is responsible for a minority of HIV infections, and contributes significantly to the spread of HIV only in **Bermuda** and **Puerto Rico**.

Unsafe sex between men is a significant but largely hidden facet of the epidemics in this region. Like female sex workers, men who have sex with men are highly stigmatized and are subjected to both social and institutional harassment. As a result, few HIV-related programmes reach them, and they face inordinate risks of acquiring HIV. Among female sex workers, HIV prevalence of 3.5% has been found in the **Dominican Republic**, 9% in **Jamaica** and 31% in **Guyana** (Gupta et al., 2006; Secretaría de Estado de Salud Pública y Asistencia Social de República Dominica, 2005b; PAHO, 2007; Gebre et al., 2006; Allen et al., 2006). Little research has been conducted in the Caribbean among men who have sex with men, but the available data suggest that as many as one in 10 (12%) reported HIV infections are the result of unsafe sex between men (Caribbean Technical Expert Group, 2004; Inciardi, Syvertsen & Surratt, 2005). A recent study in **Trinidad and Tobago** found HIV prevalence of 20% among men who have sex with men, 25% of whom said they regularly also had sex with women (Lee et al., 2006).

Prisoners are another population group with high levels of HIV infection. Surveys in six countries of the eastern Caribbean found HIV prevalence of 2%–4% among inmates (various Ministries of Health, CAREC, PAHO & WHO, 2005), while a study in the **Belize** central prison showed HIV prevalence of 5% among prisoners (Ministry of Health Belize, 2005).

National adult HIV prevalence has stabilized in several Caribbean countries, including the Dominican Republic and Haiti, where declines have been observed in some urban areas.

With some 170 000 people living with HIV, **Haiti** still bears the largest HIV burden in the Caribbean. Among pregnant women attending antenatal clinics, HIV prevalence declined significantly—from 5.9% in 1996 to 3.1% in 2004 (Gaillard et al., 2006). However, results of sentinel surveillance among pregnant women in 2006 show a stabilization in HIV prevalence (Ministère de la Santé Publique et de la Population, 2007). A national population-based survey estimated adult national prevalence at 2.2% in 2005 (Cayemittes et al., 2006). But the declining trend is largely related to decreasing infection levels in the capital, Port-au-Prince, and other cities, where HIV prevalence among 15–44-year-old women fell from 5.5% to 3% between 2000 and 2005. Modelling indicates that besides mortality, protective behaviour changes were at least partly responsible for those declines (Gaillard et al., 2006). Behavioural surveys have shown a 20% drop in the mean number of sexual partners between 1994 and 2000, while condom use increased, especially during sex with non-regular partners (Cayemittes et al., 2006; Hallet et al., 2006; Gaillard et al., 2006). In a national survey conducted in 2001, only 14% of adult women and 26% of adult men said that they had used a condom the last time they had sex with someone other than their spouse or cohabiting partner (Cayemittes et al., 2001). In a similar survey conducted in 2005, 26% of women and 42% of men reported using a condom the last time they had such higher-risk sex (Cayemittes et al., 2006). Although still relatively low, condom use levels had increased significantly.

One concern is the fact that HIV infection levels have not declined in **Haiti**'s rural communities, where protective behaviour remains the exception rather than the norm (Gaillard et al., 2006). When surveyed, only 16% of women and 31% of men living in rural areas said they used a condom the last time they had sex (Cayemittes et al., 2006). Also troubling are signs that condom use during paid sex might be waning. (See also "Mind the gap" box.) In a study in the region of Artibonite, only 60% of clients said they always used condoms with sex workers. HIV prevalence among those clients was 7.2%, threefold higher than in the general population of the region. Fewer than one in five (17%) of the clients had previously been tested for HIV, and only one in three (33%) said they always used condoms with their regular sex partners (Couturel et al., 2007). These trends highlight the need to focus more effective prevention efforts around sex workers and their clients.

