



Editor: Peter Henrik Andersen  
Department of Epidemiology  
Statens Serum Institut • Artillerivej 5 • DK 2300 Copenhagen S

Tel.: +45 3268 3038 • Fax: +45 3268 3874  
Telephone hours: 8.30-11.00 and 14.00-15.00  
www.ssi.dk • epinews@ssi.dk • ISSN: 1396-8599

## HIV 2009

2009 saw a total of 236 notified cases of newly diagnosed HIV infection, 178 men and 58 women. A total of 122 (52%) were infected in Denmark and 96 (41%) abroad. In 18 cases (8%), the country of infection was not stated. Among the notified cases, 133 were Danes, 84 immigrants, 18 tourists and one was a second-generation immigrant. Among the immigrants, 46% were from Sub-Saharan Africa, 24% from Europe, 18% from Asia, 9% from North or South America and 4% from North Africa. Of the 54 immigrants who were infected abroad, the year they entered Denmark was provided in 52 cases. Among these, 24 (46%) had entered before 2009.

The median age was 39 years (range 20-76 years) for men and 33 years (22-64 years) for women. In two cases, age was not stated.

No children or adolescents below the age of 20 years were notified in 2009. Among 228 cases with information on mode of infection, 212 (93%) were infected via sexual contact, including 109 males who had sex with males (MSM) and 103 heterosexually infected (HTX). Fifteen (7%) were infected via IV drug use (IDU) and one person was infected during a blood transfusion abroad.

The majority of the notified cases resided in the Copenhagen Region (See the Annual 2009 HIV/AIDS report).

### Danish men

Among 120 Danish men, 81 (68%) were MSM. A total of 27 were HTX: in 20 cases with a woman from a known risk group and in seven cases without known risks. Nine (8%) were infected by IDU and in three cases the mode of infection was unknown. Among HTX, 13 (48%) were infected abroad. Among MSM, 12 (15%) were infected abroad.

### Danish women

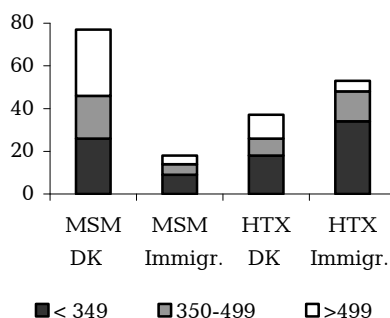
Among 13 Danish women, ten (77%) were HTX: in three cases with a man from a known risk group and in seven cases without known risks. Two (15%) were infected via IDU. In one case the mode and country of infection were not stated.

### Immigrant men

Among 46 immigrant men, 21 (46%) were MSM. A total of 22 were HTX: in 19 cases with a woman from a known risk group and in three cases without known risks. One was infected via IDU, and in two cases the mode of infection was unknown. Among MSM a total of ten (50%) were infected in Denmark; the corresponding figure among HTX was

## HIV AND AIDS 2009

**Figure 1. Number of notified persons with newly diagnosed HIV by sexual mode of infection, origin and CD4 count, 2009**



seven (32%). In six cases, the country of infection was not stated.

### Immigrant women

Among 39 immigrant women, 36 (92%) were HTX: in 31 cases with a man from a known risk group and in five cases without a known risk. Two were infected via IDU and one person was infected via a blood transfusion abroad. Among heterosexually infected immigrant women, four (11%) were infected in Denmark.

### Tourists

Among 18 tourists, 12 were men and six women. Seven were MSM, eight HTX, one IDU and in two cases the route of infection was not stated. None of the tourists were infected in Denmark.

### CD4 counts and treatment initiation

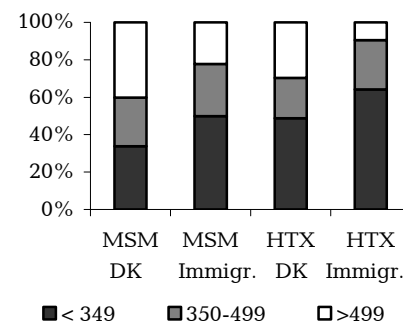
Among those of the notified cases who lived in Denmark, 202 (93%) cases included information on the CD4 count at the time of the diagnosis, while in 13 cases the CD4 count was not available. The CD4 count is a marker that indicates how HIV virus affects the cellular immune response. CD4 counts < 350 cells per µl blood currently constitutes indication for treatment initiation in Denmark. Figures 1 and 2 show the distribution of CD4 counts at diagnosis for various groups of sexually infected persons.

