HIV/ AIDS

In

Saskatchewan

2005

Saskatchewan Health
Population Health Branch
Communicable Disease Control Unit

HIV/AIDS in Saskatchewan to December 31, 2005

This epidemiological report profiles HIV and AIDS in Saskatchewan from the commencement of documented surveillance activities in 1984 to the end of December 2005.

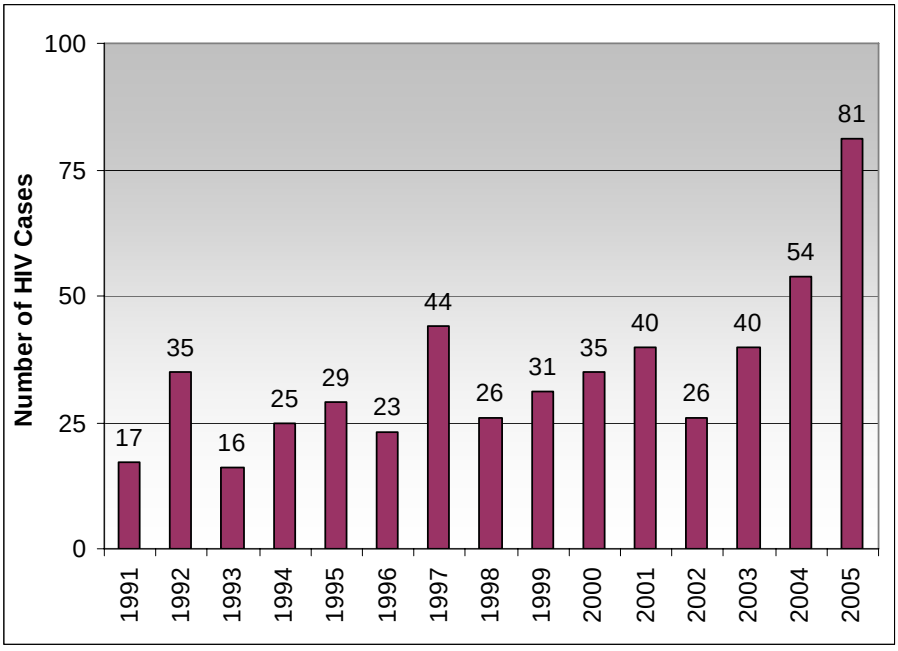
HIV laboratory testing

The annual number of specimens tested has risen steadily from 3,319 in 1989 to 40,500 in 2005. This increase in testing reflects a growing awareness of the need for testing following potential exposure to HIV and the accessibility to testing. Requirements for organ transplant screening and immigration applications also partially account in part for the increase in test requests. Prenatal HIV screening has also increased during this time period.

Of the approximately 342,500 specimens submitted to Provincial Laboratory since testing for HIV began in late 1984, 0.19% of these tests were positive for HIV. In each of the past ten years, between 23 and 81 individuals tested positive for the first time. In 2005, 0.20% of all specimens tested positive for the first time.

HIV Morbidity

Eighty-one laboratory-confirmed HIV cases were reported during 2005. This is a continuation of the upward trend that began in 2003 and an increase of 50% from the 54 cases reported in 2004. Six hundred Saskatchewan residents have been diagnosed with HIV since testing began in 1984.



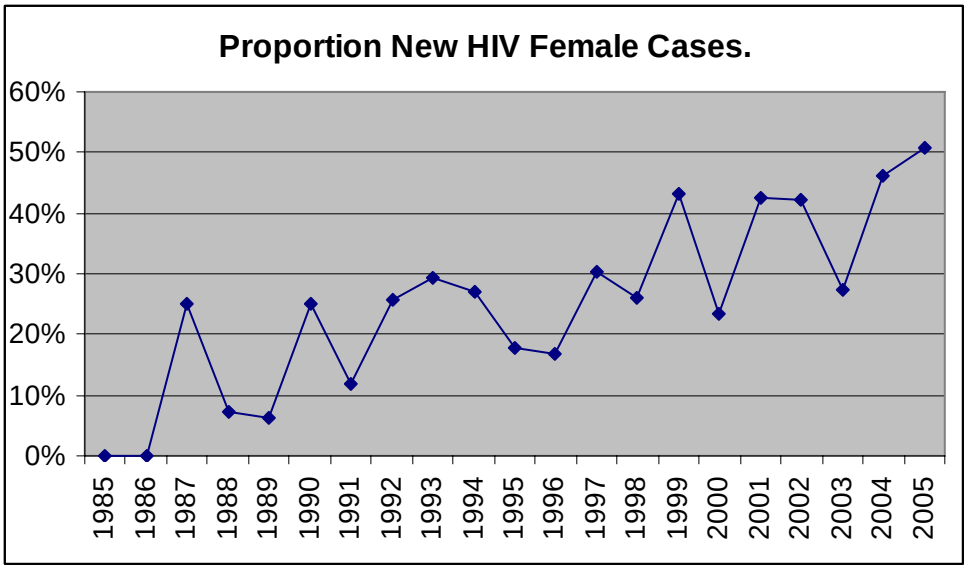
This combined with the increase in the case-finding efforts in harder-to-reach, high risk populations in the two largest RHAs, Regina Qu'Appelle and Saskatoon, contributed significantly to the increase in 2005.