Such patterns of decreasing condom use are not limited to the realms of paid sex. A minority of young people report using condoms during sex with a non-regular partner, for example (Gaillard et al., 2006). A mere one in four (28%) sexually active young women (15–24 years) used a condom the last time they had sex with a non-regular partner, as did four in 10 (42%) young men (Cayemittes et al., 2006). Prevention programmes, it seems, are not effectively reaching **Haiti**'s youth.

There is better news about treatment delivery, where **Haiti** offers strong evidence that antiretroviral therapy can be provided effectively in impoverished settings. Coverage is still low—approximately 39% of people in need of treatment were receiving it in 2006 (WHO, UNAIDS & UNICEF, 2007)—but one cohort study in Port-au-Prince has shown that the one-year survival rate after initiation of antiretroviral therapy in adults was 87%, compared to the one-year survival rate of 30% among adults with AIDS without therapy (Severe et al., 2005). Among infected children, 98% were still alive one year after initiation of treatment. Efforts to prevent mother-to-child transmission of HIV still lag, however. In 2005, only an estimated 12% of HIV-infected pregnant women received antiretroviral medications for preventing vertical transmission of HIV (WHO, UNAIDS & UNICEF, 2007).

With some 170 000 people living with HIV, Haiti bears the largest HIV burden in the Caribbean.

On the eastern half of Hispaniola island, the **Dominican Republic**'s epidemic appears to have stabilized, with the most recent estimates of national adult HIV prevalence being 0.9%

(Secretaría de Estado de Salud Pública y Asistencia Social de República Dominica, 2007). As in most other countries of the Caribbean, the commercial sex trade is a prominent factor in the **Dominican Republic**'s epidemic. Considerable efforts have been made to enable sex workers to protect themselves (and their clients) against HIV infection, and these appear to have been successful, especially in the main urban and tourist centres. One study found that condom use increased from 75% to 94% in 12 months among sex workers who participated in a community solidarity prevention project in the capital, Santo Domingo (Kerrigan et al., 2006).

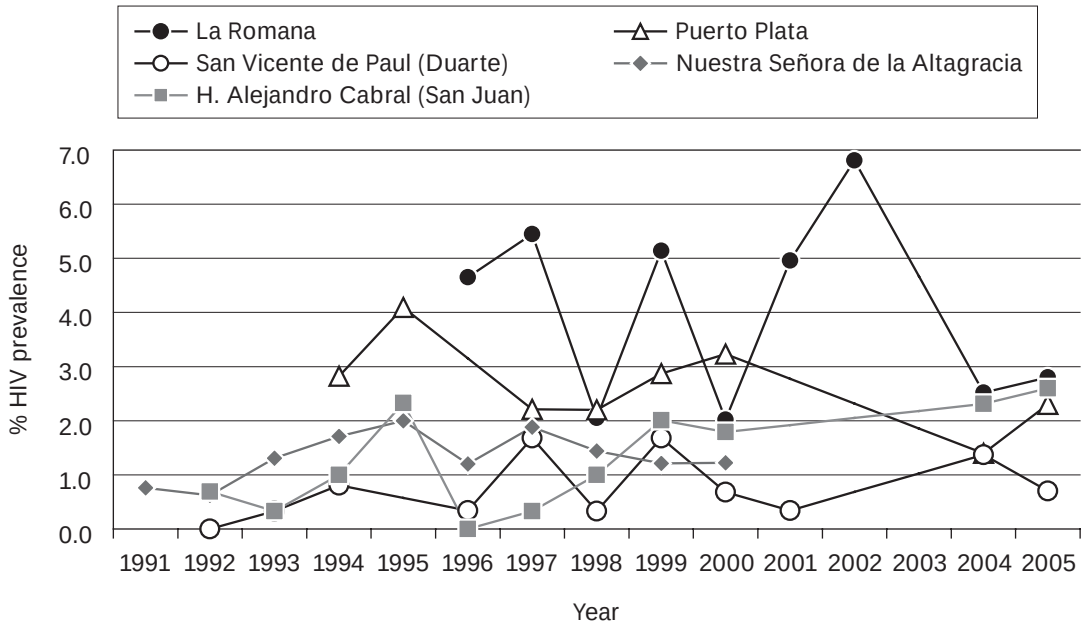
High HIV prevalence found in the *bateyes* (camps housing sugar cane plantation workers, many of them from **Haiti**) remains a serious concern (Secretaría de Estado de Salud Pública y Asistencia Social de República Dominica, 2005a). Among 15–49-year-old men, HIV prevalence of 5% has been found, while among 40–44-year-olds it reached 12% in some *bateyes* (Cohen, 2006).

