OCEANIA

Number of people living with HIV	2008: 59 000 [51 000–68 000]	2001: 36 000 [29 000–45 000]
Number of new HIV infections	2008: 3900 [2900–5100]	2001: 5900 [4800–7300]
Number of children newly infected	2008: <500 [<500–<1000]	2001: <500 [<200–<500]
Number of AIDS-related deaths	2008: 2000 [1100–3100]	2001: <1000 [<500–1200]

In 2008, 3900 [2900–5100] new HIV infections occurred in the Oceania region, bringing the total number of people living with HIV to 59 000 [51 000–68 000].

Regional overview

There is generally a very low HIV prevalence in Oceania compared with other regions. In the small island nations that make up most of the countries in the region, adult HIV prevalence tends to be well below 0.1%. Likewise, with an estimated HIV prevalence of 0.2%, Australia's epidemic is considerably less severe than those of any other high-income country. National epidemics in Oceania are overwhelmingly driven by sexual HIV transmission, although the specific populations most affected vary substantially within the region.

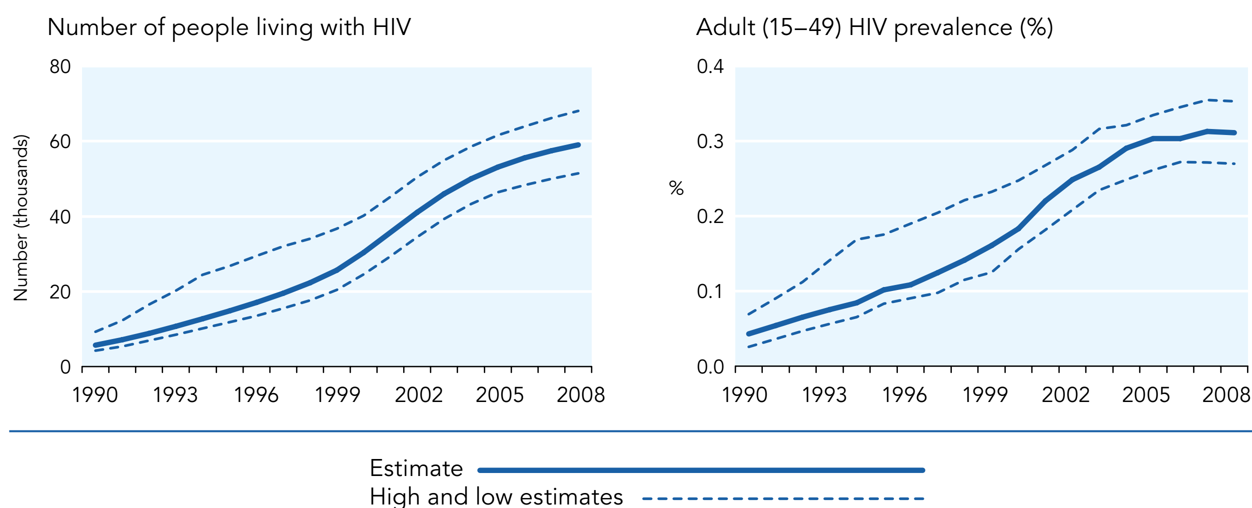
Infections on the rise in some countries

One notable exception to the preponderance of low-level epidemics is Papua New Guinea, which is experiencing an expanding, generalized epidemic. Excluding the high-income countries of Australia and New Zealand, Papua New Guinea accounted for more than 99% of reported HIV diagnoses in the region in 2007 (Coghlan et al., 2009). Reversing the pattern typically seen, HIV prevalence in Papua New Guinea is higher in rural areas than in urban settings (National AIDS Council Secretariat, 2008). The high prevalence reported in the country's rural areas is comparable with epidemiological patterns in the neighbouring Papua province of Indonesia. Among the smaller island nations of the Pacific, New Caledonia, Fiji, French Polynesia and Guam account for the vast majority of HIV infections in the region outside Papua New Guinea (Coghlan et al., 2009) (Figure 27).

