

Canada

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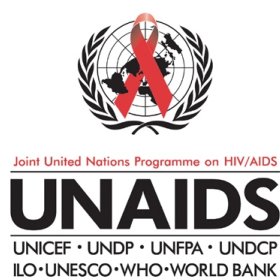
## Epidemiological Fact Sheets

on HIV/AIDS  
and Sexually  
Transmitted  
Infections



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2002 Update



## Estimated number of people living with HIV/AIDS

In 2001 and during the first quarter of 2002, UNAIDS and WHO worked closely with national governments and research institutions to recalculate current estimates on people living with HIV/AIDS. These calculations are based on the previously published estimates for 1997 and 1999 and recent trends in HIV/AIDS surveillance in various populations. A methodology developed in collaboration with an international group of experts was used to calculate the new estimates on prevalence and incidence of HIV and AIDS deaths, as well as the number of children infected through mother-to-child transmission of HIV. Different approaches were used to estimate HIV prevalence in countries with low-level, concentrated or generalized epidemics. The current estimates do not claim to be an exact count of infections. Rather, they use a methodology that has thus far proved accurate in producing estimates which give a good indication of the magnitude of the epidemic in individual countries. However, these estimates are constantly being revised as countries improve their surveillance systems and collect more information.

Adults in this report are defined as women and men aged 15 to 49. This age range covers people in their most sexually active years. While the risk of HIV infection obviously continues beyond the age of 50, the vast majority of those who engage in substantial risk behaviours are likely to be infected by this age. The 15 to 49 range was used as the denominator in calculating adult HIV prevalence.

### ■ Estimated number of adults and children living with HIV/AIDS, end of 2001

These estimates include all people with HIV infection, whether or not they have developed symptoms of AIDS, alive at the end of 2001:

|                            |                |                       |            |
|----------------------------|----------------|-----------------------|------------|
| <b>Adults and children</b> | <b>55,000</b>  |                       |            |
| <b>Adults (15-49)</b>      | <b>55,000</b>  | <b>Adult rate (%)</b> | <b>0.3</b> |
| <b>Women (15-49)</b>       | <b>14,000</b>  |                       |            |
| <b>Children (0-15)</b>     | <b>&lt;500</b> |                       |            |

### ■ Estimated number of deaths due to AIDS

Estimated number of adults and children who died of AIDS during 2001:

|                       |                |
|-----------------------|----------------|
| <b>Deaths in 2001</b> | <b>&lt;500</b> |
|-----------------------|----------------|

### ■ Estimated number of orphans

Estimated number of children who have lost their mother or father or both parents to AIDS and who were alive and under age 15 at the end of 2001:

**Current living orphans**

### UNAIDS/WHO Working Group on Global HIV/AIDS and STI Surveillance

Global Surveillance of HIV/AIDS and sexually transmitted infections (STIs) is a joint effort of WHO and UNAIDS. The UNAIDS/WHO Working Group on Global HIV/AIDS and STI Surveillance, initiated in November 1996, guides respective activities. The primary objective of the Working Group is to strengthen national, regional and global structures and networks for improved monitoring and surveillance of HIV/AIDS and STIs. For this purpose, the Working Group collaborates closely with national AIDS programmes and a number of national and international experts and institutions. The goal of this collaboration is to compile the best information available and to improve the quality of data needed for informed decision-making and planning at national, regional, and global levels. The Epidemiological Fact Sheets are one of the products of this close and fruitful collaboration across the globe.

Within this framework, the Fact Sheets collate the most recent country-specific data on HIV/AIDS prevalence and incidence, together with information on behaviours (e.g. casual sex and condom use) which can spur or stem the transmission of HIV.

Not unexpectedly, information on all of the agreed-upon indicators was not available for many countries in 2001. However, these updated Fact Sheets do contain a wealth of information which allows identification of strengths in currently existing programmes and comparisons between countries and regions. The Fact Sheets may also be instrumental in identifying potential partners when planning and implementing improved surveillance systems.

The fact sheets can be only as good as information made available to the UNAIDS/WHO Working Group on Global HIV/AIDS and STI Surveillance. Therefore, the Working Group would like to encourage all programme managers as well as national and international experts to communicate additional information to them whenever such information becomes available. The Working Group also welcomes any suggestions for additional indicators or information proven to be useful in national or international decision-making and planning.

