REGION OF OTTAWA-CARLETON | MEMORANDUM
RÉGION D'OTTAWA-CARLETON | NOTE DE SERVICE

Our File/N/Réf.
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DATE 30 August 1999

TO/DEST. Co-ordinator
Community Services Committee

FROM/EXP. Medical Officer of Health

SUBJECT/OBJET **EPIDEMIOLOGY OF HIV AND AIDS IN OTTAWA-CARLETON**

Information Previously Distributed

To be listed on the Community Services Agenda, 16 Sep 99

Please find attached a copy of Epidemiology of HIV and AIDS in Ottawa-Carleton: Statistical Report and Analysis (Annex A). This report provides information on the epidemiology of HIV and AIDS in our region and highlights current trends in HIV infection. The report also provides a summary of the Prenatal HIV Screening Program, as well as an update on the HIV Anonymous Testing Program.

HIV remains an important public health issue and requires concerted prevention and education efforts. Awareness of the current epidemiology is an important part of these efforts. Community partners can use this report in the planning of HIV/AIDS prevention, education and advocacy services.

Original signed by
Robert Cushman, MD, FRCPC

Attach. (1)

ANNEX A

THE EPIDEMIOLOGY OF HIV AND AIDS IN OTTAWA-CARLETON: STATISTICAL REPORT AND ANALYSIS

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September, 1999

INTRODUCTION

In 1998, 143 new cases of HIV were reported to the Region of Ottawa-Carleton Health Department. As mandated by the Ontario Health Protection and Promotion Act, staff of the HIV Prevention Program team have assured the follow-up of cases in co-operation with family physicians and other health care providers.[1] While public health efforts in the fight against HIV have remained diligent throughout the last 10 years, it still remains an important public health issue. As prevention is the only "vaccine", it is important that health and social agencies work in partnership to continue the fight against this horrendous infection.

This report will paint a picture of the trends in HIV infection and AIDS noted in our region during 1998. This will enable the Health Department and its partners to advocate for better services and to plan new interventions and education programs in our community. This document will also highlight the following: 1) the new prenatal HIV screening program announced by the Ontario Ministry of Health on World AIDS Day in 1998; 2) the AIDS-Sexual Health Information Line, a service offered in the region since 1988 and 3) an update on anonymous testing.

CUMULATIVE HIV INFECTION INCIDENCE AS OF JULY 1ST, 1999

From 1983 until July 1st, 1999, there were 1,839 HIV infections reported (Table 1). Presently, close to 1400 persons in the region are living with HIV infection and more than 400 people have died of AIDS or HIV related diseases. The majority of cumulative HIV cases, 51% of them, remain in the risk category of men having sex with men. Injection drug use and heterosexual contact with a person at risk represented 17% and 10% of the cases respectively. These proportions remain consistent since 1997.

A total of 1,544 males were diagnosed with HIV, the majority between the ages of 30 and 39. Sixteen percent of all cases (295 cases) reported since 1983 were females. The majority of females were diagnosed between the ages of 20-39. (Table 2).

TABLE 1 - HIV INFECTIONS PER RISK CATEGORY
CUMULATIVE FROM 1983 THROUGH JULY 1ST, 1999

[1] All information collected is done under the authority of the Ontario Health Protection and Promotion Act, Sections 5, 25, 26 and 27 and used to control communicable diseases.

Risk	Totals
Men having sex with men	945 (51%)
Injection drug use	315 (17%)
Heterosexual contact with a person at risk	180 (10%)
Heterosexual activity and born in a pattern II country	171 (9%)
Recipient of Blood/Clotting Factors	59 (3%)
Perinatal Exposure	31 (2%)
Occupational Exposure	2 (<1%)
Unavailable	136 (7%)
TOTAL	**1,839(100%)**

TABLE 2 - NUMBERS OF HIV CASES REPORTED BY AGE AT DIAGNOSIS CUMULATIVE FROM 1983 THROUGH JULY 1ST, 1999

Age	Male	Female	Totals
0-9	22 (1%)	16 (5%)	38 (2%)
10-19	17 (1%)	7 (2%)	24 (1%)
20-29	376 (24%)	111 (38%)	487 (26%)
30-39	695 (45%)	113 (38%)	808 (44%)
40-49	327 (21%)	31 (11%)	358 (19%)
50 & over	107 (7%)	17 (6%)	124 (7%)
TOTALS	1544 (100%)	295 (100%)	1839 (100%)

1998 HIV INFECTION INCIDENCE

In 1998, 143 new cases of HIV infection were reported the to Health Department. This number is slightly lower then the 149 cases reported in 1997 but up from the 109 cases reported in 1996, (Figure 1). The incidence rate of HIV in 1998 was 19.8 per 100,000.[2], compared to 20.7 in 1997 and 15.1 per 100,000 in 1996. The incidence rate in males (32.5 per 100,000) was more than 4 times the rate in females (7.8 per 100,000).