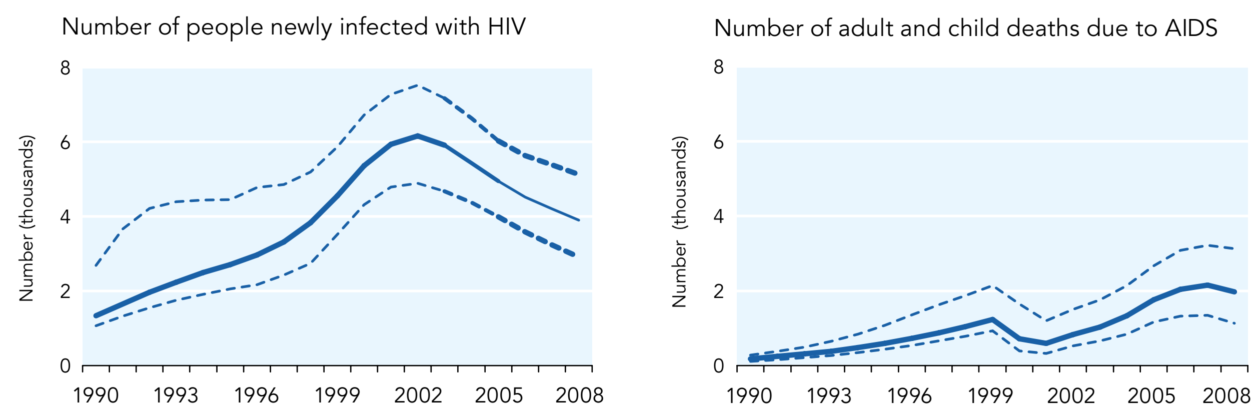
While most epidemics in the region appear to be stable, new infections in Papua New Guinea are on the rise. Reported HIV infections are also increasing in Fiji, while the rate of new infections appears to be declining in New Caledonia (Coghlan et al., 2009). In Fiji, the number of new HIV case reports in 2003–2006 was nearly 2.5 times greater than the number reported in 1999–2002 (Coghlan et al., 2009).

Figure 26

Oceania estimates 1990–2008



Estimate
High and low estimates



Source: UNAIDS/WHO.

A slow, steady increase in new HIV diagnoses is also apparent in Australia (Figure 28) and New Zealand. Laboratory testing in Australia indicates that the rate of recently acquired HIV infections rose by roughly 50% between 1998 and 2007 in several regions of the country (National Centre in HIV Epidemiology and Clinical Research, 2008), although the number of new HIV diagnoses nationwide fell modestly between 2006 and 2008 (from 308 to 281) (National Centre in HIV Epidemiology and Clinical Research, 2009). In New Zealand, the number of people diagnosed through antibody testing in 2008 (184) was the highest number ever reported in any single year (New Zealand AIDS Epidemiology Group, 2009).

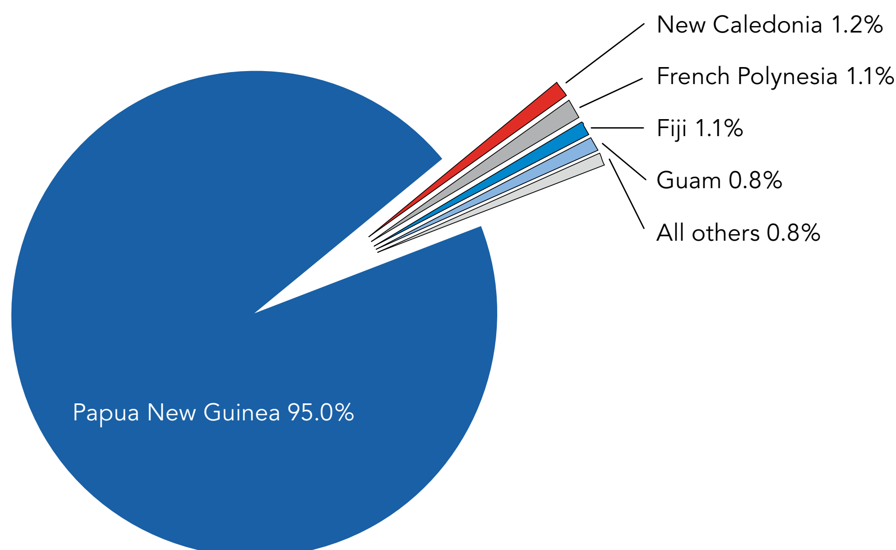
Monitoring of epidemiological trends in the region is inhibited by the weakness of HIV surveillance systems in many countries. In Papua New Guinea, for example, nearly two out of three HIV infections reported between 1987 and 2006 have not been assigned a mode of transmission (National AIDS Council Secretariat, 2008). In particular, existing evidence does not permit definitive conclusions regarding the impact of regional migration on epidemiological trends, nor is it possible to determine whether the epidemic in Papua New Guinea is affecting neighbouring countries such as the Solomon Islands (Coghlan et al., 2009).

Diverse epidemiological patterns

The gender distribution of new infections varies considerably between the smaller island nations in the region on the one hand and Australia and New Zealand on the other. In Papua New Guinea, males and females are equally likely to become infected, with the risk of infection growing among young women (Coghlan et al., 2009; National AIDS Council Secretariat, 2008). By contrast, males account for more than 80% of new diagnoses in Australia and New Zealand (New Zealand AIDS Epidemiology Group, 2009; National Centre in HIV Epidemiology and Clinical Research, 2008).

