

# **Review of the Epidemiology of AIDS in Ireland (1983-1999)**



**A report by the  
National Disease Surveillance Centre**

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## Summary

AIDS Surveillance began in Ireland in 1985 and has proved to be a very successful and valuable reporting system. AIDS surveillance data has provided essential information on the progress of the disease in Ireland. It has also provided us with an understanding of the groups at most risk of AIDS in our society. In the past, AIDS surveillance data also provided information on the changes in the incidence in HIV. However, recent advances in HIV treatment have slowed the progression of HIV disease for infected persons on treatment and contributed to a decline in AIDS incidence. This has reduced the effectiveness of AIDS case reporting for monitoring the incidence and modes of transmission of HIV infections. It is therefore extremely important that all diagnosed HIV infections are reported so that the appropriate prevention strategies can be put in place. National HIV case based reporting was introduced in Ireland on 1<sup>st</sup> July, 2001.

This report is based on AIDS cases diagnosed from 1983 to 1999 and reported up to the end of 2000. This allows a minimum of one year after diagnosis for AIDS cases to be reported. The figures for 2000 are reported separately in Appendix I.

In summary;

- There was a total of 695 cases of AIDS reported in Ireland from 1983 to 1999. Since the mid 1990's there has been a decrease in the annual incidence of AIDS in Ireland.
- Although the number of AIDS cases has declined, the number of new HIV infections has tripled from 1994 to 1999
- The majority of affected people (79%) were in the age range of 25-44 years and the median age was 32 years.
- Eighty percent of AIDS cases were male and males were older at diagnosis than females (median age 33 and 29 years respectively).
- Injecting drug use (40%) was the commonest mode of transmission of AIDS diagnosed in Ireland. The second commonest mode of transmission was men

who have sex with men (MSM) (34%). Thirteen percent of AIDS cases were associated with heterosexual contact. The number of AIDS cases in each of these transmission categories has decreased since the mid-1990's. However, the number of new HIV infections in these groups has increased over the last five years

- Seventy eight percent of AIDS cases were resident in the Eastern Regional Health Authority (ERHA) area. Ninety eight percent of AIDS cases among injecting drug users were resident in the ERHA area.
- Of the 695 cases of AIDS that have been reported to date, 357 (51%) have died.

## Introduction

Acquired immunodeficiency syndrome (AIDS) was first reported in the United States in June 1981 (1). It has since become a major worldwide epidemic. At the end of 2000, the United Nations program on AIDS (UNAIDS) estimated that 36.1 million people were living with HIV/AIDS worldwide (2). The features of the AIDS epidemic differ from country to country and national surveillance systems were established in order to estimate the magnitude and trends of the epidemic. European AIDS surveillance was introduced in 1984 and AIDS surveillance has been carried out in Ireland since 1985. In the past, monitoring AIDS-defining conditions provided data that reflected changes in the incidence in HIV. However, recent advances in HIV treatment, in particular the use of highly active antiretroviral treatment (HAART), have slowed the progression of HIV disease for infected persons and contributed to a decline in AIDS incidence (3). This has diminished the capacity of AIDS surveillance data to reliably reflect trends in the incidence of HIV infection and as a result, HIV case based reporting has been introduced in a large number of countries. Quality national AIDS surveillance data is still essential to assess the progress of the disease and to recognise failures in the treatment of HIV infection. Late in 2000, the National Disease Surveillance Centre (NDSC) took over responsibility for AIDS reporting from the Department of Health and Children (DoHC) and the opportunity has been taken to review the information available from the national AIDS database.

## Methods

A voluntary AIDS reporting system has been in place in Ireland since 1985. In the past, when an individual developed AIDS, the clinician completed an *AIDS surveillance report form*. This provided information on the demographic characteristics of the patient, the probable route of transmission of HIV infection and the presence of the diseases on which the diagnosis of AIDS was based. The form was then sent to the Regional AIDS Coordinator (RAC) in the relevant Health Board, who forwarded a copy to the National AIDS Coordinator in the DoHC. Every six months, a summary of this information was published nationally and notified to the European Centre for the Epidemiological Monitoring of AIDS for inclusion in the European Non-Aggregate AIDS Dataset (ENAADS). Late in 2000, NDSC received the national AIDS database from the DoHC and assumed responsibility for national AIDS surveillance. The reporting system used by the European Centre for the Epidemiological Monitoring of AIDS reports incidence by year of diagnosis rather than by year of reporting. The Surveillance Sub-committee of the National AIDS Strategy Committee (NASC) recommended that the Irish reporting system do the same (4). Therefore, all figures in this report are based on year of diagnosis. The figures have not been adjusted for reporting delay, as the numbers were considered too small, especially in recent quarters. Instead, the report is based on AIDS cases diagnosed from 1983 to December 1999 and reported up to December 2000. This allows a minimum of one year after diagnosis, for AIDS cases to be reported. The figures for 2000 are reported separately in Appendix I.

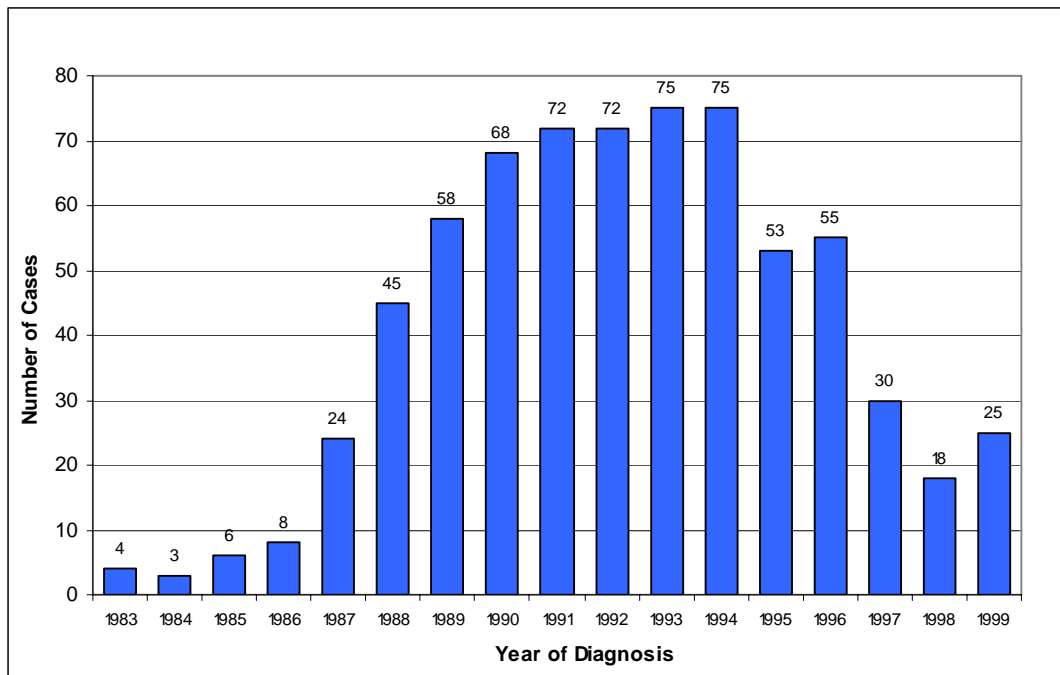
The HIV data in Figure 3 was taken from a report entitled AIDS strategy 2000, which was produced by NASC (4). These figures were obtained from the Virus Reference Laboratory.



