

Epidemiology of AIDS in Malta

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Abstract: The occurrence, frequency, distribution and determinants of HIV and AIDS are described for Maltese residents. Up to 30 June 1996, 38 notifications of AIDS were received by the Public Health Department (36 in males), 35 died. The overall mean survival between notification date and death was calculated using data for 28 reported cases as 216.71 days. Mean age at notification was 30.5 years (range: 2 to 48; median 31). Occurrence in males was highest for homosexuals/bisexuals (52.8%), followed by recipients of contaminated blood products (30.6%) and heterosexual contact (5.6%). The two females acquired HIV through mother-to-child transmission (abroad) and heterosexual intercourse respectively. Mode of transmission was unrecognised in 7.9% of cases. Epidemiological data on AIDS cases usually reflects the situation of HIV transmission some twelve to fifteen years previously. Sero-surveillance studies are now indicated to clarify the actual prevalence of HIV infection.

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Keywords: epidemiology, AIDS, HIV, Malta, surveillance, distribution, transmission categories

This article is based on a paper read at the Third Maltese Medical School Conference, 29th November - 2nd December 1995.

AIDS in Malta, the region and the world

According to published estimates, 27.9 million people world-wide were infected with HIV from the beginning of the pandemic until mid-1996. Of these, 14.9 million were men (58 %) and 10.5 million were women (42 %). The majority of HIV infections - 26 million (93 %) - have occurred in developing countries. This figure is expected to climb to a total of some 40 million by the end of the century ¹.

In Europe, every day, 200 persons are newly infected with HIV and 70 persons are diagnosed with AIDS. By 31 March 1996, a cumulative total of 168,111 AIDS cases including 6,297 paediatric cases had been reported in the WHO European region ².

In 'The Global Programme on AIDS in the European Region' report for 1994 and 1995, Malta ranked 20th highest amongst the 50 WHO Member States with a cumulative AIDS incidence of 8.3 per 100,000 population (at end 1994). The cumulative incidence at end June 1996 was up to 9.8 per 100,000 population.

The number of notifications of AIDS in Maltese residents over the last decade is graphically represented (Figure 1). (A Maltese resident is any person residing in Malta for a period of six months or longer).

History

As far as can be established, the Human Immunodeficiency Virus (HIV) was first introduced into Malta in 1984 in Abbott Anti-Haemophilic Factor (the exact date however remains uncertain), and in a few returned HIV positive homosexual men, previously domiciled and almost certainly infected abroad.

As soon as the ELISA test became commercially available in June 1985, all Maltese persons with coagulation disorders were offered the HIV test. All these patients tested positive for HIV.

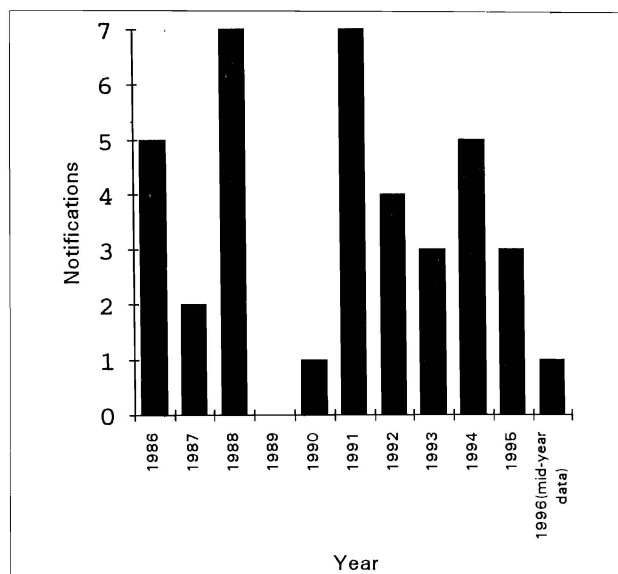


Fig. 1 - Notifications of AIDS, Malta, up to 30 June 1996. Source: Disease Surveillance Branch, Public Health Department

Also, several homosexual men voluntarily presented themselves for testing and were also found to be positive for HIV. Transmission of HIV amongst the local homosexual community was later confirmed. Homosexual intercourse is still the predominant risk behaviour for infection seen in Maltese AIDS patients today.