Figure 27

Proportion of all HIV and AIDS cases in different Pacific island countries and territories, 1984–2007



Source: the Secretariat of the Pacific Community and the Papua New Guinea Department of Health.

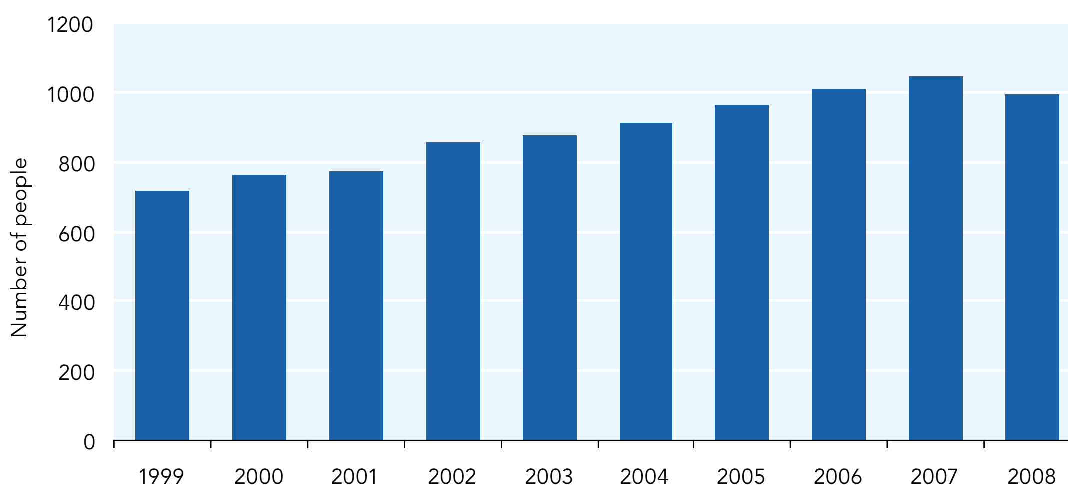
The age of those most likely to become infected also differs substantially among countries. While young women aged between 20 and 24 are most likely to be diagnosed with HIV in Papua New Guinea (National AIDS Council Secretariat, 2008) (Figure 29), the common age group for new HIV diagnoses among men who have sex with men in New Zealand is 40–49 years (New Zealand AIDS Epidemiology Group, 2009).

Treatment advances in many countries

Although antiretroviral therapy coverage estimates are not routinely available throughout the region, a number of countries appear to have made important strides in expanding access to HIV treatment. In Australia, 72% of a national cohort of people living with HIV were receiving antiretroviral medications in 2006 (Department of Health and Ageing, 2008). Among HIV-positive males on

Figure 28

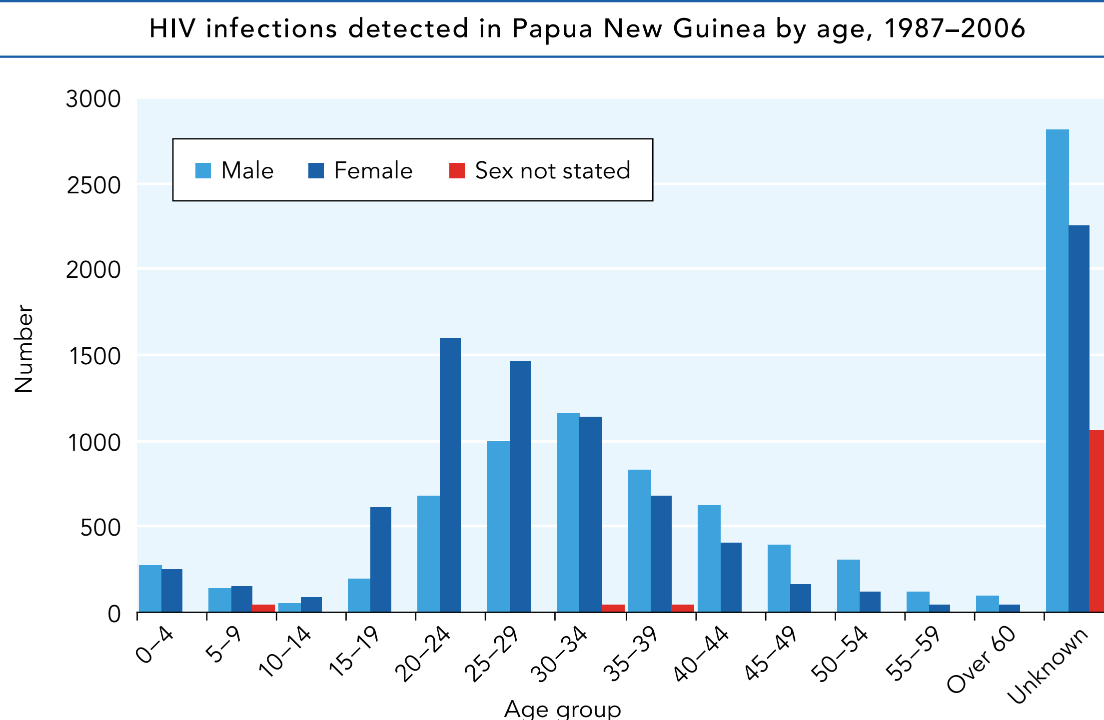
Annual newly diagnosed HIV infections in Australia, 1999–2008