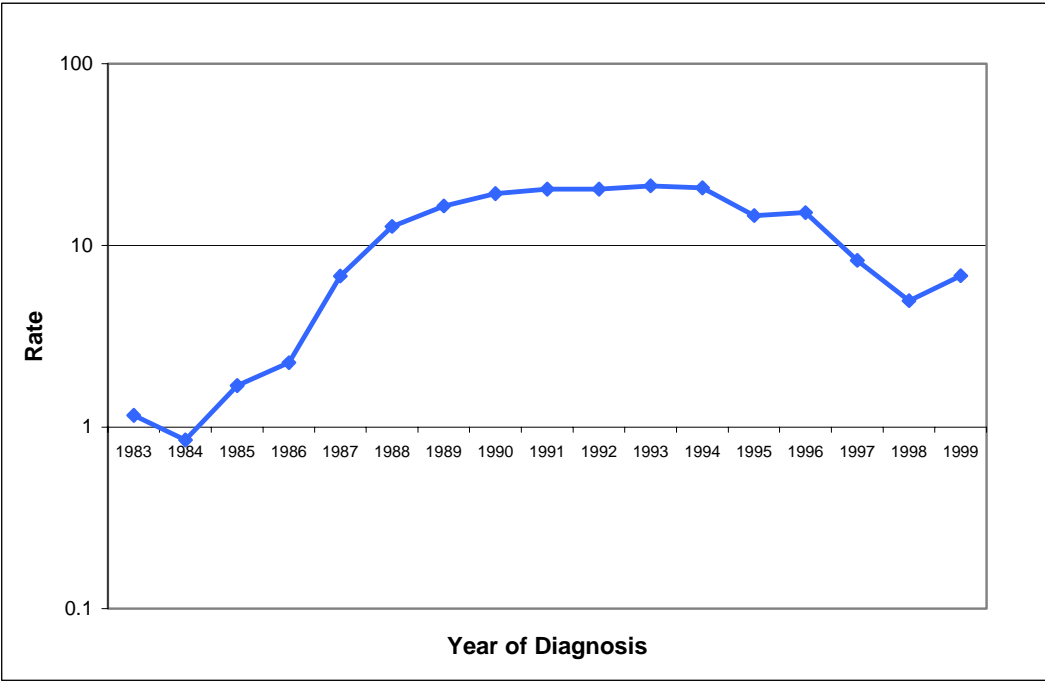
## Results (1983 to 1999)

There were 695 cases of AIDS diagnosed in Ireland from 1983 up to the end of 1999. Figure 1 looks at the number of cases of AIDS diagnosed annually and Figure 2 shows the annual incidence of AIDS in Ireland. Figure 3 compares the number of AIDS cases diagnosed per year (1990-1999) to the number of new HIV infections diagnosed per year (1990-2000).

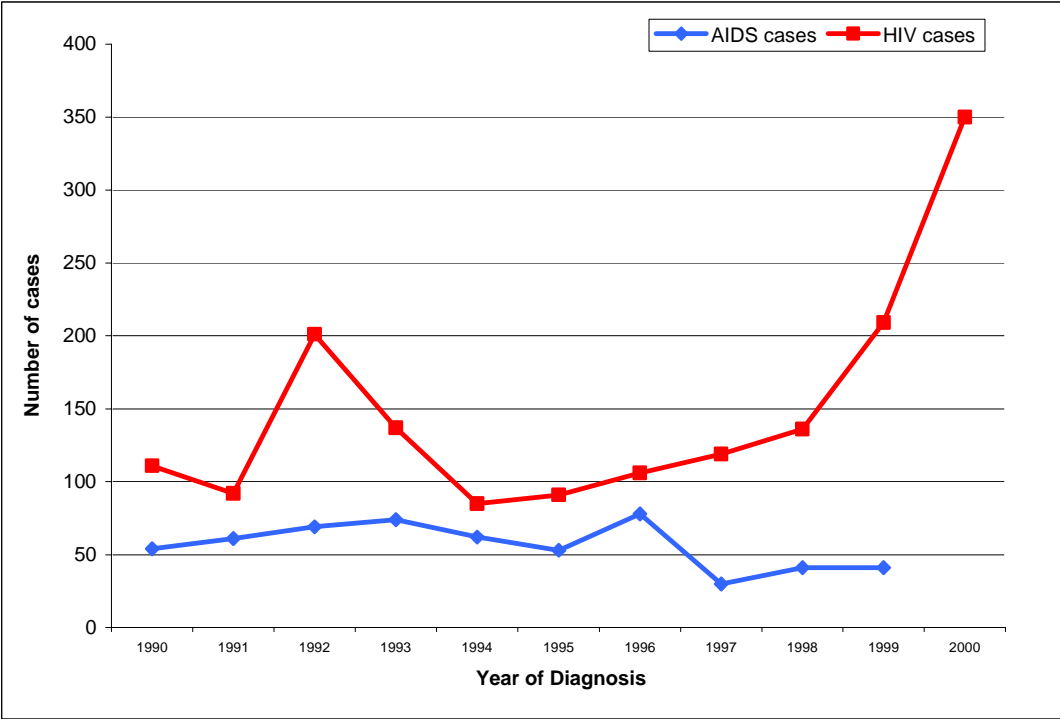
**Figure 1: AIDS cases by year of diagnosis (1983-1999)**



**Figure 2: Incidence of AIDS (per million population) in Ireland (1983-1999)**



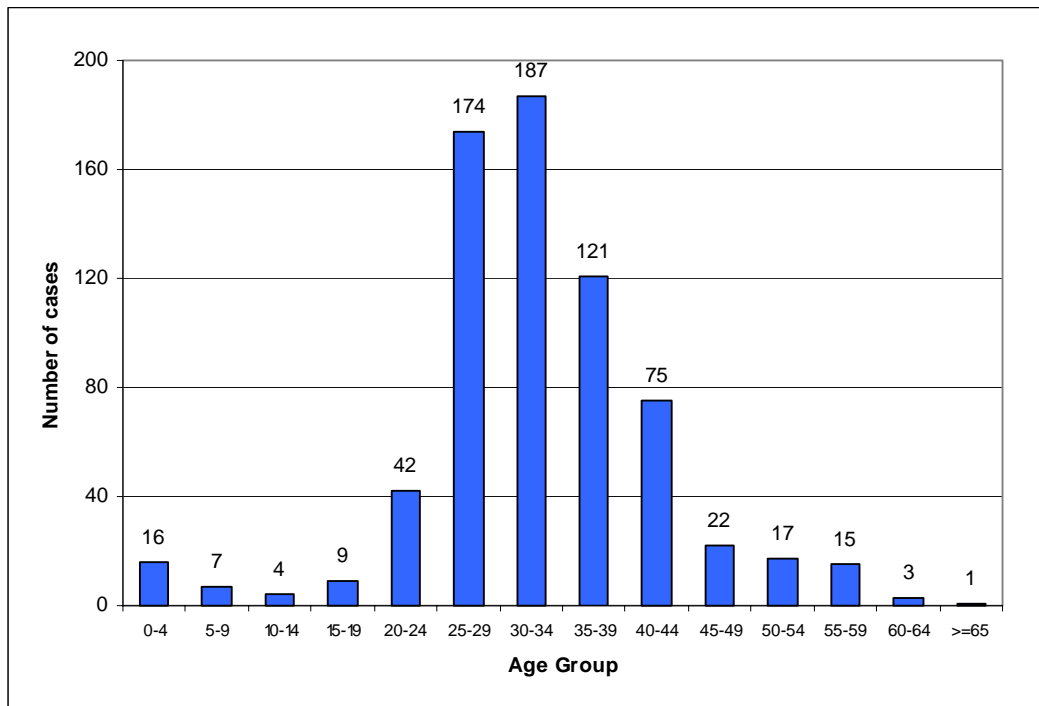
**Figure 3: AIDS cases (1990-1999) and HIV cases (1990-2000) diagnosed in Ireland**



