

## TUBERCULOSIS 2007, PART I

No. 50, 2008

2007 saw a total of 391 notified cases of tuberculosis (TB), 150 (38%) were Danes and 241 (62%) immigrants.

A total of 71 (18%) of the notifications were received after one or more reminders from the Department of Epidemiology.

The overall 2007 TB incidence was 7.1 per 10<sup>5</sup>, and the number of notified cases was at par with the previous five years, [Figure 1](#).

[Table 1](#) shows the distribution by part of country. Due to the formation of new administrative regions in 2007, direct comparison of the distribution in the former counties is not possible, EPI-NEWS 8/08.

The M/F-ratio was 2.3 for Danes and 1.1 for immigrants. The gender and age distribution among Danes and immigrants, respectively, remained unchanged from 2006, EPI-NEWS 49/07. The median age was 49 years (1-98 years) for Danes and 33 years (1-83 years) for immigrants. Among Danes, there was an increased number of cases among 35-64-year-old males, as also observed in previous years. A total of 36 (9%) patients were notified with relapse, ten Danes and 26 immigrants.

In a total of six (2%) cases, two Danes and four immigrants, concurrent HIV infection and therefore aids was reported. This is probably a minimum figure.

Alcohol abuse and/or homelessness was reported for 40 (10%) of patients, 31 Danes and nine immigrants, including four from Greenland.

In 14 cases the patients had died at the time of the notification; nine of these were Danes. One person was diagnosed by section, and in another five cases concurrent homelessness, neglect or abuse was reported. In one of the five cases, in which immigrants had died, immune deficiency was reported.

### TB localisation

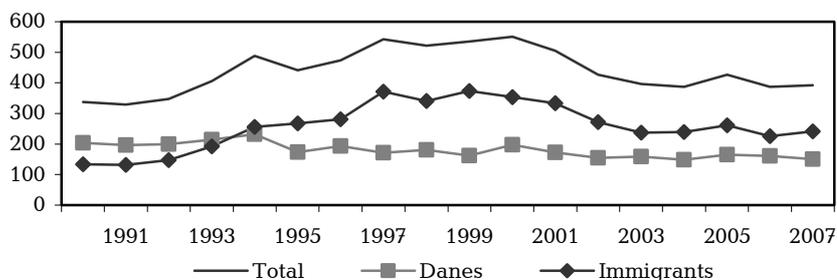
A total of 299 patients (76%) had pulmonary TB; among these 25 (6%) had concurrent extrapulmonary TB. A total of 92 (24%) patients had extrapulmonary TB alone.

Among Danes, 135 had pulmonary TB and 15 extrapulmonary TB. The most common extrapulmonary manifestations were pleural TB, 33% (5), glands 27% (4) and bones 20% (3). Among immigrants, 139 had pulmonary TB and 102 extrapulmonary TB. The most common extrapulmonary manifestations were TB of the glands 52% (53), pleura 14% (14) and bones 12% (12).

**Table 1. Notified tuberculosis cases and incidence per 10<sup>5</sup> in Danes and immigrants, by part of country, 2007**

Area	Danes		Immigrants		Total	
	No.	Incidence	No.	Incidence	No.	Incidence
Copenhagen City	41	7.7	86	93.2	127	19.3
Copenhagen subs	15	3.5	28	53.2	43	8.5
Northern Zealand	9	2.2	16	55.0	25	5.7
Bornholm	0	0.0	0	0.0	0	0.0
Eastern Zealand	1	0.5	6	45.1	7	3.0
W & S Zealand	11	2.0	8	30.8	19	3.2
Funen	19	4.3	20	71.0	39	8.1
Southern Jutland	17	2.6	17	40.2	34	4.8
Western Jutland	5	1.2	11	59.6	16	3.8
Eastern Jutland	14	1.9	28	54.7	42	5.2
Northern Jutland	16	2.9	14	57.2	30	5.2
Unknown	2	-	7	-	9	-
<b>Total</b>	<b>150</b>	<b>3.0</b>	<b>241</b>	<b>63.6</b>	<b>391</b>	<b>7.1</b>

**Figure 1. Notified tuberculosis cases in 1990-2007, Danes and immigrants**



Six immigrants had gastrointestinal TB, five cerebral TB, five miliary TB, four urogenital TB and two had TB of the skin.

### Country of infection and ethnicity

A total of 114 (79%) adult Danes were thought to have been infected in Denmark, and nine (6%) were infected in one of seven other countries. For a total of 22 (15%) adult Danes, the country of infection was unknown.

One Dane was thought to have been infected during admission to a Danish hospital.

A total of 39 (18%) adult immigrants were thought to have been infected in Denmark, while 126 (58%) were infected abroad. Among these, 44 (35%) were from Somalia, including 12 who were infected in Denmark and 21 infected in Somalia.

A total of 25 (11%) persons were from Greenland, including 11 infected in Denmark and five in Greenland.

A total of 23 (11%) were from Pakistan, including 13 infected there and five infected in Denmark.

Among the 14 cases in Vietnamese immigrants, 12 were infected in their country of origin. Among the 10 (5%) cases in immigrants from Thailand, seven were infected in their country of origin.

For 54 (25%) adult immigrants, the country of infection was unknown.

### Occupational infection

A total of four patients were thought to have been infected occupationally, all were Danes. Two were infected in connection with stationing, one was employed at a hospital and one was employed in another Danish organisation.