Progress is evident in treatment and care provision, but gaps remain in the country's efforts to prevent mother-to-child transmission of HIV. Some 95% of births take place in public hospitals, yet four out of 10 HIV-positive pregnant women are not receiving treatment to reduce the risk of mother-to-child transmission (OPS & UNICEF, 2007).

Jamaica's epidemic appears to have stabilized, with national adult HIV prevalence having remained under 2% for several years. The most recent estimates put HIV prevalence at 1.5% [0.8%–2.4%] in 2005 (UNAIDS, 2006). Levels of HIV knowledge have increased among women: when surveyed, about 60% of adult women correctly identified two prevention methods and rejected three myths concerning HIV, up from 47% in 2004 (UN Theme Group on HIV/AIDS & Government of Jamaica, 2005). However, it is unclear to what extent such knowledge is translating into safer behaviours. A significant proportion of the population continues to report having unprotected sex and multiple sex partners, patterns of behaviour that appear to be grounded in social (especially gender) inequalities and discriminatory sociocultural systems (Ministry of Health Jamaica, 2007a). The sex trade, which flourishes in all 14 parishes of **Jamaica**

Figure 1

HIV prevalence among pregnant women in the Dominican Republic, 1991–2005



Source: Ministry of Health surveillance reports, 1991–2006.

(Taylor, 2006), remains an important factor in the country's epidemic (Gebre et al., 2006). Meanwhile, despite some progress, stigma and discrimination against populations at higher risk of exposure to HIV—such as men who have sex with men—remains strong (Ministry of Health Jamaica, 2007a) and could be undermining efforts to contain the epidemic and its impact (Human Rights Watch, 2004).

In other respects, however, **Jamaica**'s AIDS response can point to important gains. About 90% of pregnant women attending public antenatal clinics are now screened for HIV infection (a sevenfold increase since 2002), as are more than half the persons attending sexually transmitted infection clinics. Approximately 80% of HIV-positive mothers attending public antenatal clinics now receive antiretroviral treatment to prevent transmission of HIV to their babies (compared with 65% in 2005) (Ministry of Health Jamaica, 2007b).

The main mode of HIV transmission in this region is unprotected heterosexual intercourse; unprotected sex between sex workers and clients is a key factor in the spread of HIV.

HIV prevalence among pregnant women attending antenatal clinics in the **Bahamas** has remained at around 3% since 2000, with the most recent data putting it at 2.9% in 2004 (Ministry of Health The Bahamas, 2006). Wider access to antiretroviral drugs has reduced mother-to-child HIV transmission, with transmission rates falling from approximately 25% in 1997 to under 5% in 2003 (Ministry of Health The Bahamas, 2007). The rise in the number of people receiving antiretroviral therapy (from 467 in 2002 to 3243 in 2005) corresponds to a drop in the proportion of annual deaths attributed to AIDS (from 18%