Since 1984, 60% of the newly diagnosed cases have been evenly distributed between the Regina Qu'Appelle Health Region (RQHR) and Saskatoon Health Region (SHR), with most cases occurring in the large urban centres of Regina and Saskatoon. In 2005, a change in the distribution pattern occurred with 50% of all cases occurring in SHR and 21% in RQHR. The enhanced case finding efforts likely contributed to the increase number of cases identified in Saskatoon.

The year of diagnosis does not necessarily reflect the year a person became infected with HIV and it is not always possible to determine when a person became infected.

HIV Morbidity – age and sex profile

In 2005, 41 female and 40 male HIV cases were identified. Between 1984-2005, 67% of cases (402 cases) were male. Since 1986 there has been an increasing, though fluctuating, proportion of female cases in the province. Fifty-six percent (105) of the 188 female HIV cases reported since 1984 have been identified in the past five years.



Sixty-five percent (11) of the all cases in women aged 15-19 years were identified between 2001-2005 inclusive and 51% (24) of all cases in women aged 20-24 years were identified in the same five-year period.

Eighty-five percent of all cases reported in Saskatchewan since 1984 have been between 20 to 49 years of age at the time of diagnosis (where age and sex data are available). In 2005, 83% of cases (67 cases) were included in this age group. Four adolescent female cases, and a single adolescent male were reported in 2005. A single case of perinatal transmission (from mother to child during pregnancy or at birth) was also reported.

HIV Morbidity – ethnicity profile

The number of cases in people of Aboriginal ancestry increased from 60% in 2004 to 65% in 2005 (53 of 81 reported cases). This is the highest proportion of cases of Aboriginal ancestry since 1998, when nearly 66% of newly diagnosed cases were identified in this population. The average number of HIV cases in Aboriginal people over the past ten years (1995-2004) was 47% (161 of 346 cases). Eighty percent of females (33 cases) in 2005 were Aboriginal compared to 50% of males (20 cases).

The average age of female Aboriginal cases was 28.2 years (range: 17-48 years) with 52% of Aboriginal female cases being 25 years of age or younger. The average age of Aboriginal male cases was only slightly older at 29.4 years (range: 17- 53 years, and a single perinatal male case of less than one year), however; only 25% of male Aboriginal cases in 2005 were 25 years of age or younger.

There were 18 HIV cases in Caucasians in 2005 including two females and 10 additional non-Aboriginal cases were reported (the non-Aboriginal classification includes African-Canadian, Latin American, Asian, South Asian and Arabic ethnicity). A single female case of black ethnicity was reported in 2005. A nearly equal number of black HIV positive men and women have been reported since 1988 (24 females, 23 males). Eleven percent of cases in 2005 had no ethnicity reported.

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HIV Morbidity – self reported risk exposure to infection

In the early years of HIV/AIDS notification, risk exposure was often not known or was not reported consistently. Risk exposure information is self-disclosed by the client and provides information about the individual's risks for acquiring HIV infection.

Injection drug use (IDU) is one of the most frequently reported exposures identified by HIV infected cases. In 2005, 70% (57 cases) of new cases reported IDU. This is a 90% increase in the number of IDU-related cases which rose from 30 cases in 2004 to 57 cases in 2005 and a 27% increase in the proportion of cases attributed to IDU (from 56% to 70%). Forty-eight of the 57 cases who self-disclose injection drug use also self-identified as Aboriginal.

Men who engage in sex with men (MSM) represented 20% (8 of 40) of all male cases in 2005, as compared to 18% (5 of 28) in 2004. This was the primary risk factor in 10% (8 of 81) of all cases in Saskatchewan in 2005. The proportion of MSM-related cases has varied between 82% of total cases in 1991, and only 4% of cases in 2002.

Heterosexual exposure refers to reports of sexual relations with a known HIV positive partner or with a partner from a country where HIV infection is endemic, or where the case has had only heterosexual relations and has no other self-reported identifiable risk exposure for HIV. In 2005, five cases reported heterosexual activity as the primary risk for acquiring HIV infection. Trends in heterosexual exposure continue to fluctuate with an average of 8.5 cases per year since 1999.

One HIV case was identified as having been infected through heterosexual exposure in a country where HIV and AIDS is endemic or through heterosexual relations with someone from an endemic country. This is a decrease from an average of 4 cases per year for the 5-year period from 2000-2004 inclusive.

A single case of HIV perinatal transmission occurred in 2005. This is the first reported case of perinatal transmission since 1997. Seven children born between 1987 and 1997 were infected at birth through perinatal transfer of the HIV virus. Five of these were born to women from endemic countries who did not declare or were unaware of their HIV positive status at the time of delivery. Increasingly, prenatal HIV testing is being offered to all pregnant women, not just to pregnant women with identified risks for exposure to HIV. Infants born to HIV infected mothers are tested postnatally on a scheduled basis to determine if perinatal transfer has taken place.

