

Visions for the Danish Childhood Vaccination Programme



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Agenda



- The present vaccination coverage
- New vaccine candidates and decision making

The Danish Programme



Age	English	Danish
3 m	DTaP+IPV+HIB+PCV13	DiTeKiPol+HIB+PCV13
5 m	DTaP+IPV+HIB+PCV13	DiTeKiPol+HIB+PCV13
12 m	DTaP+IPV+HIB+PCV13	DiTeKiPol+HIB+PCV13
15 m	MMR1	MFR1
4 y	MMR2	MFR2
5 y	dTaP+IPV	DiTeKiPol-booster
12-15 y	HPV	HPV

DTaP-IPV-HiB coverage 12 m

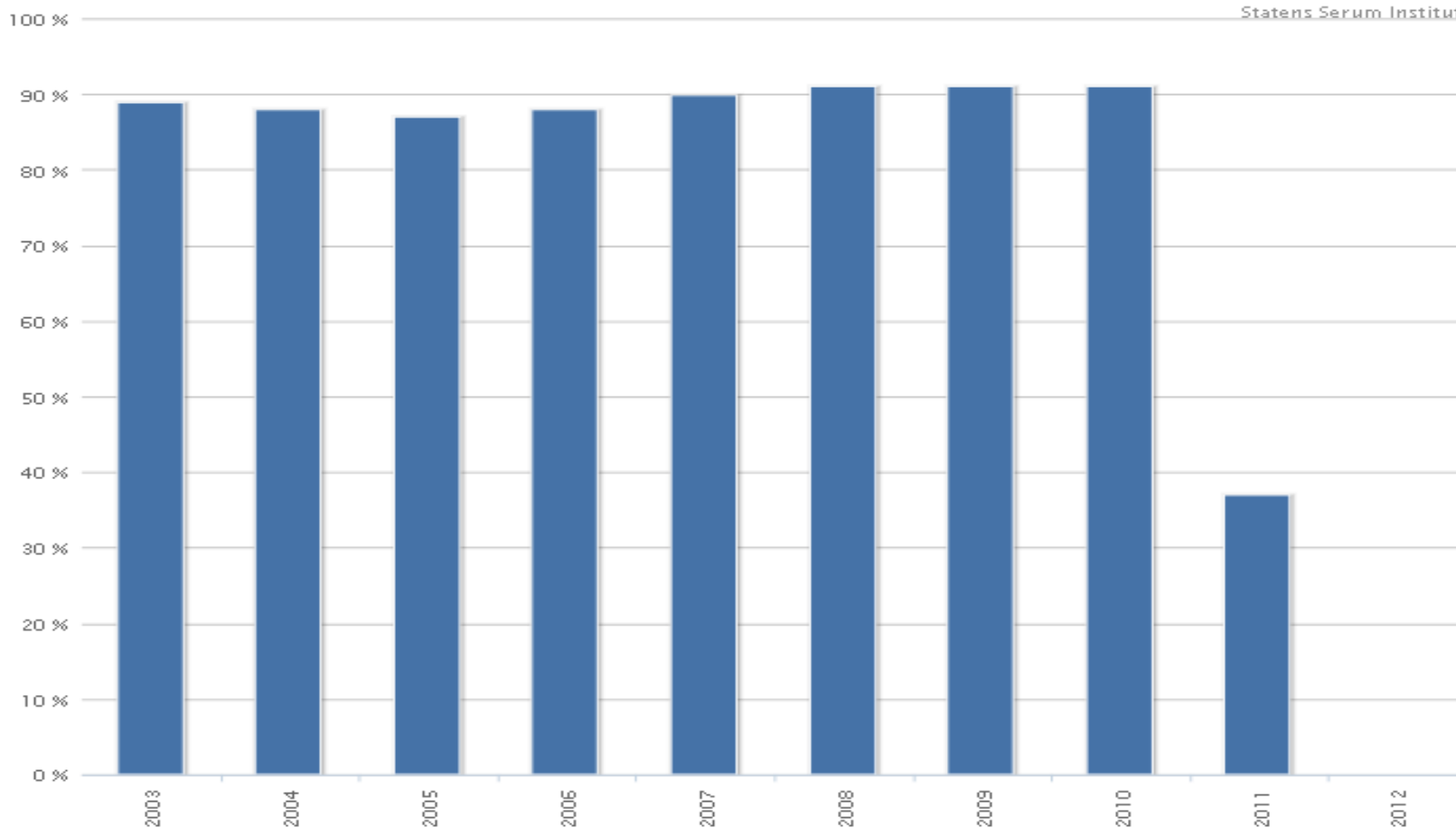


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Andel vaccineret med Difteri-tetanus-kighoste-polio-Hib 3 (12 måneder), Fødselsår: 2003-2012