MIND THE GAP

In many Caribbean countries, a wide gap still exists between generally high levels of HIV awareness and knowledge and the kinds of behaviours that can reduce the risk of HIV infection. For example, when surveyed, Haitians display high levels of HIV knowledge, with three out of four people capable of citing three main methods for avoiding HIV infection through sexual intercourse (abstaining from sex, remain faithful to one, uninfected partner, and using condoms consistently) (Gaillard et al., 2006). However, in **Haiti** only 26% of women and 42% of men who reported having had sex with a non-regular partner in the previous year said they used a condom during those encounters (Cayemittes et al., 2006). A strong reluctance to use condoms persists. A little more than half (55%) of sex workers surveyed in 2006 said they consistently used condoms, compared with 92% in a 2003 survey and only one third of surveyed sex workers harboured no misconceptions about how HIV is transmitted, compared with 44% of those who were surveyed in 2003 (Centre d'Evaluation et de Recherche Appliquée (CERA) & Family Health International, 2006). Moreover, one third of sex workers have admitted to having unprotected sex for more money, and one half of serodiscordant couples have said they still have unprotected sex (Gaillard et al., 2006). In surveys in the eastern Caribbean, more than eight out of 10 respondents knew that consistent condom use protected against HIV infection, yet fewer than half of sexually active men and only one in five women said they always used condoms with non-regular partners (CAREC, 2007b).

A mismatch between knowledge and behaviour is also evident in the high levels of stigma that persist. In the eastern Caribbean, most respondents (on average seven in 10) knew the main transmission routes for HIV, and knew that sharing a meal with someone living with HIV carried no risk of infection. Yet, fewer than two in 10 said they were willing to buy food from an HIV-infected shopkeeper. A mere 15% of respondents expressed accepting attitudes towards persons living with HIV (CAREC, 2007b).

in 1996 to 9% in 2005) (Department of Statistics The Bahamas, 2005). Those gains could be extended further: while 61% of persons in need of antiretroviral treatment were receiving it at the end of 2005, infrastructure limitations, human resource constraints and enduring HIV-related stigma are slowing further progress on this front (Ministry of Health The Bahamas, 2006, 2007).

In **Trinidad and Tobago**, expanded HIV testing among pregnant women attending public antenatal facilities (95% of whom were tested in 2005) indicates a slight drop in HIV prevalence, from 1.9% in 2000 to 1.6% in 2005 (PAHO & WHO, 2006). Here, too, wider access to antiretroviral therapy (available free of charge to persons requiring it) has helped reduce the number of AIDS-related deaths (by 53% between 2002 and 2006) (Ministry of Health Trinidad and Tobago, 2007).

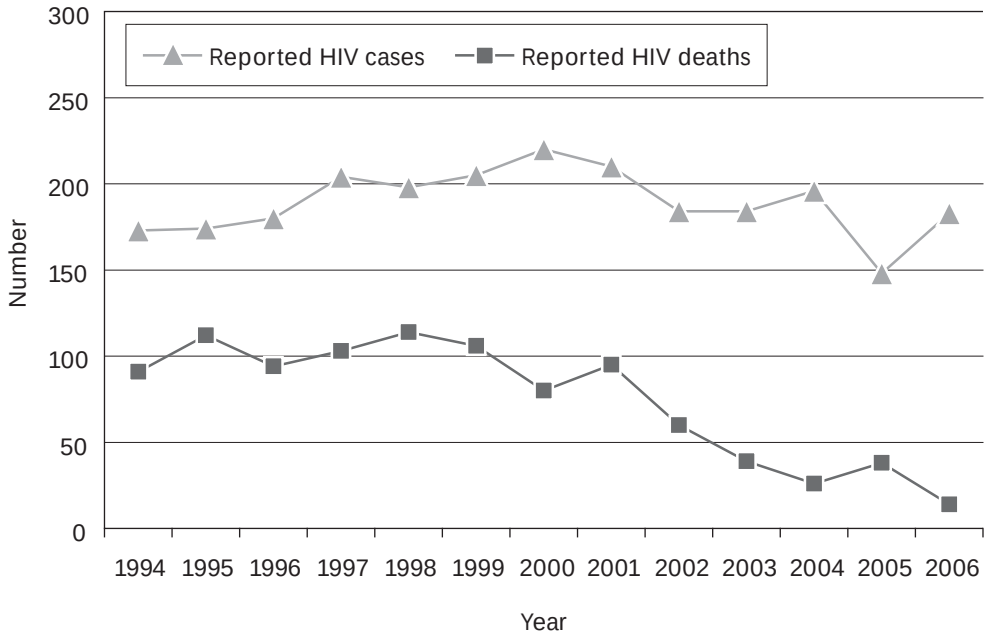
In **Barbados**, the number of persons newly diagnosed with HIV each year has remained relatively steady since the late 1990s, at between 180 and 220 (the only exception being 2005, when 148 new HIV infections were diagnosed). This suggests that efforts to prevent the sexual transmission of HIV are not keeping pace with other achievements in the country's AIDS response. Those efforts are also limited by the fact that no seroprevalence studies have been conducted in **Barbados**, making it difficult to accurately analyse the patterns and modes of HIV transmission (Ministry of Health Barbados, 2007).