### AIDS cases by age group

An analysis of AIDS cases by age group can be seen in Figure 4. The majority of affected people (80%) were in the age range of 25-44 years at diagnosis and the median age was 32 years. When age was re-categorised into three groups: children (<13 yrs), adolescents (13-19yrs) and adults (>19yrs), it is found that the vast majority of cases (94%), were diagnosed in adults. Four percent of cases of AIDS were diagnosed in children and 2% of cases were reported in adolescents.

**Figure 4: Age distribution of AIDS cases at diagnosis**



### AIDS cases by gender

Of the 695 cases of AIDS reported in Ireland up to the end of 1999, 559 (80.5%) were male. Figure 5 shows the number of cases of AIDS diagnosed annually in males and females since 1983. As can be seen, an increasing proportion of AIDS cases have been diagnosed in females since 1996.

**Figure 5: AIDS cases by gender and year of diagnosis (1983-1999)**

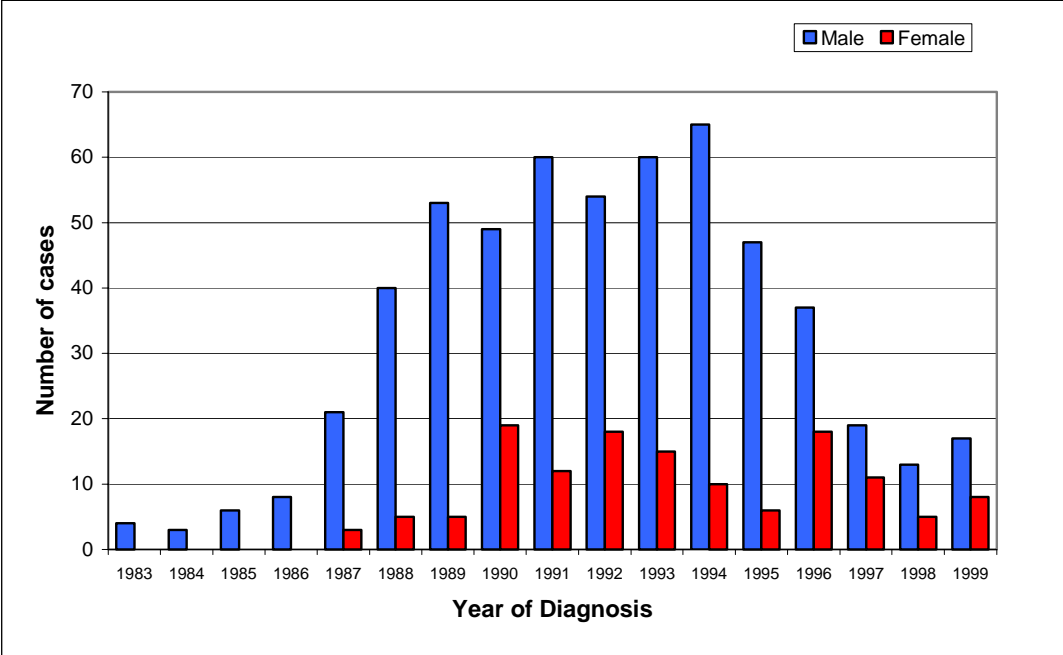
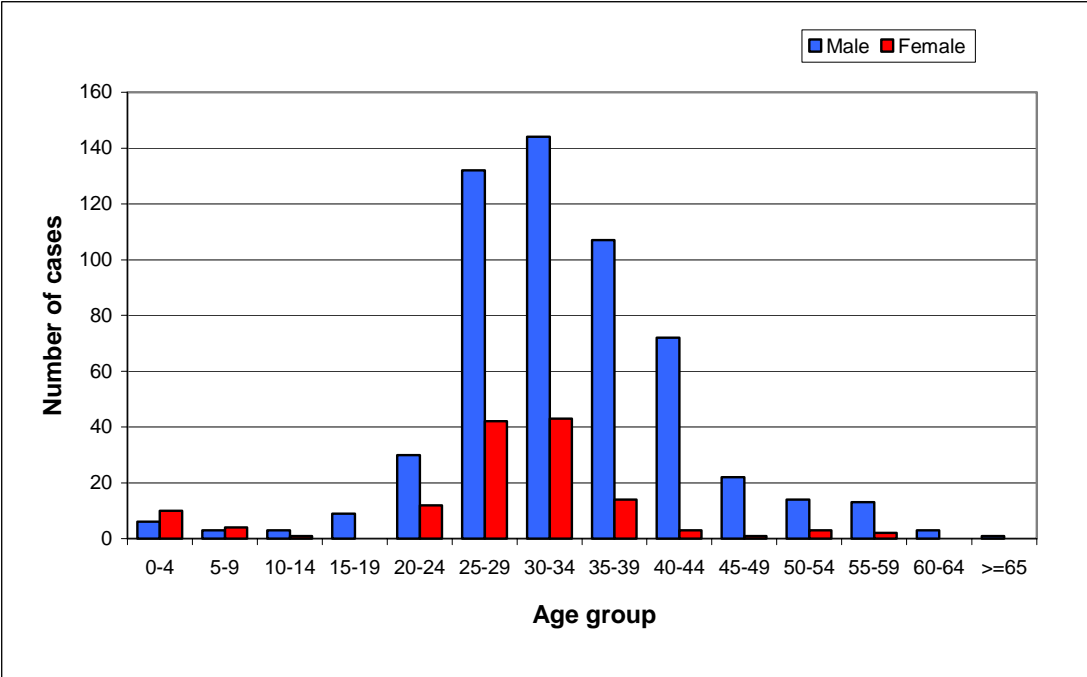


Figure 6 shows the number of AIDS cases by age group and gender and Table 1 examines the summary measures of age distribution by gender. The median age at AIDS diagnosis for men was 33 years and for women was 29 years.

**Figure 6: AIDS cases by age group and gender**



**Table 1: Summary measures of age and by gender**

| Sex    | Mean | Standard Deviation | Median | Minimum | Maximum |
|--------|------|--------------------|--------|---------|---------|
| Male   | 33.6 | 9.3                | 33     | 0       | 72      |
| Female | 28.1 | 10.8               | 29     | 0       | 58      |

**AIDS cases by area**

To maintain anonymity, cases are classified as ERHA and non-ERHA and are not detailed further. Seventy eight percent of AIDS cases were resident in the ERHA area and 15% were resident in non-ERHA areas. In the remaining 7% of cases, the area is unknown.

