



HPV VACCINATION - COVERAGE

No. 6, 2010

On 1 October 2008, a catch-up programme was initiated. The programme offers girls from the birth years 1993, 1994 and 1995 free human papillomavirus (HPV) vaccination until the end of 2010, EPI-NEWS 35/08.

As from 1 January 2009, HPV vaccination forms part of the Danish Childhood Vaccination programme as an offer given to girls around the age of 12 years, born in 1996 or later. HPV vaccination coverage was recorded as per 30 November 2009, i.e. 14 months after the initiation of the catch-up programme and 11 months after its introduction to the standard vaccination programme. Vaccination coverage was calculated on the basis of person-identifiable data from the national childhood vaccination database.

Method of calculation

Vaccination coverage was recorded using the administrative service codes indicated by GPs when settling the first, second and third HPV vaccinations, regardless of the number of recorded vaccinations. This method is less sensitive to any under-reporting than the previously used »counting« approach, EPI-NEWS 37/08. The service code method also has the advantage of superior comparability to the reporting methods used by other countries and will furthermore be employed for future international reporting to e.g. the WHO.

Catch-up programme coverage

A total of 79-85% of girls born in 1993, 1994 or 1995 have received the 1st HPV vaccination, 75-81% the 2nd and 71-75% the 3rd vaccination, [Table 1](#).

Table 1. HPV vaccination coverage percentages for birth years 1993-1997

	Standard progr.		Catch-up-progr.		
	1997	1996	1995	1994	1993
HPV 1	53	79	85	85	79
HPV 2	36	73	80	81	75
HPV 3	13	58	72	75	71

National coverage

HPV vaccination coverage varies between regions. Generally, coverage is lower in the City of Copenhagen, i.e. the municipalities of Copenhagen and Frederiksberg, and higher in Jutland. This trend is observed for the catch-up programme as well as for the standard vaccination programme, [Table 2](#).

Table 2. Vaccination coverage as third HPV vaccination percentages for birth years 1993-1996, by area

Area	HPV 3			
	1996	1995	1994	1993
Cph. City	50	64	65	61
Cph. Subs	57	71	74	67
North Zealand	59	72	74	68
Bornholm	59	74	77	75
East Zealand	59	73	72	68
W & S				
Zealand	54	68	73	67
Funen	56	70	73	69
South Jutland	60	72	77	72
West Jutland	63	77	83	78
East Jutland	59	76	79	75
North Jutland	61	74	79	76
Total	58	72	75	71

Vaccination programme coverage

A total of 79% of girls born in 1996 have received the first HPV vaccination, 73% the second and 58% the third. Vaccination of girls born in 1997 had not been concluded when the data was analysed and therefore expectedly shows a lower coverage than other birth years, [Table 1](#).

Commentary

The aggregate HPV vaccination coverage of the catch-up programme has already reached the minimum of 70%, which was the expected coverage used to estimate programme costs prior to its initiation in October 2008. The catch-up programme will continue until the end of 2010. The coverage of the vaccination programme for 12-year-olds reflects that girls born in 1996 have had a shorter vaccination time window than the girls covered by the catch-up programme. Consequently, coverage in this group has not yet reached its corresponding expected level. Overall it is assessed that the introduction of HPV vaccination of girls in the childhood vaccination programme has been well-received. In total, more than 350,000 vaccine doses have been administered under the HPV vaccination programme. Vaccine doses given before the initiation of the catch-up programme do not form part of the report. The reported coverage is therefore a minimal estimate. It is not known how many patient-paid doses have been administered to girls comprised by the programme. These data will be collected and analysed in connection with the establishment of the Danish Vaccination Register in 2011.

The cause for the relatively low calculated coverage seen in the municipalities of Copenhagen and Frederiksberg remains unknown, but a high share of patient-paid vaccines in the period leading up to the initiation of the state-financed programme may explain the difference observed. Further surveys are planned to identify factors of importance for HPV vaccination.

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NATIONAL BOARD OF HEALTH STATEMENT

The National Board of Health informs that routine HPV vaccination of girls aged 12 years should be completed before their fifteenth birthday. Later vaccination will not be free of charge. Catch-up vaccination of girls born in 1993, 1994 or 1995 should be concluded by the end of 2010 to be comprised by the free vaccination offer in pursuance of executive order no. 905 of 05/09/2008. The girls do not need to present the notice from the National Board of Health when seeing their GP to receive the vaccination.

Birth year 1997: Special notification

In February 2010 the National Board of Health will send a personal letter to the girls of birth year 1997 and their parents inviting the girls to receive HPV vaccination free of charge. The letter will be accompanied by the folder "Free HPV vaccination against cervical cancer" (in Danish: Gratis HPV-vaccination mod livmoderhalskræft).