None of the cases reported between 2000 and 2005 had a history of receiving a blood transfusion or blood products.

HIV Morbidity – highlights of the national profile

HIV infection is notifiable in all provinces and territories in Canada. The number of HIV positive individuals reported annually to the Public Health Agency of Canada has increased steadily.

Since testing began in 1984, 60,160 case reports had been received to the end of December, 2005. A small proportion of cases may have been reported more than once as clients move among jurisdictions. Close to 724 of these cases were under 15 years of age. Over one-quarter, or 615, of the 2483 positive HIV test reports in 2005 were among women, which is a notable change from the years prior to 1995 where they represented only 10% of cases. The largest rise in this population was among the 15-29 year age group where females represented 17% of reports in 1985-1999 and 42% in 2004 (35% in 2005).

Unlike Saskatchewan where injection drug use accounted for 70% of the total cases in 2005, only 20% of total national cases self-disclosed injection drug use. Nationally, men having sex with men represented 45% of total cases in 2005 compared to 10% of total cases in Saskatchewan. [source: HIV and AIDS Surveillance Report to December 31, 2005, Public Health Agency of Canada, April, 2006]

AIDS Morbidity and Mortality

Since notifications were first received in 1984, there have been 230 cases of AIDS (190 males and 40 females) reported in Saskatchewan

The annual incidence pattern for AIDS is highly variable and does not necessarily reflect the year in which the client was infected, but rather the year in which he/she first sought health care for their illness and was diagnosed with an AIDS defining illness. Seven new AIDS cases were identified in 2005. With an incubation period of 11 to 15 years, the current epidemiological profile of AIDS best describes the pattern of HIV infection approximately 10 to 15 years ago.

Approximately one-third (35%, 80 cases) of all AIDS cases in Saskatchewan are presumed to be living. Because of earlier and better treatment for patients with AIDS defining illness, the proportion of those living with AIDS and the length of life following diagnosis with AIDS is increasing.

All AIDS cases reported in 2005 were thirty-four years and older, a profile similar to cases diagnosed in previous years - 70% of total AIDS cases were 30 years and older at time of diagnosis. It is expected this age pattern will not change as the incubation period for AIDS becomes longer, a result of earlier identification and treatment.

Technical Notes

Notification of HIV and AIDS cases to the local Medical Health Officer and the Coordinator of Communicable Disease Control, Saskatchewan Health, is mandated by the Disease Control Regulations under the Public Health Act, 1984.

This report is based on the number of HIV and AIDS cases diagnosed by laboratory confirmation while resident in this province. Out-of-province residents testing positive for HIV in Saskatchewan are not counted in provincial statistics nor are residents who tested positive while living in a jurisdiction where HIV was reportable at the time. Several provincial jurisdictions did not require reporting of AIDS when Saskatchewan began surveillance for the syndrome. Some people living with AIDS in Saskatchewan were tested positive in jurisdictions where HIV was non-reportable and are counted among the AIDS cases in this report. Individuals from jurisdictions where HIV was not reportable are attributed to the year when re-testing took place in this province. Individuals tested anonymously are not included in this statistical report.

As a result of data cleaning some previously counted cases are removed from the database after being identified as either not meeting the case definition for HIV and AIDS or as being previously reported in Saskatchewan or in another jurisdiction where reporting of HIV is legislated. A small number of cases can be identified only by laboratory specimen number and may be counted more than once in the database. Ongoing maintenance of the database may result in records being assigned a different year of diagnosis or risk exposure category as updated information becomes available.

The reporting year for HIV cases is based on the year in which they were first lab confirmed since the date of infection cannot be determined. An exception is infant cases born to infected mothers, who are assigned by the year of birth.

Ethnicity is self-identified. For purposes of this report, Aboriginal persons comprise Inuit, Metis, and Native Indians (i.e. First Nations). The non-Aboriginal classification includes Caucasian, African-Canadian, Latin American, Asian, South Asian and Arabic ethnicity.

Risk exposure information is self-reported. Some individuals disclosed additional risk exposures, however these were not deemed to be a likely source of infection and are not reported here.

The percentage of positive HIV serological tests reflects the number of patients tested. Repeat tests during that year are not counted nor are follow up tests on individuals identified in previous years.

Acknowledgements
This epidemiological report was prepared by Erin Laing, federal Field Surveillance Officer with the assistance of Bonnie Penner, Communicable Disease Information Consultant, CDC Unit, Population Health Branch, Saskatchewan Health. The report acknowledges the assistance of the Provincial Laboratory in providing laboratory data, Helen Bangura, CD Epidemiologist and Dr Shauna Hudson, Community Medicine Consultant for SK Health, for reviewing the document and the public health services of regional health authorities and First Nations jurisdictions in providing epidemiological information. This report was prepared based on information in the HIV/AIDS database as of November, 2006.