The plurality of new diagnoses (46%) were identified in the 30 to 39 age group, followed by the 40 to 49 age group (17%), 50 and over (16%) and 20 to 29 (15%), (Table 3). Worth noting is that for the first time since the release of our annual statistical report in 1996, the number of cases in the 50 and over age category has surpassed the number of cases in the 20 to 29 age category. This reflects a trend across Ontario where HIV diagnosis is made in the later years[3].

[2] Using Statistics Canada, 1996 census of 721,136.
[3] Carol Major, Ontario Public Health Laboratory, presentation during the Ontario HIV Emerging Challenges Conference, Toronto, June 1999.

FIGURE 1

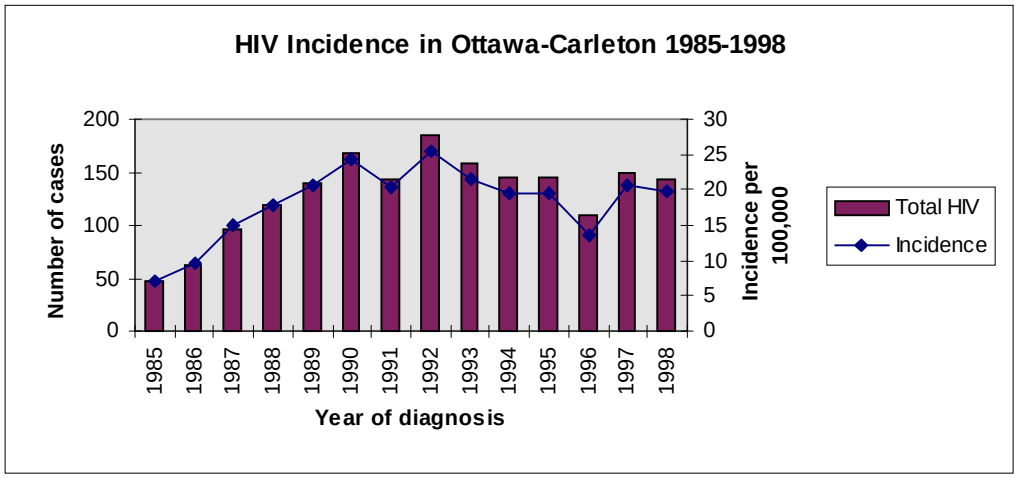


TABLE 3 - NUMBERS OF HIV CASES REPORTED IN 1998 BY AGE AND GENDER

AGE	MALE	FEMALE	TOTALS
0-9	4 (4%)	3 (10%)	7 (5%)
10-19	0 (0%)	1 (3%)	1 (1%)
20-29	11 (10%)	10 (34%)	21 (15%)
30-39	56 (49%)	10 (34%)	66 (46%)
40-49	24 (21%)	1 (3%)	25 (17%)
50-59	19 (17%)	4 (14%)	23 (16%)
TOTALS	114 (100%)	29 (100%)	143 (100%)

MALES 1998

In 1998, 114 seropositive males were reported to the Health Department. The 1998 HIV incidence, 32.5 per 100,000 of population is slightly lower than 1997 rate which was 33.3 per 100,000. The risk behaviours associated with HIV infection in males were men who have sex with men (39%), injection drug use (27%), heterosexual activity and born in a pattern II country (13%), heterosexual contact with a person at risk (3%), perinatal exposure (2%) and recipient of blood/blood product (1%). (See FIGURE 2). For 15% of new cases, information remains unavailable as to the exact risk exposure category. Although this is high, it is in part attributed to the changes at the Ontario Public Health Laboratory. In 1998, it changed the HIV testing reporting forms. Previously, the Health Department received a copy of the original requisition that included the risk category. The new reports only provide identifying information, physician or clinic information and the result. If the doctor cannot ascertain the risk or the testing is done anonymously, the risk is at times not known. For a small proportion of all the cases where

information is unavailable, the Public Health Nurse along with the primary care provider were unable to identify a risk, (client deceased, case denies any behaviour).