The first documented case of AIDS in Malta came to the attention of the Superintendent of Public Health in 1985. In December 1986, a National Advisory Committee on AIDS was established. By this time five cases of AIDS had already been reported and it was estimated that there were about 25 HIV positive persons amongst the resident population of the Island.

A National Educational Campaign organised by the

Health Education Unit of the Department of Health in conjunction with the National Advisory Committee on AIDS was established. This included the publication of an information booklet, leaflets and posters, articles in the press, radio interviews, television advertisements, an answering machine information service, seminars and workshops for school teachers, as well as talks to schoolchildren³.

The WHO/CDC AIDS surveillance case definition⁴ was formally adopted in January 1988 and a circular to this effect sent to all doctors^{5,6}.

Table 1 gives the list (revised 1987⁴ and 1993^{7,8}) of the AIDS Indicator Diseases for Notification purposes.

Table 1 - AIDS indicator diseases for notification purposes

A. Opportunistic infections
<ul style="list-style-type: none"> • Bacterial infections, multiple or recurrent in a child under 13 years of age • Candidiasis of bronchi, trachea or lungs, oesophageal • Coccidioidomycosis disseminated or extrapulmonary • Cryptococcosis extrapulmonary • Cryptosporidiosis intestinal with diarrhoea (>1 month's duration) • Cytomegalovirus disease (other than liver, spleen or nodes) in a patient > 1 month old, CMV retinitis (with loss of vision) • Herpes simplex chronic ulcer(s) (>1 month's duration); or bronchitis, pneumonitis or oesophagitis in a patient >1 month old • Histoplasmosis disseminated or extrapulmonary • Isosporiasis intestinal with diarrhoea (> 1 month's duration) • Mycobacterium avium complex or M. kansasii disseminated or extrapulmonary • Mycobacterium tuberculosis any site (pulmonary or extrapulmonary) • Mycobacterium, other species, disseminated or extrapulmonary • Pneumocystis carinii pneumonia • Pneumonia, (recurrent) • Salmonella septicaemia, (recurrent) • Toxoplasmosis, (brain)
B. Other diseases
<ul style="list-style-type: none"> • Cervical cancer, invasive • HIV related Encephalopathy • Kaposi's sarcoma • Lymphoid interstitial pneumonia in a child under 13 years of age • Lymphoma, Burkitt's, immunoblastic, primary of brain • Wasting syndrome due to HIV

This definition was further revised for surveillance in children in 1995⁹.

Transmission of HIV is not known to have occurred locally amongst injecting drug users. One Maltese homosexual male who tested positive also had a past history of injecting drug use (IDU) abroad. It is unlikely that this case was infected through local sharing in IDU.

A total of some 800 attendees have been screened through the Detoxification Unit, St. Luke's Hospital: no Maltese residents have tested positive for HIV, but several foreigners and their partners who attend the Detox Unit test positive each year¹⁰.

AIDS surveillance

Voluntary HIV testing is confidential. This makes discrimination between separate and repeat testing by the same individual difficult to determine although the medical practitioner requesting the test is usually contacted to try to eliminate duplication of data.

Routine screening for HIV is carried out on all blood and organ donations. This is not considered as surveillance, but rather as quality control to safeguard recipients. Information in this regard is only available as unlinked, anonymous aggregate data.

Although all diagnostic HIV tests are processed at one site (Virology Laboratory, St. Luke's Hospital), use of data gleaned from these records offer limited scope in epidemiology. The information given on the request forms is limited and often incomplete (unpublished data, Virology Unit, St. Luke's Hospital).

Notifications of AIDS in Malta

In a small population such as ours, the level of notification of AIDS may be assumed to be more or less complete, given that the nature and severity of the illness sooner or later necessitates access to the centralised secondary referral centres.