**AIDS cases by transmission category**

Table 2 looks at AIDS cases by transmission category in Ireland and Table 3 examines the number of AIDS cases per year in each of the transmission categories. Figure 7 indicates the number of AIDS cases attributable to each of the three commonest transmission categories. Figure 8 shows the incidence rate of AIDS among IDUs<sup>1</sup> as compared to the overall incidence rate of AIDS in Ireland.

**Table 2: AIDS cases by transmission category**

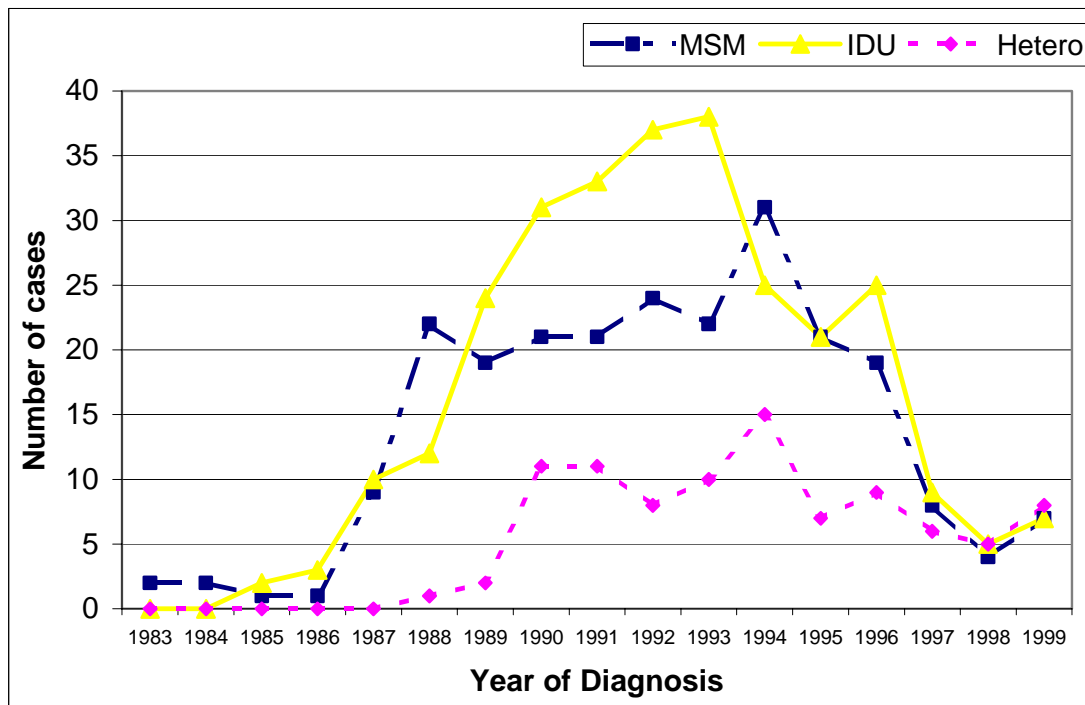
| Transmission Category | Number of cases | Percentage |
|-----------------------|-----------------|------------|
| IDU                   | 282             | 40.6       |
| MSM                   | 238             | 34.3       |
| Heterosexual          | 93              | 13.4       |
| Haemophilic           | 33              | 4.7        |
| Mother-to-Child       | 23              | 3.3        |
| IDU+ MSM              | 10              | 1.4        |
| Transfusion           | 3               | 0.4        |
| Other/Undetermined    | 13              | 1.9        |
| Total                 | 695             | 100        |

<sup>1</sup> It has previously been stated that Dublin has between 3000 and 15,000 drug users (5). The upper estimate of 15,000 was used directly for calculation of incidence rates of AIDS among IDUs.

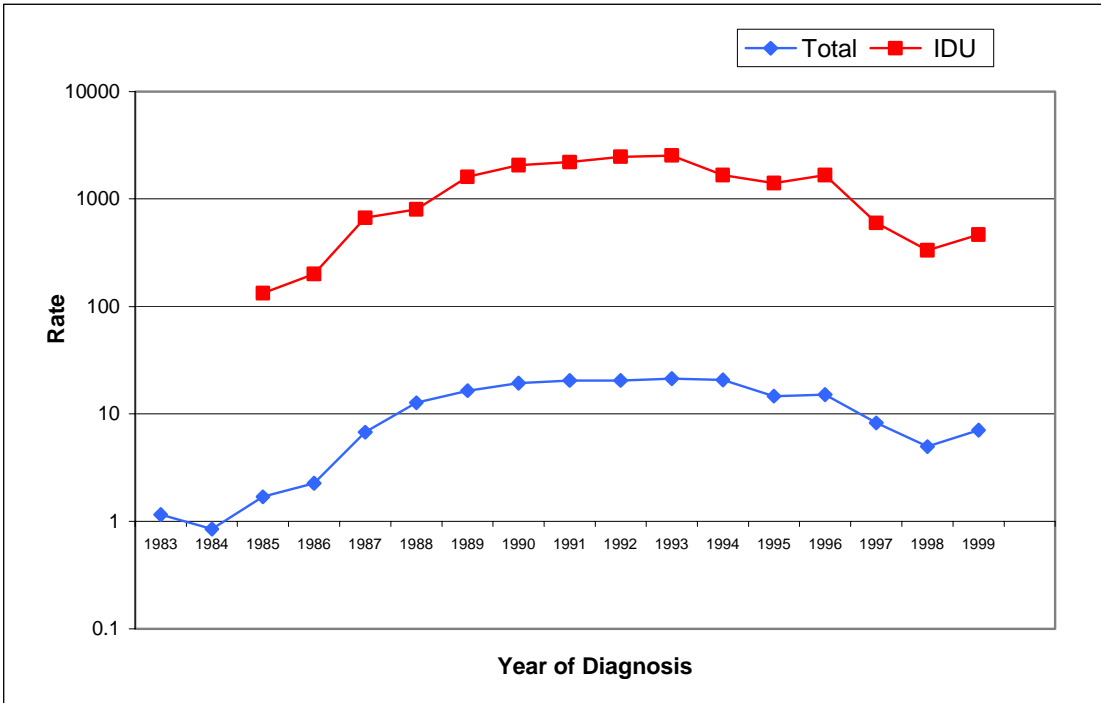
**Table 3: AIDS cases by transmission category and year of diagnosis (1983-1999)**