TABLE 4 - HIV INFECTIONS IN MALES
- COMPARISON OF 1994 THROUGH 1998

RISK BEHAVIORS	1994	1995	1996	1997	1998
Men having sex with men	61 (55%)	45 (41%)	30 (39%)	52 (44%)	45 (39%)
Injection drug use	29 (26%)	28 (26%)	25 (33%)	31 (26%)	31 (27%)
Heterosexual activity and born in a pattern II country	7 (6%)	8 (7%)	4 (5%)	13 (11%)	15 (13%)
Heterosexual contact with a person at risk	7 (6%)	12 (11%)	8 (11%)	9 (8%)	3 (3%)
Perinatal exposure	0 (0%)	5 (5%)	2 (3%)	4 (3%)	2 (2%)
Recipient of blood/blood product	1 (1%)	1 (1%)	3 (4%)	0 (0%)	1 (1%)
Occupational exposure	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Unavailable	6 (5%)	10 (9%)	4 (5%)	8 (7%)	17 (15%)
TOTALS	111(100%)	109(100%)	76(100%)	117(100%)	114(100%)

FIGURE 2

Acrobat Document

The distribution of cases according to risk for males in 1998 was similar to 1997. As we are continuing to see high numbers of new HIV infections in men having sex with men and in male IDUs, it is imperative we continue prevention efforts targeted to those specific populations. This is not a time to be complacent. HIV prevention and education targeted to the gay community and to men having sex with men are imperative. These initiatives need to be innovative and creative. Outreach to parks and bath houses, along with targeted educational campaigns, are all necessary HIV prevention strategies in our community.

As with men having sex with men, injection drug use continues to be an important risk factor for HIV transmission in both males and females. Harm reduction programs aimed at reducing risk of transmission of HIV and other blood borne pathogens are necessary components. HIV prevention programs for IDUs and their partners should not only focus on needle sharing practices but should also include safer sex education. Also, programs should include counselling and teaching about risk associated with sharing of drug paraphernalia (cookers, spoons, filters and mixing/rinsing water).

An in-depth investigation of cases indicating men having sex with men as a risk is underway in collaboration with the Ontario Public Health Laboratory. Research with injection drug users is ongoing as the SITE, the HIV Prevention Program for Injection Drug Users, continues to participate in a multi-centre HIV prevalence study (SurvUDI).

FEMALES 1998

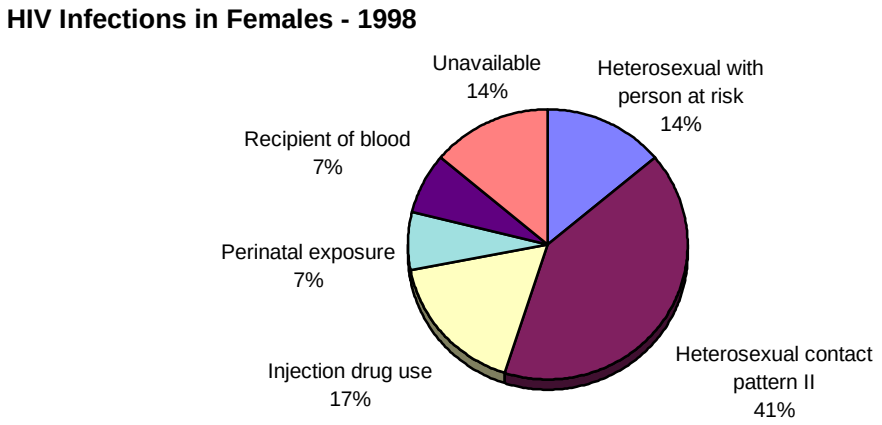
For females, a total of 29 cases was reported, three less than the previous year. The annual incidence rates in females has been fairly consistent from 1995 to 1997 at 9 per 100,000 population. In 1998, the rate was 7.8 per 100,000. The main mode of transmission in 1998 was heterosexual contact and born in a pattern II country at 41%. Other risks were injection drug use at 17%, heterosexual activity with a person at risk at 14%, recipient of blood (prior to 1985) at

7% and perinatal exposure at 7%. For 4 cases or 14%, inadequate epidemiological information was available, to characterize the risk. (See FIGURE 3). Again, this is due in part to the change in the laboratory reports sent to the department.

