

TUBERCULOSIS 2000, PART I

No. 43, 2001

In 2000 a total of 548 cases of tuberculosis were notified in Denmark, as compared with 536 cases in 1999, EPI-NEWS 45/00. The overall incidence was 10.3 per 10<sup>5</sup>, Table 1. Cases notified from Greenland or the Faroes are not included. 123 notifications (22%) were only received after a reminder had been sent. An immigrant is defined as a person born abroad or a person under 25 years of age born in Denmark to parents, one or both of whom were born abroad. Greenlanders resident in Denmark are classified as immigrants. On 1 May 2000 the notification criteria for TB were extended to include the entire Mycobacterium tuberculosis complex, i.e. M. tuberculosis, M. africanum, M. microti and M. bovis excluding the BCG strain, EPI-NEWS 37/00. 199 cases were notified in native Danes. The incidence in Danes rose to 4.0 per 10<sup>5</sup> from 3.3 per 10<sup>5</sup> in 1999. This rise was seen in all age groups, but especially in 15-39-year-olds, Fig. 1. The M/F ratio was 2.1. 349 cases were notified in immigrants, with an M/F ratio of 1.1. The incidence fell from 102.6 per 10<sup>5</sup> in 1999 to 92.3 per 10<sup>5</sup>. Immigrants from Somalia still constituted by far the largest group (47%), followed by Pakistan (10%), Greenland (4%), and 3% each from Turkey, Iraq and Afghanistan.

Compared with the 5-year period 1995-1999, the largest numerical rises were seen in the counties of Funen, Copenhagen and Ringkøbing, while the largest falls occurred in West Zealand and North Jutland counties, Table 1. The rise in Funen was partly due to a doubling of cases in Danes in 2000 in comparison with the previous five years. No major outbreaks were noted.

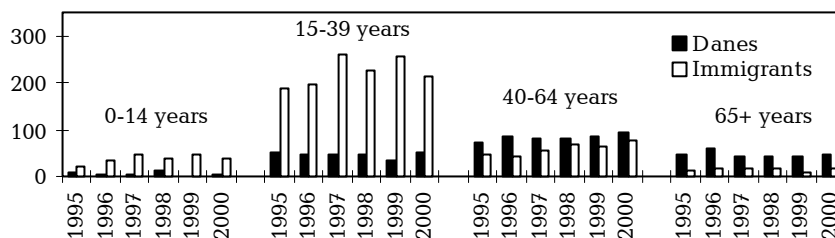
Localization

397 patients (72%) had pulmonary TB, of whom 37 also had TB elsewhere. Among native Danes, 174 (87%) had pulmonary TB, the figure for immigrants being 223 (64%). The commonest extrapulmonary manifestations, with or without pulmonary TB, were TB in lymph nodes (14%), bones (5%), intestine (4%) and pleura (3%). 13% of Danes (25) had exclusively extrapulmonary TB. This proportion was 36% in immigrants (126). This group thus continued to

Table 1. No of notified cases of TB 1995-2000 in Danes and immigrants with incidence per 10<sup>5</sup> in 2000, by county

County	Danes		Immigrants		Total		Incidence per 10 <sup>5</sup> , 2000		
	2000	95-99	2000	95-99	2000	95-99	Da-nes	Immi-grants	Total
	Cph. Municip.	48	53	91	86	139	140	11.7	107.6
Frb. Municip.	4	2	9	9	13	11	5.0	85.8	14.4
Copenhagen	23	19	53	44	76	63	4.2	80.6	12.4
Frederiksborg	6	8	12	16	18	24	1.8	44.9	4.9
Roskilde	4	5	15	7	19	12	1.8	106.6	8.2
West Zealand	5	6	5	12	10	18	1.8	34.5	3.4
Storstrøm	17	11	9	11	26	22	6.8	83.3	10.0
Bornholm	1	1	0	1	1	2	2.3	0.0	2.3
Funen	20	10	42	28	62	39	4.5	153.6	13.1
South Jutland	6	5	2	5	8	10	2.5	13.2	3.2
Ribe	3	3	6	7	9	10	1.4	56.7	4.0
Vejle	7	6	17	15	24	21	2.1	101.5	6.9
Ringkøbing	11	9	12	6	23	15	4.2	109.9	8.4
Aarhus	17	14	41	45	58	59	2.9	98.4	9.1
Viborg	9	7	10	6	19	13	4.0	137.5	8.1
North Jutland	16	17	19	26	35	43	3.4	99.1	7.1
Other/unstated	2	0	6	2	8	2	-	-	-
Total	199	176	349	326	548	504	4.0	92.3	10.3

Fig. 1. No. of notified cases of TB in Denmark 1995-2000, by age



make up a large proportion of cases of extrapulmonary TB. Seven patients, all immigrants, had miliary TB, and five, including two Danes, had tuberculous meningitis.

Risk groups

11 patients, four Danes and seven immigrants, were stated to be HIV positive; this is probably a minimum figure. Alcohol abuse was noted in 29 patients, 25 Danes and four immigrants. These 25 Danes comprised 18 men and seven women with a median age of 43 and 51 years respectively. 19 of the 25 lived in the Municipality (10) or County (6) of Copenhagen or in North Jutland County (3).

