EPI-NEWS

NATIONAL SURVEILLANCE OF COMMUNICABLE DISEASES

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www.ssi.dk • epinews@ssi.dk • ISSN: 1396-4798

PNEUMOCOCCAL VACCINE IN THE DANISH CHILDHOOD VACCINATION PROGRAMME No. 38, 2008

On 1 October 2007, vaccination using heptavalent-conjugated pneumococcal vaccine (PCV7) was introduced to the Danish childhood vaccination programme, EPI-NEWS 37a+b/2007.
The PCV7 vaccination coverage was calculated per 1 June 2008, i.e. eight months after the introduction of the programme. The data for the coverage calculation was extracted from the national childhood vaccination database, EPI-NEWS 8/07.

Vaccination programme
Among the children who per 1 October 2007 were 0-2 months old, 94% had received at least one dose PCV7, and 72% had received at least two doses. Due to the short registration period, few children had been given three PCV7 doses, and therefore this proportion is not reported in the current statement.

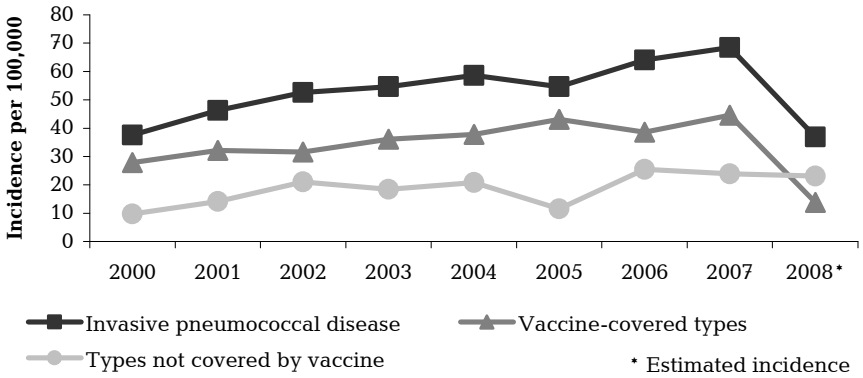
Catch-up programme
All children born after 30 April 2006, i.e. children who were below the age of 17 months at the initiation of the programme were covered by the vaccination offer. Overall, 82% of the children in the catch-up programme had received at least one PCV7 dose, and 58% had received at least two doses. Table 1 shows the proportion of PCV7-vaccinated children among those aged less than 15 months and aged 15-16 months at the initiation of the programme. The table shows the proportion who received at least one vaccination as well as the proportion who received two doses.

Table 1. Coverage (%) of at least one or at least two PCV7-vaccines per 1 June 2008

Age as per 01/10/07	Min. 1 vaccine	Min. 2 vaccines
Vacc. progr.		
0-2 months	94	72
Catch-up pr.		
3-14 months	86	62
15-16 months	57	38

Invasive pneumococcal disease (IPD)
By 1 July, nine months after the initiation of the programme, Statens Serum Institut had received 65 pneumococcal isolates from children below five years of age with IPD. The Department of Epidemiology received additional information on 58 of these cases, of which 14 had meningitis and 44 bacteraemia. No deaths occurred.

Figure 1. IPD incidence in children < 2 years, 2000-2008



One meningitis case resulted in severe neurological sequelae. The case was caused by serotype 24F, which is not covered by PCV7. No sequelae were reported in relation to the remaining IPD cases.
A total of 23 IPD cases were caused by infection with serotypes comprised by PCV7 and 17 of these cases occurred in children who were age-wise comprised by the programme. In two cases the children had received one PCV7 dose, while the remaining 15 were unvaccinated. In one case the child had received the first PCV7 dose one day prior to IPD onset, and the second case was an immunodepressed child with acute myeloid leukaemia. No cases of vaccine failure were found, defined as IPD with onset more than two weeks after complete primary vaccination with two doses, but before the booster dose.

IPD incidence in children < 2 years
The IPD incidence rose from 38 cases/10^5 in 2000 to 64 and 68 cases/10^5 in 2006 and 2007, respectively, Figure 1. The expected 2008 incidence, estimated on the basis of the IPD cases found during the first six months of 2008 indicates a decrease in the incidence to 37 cases/10^5.
The incidence was calculated separately for IPD caused by serotypes covered by PCV7 and serotypes not covered by PCV7. IPD occurrence for serotypes covered by PCV7 decreased markedly, while it remained stable for serotypes not covered by PCV7.

Commentary
The coverage of the PCV7 vaccination under the vaccination programme is at par with the coverage of the other childhood vaccines given at 3, 5 and 12 months of age, when taken into account that these vaccines are typically administered with some delay in relation to the recommended vaccination age, EPI-NEWS 37/08.
The coverage of the introduction programme, which was concluded on 30 April 2008, was low for children ≥ 15 months at the initiation of the programme, while the coverage for children aged < 15 months was comparable to the coverage of the normal vaccination programme.
The estimated IPD incidence for children aged < 2 years is 30% lower in 2008 than the average for the 2000-2006 period, in which the PCV7 vaccine had not yet been introduced to the vaccination programme. The IPD decrease was due to serotypes covered by the PCV7 vaccine. This points towards a direct protective effect of PCV7 in the vaccinated age-group. It would be premature to assess any herd immunity in the unvaccinated age-group.
(P. Valentiner-Branth, P.H. Andersen, A.H. Christiansen, M. Howitz, S. Glismann, Department of Epidemiology, J.B. Simonsen, Department of Epidemiological Research, L.M. Lambertsen, J.J. Christensen, Z.B. Harboe, H.B. Konradsen, DBMP)