## Assessment of the epidemiological situation ( 2000)

Information on HIV prevalence among pregnant women is available since 1989. HIV prevalence studies among pregnant women indicate an overall rate for Canada of between 3 and 4 per 10,000. Large metropolitan areas generally have higher prevalence rates: for example, 5.1/10,000 for Vancouver versus 1.9/10,000 for the rest of British Columbia province (outside Vancouver) in 1989/94; 13-20/10,000 for Montreal versus 0-3.5/10,000 for the rest of Manitoba province in 1994/95.

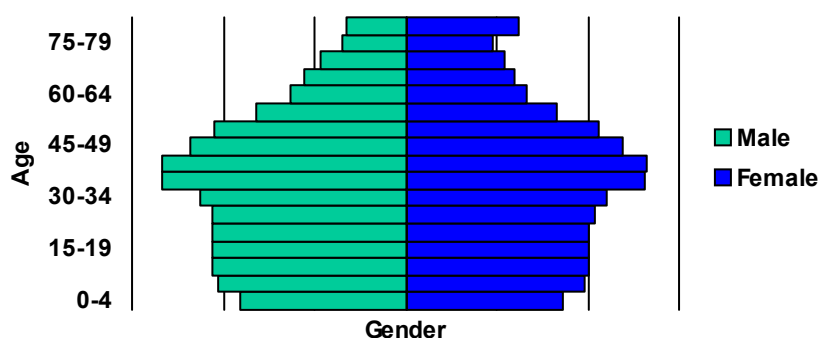
For sex workers (both male and female), there are six HIV prevalence studies that had such information. Overall, between 1985-1993 and in major urban centres, the prevalence rates ranged from 1.9% for sex workers only and 1-22% for sex workers who were also injection drug users. Recent prevalence data on men who have sex with men (MSM) in Canada is limited; prevalence was about 25-36% in MSM in major urban areas during the mid-1980's and self-reported prevalence was 18-27% in the early 1990's. Incidence rate from MSM cohort studies in major urban areas was about 1-2% during 1995-98.

With respect to injection drug users (IDU's) in major urban centres, HIV prevalence among IDUs has increased from about 6% prior to 1988 to 19.2% in 1997 in Montreal; from about 4% in 1992/93 to 28% in 1996/98 in Vancouver; from 4.4% in 1992/93 to 8.6% in 1997/98 in Toronto; and among Ottawa needle exchange program (NEP) attendees from 6.9% in 1992/93 to 19.8% in 1997/98. Data from NEP attendees in smaller cities in Quebec also showed that HIV prevalence among IDU's has reached worrisome levels even outside major urban areas (Quebec City 9.8% and semi-urban areas of Quebec ranging from 0.8-9-8%).

Among clients at STD clinics, HIV prevalence rates in sites outside major urban area were approximately constant at about 1% during 1985-1994. However, the rate in major urban areas appears to have decreased from 15.8% in early 1985/88 to 1.5-6% in 1991/95. Interpretation of the validity of this decrease is complicated by the paucity of truly comparable data.

## Country Information

## Population pyramid, 2001



| Indicators  | Year      | Estimate | Source     |
|---|-----------|----------|------------|
| Total Population (thousands)                      | 2001      | 31,015   | UNPOP      |
| Population Aged 15-49 (thousands)                 | 2001      | 16,164   | UNPOP      |
| Annual Population Growth                          | 1995-2000 | 0.9      | UNPOP      |
| % of Urban Population                             | 2000      | 77       | UNPOP      |
| Average Annual Growth Rate of Urban Population    | 1995-2000 | 1.1      | UNPOP      |
| GNI Per Capita (US\$)                             | 1999      | 20,140   | World Bank |
| GNI Per Capita Average Annual Growth Rate         | 1999      | 3.9      | World Bank |
| Per Capita Expenditure of Health                  | 1999      | 1,899    | World Bank |
| % of Government Budget Spent on Health Care       | 1998      | 14.7     | WHO        |
| Total Adult Literacy Rate                         |           |          |            |
| Adult Male Literacy Rate                          |           |          |            |
| Adult Female Literacy Rate                        |           |          |            |
| Male Primary School Enrolment Ratio               | 1995      | 103.0    | UNESCO     |
| Female Primary School Enrolment Ratio             | 1995      | 100.9    | UNESCO     |
| Male Secondary School Enrolment Ratio             | 1995      | 105.2    | UNESCO     |
| Female Secondary School Enrolment Ratio           | 1995      | 104.5    | UNESCO     |
| Crude Birth Rate (births per 1,000 pop.)          | 1995-2000 | 12       | UNPOP      |
| Crude Death Rate (deaths per 1,000 pop.)          | 1995-2000 | 7        | UNPOP      |
| Maternal Mortality Rate (per 100,000 live births) | 1995      | 6        | WHO        |
| Life Expectancy at Birth                          | 1995-2000 | 79       | UNPOP      |
| Total Fertility Rate                              | 1995-2000 | 1.6      | UNPOP      |
| Infant Mortality Rate (per 1,000 live births)     | 1995-2000 | 6        | UNPOP      |
| Under 5 Mortality Rate                            | 1995-2000 | 7        | UNPOP      |

For consistency reasons the data used in the above table are taken from official UN publications.