Little research has been conducted among men who have sex with men, even though the available data suggest that as many as one in 10 reported HIV infections are the result of unprotected sex between men.

The positive effects of expanded access to antiretroviral therapy, however, are evident, with the number of annual deaths attributable to AIDS having decreased by 85% between 2001 (shortly before the introduction of free antiretroviral therapy in 2002) and 2006 (Kumar et al., 2006; Ministry of Health Barbados, 2007). Similarly, mother-to-child transmission rates have been

Figure 2

Number of reported HIV cases and deaths Barbados, 1994–2006



Source: National HIV/AIDS Program. The 2006 epidemiologic overview of HIV in Barbados.

reduced to under 3%, an achievement comparable to that in industrialized countries (Ministry of Health Barbados, 2007).

A more accurate picture is emerging of the epidemic in **Guyana**, where HIV transmission is occurring primarily through unprotected sexual intercourse. The latest antenatal clinic survey shows HIV prevalence of 1.6% among pregnant women. This is lower than the 2.3% prevalence found in a similar survey in 2004, but methodological differences call for caution when comparing the two sets of data. Prevalence in urban areas (2.2%) was almost double that found in rural areas (1.2%), and was highest in Region 4, which includes the capital, Georgetown, and where approximately 80% of HIV infections in the country have been reported to date. The fact that prevalence among 15–24–year-old pregnant women decreased from 2% in 2004 to 1% in 2006 at sites included in both surveys suggests that rates of new HIV infections might be slowing (Ministry of Health Guyana, 2007).

In a 2005 population-based survey, about 40% of young (15–24 years) women and 80% of young men said they had had sex with a non-regular partner in the previous year, and about two thirds (68% and 62%, respectively) of those men and women said they had used a condom when doing so. Similar percentages—64% and 70%, respectively—of unmarried, sexually active young women and men said they had used a condom the last time they had sex (Ministry of Health Guyana, Guyana Responsible Parenthood Association, & ORC Macro, 2006).

Other surveys and studies have revealed high levels of HIV prevalence in some population groups, notably men who have sex with men, female sex workers and some migrant populations. In Region 4, up to 27% of female sex workers and 21% of men who have sex with men have been found to be HIV-positive. More than eight out of 10 (84%) men who have sex with men also reported having had sex with women (Ministry of Health Guyana, 2005). Surveys at sexually transmitted infection clinics in 2005 found 17% of both male and female patients were HIV-positive (Ministry of Health Guyana, 2007), while an earlier study of miners working in the interior of the country reported HIV prevalence of 3.9% (Palmer et al., 2002).

This points to a need for a more targeted approach to HIV prevention, with a stronger focus on most-at-risk populations (especially in urban areas and settings where rapid economic development is occurring). Strengthened HIV surveillance systems are also needed. Countering misconceptions about HIV, reducing risk-taking behaviours and addressing HIV-related stigma and discrimination remain major challenges in **Guyana**. Stigma appears to be problematic, even in populations at higher risk of exposure to HIV. In surveys, one in five (22%) female sex workers said HIV could be acquired by sharing a meal with an infected person, and one third (32%) of men who have sex with men felt that HIV-infected persons should be isolated from the rest of society (Ministry of Health Guyana, 2005).