The mean survival in days from notification till certified death was calculated using all available data for 28 local residents. The mean survival was 216.71 days (range:1 to 1064 ; median:87.5 ; S.D: 301.81). Data on the 4 cases notified at death was excluded for the purpose of this calculation. However, the value for the mean remains low as in many cases practitioners are reluctant to notify, often for reasons of confidentiality in such a small community. This creates an artificially short lag between time of initial diagnosis and time of notification.

Patients are known to be seeking treatment overseas and therefore these fail to be included in the local statistics.

Figure 2 shows the survival curve for 31 notified cases of AIDS in Maltese residents (for whom data is complete) for the period 1986 to June 1996.

Present situation

From the first case reported in 1985 up to end of June 1996, a total of 78 Maltese residents are known to have been infected with HIV (an average of 6.2 new cases of HIV infection recorded each year). Another 26 cases of HIV infection occurring amongst persons of other or unknown nationality have been recorded locally. These

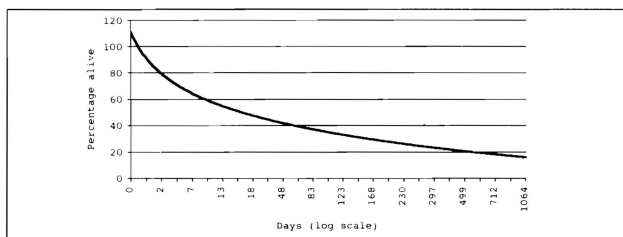


Fig. 2 - Survival for 31 notified AIDS cases, Malta 1986-June 1996. Source: Disease Surveillance Branch, Public Health Department.

are not included in the figures presented. Of the 78 HIV positive persons, 38 (36 males) are known to have been diagnosed with AIDS according to the WHO/CDC AIDS defining criteria. The reported AIDS defining conditions in Maltese patients are shown in Table 2.

Table 2 - Reported AIDS Defining Conditions, Malta, up to 30 June 1996

Opportunistic infection	27
Kaposi's Sarcoma	3
Opportunistic infection + Kaposi's Sarcoma	2
Lymphoma	2
HIV encephalopathy	4

By the 30 June 1996, 35 persons with AIDS (34 males) died. Five of these persons died in the first half of 1996; which is the highest rate for annual deaths so far.

Figure 3 depicts the distribution of persons with HIV by age group and gender. HIV positivity is documented for 68 males and 8 females (gender unknown for 2 additional cases). The age-range of HIV positive persons is known for 65 of the 78. The most commonly represented age bracket is 30-39 years, the age range for females being 1 to 39 years; that for males 1-50 years.

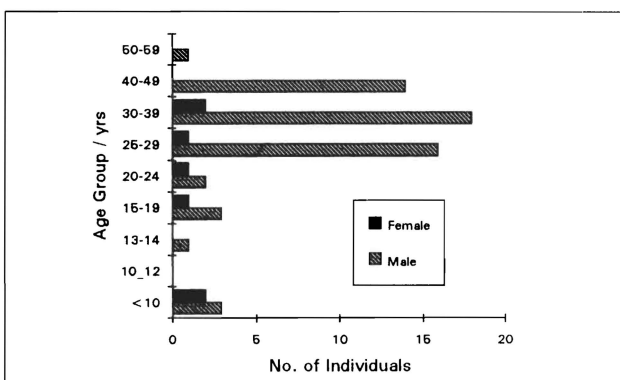


Fig. 3 - Persons with HIV by age group and gender, Malta, up to June 1996. Source: Disease Surveillance Branch, Public Health Department.

Transmission

The likely mode of transmission is known for 63 of the 78 cases of HIV - Figure 4.

Males

HIV positivity in males remains highest amongst homosexuals/bisexuals (31 cases); followed by recipients of contaminated blood products (22 cases) and heterosexual contacts (4 cases).

One other case occurred in a homosexual male who also had a past history of injecting drug abuse abroad.

Females

Four of the 8 reported HIV positive females are likely to have been infected through heterosexual contact and one through blood products administered abroad. Mother-to-child transmission occurred in one baby delivered abroad to a Maltese woman.

The mode of transmission could not be ascertained for the other 2 cases.