Source: National Centre in HIV Epidemiology and Clinical Research (2009).

Figure 29

HIV infections detected in Papua New Guinea by age, 1987–2006



Source: Papua New Guinea National AIDS Council and Department of Health.

antiretroviral therapy in Australia in 2006, 85% had undetectable viral loads (Department of Health and Ageing, 2008).

Late diagnosis of HIV infection reduces the effectiveness of HIV prevention efforts and complicates treatment. While it was estimated that approximately 60 000 people were living with HIV in Papua New Guinea in December 2007, the cumulative number of people ever diagnosed amounted to only 18 484 (National AIDS Council Secretariat, 2008). To promote more widespread knowledge of HIV serostatus, the Government of Papua New Guinea introduced a policy of provider-initiated HIV testing and counselling in 2007. Between 2007 and 2008, the number of people over the age of 15 who received HIV testing and counselling in Papua New Guinea rose approximately fourfold, from 26 932 to 107 615 (World Health Organization, United Nations Children's Fund, UNAIDS, 2009).

In Australia, the proportion of AIDS diagnoses that occur around the time of HIV diagnosis rose from 31% in 1997 to 56% in 2006 (Department of Health and Ageing, 2008). Individuals with heterosexually acquired HIV infection or who were born in Asia are most likely to be diagnosed late in the course of infection in Australia (McDonald et al., 2007; Körner, 2007).

Key regional dynamics

Modes of transmission vary considerably within the region. Heterosexual transmission predominates in the generalized epidemic of Papua New Guinea, while men who have sex with men appear to account for roughly half of the national epidemics in many other smaller Pacific nations. In the larger nations of Australia and New Zealand, men who have sex with men is by far the largest transmission category for both prevalence and incidence. Transmission during injecting drug use has made a relatively small contribution to the epidemics in Oceania, in part due to the early adoption of evidence-informed harm reduction programmes in Australia and New Zealand.

Heterosexual transmission

Heterosexual acquisition accounts for nearly 95% of cumulative HIV diagnoses in Papua New Guinea and for almost 88% in Fiji. The proportion of heterosexually acquired cases is somewhat lower in Melanesia countries other than Papua New Guinea (59.4%) and in New Caledonia (36.3%) (Coghlan et al., 2009).

The contribution of heterosexual HIV transmission is significantly lower in the region's high-income countries. In Australia, heterosexual contact was the transmission mode for 21%

of new HIV diagnoses and for 9% of cases of recently acquired HIV infection between 2003 and 2007 (National Centre in HIV Epidemiology and Clinical Research, 2008). One in three new HIV diagnoses in New Zealand in 2008 stemmed from heterosexual contact (New Zealand AIDS Epidemiology Group, 2009).

According to surveys in a number of countries, young people exhibit levels of comprehensive HIV knowledge that are below the global average (Coghlan et al., 2009; UNAIDS, 2008), although the vast majority of young people at higher risk surveyed knew that condoms could protect against sexual HIV transmission (Coghlan et al., 2009). However, fewer than half of young people surveyed in Papua New Guinea report using a condom the last time they had sex with a non-commercial partner (Coghlan et al., 2009). Surveys in several Pacific nations indicate that a substantial minority of young people become sexually active before the age of 18, with roughly 40% of young people in Papua New Guinea and Vanuatu reporting more than one sexual partner (Coghlan et al., 2009).

Surveys in diverse populations have consistently found sexually transmitted infections to be endemic in the Pacific islands. Studies in Papua New Guinea have typically found a sexually transmitted infection prevalence of 40–60% (Coghlan et al., 2009).