| Diagnosis Year | IDU | MSM | Hetero-sexual | Haemo-philiac | Mother to Child | IDU+ MSM | Trans. Rec. | Other/Undet | Total |
|----------------|-----|-----|---------------|---------------|-----------------|----------|-------------|-------------|-------|
| 1983           | 0   | 2   | 0             | 0             | 0               | 2        | 0           | 0           | 4     |
| 1984           | 0   | 2   | 0             | 1             | 0               | 0        | 0           | 0           | 3     |
| 1985           | 2   | 1   | 0             | 1             | 1               | 1        | 0           | 0           | 6     |
| 1986           | 3   | 1   | 0             | 3             | 1               | 0        | 0           | 0           | 8     |
| 1987           | 10  | 9   | 0             | 3             | 0               | 1        | 0           | 1           | 24    |
| 1988           | 12  | 22  | 1             | 5             | 3               | 2        | 0           | 0           | 45    |
| 1989           | 24  | 19  | 2             | 6             | 3               | 1        | 0           | 3           | 58    |
| 1990           | 31  | 21  | 11            | 2             | 2               | 0        | 0           | 1           | 68    |
| 1991           | 33  | 21  | 11            | 4             | 3               | 0        | 0           | 0           | 72    |
| 1992           | 37  | 24  | 8             | 3             | 0               | 0        | 0           | 0           | 72    |
| 1993           | 38  | 22  | 10            | 2             | 1               | 1        | 0           | 1           | 75    |
| 1994           | 25  | 31  | 15            | 2             | 1               | 0        | 1           | 0           | 75    |
| 1995           | 21  | 21  | 7             | 0             | 2               | 1        | 0           | 1           | 53    |
| 1996           | 25  | 19  | 9             | 0             | 1               | 0        | 1           | 0           | 55    |
| 1997           | 9   | 8   | 6             | 1             | 2               | 0        | 1           | 3           | 30    |
| 1998           | 5   | 4   | 5             | 0             | 2               | 0        | 0           | 2           | 18    |
| 1999           | 7   | 7   | 8             | 0             | 1               | 1        | 0           | 1           | 25    |
| Unknown        | 0   | 4   | 0             | 0             | 0               | 0        | 0           | 0           | 4     |
| Total          | 282 | 238 | 93            | 33            | 23              | 10       | 3           | 13          | 695   |

**Figure 7: AIDS cases among the three commonest transmission categories by year of diagnosis (1983-1999)**



**Figure 8: Incidence rate (per million population) among injecting drug users<sup>2</sup> and among total population (1983-1999)**



<sup>2</sup> It has previously been reported that Dublin has between 3000 and 15,000 drug users (5). The upper estimate of 15,000 was used directly for calculation of incidence rates of AIDS among IDUs.

### AIDS cases by transmission category and age group

Table 4 shows AIDS cases by age group and transmission category. Table 5 shows summary measures of age at diagnosis for the three commonest transmission categories and Figure 9 gives a graphical representation of the age distribution for these categories.

**Table 4: AIDS cases by transmission category and age group**

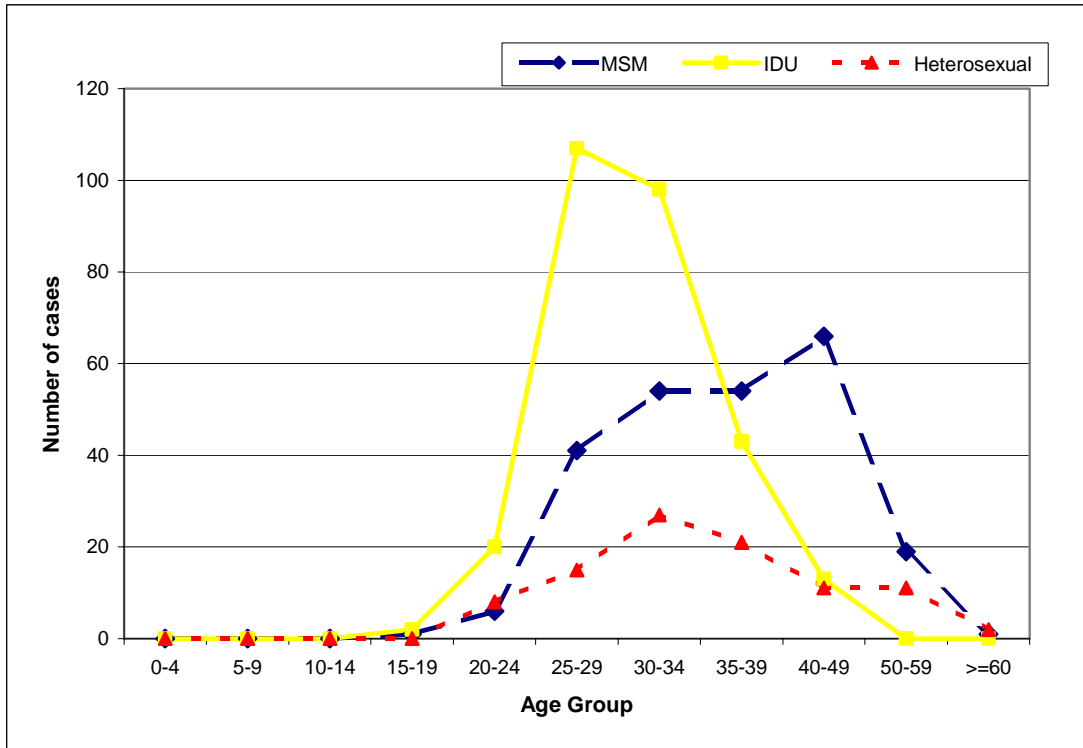
| Transmission Category | Age Group |     |       |       |       |       |       |       |       |       |       |       |       |      | Total |
|-----------------------|-----------|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|-------|
|                       | 0-4       | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40-44 | 45-49 | 50-54 | 55-59 | 60-64 | >=65 |       |
| IDU                   | 0         | 0   | 0     | 2     | 20    | 107   | 98    | 42    | 10    | 3     | 0     | 0     | 0     | 0    | 282   |
| MSM                   | 0         | 0   | 0     | 1     | 6     | 40    | 54    | 52    | 50    | 14    | 12    | 6     | 1     | 1    | 237   |
| Heterosexual          | 0         | 0   | 0     | 0     | 8     | 15    | 27    | 19    | 8     | 3     | 5     | 6     | 2     | 2    | 95    |
| Haemophiliac          | 0         | 0   | 3     | 6     | 3     | 5     | 6     | 5     | 4     | 0     | 0     | 1     | 0     | 0    | 33    |
| Mother-Child          | 16        | 6   | 1     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0    | 23    |
| IDU+MSM               | 0         | 0   | 0     | 0     | 2     | 4     | 1     | 2     | 0     | 1     | 0     | 0     | 0     | 0    | 10    |
| Transfusion           | 0         | 0   | 0     | 0     | 0     | 0     | 0     | 1     | 0     | 1     | 0     | 0     | 0     | 0    | 2     |
| Other/Undet           | 0         | 1   | 0     | 0     | 3     | 3     | 1     | 0     | 3     | 0     | 0     | 2     | 0     | 0    | 13    |
| Total                 | 16        | 7   | 4     | 9     | 42    | 174   | 187   | 12    | 75    | 22    | 17    | 15    | 3     | 3    | 695   |

**Table 5: Summary measures of age at diagnosis among the three highest risk categories**

| Transmission Category | Mean | Standard Deviation | Median | Minimum | Maximum |
|-----------------------|------|--------------------|--------|---------|---------|
| MSM                   | 36.8 | 8.2                | 36     | 17      | 63      |
| IDU                   | 30.5 | 4.9                | 30     | 18      | 48      |
| Heterosexual          | 36.4 | 9.6                | 34     | 21      | 63      |



**Figure 9: Age distribution of AIDS cases at diagnosis among the three commonest transmission categories (1983-1999)**



**AIDS cases by transmission category and gender**

Table 6 looks at AIDS cases by transmission category for males and females. Table 7 looks at the summary measures of age distribution for males and females by transmission category.