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### HIV prevalence in different populations

This section contains information about HIV prevalence in different populations. The data reported in the tables below are mainly based on the HIV database maintained by the United States Bureau of the Census where data from different sources, including national reports, scientific publications and international conferences are compiled. To provide a simple overview of the current situation and trends over time, summary data are given by population group, geographical area (Major Urban Areas versus Outside Major Urban Areas), and year of survey. Studies conducted in the same year are aggregated and the median prevalence rates (in percentages) are given for each of the categories. The maximum and minimum prevalence rates observed, as well as the total number of surveys/sentinel sites, are provided with the median, to give an overview of the diversity of HIV-prevalence results in a given population within the country. Data by sentinel site or specific study from which the medians were calculated are printed at the end of this fact sheet.

The differentiation between the two geographical areas Major Urban Areas and Outside Major Urban Areas is not based on strict criteria, such as the number of inhabitants. For most countries, Major Urban Areas were considered to be the capital city and - where applicable - other metropolitan areas with similar socio-economic patterns. The term Outside Major Urban Areas considers that most sentinel sites are not located in strictly rural areas, even if they are located in somewhat rural districts.

#### ■ HIV sentinel surveillance

| Group                                 | Area | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 |
|---------------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Pregnant women                        |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Group                                 | Area | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 |
| Sex workers                           |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Group                                 | Area | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 |
| Injecting drug users                  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Group                                 | Area | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 |
| STI patients,<br>Males/both & females |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Group                                 | Area | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 |
| Men who have sex with<br>men          |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |

#### ■ Additional data

| Group                 | Area | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 |
|-----------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Blood donors          |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Group                 | Area | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 |
| Tuberculosis patients |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |

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## Maps of HIV sentinel sites

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Mapping the geographical distribution of HIV sentinel sites for different population groups may assist in interpreting both the national coverage of the HIV surveillance system as well in explaining differences in levels and trends of prevalence. The UNAIDS/WHO Working Group on Global HIV/AIDS and STI Surveillance, in collaboration with the WHO Public Health Mapping Team, Communicable Diseases, is producing maps showing the location and HIV prevalence of HIV sentinel sites in relation to population density, major urban areas and communication routes.

Trends in antenatal sentinel surveillance for higher prevalence countries, or in prevalence among selected populations for countries with concentrated epidemics, are a new addition. These will be presented for those countries where sufficient data exist.

The boundaries and names shown and the designations used on the map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.  
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### Reported AIDS cases

#### AIDS cases by year of reporting

| 1979 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 1    | 5    | 9    | 26   | 66   | 164  | 380  | 644  | 974  | 1186 | 1422 | 1476 | 1610 | 1810 | 1859 | 1855 | 1727 | 1184 | 793  | 734  | 584  | 644  |

2001 Total Unk

|  |       |  |
|--|-------|--|
|  | 19153 |  |
|--|-------|--|

Date of last report: 11-Nov-2001

Following WHO and UNAIDS recommendations, AIDS case reporting is carried out in most countries. Data from individual AIDS cases are aggregated at the national level and sent to WHO. However, case reports come from surveillance systems of varying quality. Reporting rates vary substantially from country to country and low reporting rates are common in developing countries due to weaknesses in the health care and epidemiological systems. In addition, countries use different AIDS case definitions. A main disadvantage of AIDS case reporting is that it only provides information on transmission patterns and levels of infection approximately 5-10 years in the past, limiting its usefulness for monitoring recent HIV infections.

Despite these caveats, AIDS case reporting remains an important advocacy tool and is useful in estimating the burden of HIV-related morbidity as well as for short-term planning of health care services. AIDS case reports also provide information on the demographic and geographic characteristics of the affected population and on the relative importance of the various exposure risks. In some situations, AIDS reports can be used to estimate earlier HIV infection patterns using back-calculation. AIDS case reports and AIDS deaths have been dramatically reduced in industrialized countries with the introduction of HAART (Highly Active Anti-Retroviral Therapy).