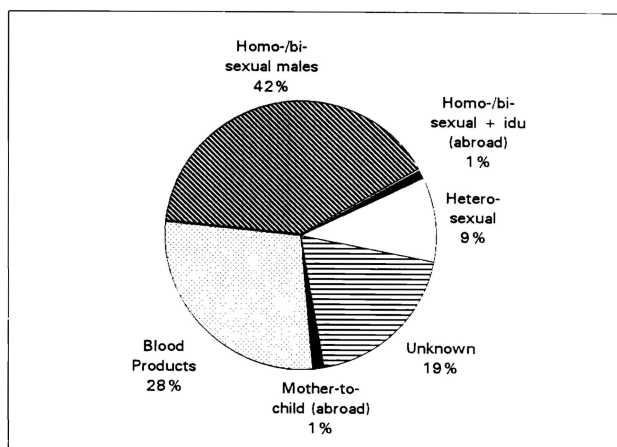


Fig. 4 - Modes of transmission for persons with HIV, Malta (till June 1996). Source: Disease Surveillance Branch, Public Health Department

What about the future?

The dynamics of infection in Malta are still unclear and behavioural studies are needed to support interventions to prevent further spread of the epidemic. Studies of prevalent knowledge, attitudes and behaviour concerning HIV/AIDS, including information on average age at first sexual intercourse, number of sexual partners, 'safer' sexual practices (including condom use) will be essential for rational, targeted prevention campaigns.

Trends in Europe¹¹ (Figure 5) clearly show a slow and steady increase in those infected through heterosexual contact, with women becoming especially vulnerable. The main risk behaviour of concern however is now injecting drug use, especially in Southern Europe¹². If Malta follows these trends, preventive programmes should primarily address injecting drug use, where particularly rapid spread is known to occur. These should include both Demand Reduction and Harm Reduction Strategies (e.g. needle exchange programmes). A second priority should be targeting prevention of sexual transmission (especially amongst young people) through 'safer' sexual practices. 'Safer sex' emphasises a more responsible attitude to sex i.e. mutual monogamy with a non-infected partner, avoiding multiple sexual partners or casual or anonymous sex and consistent use of condoms with all partners.

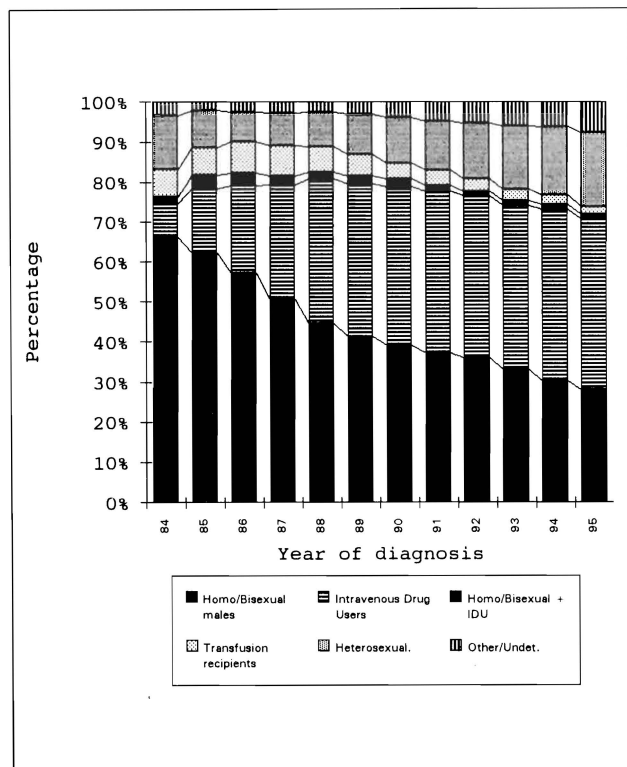


Fig. 5 - Adult/Adolescent AIDS cases by transmission group (%) and year of diagnosis (adjusted for reporting delays) WHO European region 31.12.95; N= 154 437.

Source: WHO / EC AIDS Centre Saint Maurice - France

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