**Table 6: AIDS cases by transmission category and gender**

| Transmission Category | Gender |      |         |      |
|-----------------------|--------|------|---------|------|
|                       | Males  |      | Females |      |
|                       | Number | %    | Number  | %    |
| IDU                   | 212    | 37.9 | 70      | 51.8 |
| Heterosexual          | 48     | 8.6  | 45      | 33.3 |
| Mother-Child          | 8      | 1.4  | 15      | 11.1 |
| Transfusion           | 2      | 0.4  | 1       | 0.8  |
| MSM                   | 238    | 42.5 | -       | -    |
| IDU+MSM               | 10     | 1.8  | -       | -    |
| Haemophiliacs         | 33     | 5.8  | -       | -    |
| Other/Undetermined    | 9      | 1.6  | 4       | 3.0  |
| Total                 | 560    | 100  | 135     | 100  |

**Table 7: Summary measures of age distribution in males and females by transmission category**

| Transmission Category | Sex    | Mean | Standard Deviation | Median | Minimum | Maximum |
|-----------------------|--------|------|--------------------|--------|---------|---------|
| IDU                   | Male   | 30.9 | 5.2                | 31     | 18      | 48      |
|                       | Female | 29.5 | 4.0                | 29     | 22      | 40      |
| Heterosexual          | Male   | 39.1 | 10.3               | 37     | 22      | 63      |
|                       | Female | 33.6 | 8.1                | 33     | 21      | 58      |

### AIDS cases by transmission category and area

Table 8 shows the number of cases in each area by transmission category.

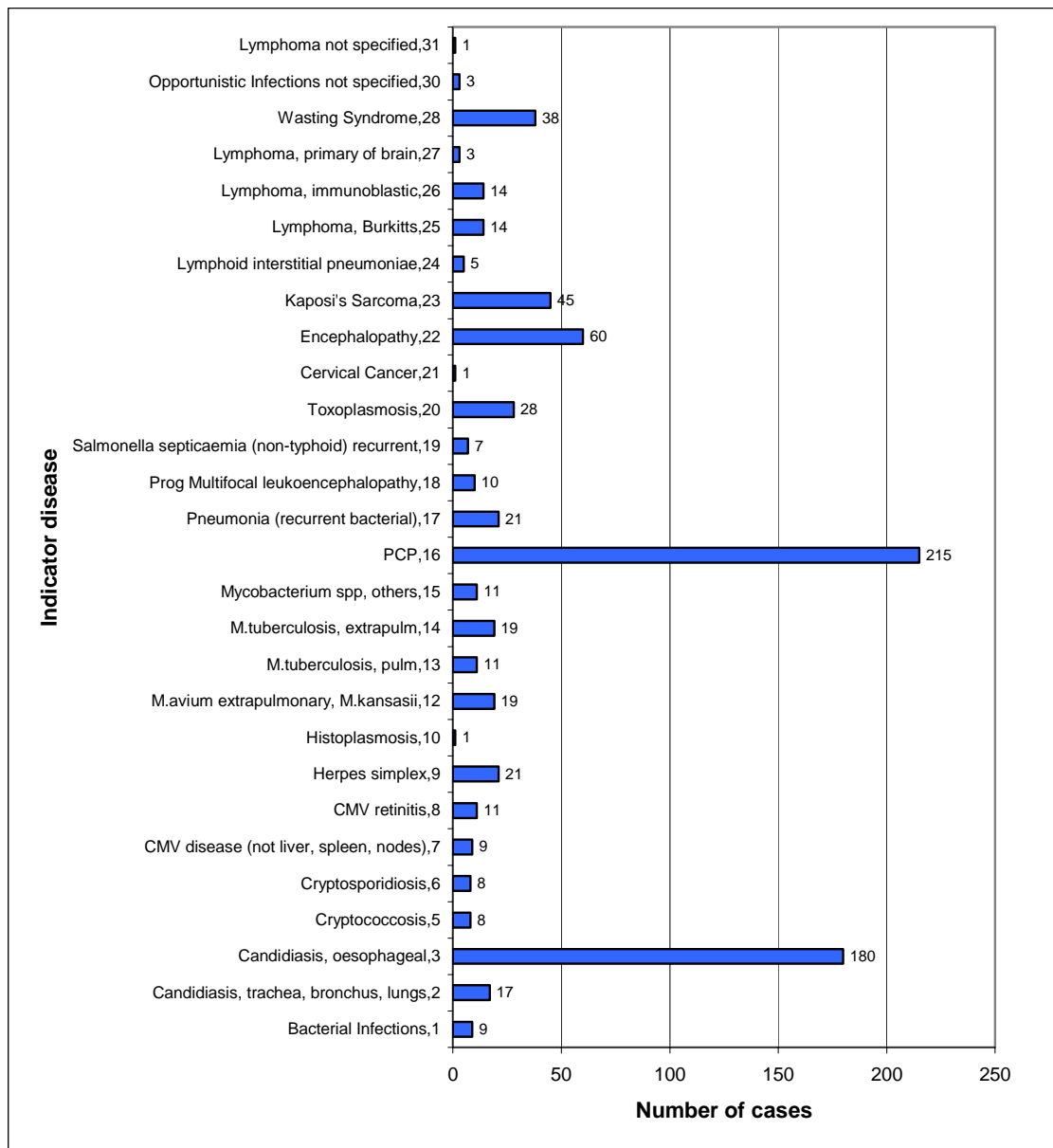
**Table 8: AIDS cases by area and transmission category**

| Transmission Category | Area |          |         | Total |
|-----------------------|------|----------|---------|-------|
|                       | ERHA | non-ERHA | Unknown |       |
| IDU                   | 270  | 6        | 6       | 283   |
| MSM                   | 150  | 51       | 35      | 242   |
| Heterosexual          | 62   | 24       | 6       | 95    |
| Haemophiliac          | 22   | 11       | 0       | 33    |
| Mother-to-Child       | 17   | 3        | 1       | 23    |
| IDU+MSM               | 10   | 0        | 0       | 10    |
| Transfusion Recipient | 2    | 1        | 0       | 3     |
| Unknown               | 6    | 5        | 2       | 14    |
| Total                 | 539  | 101      | 55      | 695   |

### Indicator diseases at AIDS diagnosis

Figure 10 sets out the indicator diseases that were recorded either at or within two months of AIDS diagnosis. A maximum of four diseases in each case was recorded. Among the 695 cases of AIDS, 789 indicator diseases were recorded; 615 cases had one, 69 cases had two, 8 cases had three and 3 cases had four indicator diseases. In total, eighteen different opportunistic infections and eight other diseases were seen. Table 9 shows the four most frequently recorded indicator diseases and their distribution among the three commonest transmission categories. There is a marked difference in indicator diseases between these transmission categories.

