

## THE INFLUENZA SEASON 2005-2006

The sentinel surveillance of influenza was activated in the week of 3 October 2005 (week 40). During this season, a mean of 130 GPs per week have been notifying influenza cases to SSI. This is the highest level in the 12 seasons of the sentinel surveillance, which is highly satisfactory. We therefore take this opportunity to thank the participating GPs for their efforts.

The influenza activity in Denmark was low until the end of February (week 9) 2006, when the activity grew and stayed at medium level until the end of March (week 13). Then the activity dropped to below the expected level.

In the same period, the influenza laboratory has examined secretion specimens for influenza virus. Of these, 312 specimens were received from the sentinel GPs. Positive findings with virus strain typing appear in [Table 1](#).

**Table 1. Confirmed influenza virus by sender and virus strain, season 2005-2006**

	Virus strain		
	A (H1N1)	A (H3N2)	B
Sentinel	1	26	111
Others	8	27	82
Total	9	53	193

In the season 2005-2006, the predominant type diagnosed was influenza B.

A total of 111 (36%) out of 312 sentinel specimens were positive for influenza B. The positive specimens were isolated in weeks 2-14, 2006. Influenza A H3N2 was isolated in weeks 4-15, 2006. A single H1N1 specimen was isolated in week 10.

### Vaccination coverage

From SSI 682,000 doses of influenza vaccine were sold. The Ministry of the Interior and Health has calculated that 55% of persons > 65 years accepted the offer of free influenza vaccination in the autumn of 2005, compared with 52% in the autumn of 2004. The coverage was the highest in Aarhus County (67%) and in Copenhagen Municipality (62%). In the remaining counties the acceptance was between 50% and 57%.

The free influenza vaccination to persons over 65 years will continue unchanged next season.

### Influenza vaccine 2006-2007

Based on the circulating strains in the season 2005-2006, the WHO decided in March 2006 to change the composition of the vaccine for the coming season (2006-2007) as follows:

- A/New Caledonia/20/99(H1N1)-like virus
- A/Wisconsin/67/2005(H3N2)-like virus
- B/Malaysia/2506/2004-like virus (S. Glismann, A. H. Christiansen, Department of Epidemiology, L.P. Nielsen, Influenza Laboratory)

### MMR FOR TRAVEL ABROAD

Measles are still natural in remote continents, especially in Asia and Africa. Moreover, outbreaks still occur in European countries due to insufficient vaccination coverage. It is, therefore, not unusual that exposure abroad results in disease after returning and risk of spreading in Denmark.

Since 2000, there have been 79 notified cases of measles in Denmark, of which 27% were between 13 and 41 years of age. Nine (11%) patients had been infected abroad, in Europe and Asia respectively; one case caused an outbreak of 23 cases in total, EPI-NEWS 25/03.

Therefore, the MMR vaccine should be considered to unvaccinated children  $\geq 9$  months before travelling to an area where measles occur. MMR vaccination given before the age of 12 months does not count. In addition, MMR vaccination is also recommended to older children and adults who have not had measles or been vaccinated previously. MMR vaccination was introduced in Denmark in 1987, with vaccination at ages 15 months and 12 years. The vaccine was offered to all children born since 1975, i.e. persons aged up to 31 years today. Especially in the first years, the proportion of vaccinated children was insufficient, and the goal of 95% coverage with two vaccinations has not yet been reached.

During the years 1980-1987, however, fewer measles cases than expected were notified, and it must, therefore, be concluded that an unknown number of adult Danes have neither had measles nor been vaccinated.

In 2006, there have been several minor outbreaks in Denmark with a total of 24 cases, 1/3 of whom was older than 15 years. Read more about

measles on

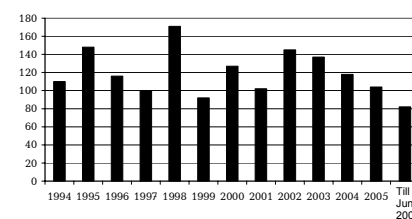
<http://www.ssi.dk/sw1200.asp> (Danish)

(S. Glismann, Department of Epidemiology)

### INVASIVE INFECTIONS WITH HAEMOLYTIC STREPTOCOCCI, GROUP A (GAS)

As per 1 June 2006, the Neisseria and Streptococci Reference Laboratory had received invasive GAS isolates from 82 persons from clinical microbiological departments. The incidence in Denmark ranges from 90 to 170 cases per year, highest during the winter period and higher every 3 to 4 years, [Figure 1](#).