### AIDS 2009

In 2009, 38 persons were notified with AIDS, 26 (68%) men and 12 (32%) women. Among the men, 12 (46%) were MSM, 11 (42%) were HTX and three were infected via IDU. The median age was 50 years (range 33-61). Among women, 11 were HTX and in one case the source of infection was not stated. The median age was 41 years (range 24-64). A total of 19 persons were immigrants, ten men and nine women. Among the 38 diagnosed with AIDS in 2009, a total of 31 (82%) were diagnosed with

## No. 45, 2010

**Figure 2. Share of notified persons with newly diagnosed HIV by sexual mode of infection, origin and CD4 count, 2009**



HIV the same year. In 2009, 15 persons previously notified with AIDS died. See also the Annual 2009 HIV/AIDS report.

### Commentary

The majority of newly diagnosed HIV patients are MSM, but heterosexually infected immigrants also comprise a considerable share (approx. 1/3) of the infected individuals.

Approx. half of the notified cases had a CD4 count below 350 when diagnosed. Persons who are diagnosed with a CD4 count below the threshold have been tested late as they require treatment at the time when diagnosed. Danish MSM is the group with the lowest share of late tests; 34% had CD4 counts < 350. This share has remained unchanged from 2008 (33%). In contrast, heterosexually infected immigrants is the group which has the greatest share of late tests; 64% had CD4 counts < 350.

Only half of the HIV infected immigrants were tested the year they entered Denmark. The majority of HIV infected immigrants who were not tested when entering Denmark were diagnosed so late that this affected their treatment options. In the National Board of Health's test guidelines, EPI-NEWS 46/09 and 48/09, HIV testing is recommended for all immigrants who arrive from highly endemic areas.

As well-treated HIV positives only have a very limited infection potential, continued HIV transmission in Denmark is due to infection by currently undiagnosed HIV positives and a small group of diagnosed HIV positives who have not yet commenced treatment.

The number of persons who were notified with AIDS as well as the number who died from AIDS are the lowest numbers recorded so far. (A.H. Christiansen, S. Cowan, Department of Epidemiology)

## Individually notifiable diseases

Number of notifications received in the Department of Epidemiology, SSI (2010 figures are preliminary)

| Table 1                        | Week 44<br>2010 | Cum.<br>2010 <sup>1)</sup> | Cum.<br>2009 <sup>1)</sup> |
|--------------------------------|-----------------|----------------------------|----------------------------|
| AIDS                           | 2               | 13                         | 14                         |
| Anthrax                        | 0               | 0                          | 0                          |
| Botulism                       | 0               | 0                          | 0                          |
| Cholera                        | 0               | 0                          | 0                          |
| Creutzfeldt-Jakob              | 0               | 2                          | 24                         |
| Diphtheria                     | 0               | 0                          | 0                          |
| Food-borne diseases            | 4               | 31                         | 48                         |
| of these, infected abroad      | 1               | 2                          | 15                         |
| Gonorrhoea                     | 3               | 73                         | 133                        |
| Haemorrhagic fever             | 0               | 0                          | 0                          |
| Hepatitis A                    | 0               | 5                          | 9                          |
| of these, infected abroad      | 0               | 2                          | 2                          |
| Hepatitis B (acute)            | 0               | 1                          | 9                          |
| Hepatitis B (chronic)          | 2               | 31                         | 45                         |
| Hepatitis C (acute)            | 1               | 3                          | 0                          |
| Hepatitis C (chronic)          | 4               | 59                         | 99                         |
| HIV                            | 2               | 64                         | 48                         |
| Legionella pneumonia           | 4               | 19                         | 25                         |
| of these, infected abroad      | 0               | 0                          | 4                          |
| Leprosy                        | 0               | 1                          | 0                          |
| Leptospirosis                  | 0               | 0                          | 0                          |
| Measles                        | 7               | 23                         | 0                          |
| Meningococcal disease          | 3               | 29                         | 18                         |
| of these, group B              | 0               | 6                          | 12                         |
| of these, group C              | 0               | 13                         | 4                          |
| of these, unspec. + other      | 3               | 10                         | 2                          |
| Mumps                          | 0               | 1                          | 3                          |
| Neuroborreliosis               | 1               | 3                          | 5                          |
| Ornithosis                     | 0               | 1                          | 1                          |
| Pertussis (children < 2 years) | 2               | 9                          | 23                         |
| Plague                         | 0               | 0                          | 0                          |
| Polio                          | 0               | 0                          | 0                          |
| Purulent meningitis            |                 |                            |                            |
| Haemophilus influenzae         | 0               | 1                          | 0                          |
| Listeria monocytogenes         | 0               | 0                          | 2                          |
| Streptococcus pneumoniae       | 0               | 24                         | 24                         |
| Other aethiology               | 0               | 2                          | 3                          |
| Unknown aethiology             | 0               | 1                          | 5                          |
| Under registration             | 1               | 3                          | -                          |
| Rabies                         | 0               | 0                          | 0                          |
| Rubella (congenital)           | 0               | 0                          | 0                          |
| Rubella (during pregnancy)     | 0               | 0                          | 0                          |
| Shigellosis                    | 3               | 16                         | 24                         |
| of these, infected abroad      | 2               | 12                         | 18                         |
| Syphilis                       | 4               | 101                        | 79                         |
| Tetanus                        | 0               | 0                          | 0                          |
| Tuberculosis                   | 20              | 95                         | 68                         |
| Typhoid/paratyphoid fever      | 0               | 4                          | 12                         |
| of these, infected abroad      | 0               | 2                          | 10                         |
| Typhus exanthematicus          | 0               | 0                          | 0                          |
| VTEC/HUS                       | 5               | 24                         | 28                         |
| of these, infected abroad      | 0               | 9                          | 6                          |