[Grafer](#) [Tabel](#) [Kort](#)

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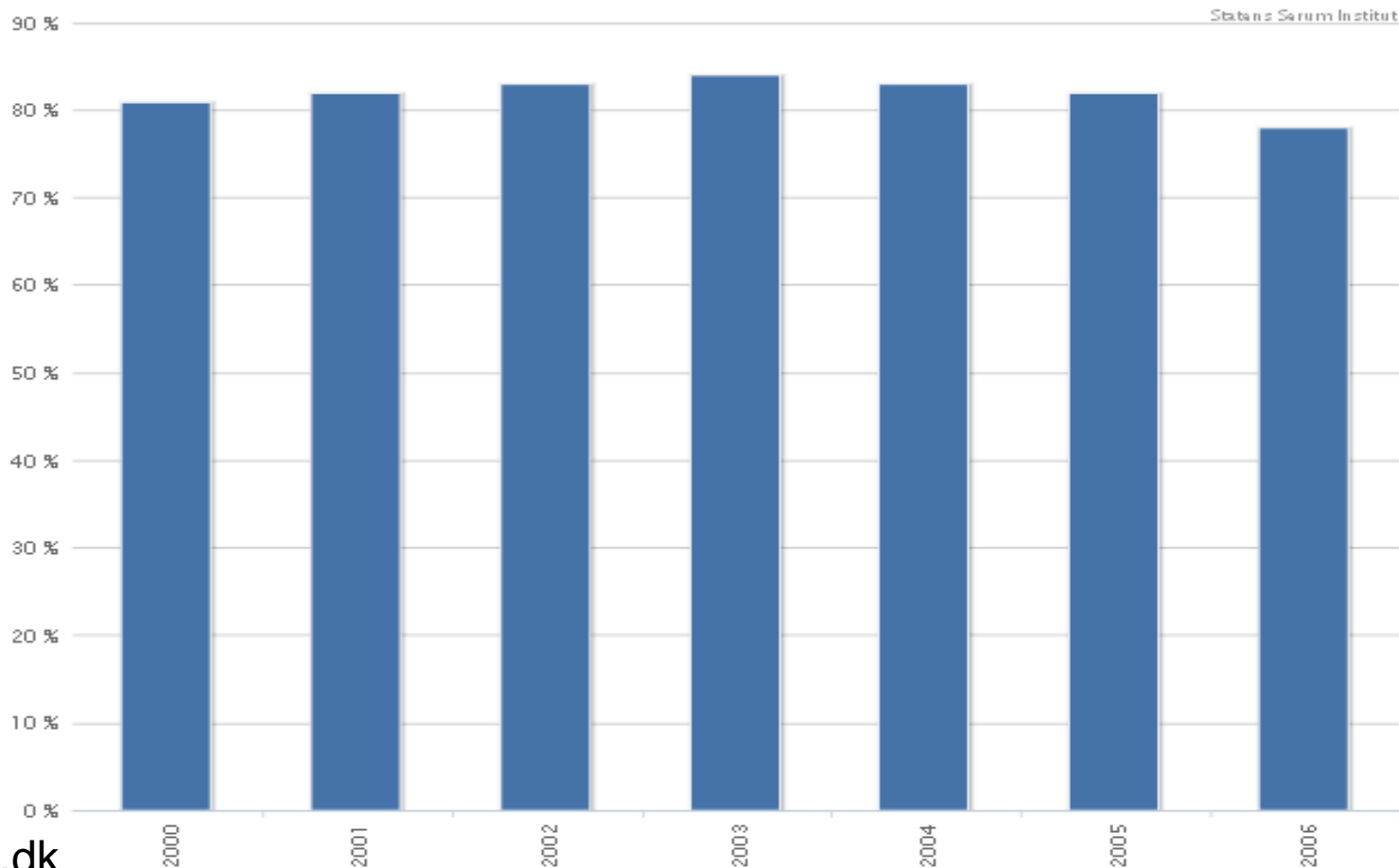
dTaP-booster 5y



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Andel vaccineret med Difteri-tetanus-kighoste-polio revaccination, Fødselsår: 2000-2006