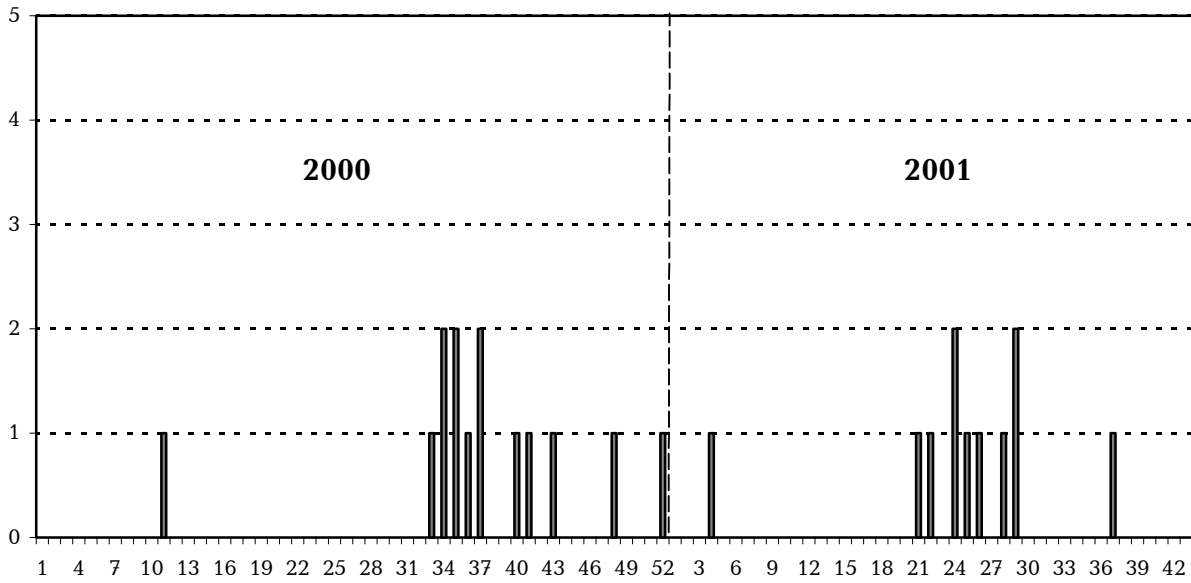
Transmission

Most Danes with TB (93%) were thought to have been infected in Denmark and the majority of immigrants (88%) abroad, typically in their country of origin. 41 immigrants were thought to have been infected

in Denmark, including 16 from Somalia, nine from Greenland and five from Pakistan. 13 Danes were stated to have been infected abroad, five in Asia and three in Africa. 39 patients were notified with relapse, 17 Danes (12%) and 22 immigrants. A source of infection within the household during the previous three years was noted in 51 cases (nine Danes and 42 immigrants). A source of infection outside the household during the previous three years was noted in a further 50 cases (31 Danes and 19 immigrants). In 32 patients, 12 Danes and 20 immigrants, a possible infective contact had occurred more than three years earlier. In 376 cases (70%) the source of infection was unknown. Comments will follow in Part II.

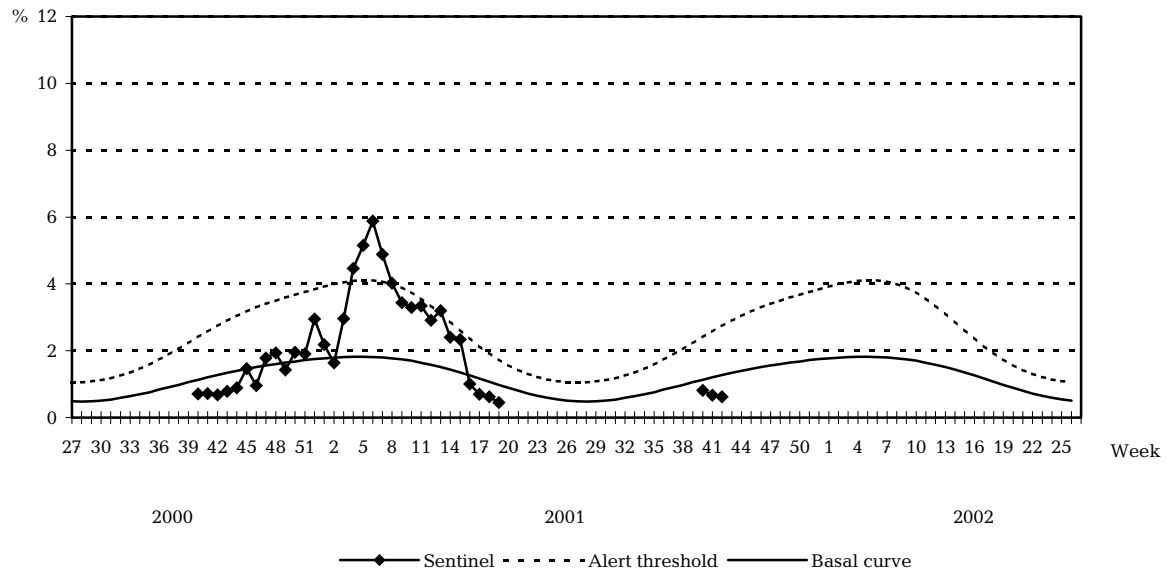
(P. Andersen, Dept. of Epidemiology, V. Ø. Thomsen, International Reference Lab. of Mycobacteriology)

**No. of notified cases of measles per week, 2000 - 2001**



**Sentinel surveillance of influenza activity**

Weekly percentage of consultations, 2000/2001/2002



- Sentinel:** Influenza consultations as % of total consultations
- Basal curve:** Expected frequency of influenza consultations under non-epidemic conditions
- Alert threshold:** Possible incipient epidemic