#### AIDS cases by mode of transmission

Hetero: Heterosexual contacts.

Homo/Bi: Homosexual contacts between men.

IDU: Injecting drug use. This transmission category also includes cases in which other high-risk behaviours were reported, in addition to injection of drugs.

Blood: Blood and blood products.

Perinatal: Vertical transmission during pregnancy, birth or breastfeeding.

NS: Not specified/unknown.

| Sex         | Trans. Group | <97   | 1997 | 1998 | 1999 | 2000 | 2001 | Unkn. | Total | %     |
|-------------|--------------|-------|------|------|------|------|------|-------|-------|-------|
| All         | All          | 15628 | 688  | 599  | 416  | 260  |      |       | 17591 | 100.0 |
|             | Hetero       | 1592  | 116  | 113  | 81   | 38   |      |       | 1940  | 11.0  |
|             | Homo/Bi      | 11237 | 352  | 274  | 165  | 124  |      |       | 12152 | 69.1  |
|             | IDU          | 1444  | 137  | 143  | 103  | 60   |      |       | 1887  | 10.7  |
|             | Blood        | 561   | 14   | 10   | 5    | 3    |      |       | 593   | 3.4   |
|             | Perinatal    | 138   | 11   | 4    | 4    | 2    |      |       | 159   | 0.9   |
|             | Other knowr  | 2     | 1    | 2    | 0    | 0    |      |       | 5     | 0.0   |
|             | Unknown      | 654   | 57   | 53   | 58   | 33   |      |       | 855   | 4.9   |
| Male        | All          | 14400 | 577  | 501  | 345  | 231  |      |       | 16054 | 100.0 |
|             | Hetero       | 928   | 69   | 74   | 52   | 24   |      |       | 1147  | 7.1   |
|             | Homo/Bi      | 11236 | 352  | 274  | 164  | 124  |      |       | 12150 | 75.7  |
|             | IDU          | 1255  | 103  | 103  | 82   | 51   |      |       | 1594  | 9.9   |
|             | Blood        | 409   | 11   | 7    | 3    | 3    |      |       | 433   | 2.7   |
|             | Perinatal    | 0     | 0    | 0    | 0    | 0    |      |       | 0     | 0.0   |
|             | Other knowr  | 1     | 1    | 1    | 0    | 0    |      |       | 3     | 0.0   |
|             | Unknown      | 571   | 41   | 42   | 44   | 29   |      |       | 727   | 4.5   |
| Female      | All          | 1049  | 97   | 94   | 64   | 26   |      |       | 1330  | 100.0 |
|             | Hetero       | 664   | 47   | 39   | 29   | 14   |      |       | 793   | 59.6  |
|             | IDU          | 189   | 33   | 40   | 21   | 9    |      |       | 292   | 22.0  |
|             | Blood        | 121   | 3    | 3    | 2    | 0    |      |       | 129   | 9.7   |
|             | Perinatal    | 0     | 0    | 0    | 0    | 0    |      |       | 0     | 0.0   |
|             | Other knowr  | 1     | 0    | 1    | 0    | 0    |      |       | 2     | 0.2   |
|             | Unknown      | 74    | 14   | 11   | 12   | 3    |      |       | 114   | 8.6   |
|             | NS           | All   | 178  | 13   | 4    | 5    | 3    |       |       | 203   |
| Hetero      |              | 0     | 0    | 0    | 0    | 0    |      |       | 0     | 0.0   |
| IDU         |              | 0     | 0    | 0    | 0    | 0    |      |       | 0     | 0.0   |
| Blood       |              | 31    | 0    | 0    | 0    | 0    |      |       | 31    | 15.3  |
| Perinatal   |              | 138   | 11   | 4    | 3    | 2    |      |       | 158   | 77.8  |
| Other knowr |              | 0     | 0    | 0    | 0    | 0    |      |       | 0     | 0.0   |
| Unknown     |              | 9     | 2    | 0    | 2    | 1    |      |       | 14    | 6.9   |