TABLE 5 - HIV INFECTIONS IN FEMALES
- COMPARISON OF 1994 THROUGH 1998

RISK BEHAVIORS	1994	1995	1996	1997	1998
Heterosexual contact with a person at risk	10 (29%)	13 (35%)	7 (21%)	15 (47%)	4 (14%)
Heterosexual contact and born in a pattern II country	6 (17%)	10 (27%)	11 (33%)	7 (22%)	12 (41%)
Injection drug use	16 (46%)	6 (16%)	9 (27%)	6 (19%)	5 (17%)
Perinatal exposure	2 (6%)	7 (19%)	5 (15%)	3 (9%)	2 (7%)
Recipient of blood/blood product	0 (0%)	0 (0%)	1 (3%)	0 (0%)	2 (7%)
Occupational exposure	1 (3%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Unavailable	0 (0%)	1 (3%)	0 (0%)	1 (3%)	4 (14%)
TOTALS	35(100%)	37(100%)	33(100%)	32(100%)	29(100%)

FIGURE 3



For females in 1998, there seems to have been a “reversal” between the number of infections for heterosexual contact with a person at risk and those who likely acquired the infection in a pattern II country. A pattern II country is where HIV is prevalent in males and females in a 1:1 ratio. The increase in this category may be due to an increased awareness of women about their risks of infection. As indicated previously, the majority of new infections are diagnosed in women of childbearing age. This could have an impact on perinatal transmission. It has been reported anecdotally that many women discover their HIV status when their child is diagnosed as an infant.

The new prenatal testing program launched by the Ministry of Health will be discussed later in this report.

AIDS IN OTTAWA-CARLETON

In 1998, 18 cases of AIDS were reported to the Region of Ottawa-Carleton Health Department for a total of 403 cases since 1986. Fourteen AIDS deaths were reported in 1998. It is likely that the number of reported AIDS cases is lower than the actual number of AIDS cases in Ottawa-Carleton due to possible under-reporting. Physicians who have already reported the HIV infection in its pre-AIDS form do not necessarily report the AIDS stage. Since 1998, physicians receive an AIDS reporting form included in their HIV Surveillance package. They are asked to put this form in their patient's chart and complete it in the event a diagnosis of AIDS is confirmed. This form can then be sent to the Public Health Nurse and the case is entered as AIDS. Also, there remains a lag period between the diagnosis of AIDS and the reporting to the Health Department.

The continuing decline in reported AIDS cases and deaths reflects what is going on elsewhere in the province and the country since the introduction of triple-drug antiretroviral therapy. We also know that early testing and diagnosis contributes to this decline.

TABLE 6 - AIDS IN OTTAWA-CARLETON

YEAR	NEW AIDS CASES	INCIDENCE PER 100,000
1986	16	2.5
1987	41	6.4
1988	46	7.0
1989	64	9.5
1990	58	8.4
1991	34	4.8
1992	27	3.8
1993	15	2.0
1994	31	4.2
1995	19	2.5
1996	17	2.4
1997	20	2.8
1998	18	2.5

PRENATAL HIV TESTING PROGRAM

There have been 31 perinatal HIV infections reported in Ottawa-Carleton since surveillance began 1988, with 4 in 1998. The Ontario Ministry of Health estimates that 1,870 women in Ontario were living with HIV in 1996. Only 1,200 had been diagnosed. Women may not be diagnosed early in their HIV infection as their risk by not be apparent. When HIV is diagnosed during pregnancy, the maternal-child transmission can be reduced substantially. Studies have shown that women who take zidovudine (AZT) can decrease the risk of transmission to their child by as much as 68%.[4] Recent research demonstrates that a caesarean section vs. vaginal delivery could decrease the rate of transmission even more. [5]

On December 1st, 1998, World AIDS Day, the Ontario Ministry of Health announced its new Prenatal HIV Testing Program. The objectives are to protect the health of women in Ontario, provide better care for women with HIV, prevent vertical transmission (from mother to baby), reduce the number of infants in Ontario born with HIV infection and reduce the costs associated with caring for women and children with HIV.