<sup>1)</sup> Cumulative number 2010 and in corresponding period 2009

## Selected laboratory diagnosed infections

Number of specimens, isolates, and/or notifications received in SSI laboratories

| Table 2                                | Week 44<br>2010 | Cum.<br>2010 <sup>3)</sup> | Cum.<br>2009 <sup>3)</sup> |
|--|-----------------|----------------------------|----------------------------|
| Bordetella pertussis<br>(all ages)     | 5               | 183                        | 179                        |
| Gonococci                              | 4               | 356                        | 373                        |
| of these, females                      | 1               | 94                         | 97                         |
| of these, males                        | 3               | 262                        | 276                        |
| Listeria monocytogenes                 | 0               | 48                         | 74                         |
| Mycoplasma pneumoniae                  |                 |                            |                            |
| Resp. specimens <sup>3)</sup>          | 47              | 422                        | 70                         |
| Serum specimens <sup>4)</sup>          | 9               | 245                        | 103                        |
| Streptococci <sup>5)</sup>             |                 |                            |                            |
| Group A streptococci                   | 0               | 137                        | 125                        |
| Group B streptococci                   | 0               | 92                         | 110                        |
| Group C streptococci                   | 0               | 50                         | 32                         |
| Group G streptococci                   | 0               | 137                        | 148                        |
| S. pneumoniae                          | 21              | 855                        | 872                        |
| Table 3                                | Week 42<br>2010 | Cum.<br>2010 <sup>2)</sup> | Cum.<br>2009 <sup>2)</sup> |
| MRSA                                   | 22              | 838                        | 623                        |
| Pathogenic int. bacteria <sup>6)</sup> |                 |                            |                            |
| Campylobacter                          | 86              | 3193                       | 2856                       |
| S. Enteritidis                         | 8               | 325                        | 551                        |
| S. Typhimurium                         | 5               | 472                        | 703                        |
| Other zoon. salmonella                 | 4               | 551                        | 627                        |
| Yersinia enterocolitica                | 2               | 160                        | 199                        |
| Verocytotoxin-<br>producing E. coli    | 3               | 156                        | 142                        |
| Enteropathogenic E. coli               | 6               | 164                        | 171                        |
| Enterotoxigenic E. coli                | 4               | 352                        | 269                        |

<sup>2)</sup> Cumulative number 2010 and in corresponding period 2009

<sup>3)</sup> Resp. specimens with positive PCR

<sup>4)</sup> Serum specimens with pos. complement fixation test

<sup>5)</sup> Isolated in blood or spinal fluid

<sup>6)</sup> See also [www.germ.dk](http://www.germ.dk)

## Surveillance of the influenza activity

The sentinel graph is no longer presented here

The sentinel and on-call surveillance of the influenza activity in Denmark is presented in the weekly newsletter "Influenza-Nyt" at [www.ssi.dk](http://www.ssi.dk) (Danish language)

10 November 2010