#### AIDS cases by age and sex

| Sex    | Age   | <97   | 1997 | 1998 | 1999 | 2000 | 2001 | Unkn. | Total | %     |
|--------|-------|-------|------|------|------|------|------|-------|-------|-------|
| All    | All   | 16107 | 793  | 734  | 584  | 644  |      |       | 18862 | 100.0 |
|        | 0-4   | 135   | 10   | 2    | 3    | 3    |      |       | 153   | 0.8   |
|        | 5-9   | 20    | 3    | 2    | 0    | 0    |      |       | 25    | 0.1   |
|        | 10-14 | 23    | 0    | 0    | 2    | 0    |      |       | 25    | 0.1   |
|        | 15-19 | 52    | 2    | 1    | 1    | 1    |      |       | 57    | 0.3   |
|        | 20-24 | 496   | 12   | 8    | 3    | 0    |      |       | 519   | 2.8   |
|        | 25-29 | 2144  | 55   | 63   | 18   | 19   |      |       | 2299  | 12.2  |
|        | 30-34 | 3539  | 151  | 122  | 86   | 35   |      |       | 3933  | 20.9  |
|        | 35-39 | 3349  | 159  | 133  | 98   | 69   |      |       | 3808  | 20.2  |
|        | 40-44 | 2551  | 107  | 111  | 82   | 56   |      |       | 2907  | 15.4  |
|        | 45-49 | 1600  | 87   | 92   | 56   | 27   |      |       | 1862  | 9.9   |
|        | 50-54 | 790   | 42   | 37   | 31   | 27   |      |       | 927   | 4.9   |
|        | 55-59 | 458   | 33   | 17   | 13   | 11   |      |       | 532   | 2.8   |
|        | 60+   | 473   | 27   | 11   | 22   | 12   |      |       | 545   | 2.9   |
|        | NS    | 477   | 105  | 135  | 169  | 384  |      |       | 1270  | 6.7   |
| Male   | All   | 14495 | 584  | 502  | 347  | 232  |      |       | 16160 | 100.0 |
|        | 0-4   | 62    | 7    | 0    | 1    | 1    |      |       | 71    | 0.4   |
|        | 5-9   | 14    | 0    | 1    | 0    | 0    |      |       | 15    | 0.1   |
|        | 10-14 | 19    | 0    | 0    | 1    | 0    |      |       | 20    | 0.1   |
|        | 15-19 | 44    | 1    | 0    | 1    | 1    |      |       | 47    | 0.3   |
|        | 20-24 | 406   | 8    | 5    | 2    | 0    |      |       | 421   | 2.6   |
|        | 25-29 | 1933  | 39   | 51   | 13   | 14   |      |       | 2050  | 12.7  |
|        | 30-34 | 3295  | 128  | 97   | 71   | 30   |      |       | 3621  | 22.4  |
|        | 35-39 | 3180  | 134  | 109  | 83   | 64   |      |       | 3570  | 22.1  |
|        | 40-44 | 2444  | 96   | 96   | 65   | 48   |      |       | 2749  | 17.0  |
|        | 45-49 | 1530  | 80   | 85   | 52   | 26   |      |       | 1773  | 11.0  |
|        | 50-54 | 756   | 39   | 36   | 28   | 26   |      |       | 885   | 5.5   |
|        | 55-59 | 417   | 28   | 14   | 11   | 11   |      |       | 481   | 3.0   |
|        | 60+   | 395   | 24   | 8    | 19   | 11   |      |       | 457   | 2.8   |
|        | NS    | 0     | 0    | 0    | 0    | 0    |      |       | 0     | 0.0   |
| Female | All   | 1132  | 103  | 97   | 67   | 28   |      |       | 1427  | 100.0 |
|        | 0-4   | 73    | 3    | 2    | 2    | 2    |      |       | 82    | 5.7   |
|        | 5-9   | 6     | 3    | 1    | 0    | 0    |      |       | 10    | 0.7   |
|        | 10-14 | 4     | 0    | 0    | 1    | 0    |      |       | 5     | 0.4   |
|        | 15-19 | 8     | 1    | 1    | 0    | 0    |      |       | 10    | 0.7   |
|        | 20-24 | 90    | 4    | 3    | 1    | 0    |      |       | 98    | 6.9   |
|        | 25-29 | 210   | 16   | 12   | 5    | 5    |      |       | 248   | 17.4  |
|        | 30-34 | 244   | 23   | 25   | 14   | 5    |      |       | 311   | 21.8  |
|        | 35-39 | 168   | 24   | 24   | 15   | 5    |      |       | 236   | 16.5  |
|        | 40-44 | 106   | 11   | 15   | 17   | 8    |      |       | 157   | 11.0  |
|        | 45-49 | 70    | 7    | 7    | 4    | 1    |      |       | 89    | 6.2   |
|        | 50-54 | 34    | 3    | 1    | 3    | 1    |      |       | 42    | 2.9   |
|        | 55-59 | 41    | 5    | 3    | 2    | 0    |      |       | 51    | 3.6   |
|        | 60+   | 78    | 3    | 3    | 3    | 1    |      |       | 88    | 6.2   |
|        | NS    | 0     | 0    | 0    | 0    | 0    |      |       | 0     | 0.0   |
| NS     | All   | 0     | 0    | 0    | 0    | 0    |      |       | 0     |       |
|        | 0-4   | 0     | 0    | 0    | 0    | 0    |      |       | 0     |       |
|        | 5-9   | 0     | 0    | 0    | 0    | 0    |      |       | 0     |       |
|        | 10-14 | 0     | 0    | 0    | 0    | 0    |      |       | 0     |       |
|        | 15-19 | 0     | 0    | 0    | 0    | 0    |      |       | 0     |       |
|        | 20-24 | 0     | 0    | 0    | 0    | 0    |      |       | 0     |       |
|        | 25-29 | 0     | 0    | 0    | 0    | 0    |      |       | 0     |       |
|        | 30-34 | 0     | 0    | 0    | 0    | 0    |      |       | 0     |       |
|        | 35-39 | 0     | 0    | 0    | 0    | 0    |      |       | 0     |       |
|        | 40-44 | 0     | 0    | 0    | 0    | 0    |      |       | 0     |       |
|        | 45-49 | 0     | 0    | 0    | 0    | 0    |      |       | 0     |       |
|        | 50-54 | 0     | 0    | 0    | 0    | 0    |      |       | 0     |       |
|        | 55-59 | 0     | 0    | 0    | 0    | 0    |      |       | 0     |       |
|        | 60+   | 0     | 0    | 0    | 0    | 0    |      |       | 0     |       |
|        | NS    | 0     | 0    | 0    | 0    | 0    |      |       | 0     |       |