[Grafer](#) [Tabel](#) [Kort](#)



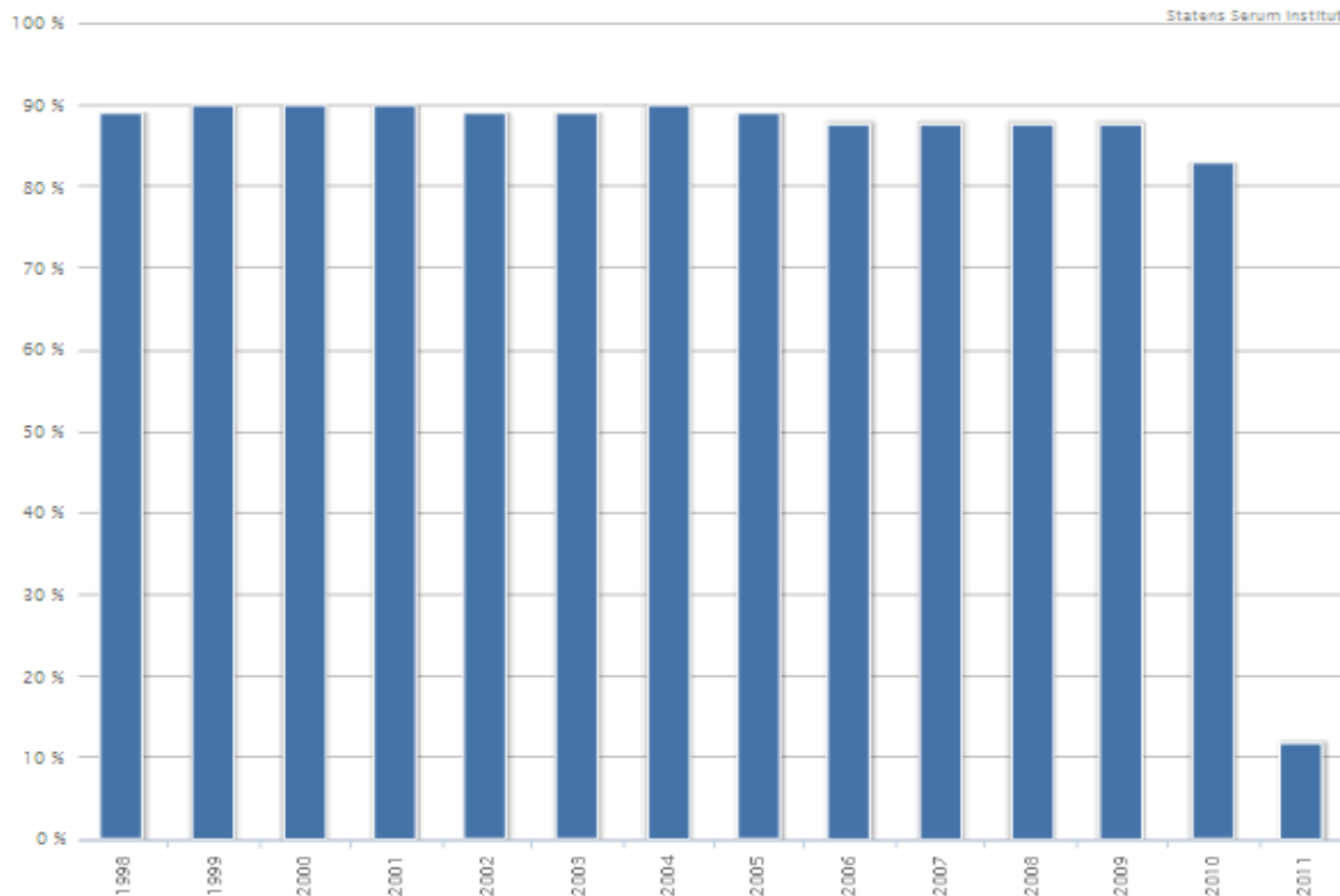
MMR1 15m



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Andel vaccineret med MFR 1, Fødselsår: 1998-2011