**Figure 1. Invasive infections with group A streptococci per year, 1994 - 1 June 2006**



GAS isolates can be divided into serotypes based on cell wall T-protein. Because of an increased incidence of GAS in the period February-April 2006, a total of 64 GAS isolates (ulcer=30; throat=15; nose=6; vagina/rectum/perianally=9; eye/ear= 4) were T-typed with the following distribution, number in (): 1(18), 12(16), 28(10), 3-13-B3264(9), 4(5), 14(2), and 2,6,25,NT(4). There was no accumulation of any specific T-type.

The T-type distribution of non-invasive isolates corresponds to the distribution among invasive isolates in 2006. As compared with 2005, however, an increased incidence of T-type 1 and 12 was seen. It is well known that the incidence of various known T-types varies from year to year. This probably has to do with population immunity.

(J.J. Christensen, L. Lambertsen, NSR Laboratory, P. Valentiner-Branth, M. Howitz, Department of Epidemiology)

### SUMMER HOLIDAYS

Subject to unforeseen circumstances, EPI-NEWS will not appear from the end of June till the beginning of August (weeks 26-32). The staff of the Department of Epidemiology wishes everybody a pleasant summer.

21 June 2006

## Individually notifiable diseases

Number of notifications received in the Department of Epidemiology, SSI (2006 figures are preliminary)

Table 1	Week 24 2006	Cum. 2006 <sup>1)</sup>	Cum. 2005 <sup>1)</sup>
AIDS	1	23	33
Anthrax	0	0	0
Botulism	0	0	0
Cholera	0	0	0
Creutzfeldt-Jakob	0	7	2
Diphtheria	0	0	0
Foodborne diseases	9	161	169
of these, infected abroad	2	41	40
Gonorrhoea	3	205	259
Haemorrhagic fever	0	0	0
Hepatitis A	1	9	39
of these, infected abroad	1	2	9
Hepatitis B (acute)	0	10	22
Hepatitis B (chronic)	6	193	69
Hepatitis C (acute)	1	6	1
Hepatitis C (chronic)	7	300	166
HIV	1	96	150
Legionella pneumonia	4	40	37
of these, infected abroad	0	8	9
Leprosy	0	0	0
Leptospirosis	0	4	10
Measles	1	25	2
Meningococcal disease	0	33	55
of these, group B	0	16	29
of these, group C	0	4	11
of these, unspec. + other	0	13	14
Mumps	0	8	4
Neuroborreliosis	0	17	18
Ornithosis	1	8	9
Pertussis (children < 2 years)	0	25	87
Plague	0	0	0
Polio	0	0	0
Purulent meningitis			
Haemophilus influenzae	0	1	1
Listeria monocytogenes	0	4	1
Streptococcus pneumoniae	0	35	75
Other aethiology	0	1	9
Unknown aethiology	0	7	11
Under registration	4	33	-
Rabies	0	0	0
Rubella (congenital)	0	0	0
Rubella (during pregnancy)	0	0	0
Shigellosis	1	24	43
of these, infected abroad	1	22	38
Syphilis	1	30	51
Tetanus	1*	1	2
Tuberculosis	8	182	194
Typhoid/paratyphoid fever	1	14	13
of these, infected abroad	1	14	12
Typhus exanthematicus	0	0	0
VTEC/HUS	3	53	74
of these, infected abroad	2	13	28

<sup>1)</sup> Cumulative number 2006 and in corresponding period 2005

## Selected laboratory diagnosed infections

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

Table 2	Week 24 2006	Cum. 2006 <sup>2)</sup>	Cum. 2005 <sup>2)</sup>
Bordetella pertussis (all ages)	5	115	285
Gonococci	9	208	207
of these, females	0	40	25
of these, males	9	168	182
Listeria monocytogenes	2	15	14
Mycoplasma pneumoniae			
Resp. specimens <sup>3)</sup>	9	233	576
Serum specimens <sup>4)</sup>	4	206	497
Streptococci <sup>5)</sup>			
Group A streptococci	1	88	69
Group B streptococci	2	46	26
Group C streptococci	1	12	10
Group G streptococci	1	63	60
S. pneumoniae	15	604	691
Table 3	Week 22 2006	Cum. 2006 <sup>2)</sup>	Cum. 2005 <sup>2)</sup>
Pathogenic int. bacteria <sup>6)</sup>			
Campylobacter	62	724	951
S. Enteritidis	10	132	158
S. Typhimurium	2	104	166
Other zoon. salmonella	20	197	205
Yersinia enterocolitica	5	70	102
Verocytotoxin- producing E. coli	2	48	57
Enteropathogenic E. coli	5	82	95
Enterotoxigenic E. coli	1	78	110

<sup>2)</sup> Cumulative number 2006 and in corresponding period 2005

<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)

\*) Comment to Table 1:

In week 24 a case of tetanus has been notified.  
The case will be described in detail in a  
coming issue of EPI-NEWS.

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