## Curable Sexually Transmitted Infections (STIs)

The predominant mode of transmission of both HIV and other STIs is sexual intercourse. Measures for preventing sexual transmission of HIV and STI are the same, as are the target audiences for interventions. In addition, strong evidence supports several biological mechanisms through which STI facilitate HIV transmission by increasing both HIV infectiousness and HIV susceptibility. Also significant is the observation of a sharp decline in the concentration of HIV in genital secretions when the infection is treated. Monitoring trends in STI can provide valuable information on the sexual transmission of HIV as well as the impact of behavioural interventions, such as promotion of condom use.

Clinical services offering STI care are an important access point for people at high risk for both AIDS and STIs, not only for diagnosis and treatment but also for information and education. Therefore, control and prevention of STIs have been recognized as a major strategy in the prevention of HIV infection and ultimately AIDS. One of the cornerstones of STI control is adequate management of patients with symptomatic STIs. This includes diagnosis, treatment and individual health education and counselling on disease prevention and partner notification. Consequently, monitoring different components of STI control can also provide information on HIV prevention within a country.

### ■ Reported STI syndromes

| Syndrome                | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | Total | Unk |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|-------|-----|
| Urethral discharge      |      |      |      |      |      |      |      |      |      |      |      |      |       |     |
| Genital Ulcer           |      |      |      |      |      |      |      |      |      |      |      |      |       |     |
| Vaginal discharge       |      |      |      |      |      |      |      |      |      |      |      |      |       |     |
| Lower Abdominal Pain    |      |      |      |      |      |      |      |      |      |      |      |      |       |     |
| Neonatal conjunctivitis |      |      |      |      |      |      |      |      |      |      |      |      |       |     |

Date of last report:

### ■ Incidence of urethral discharge, men

| Year | Area | Age Group | Rate | N= |
|------|------|-----------|------|----|
|      |      |           |      |    |

Comments:

Sources:

### ■ Syphilis prevalence, women

Percent of blood samples taken from women aged 15-24 that test positive for syphilis during routine screening at selected antenatal clinics.

| Year | Area | Age Group | Rate | N= |
|------|------|-----------|------|----|
|      |      |           |      |    |

Comments:

Sources:

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### Estimated size of populations at increased risk of HIV infection

|                                     | Year | Area | High estimate | Low estimate |
|-------------------------------------|------|------|---------------|--------------|
| Number of female sex workers        |      |      |               |              |
| Number of injecting drug users      |      |      |               |              |
| Number of men who have sex with men |      |      |               |              |

Comments:

Sources:

### Health service and care indicators

HIV prevention strategies depend on the twin efforts of care and support for those living with HIV or AIDS, and targeted prevention for all people at risk or vulnerable to the infection. It is difficult to capture such a large range of activities with one or just a few indicators. However, a set of well-established health care indicators may help to identify general strengths and weaknesses of health systems. Specific indicators, such as access to testing and blood screening for HIV, help to measure the capacity of health services to respond to HIV/AIDS - related issues.