NOVEL MMR VACCINE IN THE CHILDHOOD VACCINATION PROGRAMME
Approximately from week 42, MMR vaccination will be given under the name of Priorix®. In contrast to the formerly used MMR vaccine. Priorix® does not contain human albumin. The vaccines are considered equal and have the same adverse event profile. Priorix® booster doses may be given to persons formerly vaccinated with another MMR vaccine. Priorix® is marketed as a 10-dose package.
(T.R. Nielsen, Regulatory & Medical Affairs)

17 September 2008

Individually notifiable diseases

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

Table 1	Week 37 2008	Cum. 2008 [1]	Cum. 2007 [1]
AIDS	5	27	40
Anthrax	0	0	0
Botulism	0	0	0
Cholera	0	1	0
Creutzfeldt-Jakob	0	2	8
Diphtheria	0	0	0
Food-borne diseases	28	581	451
of these, infected abroad	7	97	87
Gonorrhoea	7	278	265
Haemorrhagic fever	0	0	0
Hepatitis A	0	28	18
of these, infected abroad	0	11	8
Hepatitis B (acute)	1	15	22
Hepatitis B (chronic)	3	135	244
Hepatitis C (acute)	0	6	4
Hepatitis C (chronic)	7	295	451
HIV	4	167	202
Legionella pneumonia	5	84	75
of these, infected abroad	2	29	19
Leprosy	0	0	0
Leptospirosis	0	2	9
Measles	1	10	2
Meningococcal disease	0	38	55
of these, group B	0	16	30
of these, group C	0	11	18
of these, unspec. + other	0	11	7
Mumps	1	21	4
Neuroborreliosis	5	37	65
Ornithosis	0	2	7
Pertussis (children < 2 years)	1	80	54
Plague	0	0	0
Polio	0	0	0
Purulent meningitis			
Haemophilus influenzae	0	2	2
Listeria monocytogenes	0	1	8
Streptococcus pneumoniae	0	66	82
Other aethiology	0	17	11
Unknown aethiology	0	16	12
Under registration	1	11	-
Rabies	0	0	0
Rubella (congenital)	0	2	0
Rubella (during pregnancy)	0	0	0
Shigellosis	2	57	141
of these, infected abroad	1	47	31
Syphilis	7	97	70
Tetanus	0	1	2
Tuberculosis	5	293	286
Typhoid/paratyphoid fever	0	23	15
of these, infected abroad	0	18	14
Typhus exanthematicus	0	0	2
VTEC/HUS	5	101	114
of these, infected abroad	2	34	32

[1] *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 37 2008	Cum. 2008 [2]	Cum. 2007 [2]
Bordetella pertussis			
(all ages)	7	144	144
Gonococci	4	259	261
of these, females	0	53	41
of these, males	4	206	220
Listeria monocytogenes	2	35	40
Mycoplasma pneumoniae			
Resp. specimens [3]	6	58	267
Serum specimens [4]	1	65	322
Streptococci [5]			
Group A streptococci	2	110	85
Group B streptococci	4	91	71
Group C streptococci	0	13	16
Group G streptococci	2	96	90
S. pneumoniae	2	668	739
Table 3	**Week 35 2008**	**Cum. 2008 [2]**	**Cum. 2007 [2]**
MRSA	29	450	409
Pathogenic int. bacteria [6]			
Campylobacter	22	2018	2758
S. Enteritidis	25	384	370
S. Typhimurium	51	1343	233
Other zoon. salmonella	11	683	513
Yersinia enterocolitica	1	197	191
Verocytotoxin-producing E. coli	2	99	112
Enteropathogenic E. coli	12	132	125
Enterotoxigenic E. coli	6	230	179

[2] *Cumulative number 2008 and in corresponding period 2007*

[3] *Resp. specimens with positive PCR*

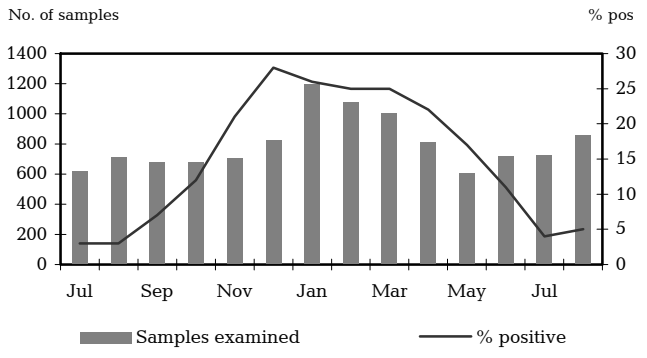
[4] *Serum specimens with pos. complement fixation test*

[5] *Isolated in blood or spinal fluid*

[6] *See also www.germ.dk*

Norovirus 2007-2008

Examined samples and percent positive, Jul 07- Aug 08



Samples from clinical microbiology departments at Odense University Hospital, Copenhagen University Hospital, and the Department of Virology, SSI