EPI-NEWS

NATIONAL SURVEILLANCE OF COMMUNICABLE DISEASES

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MMR VACCINATION COVERAGE

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Coverage was calculated as per 30 November 2009.
Starting 1 April 2008, MMR 2 vaccination was advanced to the four-year examination, EPI-NEWS 9/08. Children who were four years or above by 1 April 2008 should still receive the MMR 2 vaccination at 12 years of age. During an eight-year transition period, the MMR 2 vaccination will therefore be administered to two birth cohorts: 4 and 12 years of age.

Childhood vaccination database
The national childhood vaccination database holds person-identifiable data based on the GPs' settlements with the National Health Service. Thus, the reported coverage only comprises vaccinations administered in Denmark by GPs.
For some birth cohorts, vaccination was expected not to have been concluded at the calculation date. In birth cohort 2008, this is the case for MMR 1, and in birth cohort 1997 for MMR 2.

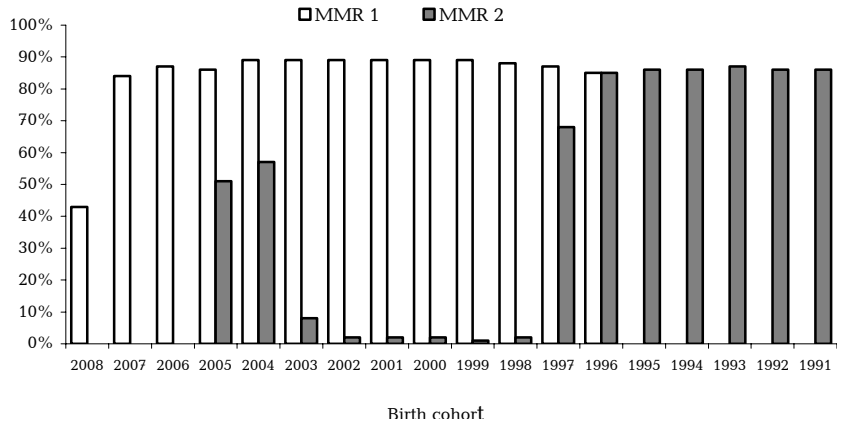
MMR 1
Overall, a slight decrease in MMR 1 coverage was observed compared to the previous report, EPI-NEWS 36/08. Coverage has remained stable at 89%, since 1999, but birth cohorts 2005 and 2006 have a slightly lower coverage of 86-87%, Figure 1.
Coverage in birth cohort 2007 was 84%, which may be explained by delayed vaccinations.
The highest vaccination coverage was observed on Bornholm, in East Zealand and East Jutland and West Jutland, Table 1.

Table 1. MMR 1 vaccination coverage (percentages) for birth years 2005-2007, by part of country

Areas	2007	2006	2005
Cph. City	81	84	84
Cph. Suburbs	82	85	87
North Zealand	84	86	87
Bornholm	85	90	91
East Zealand	84	88	90
W & S Zealand	83	86	87
Funen	84	86	83
South Jutland	84	87	83
West Jutland	85	88	87
East Jutland	86	89	89
North Jutland	83	87	87
Total	84	87	86

MMR 2 at 12 years
Overall, MMR 2 coverage remained unchanged compared to the previous report, EPI-NEWS 36/08.

Figure 1. MMR1 vaccination coverage for birth cohorts 1996-2008 and MMR 2 vaccination for birth cohorts 1991-2005



Vaccination coverage for the birth cohorts 1991-1996 was 85-87%, Figure 1.
Coverage was 68% in birth cohort 1997, which may be explained by delayed vaccinations.

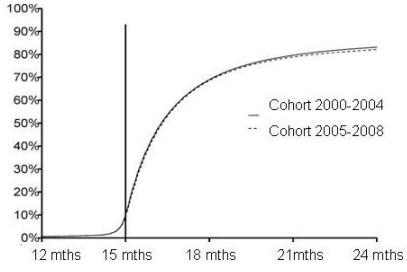
MMR 2 at four years
In the part of birth cohort 2004 expected to have received MMR 2 by 4 years of age, a 64% coverage was recorded; in the reported share of cohort 2005, coverage reached 61%, Table 2.
The overall coverage of birth cohorts was 57% in 2004 and 51% in 2005, Figure 1.

Table 2. MMR 1 and MMR 2 coverage (percentages) for birth cohorts vaccinated at 4 years of age

Birth cohort	MMR1	MMR2
2004*	89	64
2005**	87	61

*) Incl. children born from 1 April 2004
**) Incl. children born before 1 October 2005

Figure 2. MMR 1 coverage (percentages), by age at vaccination



Vaccination age
MMR 1 is administered with considerable delay. Therefore, the overall coverage at 18 months of age is only 70% and it is only at two years of age that the approx. 89% level is reached, Figure 2. Among the vaccinated, only approx. 77% had received MMR 1 at 18 months of age.