HIV surveillance systems remain inadequate in several countries, making it difficult to gauge recent trends in their epidemics.

Guyana's programme to prevent mother-to-child transmission of HIV is also expanding, with about 94 sites offering such services in eight regions (Guyana Presidential Commission on HIV/AIDS, 2006). According to a 2006 survey, about 80% of pregnant women accepted prevention of mother-to-child transmission services when they were offered (Ministry of Health Guyana, 2007).

Suriname, where national HIV prevalence was estimated at 1.9% [1.1%–3.1%] in 2005 (UNAIDS, 2006), has also increased its treatment efforts. By May 2007, 514 people were receiving antiretroviral medication, a fivefold increase in 30 months. In addition, HIV testing efforts are being expanded.

Much smaller epidemics are under way on the islands of **Dominica** and **Grenada**. In the former, almost three quarters (71%) of the 319 HIV infections reported to date have been in men (Ministry of Health and Social Security Dominica, 2007). Surveys show high levels of risky sex occur among young people in both countries, as well as in other island nations of the eastern Caribbean (including **Antigua and Barbuda**, **Saint Kitts and Nevis**, **Saint Lucia** and **Saint Vincent and the Grenadines**). Between 31% and 46% of young people (aged 15–24 years) in those countries reported having had multiple non-regular sex partners in the previous year, but consistent condom use with non-regular partners varied considerably—from

16% in **Saint Kitts and Nevis** to 44% in **Dominica** (USAID, FHI & PAHO, 2007). High degrees of stigmatization and discrimination against men who have sex with men and female sex workers make it difficult to assess the extent to which HIV might be circulating among those population groups in some of these countries (CAREC, 2007b).

In contrast to the rest of the region, injecting drug use is the key factor in HIV transmission in **Bermuda** and **Puerto Rico**'s epidemics. Very high HIV prevalence is still being found among injecting drug users in **Puerto Rico**, where the rate of HIV infection (26 per 100 000) is twice that of the United States mainland and where more than two thirds of HIV infections have been among men (AIDS Action, 2007).

Cuba's epidemic remains the smallest in the region, with national adult HIV prevalence estimated at under 0.1% (Zipperer, 2005). However, HIV prevalence in the provinces of Isla de la Juventud and of Ciudad de La Habana is 0.18% and 0.13%, respectively. Men account for the vast majority (more than 80%) of reported HIV cases, with unprotected sex between men being the main mode of HIV transmission. But more women are being infected with HIV. In 2006, 202 new HIV diagnoses were in women, a 30% increase over 2005. Overall, 1100 new HIV diagnoses were made in 2006, almost 20% more than in the previous year (Programa Nacional de Prevención y control de las ITS/VIH/Sida, 2006). Prevention efforts (including stronger promotion and wider availability of condoms) need to be adapted to these new trends.

Having begun manufacturing its own generic versions of antiretroviral drugs in 2001, **Cuba** is the only country in the region with universal access to antiretroviral therapy, an achievement made easier by its low national HIV prevalence (WHO, UNAIDS & UNICEF, 2007; Pérez, 2007; Fawthrop, 2003). All pregnant women are tested for HIV, and those that test HIV-positive receive antiretroviral drugs to reduce the risk of transmission to their infants. Only 28 cases of mother-to-child transmission of HIV have been recorded in Cuba (Pérez, 2007).

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UNAIDS, the Joint United Nations Programme on HIV/AIDS, brings together the efforts and resources of ten UN system organizations to the global AIDS response. Cosponsors include UNHCR, UNICEF, WFP, UNDP, UNFPA, UNODC, ILO, UNESCO, WHO and the World Bank. Based in Geneva, the UNAIDS secretariat works on the ground in more than 80 countries worldwide.

The annual *AIDS epidemic update* reports on the latest developments in the global AIDS epidemic. This 2007 Regional summary provides the most recent estimates of the epidemic's scope and human toll and explores new trends in the epidemic's evolution in the Caribbean.

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