**Figure 10: Indicator diseases as recorded at the time of AIDS presentation**



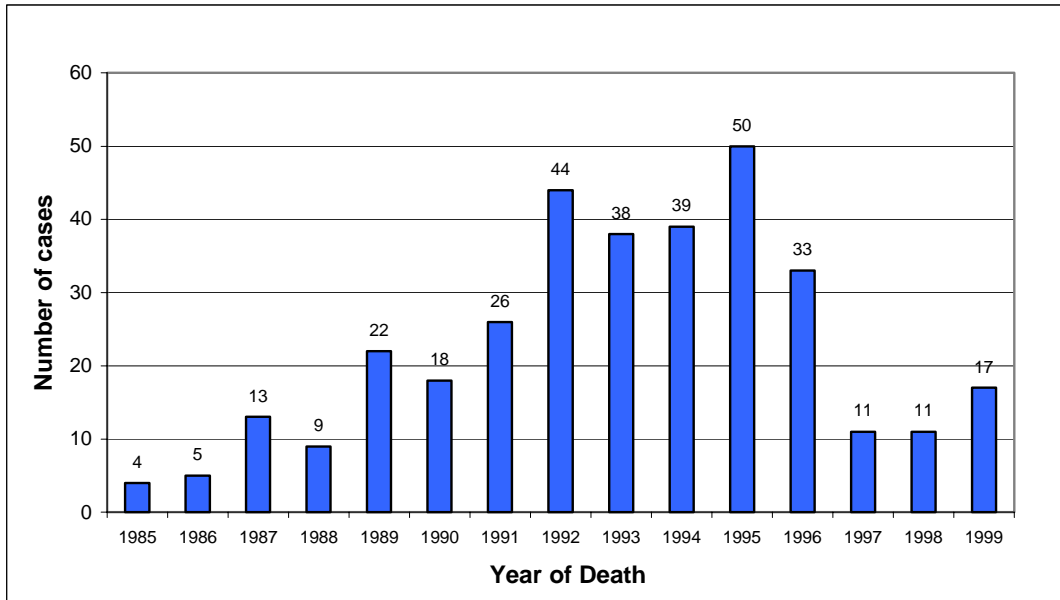
**Table 9: Indicator diseases by transmission categories**

| Transmission Category | PCP        | Candidiasis | Encephalopathy | Kaposi's Sarcoma | Other      | Total      |
|-----------------------|------------|-------------|----------------|------------------|------------|------------|
| Heterosexual          | 26         | 32          | 9              | 0                | 41         | 110        |
| IDU                   | 74         | 84          | 29             | 2                | 116        | 306        |
| MSM                   | 85         | 47          | 14             | 40               | 92         | 291        |
| Other/Undet           | 22         | 17          | 7              | 3                | 49         | 102        |
| <b>Total</b>          | <b>207</b> | <b>180</b>  | <b>59</b>      | <b>45</b>        | <b>298</b> | <b>789</b> |

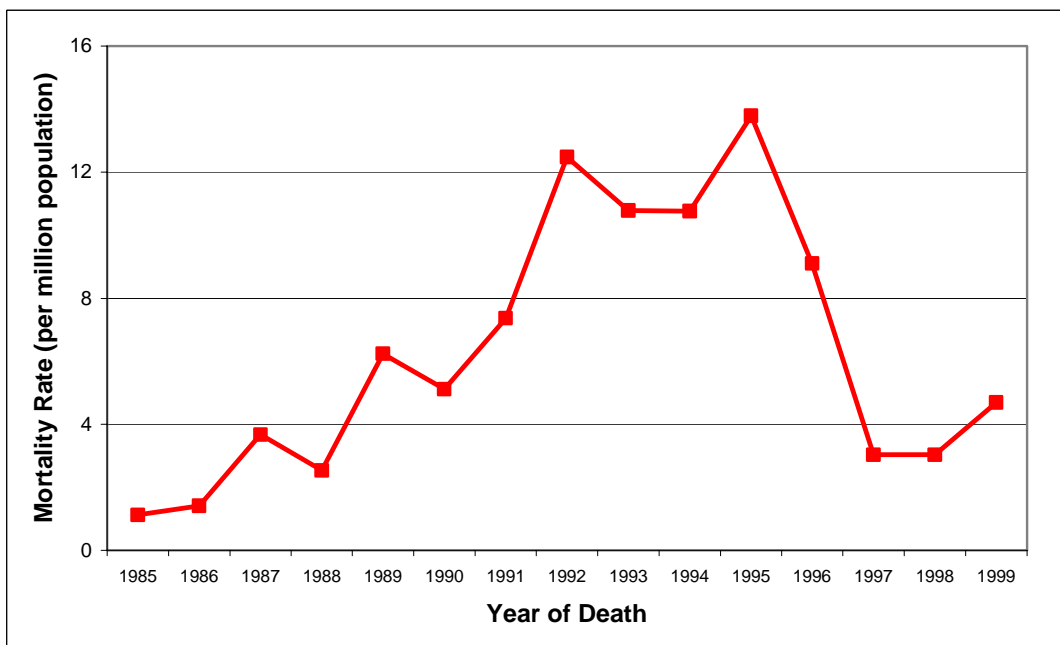
### AIDS-related deaths

Of the 695 cases of AIDS reported between 1983 and 1999, 357 (51%) have died. The year of death was recorded in 345 cases and is shown in Figure 11. Figure 12 shows the mortality rate for AIDS in Ireland. Table 10 shows the percentage of deaths in each transmission category.

**Figure 11: AIDS related deaths (1983-1999)**



**Figure 12: Annual mortality rate for AIDS (per million population) (1983-1999)**



**Table 10: Deaths in AIDS cases by transmission category**

| <b>Transmission Category</b> | <b>Number of AIDS cases</b> | <b>Number of Deaths</b> | <b>Percentage of Deaths (%)</b> |
|------------------------------|-----------------------------|-------------------------|---------------------------------|
| IDU                          | 282                         | 160                     | 56.7                            |
| MSM                          | 238                         | 117                     | 49.2                            |
| Heterosexual                 | 93                          | 37                      | 39.8                            |
| Haemophiliac                 | 33                          | 25                      | 75.8                            |
| Mother-to-Child              | 23                          | 8                       | 34.8                            |
| IDU + MSM                    | 10                          | 6                       | 6.0                             |
| Transfusion Recipient        | 3                           | 0                       | 0                               |
| Other/Undetermined           | 13                          | 4                       | 30.8                            |
| Total                        | 695                         | 357                     | 51.4                            |

## Discussion

There were 695 cases of AIDS reported in Ireland up to the end of 1999. The annual incidence of AIDS in Ireland increased rapidly through the 1980's and early 1990's, peaked in 1993 and then decreased through the late 1990's. This decline is primarily attributed to the early use of highly active antiretroviral therapy (HAART), which delays the progression to AIDS and death for persons with HIV infection. However, the number of cases in any given year will be subject to revision as further reports are received and particularly for recent years, is likely to be higher in later summaries. For this reason, figures for 2000 are presented separately. The incidence of AIDS in Ireland is relatively low when compared with other countries throughout Europe. The incidence rate (per million population) in Ireland in 1999 was 6.8 while the incidence rate (per million population) in the same year in various countries in Europe was; Britain: 11.9; Italy: 36.0; Spain: 77.1; Portugal: 88.3 (6).