#### ■ Access to health care

| Indicators  | Year | Estimate | Source       |
|---|------|----------|--------------|
| % of population with access to health services - total: |      |          |              |
| % of population with access to health services - urban: |      |          |              |
| % of population with access to health services - rural: |      |          |              |
| Contraceptive prevalence rate (%):                      | 1995 | 74.7     | UNICEF/UNPOP |
| Percentage of contraceptive users using condoms:        |      |          |              |
| % of births attended by skilled health personnel:       | 1995 | 98       | WHO          |
| % of 1-yr-old children fully immunized - DPT:           | 1998 | 97       | WHO/UNICEF   |
| % of 1-yr-old children fully immunized - Measles:       | 1998 | 96       | WHO/UNICEF   |
| % of ANC clinics where HIV testing is available:        |      |          |              |
| % of PLWHA who have access to ARV:                      |      |          |              |

#### ■ Number of people living with HIV/AIDS (PLWHA) receiving highly active antiretroviral therapy (HAART)

|                                 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | Total | Unk |
|---------------------------------|------|------|------|------|------|------|------|-------|-----|
| People initiating HAART therapy |      |      |      |      |      |      |      |       |     |

#### ■ Coverage of HIV Voluntary Counselling and Testing (VCT)

Number of functioning VCT sites per 100,000 population aged 15-49.

| Year | Area | N= | Rate |
|------|------|----|------|
|      |      |    |      |

Comments:

Sources:



## Knowledge and behaviour

In most countries the HIV epidemic is driven by behaviours (e.g.: multiple sexual partners, injecting drug use) that expose individuals to the risk of infection. Information on knowledge and on the level and intensity of risk behaviour related to HIV/AIDS is essential in identifying populations most at risk for HIV infection and in better understanding the dynamics of the epidemic. It is also critical information in assessing changes over time as a result of prevention efforts. One of the main goals of the 2nd generation HIV surveillance systems is the promotion of a standard set of indicators defined in the National Guide (Source: National AIDS Programmes, A Guide to Monitoring and Evaluation, UNAIDS/00.17) and regular behavioural surveys in order to monitor trends in behaviours and to target interventions.

The indicators on knowledge and misconceptions are an important prerequisite for prevention programmes to focus on increasing people's knowledge about sexual transmission, and, to overcome the misconceptions that act as a disincentive to behaviour change. Indicators on sexual behaviour and the promotion of safer sexual behaviour are at the core of AIDS programmes, particularly with young people who are not yet sexually active or are embarking on their sexual lives, and who are more amenable to behavioural change than adults. Finally, higher risk male-male sex reports on unprotected anal intercourse, the highest risk behaviour for HIV among men who have sex with men.

### ■ **Knowledge of HIV prevention methods**

Proportion of people citing correctly at least two acceptable ways of protection from HIV infection.

| Year | Area | Age Group | Male | Female | All |
|------|------|-----------|------|--------|-----|
|------|------|-----------|------|--------|-----|

Comments:

Sources:

### ■ **Misconception about AIDS (no incorrect beliefs)**

Proportion of people who correctly reject the two most common local misconceptions about AIDS transmission or prevention, and who know that a healthy looking person can transmit AIDS

| Year | Area | Age Group | Male | Female | All |
|------|------|-----------|------|--------|-----|
|------|------|-----------|------|--------|-----|

Comments:

Sources:

### ■ **Median age at first sexual experience**

The age by which one half of young men or young women aged 15-24 have had penetrative sex (median age) of all young people surveyed.

| Year | Area | Age Group | Male | Female | All |
|------|------|-----------|------|--------|-----|
|------|------|-----------|------|--------|-----|

Comments:

Sources:

### ■ **Higher risk sex in the last year (adults)**

Proportion of adult respondents who have had sex with a non-regular (non-marital, non-cohabiting) partner in the last 12 months, of all adult respondents reporting sexual activity in the last 12 months.

| Year | Area | Age Group | Male | Female | All |
|------|------|-----------|------|--------|-----|
|------|------|-----------|------|--------|-----|

Comments:

Sources:

### ■ **Young people having multiple partners in last year (youth)**

Proportion of respondents who have had sex with more than one partner in the last 12 months.

| Year | Area | Age Group | Male | Female | All |
|------|------|-----------|------|--------|-----|
|------|------|-----------|------|--------|-----|