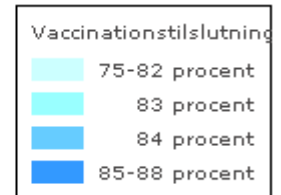
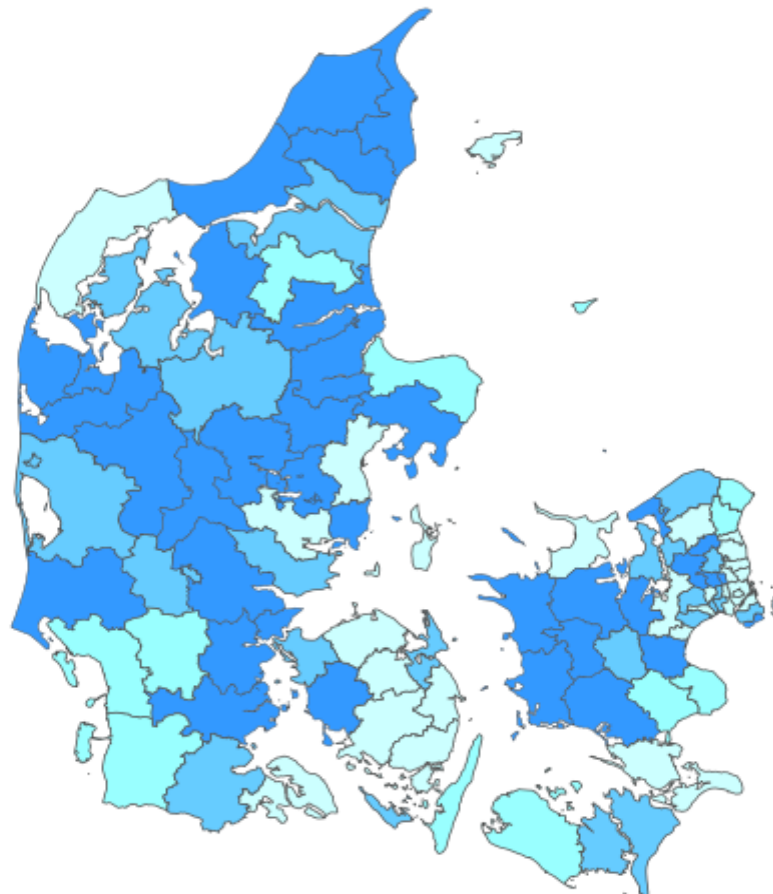
 Grafer  Tabel  Kort