### **HIV case based reporting**

Although the annual incidence of AIDS in Ireland has decreased over the last five years, it is extremely important to note that the annual incidence of HIV infection has increased dramatically. There were 342 new cases of HIV infection in 2000 compared to 209 cases in 1999, which represents a 64% increase. Clearly, monitoring trends in the AIDS epidemic does not reliably reflect trends in HIV infection and does not accurately represent the need for prevention and care services. It is essential to have reliable information about the incidence and future directions of HIV infection and the types of behaviour that increase the risk of HIV transmission. In order to collect this information and following a recommendation from the National AIDS Strategy Committee (4), HIV case based reporting was introduced in Ireland on July 1<sup>st</sup>, 2001. The aim of this new HIV case based reporting system is to ensure the collection of accurate and complete epidemiological data on the distribution and mode of transmission of HIV infection. This is essential for the design and implementation of appropriate and effective prevention and care strategies. Education programs directed at young people can result in decreased risk-taking behaviour. Increasing access to drug treatment and providing information about and access to clean syringes can reduce infection risk in drug using populations. It will also be possible to link newly diagnosed AIDS cases to previously diagnosed HIV positive individuals.

### **Age group and gender**

The majority of people affected with AIDS were in the age range 25-44 years (median age 32 years). Approximately 80% of AIDS cases in Ireland were male. However, the percentage of AIDS cases in females has risen over the five years and in particular, the proportion of AIDS cases in females associated with heterosexual behaviour has increased. This trend has also been seen worldwide (7). There was a difference in age distribution between the sexes. Females were younger at AIDS diagnosis than males with a difference in median age of four years. This trend has also been seen elsewhere and it has been suggested that women may be at risk for infection at an earlier age due to infection by older sexual partners (7). IDUs were younger at AIDS diagnosis than both MSM and heterosexuals with a median age of 30 compared to 34 and 36 respectively.

### **AIDS cases by area**

There was a disproportionately high number of AIDS cases resident in the ERHA area. In 1999, the incidence of AIDS (per million population) in the ERHA area was 13.9 compared to 3.0 in non ERHA areas. In particular, almost all AIDS cases (98%) among IDUs were resident in the ERHA area

### **Transmission categories**

The three major groups affected by AIDS are clearly, IDUs, MSM and heterosexuals. All other categories account for approximately 12% of the total number of AIDS cases. The number of AIDS cases in all transmission categories has declined since the mid 1990's and this can be primarily attributed to increased use of HAART, which has delayed disease progression (3). However, the decline in the number of cases among MSM and IDUs have been greater than among persons exposed through heterosexual contact. While the number of AIDS cases in all categories has decreased, there has been an increase in the number of new HIV infections in IDUs, MSM and heterosexuals.

Although the number and proportion of AIDS cases among IDUs has decreased over the last seven years, the incidence rate of AIDS among IDUs is much higher than the incidence rate in the general population. For example, in 1999, the incidence rate among IDUs was 466 per million population compared to an overall rate of 6.8 per million population.

Sexual intercourse between men and women is reported to account for 80% of the world's AIDS cases (2). In Ireland, however, heterosexual transmission accounted for only 13% of AIDS cases reported to date. Since 1987 there has been a steady increase in the proportion of cases of AIDS attributed to sex between men and women. There has also been a steady increase in the number of new HIV infections in this group. It would be extremely useful to further categorise this group into subcategories of heterosexual transmission. The sub categories of heterosexual transmission that are in use in Europe are as follows;

1. Originating from a country with a generalised HIV epidemic
2. Sex with a bisexual male
3. Sex with an injecting drug user
4. Sex with a haemophiliac or a transfusion recipient
5. Sex with a person from a country with a generalised HIV epidemic
6. Sex with a person known to be HIV infected and not number 1-5 above
7. Infected through heterosexual transmission, no further information

With the introduction of HIV case based reporting in July 2001, this information will be available for new HIV diagnoses.

#### **Indicator diseases**

PCP and Candidiasis were the two most common diseases found at AIDS diagnosis. A significant difference was found in the indicator diseases present among the three commonest transmission categories. In particular, Kaposi's Sarcoma was found to be almost exclusively associated with MSM. Kaposi's Sarcoma is characterised by Human Herpesvirus 8 (HHV8) infection and it is thought that HHV8 is sexually transmitted (8, 9).

#### **Deaths among persons with AIDS**

AIDS is the leading cause of death in Africa and the fourth leading cause of death worldwide (2, 10). Of the 695 cases of AIDS that have been reported in Ireland, fifty one percent are reported to have died. Since 1995, the annual number of deaths among persons with AIDS has decreased. The mortality rate from AIDS in Ireland has dropped from 13.8 deaths per million population in 1995 to 4.7 deaths per million population in 1999. This decrease in AIDS related deaths reflects the improved survival among persons with AIDS due to improvements in medical care and the effect of antiretroviral



therapies (3). The use of antimicrobial prophylaxis to delay or prevent the development of a number of opportunistic infections may also extend survival (11). There are significant differences in the proportion of deaths in each transmission category. Thirty eight percent of AIDS cases among heterosexuals have died compared to 49% of MSM and 56% of IDUs. Cases of AIDS among heterosexuals occurred later than among the other two groups, with the first case diagnosed in 1988, and therefore this group may have had access to more effective treatment. Also, information on the cause of death was not available and therefore it is not known whether death was AIDS related or not. The reasons for the observed differences may reflect differing reporting probabilities by transmission category or may reflect a real difference in outcomes.

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## Appendix I

### AIDS cases diagnosed in 2000

Twelve cases diagnosed in 2000 had been reported up to the end of 2000. It is expected that a number of cases diagnosed in 2000 have not yet been reported and therefore the breakdown of cases may change. Of the twelve cases reported,

- 9 (75%) were male.
- Approximately 40% of cases were in the age bracket 35-39 years (Table 1).
- Half of the cases seen were among MSM (Table 2).
- Six of the cases (50%) of AIDS cases were resident in the ERHA area.
- Five of the cases (42%) diagnosed in 2000 were reported to have died.

**Table 1: AIDS cases by age group**

| Age Group<br>(Years) | Number | Percentage<br>(%) |
|----------------------|--------|-------------------|
| 1-4                  | 1      | 8.3               |
| 5-9                  | 1      | 8.3               |
| 25-29                | 1      | 8.3               |
| 30-34                | 1      | 8.3               |
| 35-39                | 5      | 41.8              |
| 45-49                | 2      | 16.7              |
| 55-59                | 1      | 8.3               |
| Total                | 12     | 100               |

**Table 2: AIDS cases by transmission category**

| Transmission<br>Category | Number | Percentage |
|--------------------------|--------|------------|
| MSM                      | 6      | 50.0       |
| IDU                      | 1      | 8.3        |
| Heterosexual             | 2      | 16.7       |
| Mother to Child          | 2      | 16.7       |
| Other/Undetermined       | 1      | 8.3        |
| Total                    | 12     | 100        |