The scarcity of recent HIV serosurveys among sex workers in the region makes it difficult to quantify the role of sex work in national epidemics. Behavioural surveys in Papua New Guinea in 2006 found that 70% of truck drivers and 61% of military personnel reported having paid a woman for sex in the previous 12 months (National AIDS Council Secretariat, 2008). Also in Papua New Guinea, more than two thirds of female sex workers surveyed in 2006 reported using condoms with their last client, although less than half said that they consistently used condoms (National AIDS Council Secretariat, 2008).

Men who have sex with men

Sex between men is the primary driving force of several national epidemics in the Pacific region. In 2003–2007, men who have sex with men made up 68% of newly diagnosed cases of HIV in Australia and 86% of newly acquired HIV infections (National Centre in HIV Epidemiology and Research, 2008). In New Zealand, men who have sex with men represented 49% of new cases diagnosed through antibody testing in 2008 (New Zealand AIDS Epidemiology Group, 2009). Roughly two out of three cumulative diagnoses in Guam are among men who have sex with men, who also account for the largest share of HIV cases in New Caledonia (37%) (Coghlan et al., 2009).

Consistent with trends in other high-income countries, Australia and New Zealand have experienced an increase in HIV diagnoses in recent years among men who have sex with men. In New Zealand, for example, annual HIV diagnoses among men who have sex with men rose by 89% between 2000 and 2006 (New Zealand AIDS Epidemiology Group, 2009).

Although existing evidence is not definitive, there are signs that the recent growth in HIV diagnoses among men who have sex with men in Australia and New Zealand stems from increases in sexual risk behaviours (Guy et al., 2007). In Australia, syphilis rates more than doubled between 2004 and 2007, with men who have sex with men accounting for most new cases (National Centre in HIV Epidemiology and Clinical Research, 2008).

Injecting drug use

Transmission during injecting drug use is responsible for a relatively modest share of new HIV infections in the region—2% of newly acquired infections in Australia between 2003 and 2007 (National Centre in HIV Epidemiology and Clinical Research, 2008) and 1% of new HIV diagnoses in New Zealand in 2008 (New Zealand AIDS Epidemiology Group, 2009). Somewhat higher figures are reported in the smaller Pacific island nations, where injecting drug users represent 11.7% of cumulative HIV case reports in French Polynesia and 5.7% in Melanesia (excluding Papua New Guinea) (Coghlan et al., 2009). In both Fiji and Papua New Guinea, injecting drug users account for less than 1% of reported infections (Coghlan et al., 2009).

Oceania is home to some of the world's earliest harm reduction programmes. Early in the epidemic Australia and New Zealand invested in diverse harm reduction services in order to avert HIV transmission during drug use. New Zealand began offering needle exchange services in 1987, and now scores of community pharmacies participate in the programme (Sheridan et al., 2005).

Mother-to-child transmission

In the smaller island nations where heterosexual contact is a leading mode of HIV transmission, the percentage of cumulative HIV diagnoses stemming from perinatal exposure ranges from 2.4% in New Caledonia to 7.6% in Papua New Guinea (Coghlan et al., 2009). National authorities in Papua New Guinea report that rates of mother-to-child transmission are increasing and that they are expected to rise further as the epidemic continues to escalate (National AIDS Council Secretariat, 2008). Papua New Guinea has taken steps to expand access to services to prevent mother-to-child transmission, but prevention coverage in antenatal settings was only 2.3% in 2007 (National AIDS Council Secretariat, 2008).

In the region's larger high-income countries, with epidemics primarily driven by sex between men, rates of mother-to-child transmission are extremely low. Only three infants in Australia were diagnosed with HIV in 2006–2007 (National Centre in HIV Epidemiology and Clinical Research, 2008), while one child born in New Zealand was diagnosed in 2008 (New Zealand AIDS Epidemiology Group, 2009).

Prisoners

Little recent evidence is available on HIV prevalence in prison settings in Oceania (Dolan et al., 2007). After studies documented HIV transmission in Australian prison settings earlier in the epidemic, the country took steps to implement harm reduction programmes in prisons (World Health Organization, United Nations Office on Drugs and Crime, UNAIDS, 2007).

Mobility

In Australia, the per capita rate of HIV diagnosis in 2006–2008 was more than eight times higher among individuals who immigrated from sub-Saharan Africa than among Australian-born persons (National Centre in HIV Epidemiology and Clinical Research, 2009). Among the relatively small percentage of heterosexually acquired cases of HIV infection reported in Australia between 2004 and 2008, 59% were among individuals born in sub-Saharan Africa or among individuals with sexual partners born in a high-prevalence country (National Centre in HIV Epidemiology and Clinical Research, 2009).