### TB in children

A total of 27 children below the age of 15 years were notified, including 11 (40%) below the age of five years.

Five children were Danes; all had been infected in Denmark. Among 22 immigrant children, 12 (54%) were infected in Denmark and six (27%) in their countries of origin. For the remaining children, the country of infection was unknown.

A total of 11 (40%) children, including four Danes, were probably infected in connection with outbreaks in their families.

A total of 18 (67%) children, including four Danes and 14 immigrants, had pulmonary TB. Eight immigrant children only had extrapulmonary TB, including glandular TB (5), pleural (1), cerebral (1) and one case of miliary TB.

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**Comments will follow in part II**

10 December 2008

## Individually notifiable diseases

Number of notifications received in the Department of Epidemiology, SSI (2008 figures are preliminary)

Table 1	Week 49 2008	Cum. 2008 <sup>1)</sup>	Cum. 2007 <sup>1)</sup>
AIDS	0	34	47
Anthrax	0	0	0
Botulism	0	0	0
Cholera	0	1	0
Creutzfeldt-Jakob	0	4	9
Diphtheria	0	0	0
Food-borne diseases	10	821	601
of these, infected abroad	1	134	112
Gonorrhoea	22	366	337
Haemorrhagic fever	0	0	0
Hepatitis A	2	50	24
of these, infected abroad	0	23	10
Hepatitis B (acute)	1	23	28
Hepatitis B (chronic)	4	165	299
Hepatitis C (acute)	0	6	8
Hepatitis C (chronic)	5	409	558
HIV	0	235	293
Legionella pneumonia	3	120	115
of these, infected abroad	0	41	32
Leprosy	0	0	0
Leptospirosis	0	7	12
Measles	0	10	2
Meningococcal disease	0	53	67
of these, group B	0	24	37
of these, group C	0	16	20
of these, unspec. + other	0	13	10
Mumps	0	27	9
Neuroborreliosis	0	55	95
Ornithosis	0	6	10
Pertussis (children < 2 years)	2	91	76
Plague	0	0	0
Polio	0	0	0
Purulent meningitis			
Haemophilus influenzae	0	5	2
Listeria monocytogenes	0	1	10
Streptococcus pneumoniae	2	80	94
Other aethiology	0	19	11
Unknown aethiology	0	19	18
Under registration	2	7	-
Rabies	0	0	0
Rubella (congenital)	0	2	0
Rubella (during pregnancy)	0	0	0
Shigellosis	0	79	213
of these, infected abroad	0	65	49
Syphilis	13	140	93
Tetanus	0	1	3
Tuberculosis	12	373	370
Typhoid/paratyphoid fever	0	32	23
of these, infected abroad	0	26	21
Typhus exanthematicus	0	0	2
VTEC/HUS	1	142	152
of these, infected abroad	0	50	52

<sup>1)</sup> Cumulative number 2008 and in corresponding period 2007

## Selected laboratory diagnosed infections

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

Table 2	Week 49 2008	Cum. 2008 <sup>2)</sup>	Cum. 2007 <sup>2)</sup>
Bordetella pertussis (all ages)	1	183	198
Gonococci	8	348	334
of these, females	3	73	57
of these, males	5	275	277
Listeria monocytogenes	2	47	52
Mycoplasma pneumoniae			
Resp. specimens <sup>3)</sup>	2	80	355
Serum specimens <sup>4)</sup>	10	94	397
Streptococci <sup>5)</sup>			
Group A streptococci	0	127	103
Group B streptococci	0	120	95
Group C streptococci	0	21	21
Group G streptococci	0	119	117
S. pneumoniae	26	868	987
Table 3	Week 47 2008	Cum. 2008 <sup>2)</sup>	Cum. 2007 <sup>2)</sup>
MRSA	10	702	619
Pathogenic int. bacteria <sup>6)</sup>			
Campylobacter	32	3200	3748
S. Enteritidis	7	612	534
S. Typhimurium	25	1892	319
Other zoon. salmonella	7	941	684
Yersinia enterocolitica	1	302	260
Verocytotoxin- producing E. coli	0	146	147
Enteropathogenic E. coli	1	207	168
Enterotoxigenic E. coli	3	383	296

<sup>2)</sup> Cumulative number 2008 and in corresponding period 2007

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

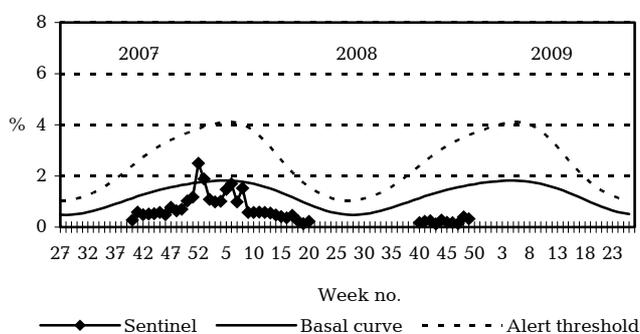
<sup>4)</sup> Serum specimens with pos. complement fixation test

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

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

## Sentinel surveillance of the influenza activity

Weekly percentage of consultations, 2007/2008/2009



Sentinel: Influenza consultations (as percentage of total consultations)

Basal curve: Expected frequency of consultations under non-epidemic conditions

Alert threshold: Possible incipient epidemic

10 December 2008