Comments:

Sources:

## Knowledge and behaviour

### ■ Condom use in last higher risk sex (adults)

The percentage of adult respondents who say they used a condom the last time they had sex with a non-regular (non-marital, non-cohabiting) partner, of those who have had sex with such a partner in the last 12 months.

| Year | Area | Age Group | Male | Female | All |
|------|------|-----------|------|--------|-----|
|------|------|-----------|------|--------|-----|

Comments:

Sources:

### ■ Young people using a condom during premarital sex (youth)

Proportion of young single people who used a condom at last sex.

| Year | Area | Age Group | Male | Female | All |
|------|------|-----------|------|--------|-----|
|------|------|-----------|------|--------|-----|

Comments:

Sources:

### ■ Commercial sex in the last year

Proportion of men reporting sex with a sex worker in the last 12 months.

| Year | Area | Age Group | Rate | All |
|------|------|-----------|------|-----|
|------|------|-----------|------|-----|

Comments:

Sources:

### ■ Reported condom use in commercial sex

Proportion of men reporting condom use the last time they had sex with a sex worker, of those who report having had sex with a sex worker in the last 12 months.

| Year | Area | Age Group | Rate | All |
|------|------|-----------|------|-----|
|------|------|-----------|------|-----|

Comments:

Sources:

### ■ Higher risk male-male sex in the last year

The percentage of men who have had anal sex with more than one male partner in the last 6 months, of all men surveyed who have had sex with a male partner.

| Year | Area | Age Group | Rate | All |
|------|------|-----------|------|-----|
|------|------|-----------|------|-----|

Comments:

Sources:

### ■ Injecting drug users sharing equipment at last injection nationwide

Percentage of injecting drug users active in the last month who report sharing injecting equipment the last time they injected drugs.

| Year | Area | Age Group | Rate | All |
|------|------|-----------|------|-----|
|------|------|-----------|------|-----|

Comments:

Sources:

## Prevention Indicators

Male and female condoms are the only technology available that can prevent sexual transmission of HIV and other STIs. Persons exposing themselves to the risk of sexual transmission of HIV should have consistent access to high quality condoms. AIDS Programs implement activities to increase both availability of and access to condoms. These activities should be monitored and have resources directed to problem areas. The indicator below highlights the availability of condoms. However, even if condoms are widely available, this does not mean that individuals can or do access them.

### ■ **Condom availability nationwide**

Total number of condoms available for distribution nationwide during the preceding 12 months, divided by the total population aged 15-49.

| Year | N | Rate |
|------|---|------|
|------|---|------|

Comments:

Sources:

### ■ **Prevention of mother-to-child transmission (MTCT) nationwide**

Percentage of women who were counselled during antenatal care for their most recent pregnancy, accepted an offer of testing and received their test results, of all women who were pregnant at any time in the preceding two years.

| Year | N | Rate |
|------|---|------|
|------|---|------|

Comments:

Sources:

Blood safety programs aim to ensure that the majority of blood units are screened for HIV and other infectious agents. This indicator gives an idea of the overall percentage of blood units that have been screened to high enough standards that they can confidently be declared free of HIV.

### ■ **Screening of blood transfusions nationwide**

Percentage of blood units transfused in the last 12 months that have been adequately screened for HIV according to national or WHO guidelines.

| Year | N | Rate |
|------|---|------|
|------|---|------|

Comments:

Sources:

## 12 - Canada

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### Sources

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Data presented in this Epidemiological Fact Sheet come from several different sources, including global, regional and country reports, published documents and articles, posters and presentations at international conferences, and estimates produced by UNAIDS, WHO and other United Nations agencies. This section contains a list of the more relevant sources used for the preparation of the Fact Sheet. Where available, it also lists selected national Web sites where additional information on HIV/AIDS and STI are presented and regularly updated. However, UNAIDS and WHO do not warrant that the information in these sites is complete and correct and shall not be liable whatsoever for any damages incurred as a result of their use.

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### Websites:

## 13 - Canada

### Annex: HIV Surveillance by site

| Group                                    | Area | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 |
|--|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Pregnant women                           |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Group                                    | Area | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 |
| Sex workers                              |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Group                                    | Area | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 |
| Injecting drug users                     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Group                                    | Area | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 |
| STI patients,<br>Males/both &<br>females |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Group                                    | Area | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 |
| Men having sex<br>with men               |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |

### Additional data

| Group                    | Area | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Blood donors             |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| Group                    | Area | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 |
| Tuberculosis<br>patients |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |