

# Dermato-Venereology in the Nordic Countries

## Reporting systems for STIs and HIV in Norway

**Hans Blystad**

Norwegian Institute of Public Health,  
Department of Infectious Disease  
Epidemiology.

E-mail: hans.blystad@fhi.no

### Historical background

National surveillance data on sexual transmitted infections (STIs) first appeared in Norway in the early 1920s. Aggregated data on STIs were collected by local medical health officers in the municipalities and reported monthly to the Department of Health. National figures were subsequently published by National Statistics in their yearly report of the health situation in the country. Thus, reliable data for gonorrhoea, syphilis and more rare sexual transmitted infections like chancroid exist from 1922.

In 1975, the Norwegian Surveillance System for Communicable Diseases (MSIS) was implemented nation-wide and administered by the Department of Infectious Disease Epidemiology at the Norwegian Institute of Public Health (NIPH) in Oslo. Gonorrhoea, syphilis, herpes genitalis, lymphogranuloma venereum and chancroid were made notifiable diseases; to be reported by general practitioners and dedicated STI clinics as weekly aggregated data. In 1988, genital chlamydial infections were added to this reporting system. In 1995, herpes genitalis was removed from the

list of notifiable diseases, and in 1997 aggregated chlamydial data from clinicians was replaced by yearly reporting by laboratories of the number of positive tests.

From 1983, AIDS was included in the standard list of notifiable diseases to be reported as individual cases, and in 1986 an anonymous, universal reporting system for HIV-infections was introduced.

In 1994, a new and improved surveillance system for most STIs was set up within the MSIS, combining anonymous case-by-case reporting from both laboratories and clinicians. Diseases included in this system were gonorrhoea, syphilis, chancroid, granuloma inguinale and lymphogranuloma venereum. An evolution of this system has shown high coverage and high quality data (1). This system has remained until today. However, chancroid, granuloma inguinale and lympho-granuloma venereum were removed from the list of notifiable disease in 2003.

### Present notification system

As of 2005, only three sexual transmitted diseases are universal, notifiable diseases reported case-by-case to the Norwegian Surveillance System for Communicable Diseases (MSIS). These are gonorrhoea, syphilis (infectious) and HIV infection. In addition, aggregated data on genital chlamydial infections are reported yearly from all diagnostic laboratories.

Gonorrhoea, syphilis (infectious) and HIV infection are universal, notifiable diseases; to be reported anonymously case-by-case using a non-unique identifier linking reports from clinicians and laboratories. The laboratories are supplied with a number of two-part reporting forms, each part bearing the same identification number. When diagnosing gonorrhoea, syphilis or HIV infection in a clinical specimen, the laboratory sends the main part of the form to the clinician and the smaller part of the form to the NIPH, stating the diagnosis and the name and address of the clinician. This is used by the NIPH for sending reminders to clinicians that do not submit the clinical report. The clinician fills in the main part of the form and sends it to the NIPH with a copy to the local municipality health authorities. A separate reporting form is used for gonorrhoea and syphilis.

Patient data reported includes gender; month and year of birth; and place of residence. In addition a variety of epidemiological data is reported including country of birth, diagnostic methods, isolation site, drug resistance, indication for testing, place of infection, clinical picture, and information on gender and relationship to source partner.

Likewise, a separate form is used for HIV infection, which in addition includes questions on previous negative tests and more detailed epidemiological data to enable the NIPH to determine risk category for HIV infection. Based on this data, the time

of infection is estimated for each reported HIV case.

Genital chlamydial infections are reported once a year as aggregated data from all chlamydia diagnostic laboratories. The laboratories report the number of tests performed and the number of positive chlamydial tests. At present, no other information, such as gender, age or place of residence, is reported by the laboratories.

Every case of gonorrhoea, syphilis and HIV-infection are entered daily into a SQL-database that contains HIV data from 1986 and gonorrhoea and syphilis data from 1992. These data are available on the internet (2)

### **Epidemiological situation for HIV and other STIs in Norway**

Like most European countries, a worsening of sexual health in Norway has been observed since the mid 1990s. Increasing incidence rates have mostly been seen in men who have sex with men (MSM) and travellers returning from Southeast-Asia (3)

#### *Gonorrhoea*

The number of reported cases of gonorrhoea in Norway has shown a substantial decline during the last 20 years. Contributing factors to this decline are probably the increased emphasis on early diagnosis, rapid single dose treatment and contact tracing rather than a change in sexu-

al behaviour. However, since 1997 an increase of cases among MSM has been observed contributing to an overall increase in gonorrhoea incidence in Norway. Since the mid-1990s, other Western European countries have also reported increasing gonorrhoea incidences, especially among MSM. In addition, a smaller increase in cases among heterosexuals infected abroad (especially Thailand) have been reported during the last few years.

An increasing proportion of the isolates are  $\beta$ -lactamase producing isolates and isolates with decreased susceptibility to quinolone. Of the 154 isolates among heterosexuals examined for resistance in 2003, 22% were  $\beta$ -lactamase producing, and 8% had decreased susceptibility to quinolones. 7% of the isolates were both  $\beta$ -lactamase producing and had decreased susceptibility to quinolones. Resistance is much rarer in isolates from cases in MSM. In 2003, only 5 of 71 isolates in MSM showed antibiotic resistance.

In 2003, a total of 241 cases of gonorrhoea were reported in Norway (5.4 per 100 000 population). Of these cases, 71 cases occurred among men who have sex with men (MSM), and 165 among heterosexual males and females. In the remaining five cases sexual orientation was unknown.

#### *Syphilis*

The incidence of syphilis in Norway was greatly reduced in the 1980s and 1990s. Prior to 1999, only about ten cases of syphilis was reported each year in Norway. Most of these cases were heterosexuals who acquired their infection abroad. Since 1999, however, the situation has changed mainly due to the outbreak among homosexual men. In the five-year period 1998-2003, a total of 155 syphilis cases among MSM in Norway have been reported. Syphilis seems now once again to be endemic in this group. The ongoing outbreak of syphilis in Norway and other European countries reflects a trend of

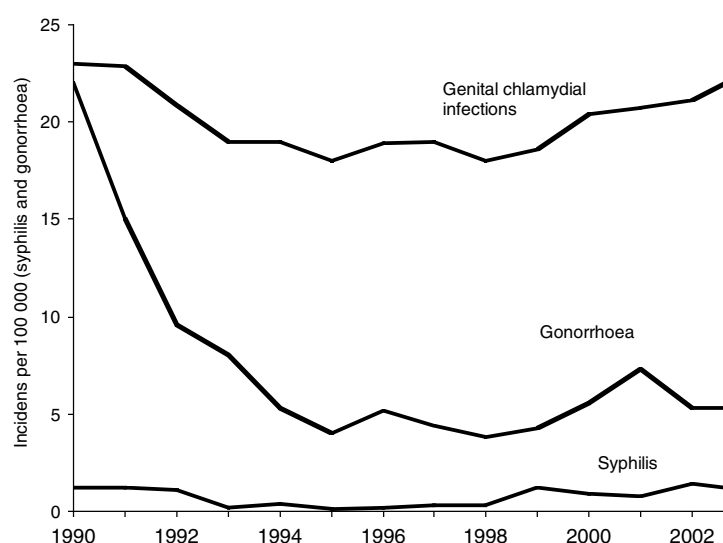


Table: HIV infection in Norway by transmission group and year of diagnosis 1984-2004

Transmission group	<96	96	97	98	99	00	01	02	03	04	Total	%
Heterosex. contact	454	63	67	58	92	131	106	151	153	164	1439	47,2
-living in Norway	206	29	33	22	27	38	27	28	34	43	487	-
-immigrants	248	34	34	36	65	93	79	123	119	121	952	-
Men who have sex with men	601	35	31	30	36	32	39	30	57	70	961	31,5
Injecting drug user	402	9	11	8	12	7	8	16	13	15	501	16,4
Haemophiliac/transf.recipient	45		1								46	1,5
Mother-to-child	12	4	1	1	4	3	2	2	5	1	35	1,1
Other/unknown	29	5	3	1	3	2	3	6	10	2	64	2,1
Total	1543	116	114	98	147	175	158	205	238	252	3046	100,0

increasing risk behaviour among homosexual men.