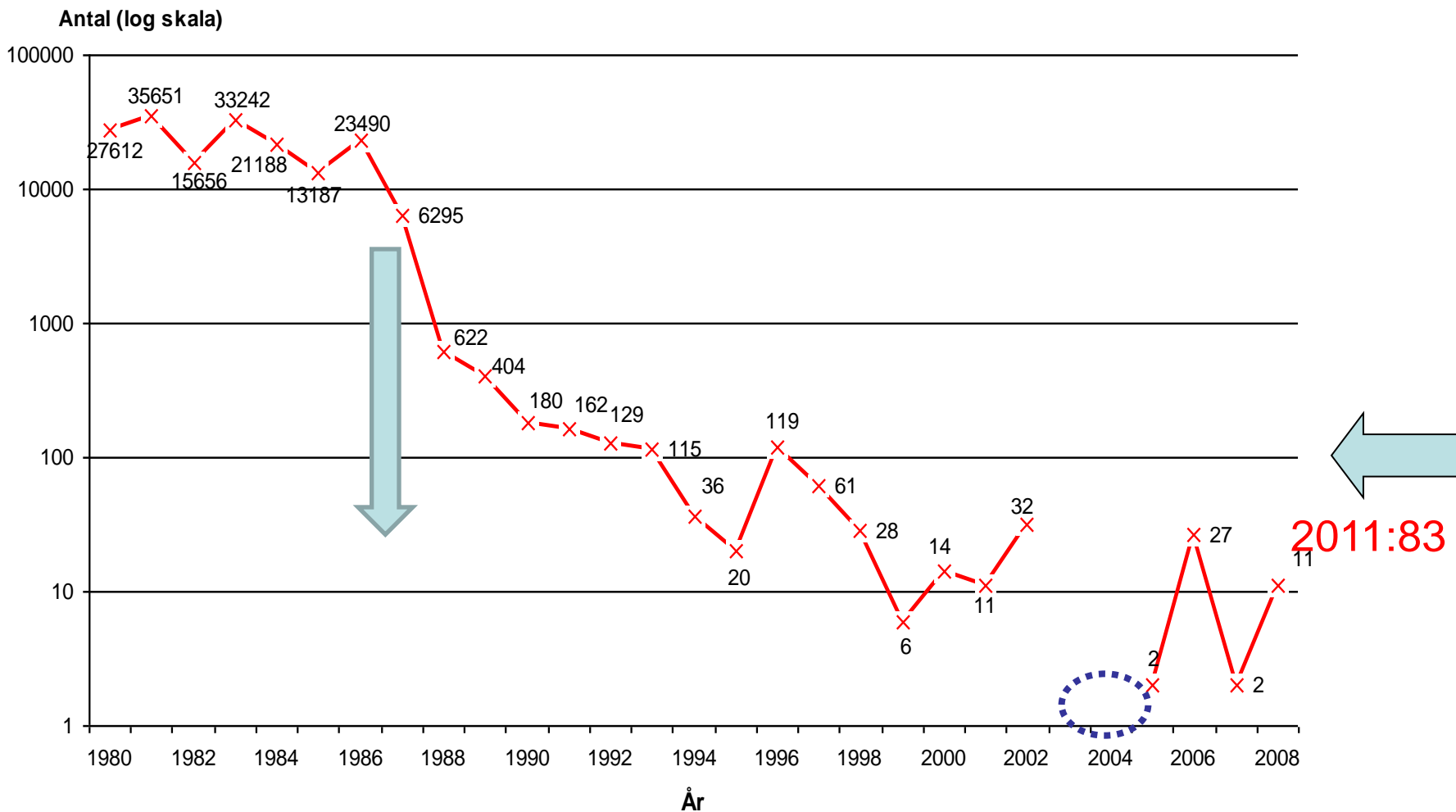
MMR2 by municipality

Andel vaccineret med MFR 2, Fødselsår: 1986-1999

 Grafer  Tabel  Kort



Measles in Denmark, 1960 - 2011

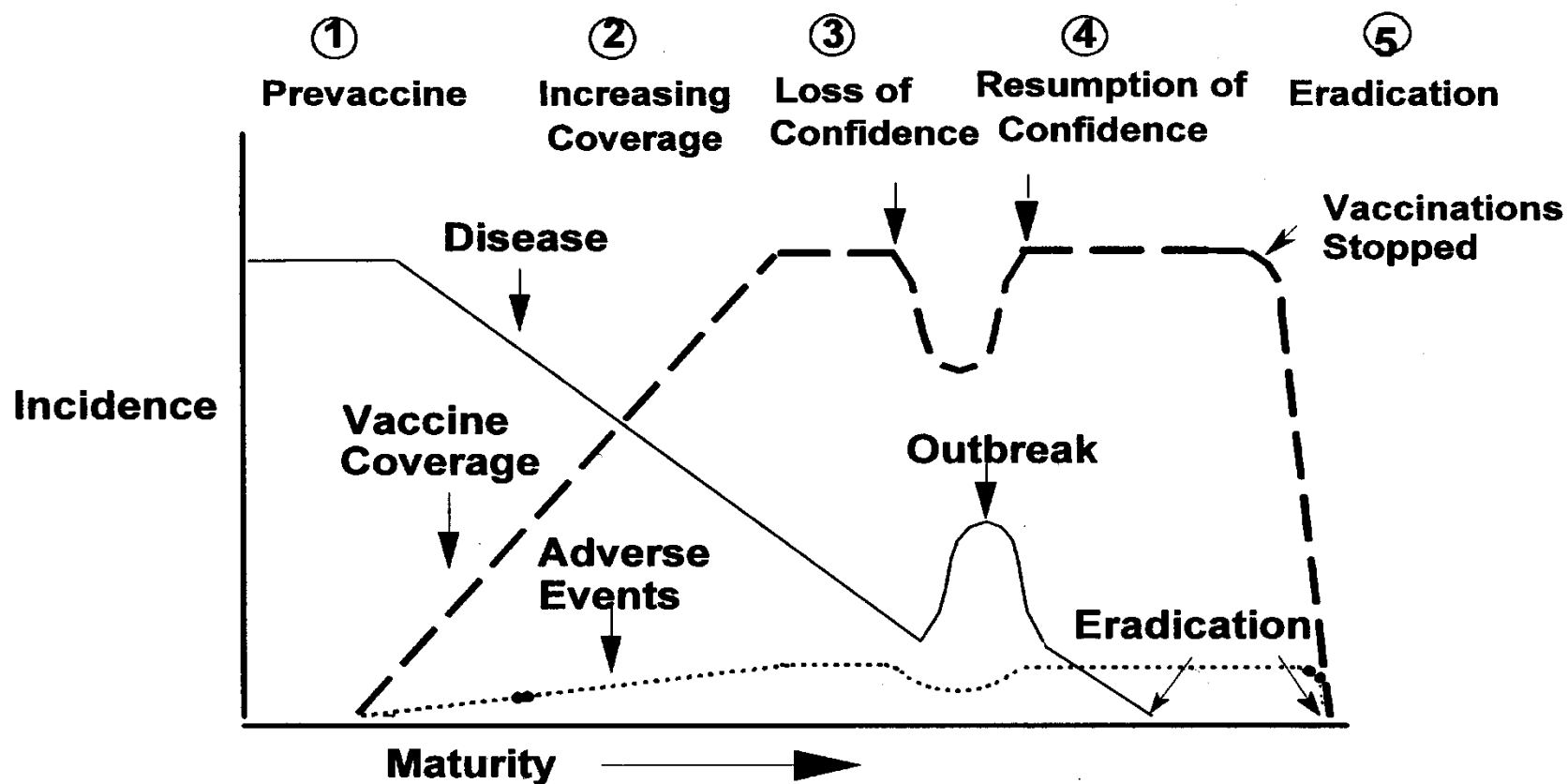


Measles 2011

- Age 4 -59 years
- 33% > 18 years
- 51% was admitted to hospital
- Among those > 18 years 71% was admitted



Introduction of a new vaccine



Reasons for non-vaccination



- 60 parents whose children had not received the dTaP-IPV booster

	dTaP-IPV booster
Why not vaccinated	
Forgot	26 (37%)
Do not want vaccination	11 (16%)
Did not have time	1 (1.5%)
Child sick at vaccination, not rescheduled	1 (1.5%)
Other, not specified	21 (30%)

The Danish vaccination register

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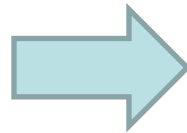
Citation style for this article:

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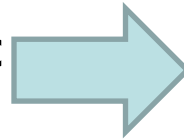
Article submitted on 30 September 2011/ published on 26 June 2012

- Implemented during 2013-14
- Database with information on all given vaccinations
- Electronic vaccination-card
- Childhood-vaccinations from 1996 and onwards
- Health care personnel will access
 - Integration with existing medical health record system
 - Sundhed.dk with digital signature
- Citizens get access
 - Sundhed.dk with NEMID

Decision making in Denmark



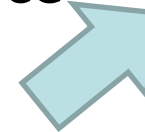