Reported secondary effects

The HPV vaccine is safe and the majority of the reported secondary effects are well-known and stated in the Summary of Product Characteristics. The most frequently observed secondary effects are temperature increase, dizziness and tenderness at the site of the injection. Association between the vaccine and atopic eczema has been investigated, and it has been shown that no association exists. Please find more information on the secondary effects of the vaccine at www.laegemiddelstyrelsen.dk (Danish language).
 (National Board of Health)

Individually notifiable diseases

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

Table 1	Week 5 2010	Cum. 2010 ¹⁾	Cum. 2009 ¹⁾
AIDS	2	10	4
Anthrax	0	0	0
Botulism	0	0	0
Cholera	0	0	0
Creutzfeldt-Jakob	0	2	0
Diphtheria	0	0	0
Food-borne diseases	5	22	45
of these, infected abroad	2	6	3
Gonorrhoea	27	82	64
Haemorrhagic fever	0	0	0
Hepatitis A	0	7	4
of these, infected abroad	0	1	2
Hepatitis B (acute)	0	4	1
Hepatitis B (chronic)	6	18	2
Hepatitis C (acute)	0	0	0
Hepatitis C (chronic)	21	44	2
HIV	2	16	36
Legionella pneumonia	2	16	14
of these, infected abroad	0	3	0
Leprosy	0	0	0
Leptospirosis	0	0	0
Measles	0	0	4
Meningococcal disease	4	9	13
of these, group B	0	0	4
of these, group C	1	3	2
of these, unspec. + other	0	0	0
Mumps	0	1	0
Neuroborreliosis	1	3	2
Ornithosis	0	0	0
Pertussis (children < 2 years)	1	7	6
Plague	0	0	0
Polio	0	0	0
Pneum. disease, invasive (IPD) ²⁾	10	22	14
Purulent meningitis			
Haemophilus influenzae	0	0	2
Listeria monocytogenes	0	2	1
Other aethiology	1	2	0
Unknown aethiology	0	0	1
Under registration	0	0	0
Rabies	0	0	0
Rubella (congenital)	0	0	0
Rubella (during pregnancy)	0	0	0
Shigellosis	2	13	13
of these, infected abroad	2	10	13
Syphilis	4	34	24
Tetanus	0	0	0
Tuberculosis	11	35	41
Typhoid/paratyphoid fever	4	7	3
of these, infected abroad	4	5	0
Typhus exanthematicus	0	0	0
VTEC/HUS	3	16	10
of these, infected abroad	1	2	2

¹⁾ Cumulative number 2010 and in corresponding period 2009

²⁾ Meningitis, all age groups, invasive pneumococcal disease < 5 years

Selected laboratory diagnosed infections

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

Table 2	Week 5 2010	Cum. 2010 ³⁾	Cum. 2009 ³⁾
Bordetella pertussis (all ages)	5	19	13
Gonococci	12	69	43
of these, females	3	16	9
of these, males	9	53	34
Listeria monocytogenes	1	6	8
Mycoplasma pneumoniae			
Resp. specimens ³⁾	4	15	13
Serum specimens ⁴⁾	4	36	15
Streptococci ⁵⁾			
Group A streptococci	0	19	28
Group B streptococci	0	11	9
Group C streptococci	0	3	5
Group G streptococci	0	21	10
S. pneumoniae	5	143	185
Table 3	Week 3 2010	Cum. 2009 ³⁾	Cum. 2008 ³⁾
MRSA	6	31	69
Pathogenic int. bacteria ⁶⁾			
Campylobacter	36	100	81
S. Enteritidis	4	13	13
S. Typhimurium	4	16	72
Other zoon. salmonella	9	27	37
Yersinia enterocolitica	0	6	10
Verocytotoxin-producing E. coli	3	6	2
Enteropathogenic E. coli	5	10	8
Enterotoxigenic E. coli	10	13	9

³⁾ Cumulative number 2010 and in corresponding period 2009

⁴⁾ Resp. specimens with positive PCR

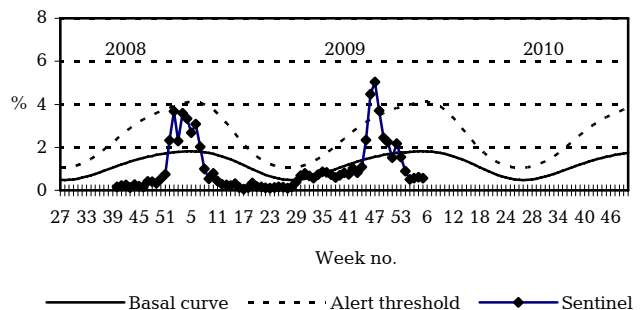
⁵⁾ Serum specimens with pos. complement fixation test

⁶⁾ Isolated in blood or spinal fluid

⁷⁾ See also www.germ.dk

Sentinel surveillance of the influenza activity

Weekly percentage of consultations, 2008/2009/2010



Sentinel: Influenza consultations (as percentage of total consultations)
 Basal curve: Expected frequency of consultations under non-epidemic conditions
 Alert threshold: Possible incipient epidemic