This new program, directed by the Ministry in conjunction with physicians and midwives in Ontario, provides voluntary HIV antibody testing for all pregnant women and women planning a pregnancy. Testing is included in the routine prenatal screening program (along with screening for hepatitis B, syphilis and rubella which were already being offered routinely) or through the other current options offered for HIV testing. The Ministry stipulates that women should be counselled about the benefits and risks of HIV antibody testing. Also, informed consent should be obtained before the test is ordered.

To support physicians and other primary care providers in implementing this new program, the Ministry distributed resource packages to all physicians, nurse practitioners and midwives practising in Ontario. These packages included teaching resources for patients, copies of the new prenatal screening forms, fact sheets, counselling checklists and community resources for referrals and information.

AIDS-SEXUAL HEALTH INFORMATION LINE

In 1998, the AIDS-Sexual Health Information celebrated a decade of operation. Since March of 1988, the Region of Ottawa-Carleton Health Department has operated the line with funding from the Ontario Ministry of Health, Public Health Branch. Like its counterpart in Toronto, the information line has a local number for area callers. We also offer information and referral services to francophone callers from across the province via a toll free number. The line operates on Mondays to Fridays, from 10 a.m. to 8 p.m.

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[4] Dr. Colin D'Cunha, 1998. Ontario Ministry of Health.

[5] Dr. Susan King, Toronto Hospital for Sick Children, Conference on HIV and Emerging Challenges, Toronto, June 1999.

Originally, the purpose of the line was to provide authoritative, credible and consistent information on AIDS to the general public. In 1992, the Anonymous Testing Program was implemented in Ottawa-Carleton. The information line was therefore designated to screen calls and make appointments for callers requesting anonymous HIV testing. Then in 1993, along with restructuring within the Healthy Sexuality Programme, the line became a AIDS-Sexual Health Information line providing callers with information on all aspects of sexuality including HIV/AIDS, birth control, sexually transmitted diseases and pregnancy management. It continues to provide, under the umbrella of the HIV Prevention Programme, an essential service in our community.

Trained bilingual Public Health Nurses, who have clinical experience in HIV, STDs and family planning, staff the line. They provide information, answers and advice on all sexual health topics. They will forward printed materials as well as refer callers to appropriate community services. The line is a safe, accessible information and education service geared to all. In 10 years, more than 90,000 callers used the services at the information line. Although people of all ages call the line, the majority of callers are between the ages of 20 to 39. The distribution of calls between from female and male callers is fairly even.

The line is also a good reference for health and social service professionals inquiring about HIV, STDs and other sexual health issues. Because the staff at the line are kept up to date with recent information, they are considered the "hub" of information for the department and the community. The line has been instrumental in supporting local community efforts. For World AIDS Day and AIDS Awareness week, staff at the line provide information to callers about events. During Sexual Health Week, the nurses take requests for resources, speakers and workshop information. Both numbers are frequently advertised for access to all HIV Prevention Program and Healthy Sexuality Programme publications and information requests.

ANONYMOUS TESTING PROGRAMME UPDATE

The Anonymous Testing Programme (ATP) in Ottawa-Carleton, which is under the auspices of the Somerset West Community Health Centre, was established in 1992. During its 7th year of operation , in 1998, 1,024 HIV tests were done. This is in comparison to 1,280 tests performed in 1997. The percentage of tests that were positive was 2.0% with 20 people diagnosed through anonymous testing process. This percentage compares to 1.3% in 1997. The percentage of positive HIV tests determined through anonymous testing in relation to all positive tests reported in Ottawa-Carleton (from private physician office and clinics) was 14%, an increase from 7% in 1996 and 11% in 1997. This increase is mostly attributed to the outreach component of the anonymous testing program including the SITE needle exchange program.

The local ATP is one of the most comprehensive and creative programs in the province. Anonymous testing in Ottawa-Carleton is offered in more than 20 agencies and programs including street outreach, treatment agencies, drop-in centres and bathhouses, making HIV testing and risk reduction education more accessible to higher risk clients. The HIV pre-test counselling associated with the anonymous testing program is very thorough. It allows the counsellor to

provide in depth risk assessment and risk reduction education to clients. The counselling session is therefore an excellent HIV education opportunity.

CONCLUSION

HIV remains a major public health concern in Ottawa-Carleton. This report provides important information about the trends and changes in the epidemiology of HIV and AIDS in this region. This information can be used by the Health Department and our community partners to evaluate current services and prevention programs and to plan future services and programs that best meet the needs of our community.

Approved by
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