Commentary
MMR vaccination coverage remains inadequate given that the set objective states that 95% of all children should receive two MMR vaccinations. Neither for MMR1 nor for MMR2 did coverage exceed 90% for any birth cohort, and - as previously - MMR 2 coverage was generally lower than MMR1 coverage.
In birth cohort 1996, which is the first cohort that includes data for both MMR 1 and MMR 2, coverage of both vaccines only reached 85%.
The coverage of MMR 2 at four years is markedly lower than MMR 2 coverage at 12 years.
Unfortunately, the current coverage and delay with respect to the recommended MMR1 vaccination time will continually contribute to a weakening of the population's immunity. Over time, the number of unprotected children and adolescents will accumulate, and the risk of e.g. measles outbreaks will increase in Denmark.
The low coverage underlines the importance of vaccinating at the 4-year examination; or, alternatively, to follow-up by administering MMR 2 concurrently with DTaP-IPV revaccination at five years, or when the child is seen for other complaint.
(P. Valentiner-Branth, S. Glismann, A.H. Christiansen, Department of Epidemiology., J. Simonsen, Department of Epidemiological Research)

10 March 2010

Individually notifiable diseases

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

Table 1	Week 9 2010	Cum. 2010 [1]	Cum. 2009 [1]
AIDS	1	14	6
Anthrax	0	0	0
Botulism	0	0	0
Cholera	0	0	0
Creutzfeldt-Jakob	0	5	0
Diphtheria	0	0	0
Food-borne diseases	4	45	71
of these, infected abroad	2	15	7
Gonorrhoea	10	116	104
Haemorrhagic fever	0	0	0
Hepatitis A	0	8	7
of these, infected abroad	0	1	5
Hepatitis B (acute)	1	8	5
Hepatitis B (chronic)	8	33	17
Hepatitis C (acute)	0	0	1
Hepatitis C (chronic)	9	68	41
HIV	0	37	56
Legionella pneumonia	2	23	19
of these, infected abroad	0	4	0
Leprosy	0	0	0
Leptospirosis	0	0	0
Measles	1	1	8
Meningococcal disease	1	17	24
of these, group B	1	1	8
of these, group C	0	4	2
of these, unspec. + other	0	0	0
Mumps	0	2	2
Neuroborreliosis	0	4	2
Ornithosis	0	0	0
Pertussis (children < 2 years)	1	14	16
Plague	0	0	0
Polio	0	0	0
Pneum. disease, invasive (IPD) [2]	3	33	32
Purulent meningitis			
Haemophilus influenzae	0	0	2
Listeria monocytogenes	0	2	2
Other aethiology	0	3	2
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	3	19	19
of these, infected abroad	2	13	19
Syphilis	5	55	49
Tetanus	0	0	0
Tuberculosis	7	62	75
Typhoid/paratyphoid fever	4	11	3
of these, infected abroad	0	5	0
Typhus exanthematicus	0	0	0
VTEC/HUS	2	25	23
of these, infected abroad	0	2	5

[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 9 2010	Cum. 2010 [3]	Cum. 2009 [3]
Bordetella pertussis (all ages)	1	30	24
Gonococci	6	93	72
of these, females	2	25	14
of these, males	4	68	58
Listeria monocytogenes	0	7	13
Mycoplasma pneumoniae			
Resp. specimens [3]	6	26	19
Serum specimens [4]	1	56	32
Streptococci [5]			
Group A streptococci	3	39	45
Group B streptococci	0	19	16
Group C streptococci	2	7	6
Group G streptococci	2	28	27
S. pneumoniae	21	249	310
Table 3	**Week 7 2010**	**Cum. 2009 [3]**	**Cum. 2008 [3]**
MRSA	22	81	110
Pathogenic int. bacteria [6]			
Campylobacter	30	283	190
S. Enteritidis	7	40	30
S. Typhimurium	10	47	144
Other zoon. salmonella	12	78	85
Yersinia enterocolitica	3	19	24
Verocytotoxin-producing E. coli	0	16	15
Enteropathogenic E. coli	3	24	20
Enterotoxigenic E. coli	7	74	20

[3] *Cumulative number 2010 and in corresponding period 2009*

[4] *Resp. specimens with positive PCR*

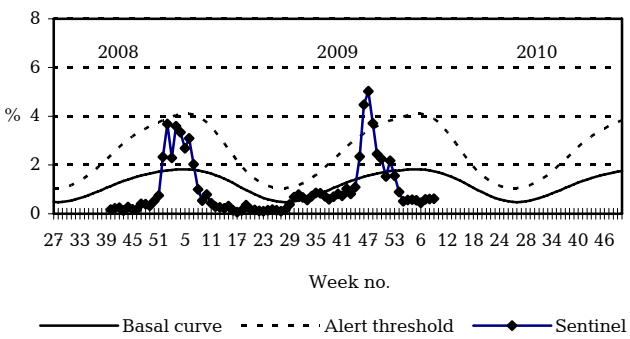
[5] *Serum specimens with pos. complement fixation test*

[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

10 March 2010