In 2003, a total of 49 cases of infectious (primary, secondary early latent syphilis) were reported in Norway (1.1 per 100 000 population). Of these, 26 were MSM. 31% (8/26) had primary syphilis, 46% (12/26) had secondary syphilis and the remaining cases were diagnosed as having early latent syphilis. In addition, 23 cases among heterosexuals were reported in 2003, 15 males and eight females. 12 of the males had been infected abroad in different parts of the world, while five females acquired their infection abroad.

#### Genital chlamydial infections

During the last three years, a slight increase in reported positive chlamydia test has been recorded in Norway. A similar increase has been noted in the other Nordic countries. Norwegian chlamydia data are insufficient to explain this increase. In other Nordic countries, however, studies have showed that this increase is not caused by improved laboratory methods or an increase in

the number of people tested for chlamydia. The increase in number of chlamydial infections in Norway is therefore probable a reflection of increasing risky sexual behaviour among young heterosexuals. Based also on data from other Nordic countries, it is estimated that 10-15% of reported cases is acquired abroad, i.e. approximately 2000 persons are infected abroad yearly.

In 2003, 16 356 positive chlamydial tests were reported from all relevant laboratories doing chlamydia diagnostics (364 per 100 000 population). This represents 6.4% of all the 254 632 chlamydia tests performed in 2003. No data on sex, age groups or sexual orientation are available.

#### HIV-infection

The increase in HIV incidence observed in the early 2000s is caused by more HIV infected immigrants arriving in Norway. In a few years time, immigrants will probably be the dominating group of people living with HIV infection in Norway. Few cases of HIV transmission from immigrants to the general population

have been observed. The number of newly diagnosed cases of HIV infection among heterosexuals living in Norway has remained low and stable during the 1990s and early 2000s. Since the autumn of 2003, an increasing number of newly infected men who have sex with men (MSM) has been reported.

By the end of 2003, the cumulative total of diagnosed HIV-positive individuals in Norway was 2794. It is believed that approximately 2200 persons are at present living with HIV/AIDS in Norway.

In 2003, a total of 239 cases of newly diagnosed HIV infections were reported; 146 males and 93 females (5.3 per 100 000 population). This is the highest ever reported annual number of newly diagnosed HIV cases in Norway. Cases diagnosed in people who originated from countries outside Europe with generalised HIV epidemics and arriving as asylum seekers and refugees still dominate the Norwegian HIV data. In 2003, this group constituted 59% of reported HIV cases. Another reason

for the high number of cases reported in 2003 is a near twofold increase of cases among MSM, from 30 reported cases in 2002 to 58 cases in 2003. The number of reported cases among MSM had previously remained stable during the 1990s and early 2000s.

#### References:

1. Aavitsland P, Nilsen Ø. A new anonymous case reporting system for sexually transmitted diseases in Norway. *Norsk Epidemiologi* 1995; 5: 39-43
2. Surveillance data the Norwegian Surveillance System for Communicable Diseases (<http://www.msis.no>)
3. Communicable diseases in Norway. Annual report 2003, trends and main prevention strategies. Norwegian Institute of Public Health 2004 (<http://www.fhi.no/dav/15792EB854.pdf>)

### **Astellas: the fusion of Fujisawa and Yamanouchi**

Astellas is a company created by the merger of Fujisawa and Yamanouchi. By drawing on the knowledge and experience of two leaders, we develop focused solutions in key areas of dermatology. But this is just the beginning. Anything is possible when we apply our inspiration.