Scientific
Advice
Data



 Sundhedsstyrelsen



Scientific
Advice



Recommendation



MINISTERIET
FOR SUNDHED
OG FOREBYGGELSE

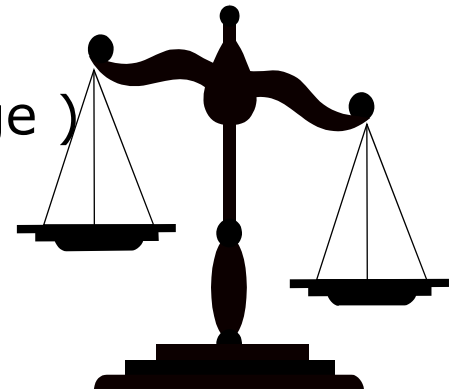
 Sundhedsstyrelsen

Vaccination commite

- Pediatrician
- GP
- Infections Disease Experts
- SSI
- Danish Medicines Agency

SST's criteria for including new vaccines

- Seriousness of disease (deaths, permanent complications)
- Efficacy and effectiveness of vaccine
- Safety vaccine
- Experiences from use in other populations (gains/risk)
- Parents accept
- Fitting in to existing programme
- Ecological effects
(replacement, postponing disease to older age)
- Cost effectiveness
- How many vaccines in programme



Criteria for including new vaccines

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Health technology assessments in DK



INDFØRELSE AF HEPATITIS B-VACCINATION
SOM EN DEL AF BØRNEVACCINATIONS-
PROGRAMMET I DANMARK

En medicinsk teknologivurdering

2003

2003: Hepatitis B not introduced in programme

- selective screening
- vaccination of at-risk population

REDUCTION IN THE RISK OF CERVICAL
CANCER BY VACCINATION AGAINST HUMAN
PAPILLOMAVIRUS (HPV)

- a health technology assessment - Summary

2007

2007: HPV vaccination introduced to 12-year old girls

VACCINATION MOD ROTAVIRUS

– en medicinsk teknologivurdering
Sammenfatning

2012

2012: Awaiting

Potential new vaccines



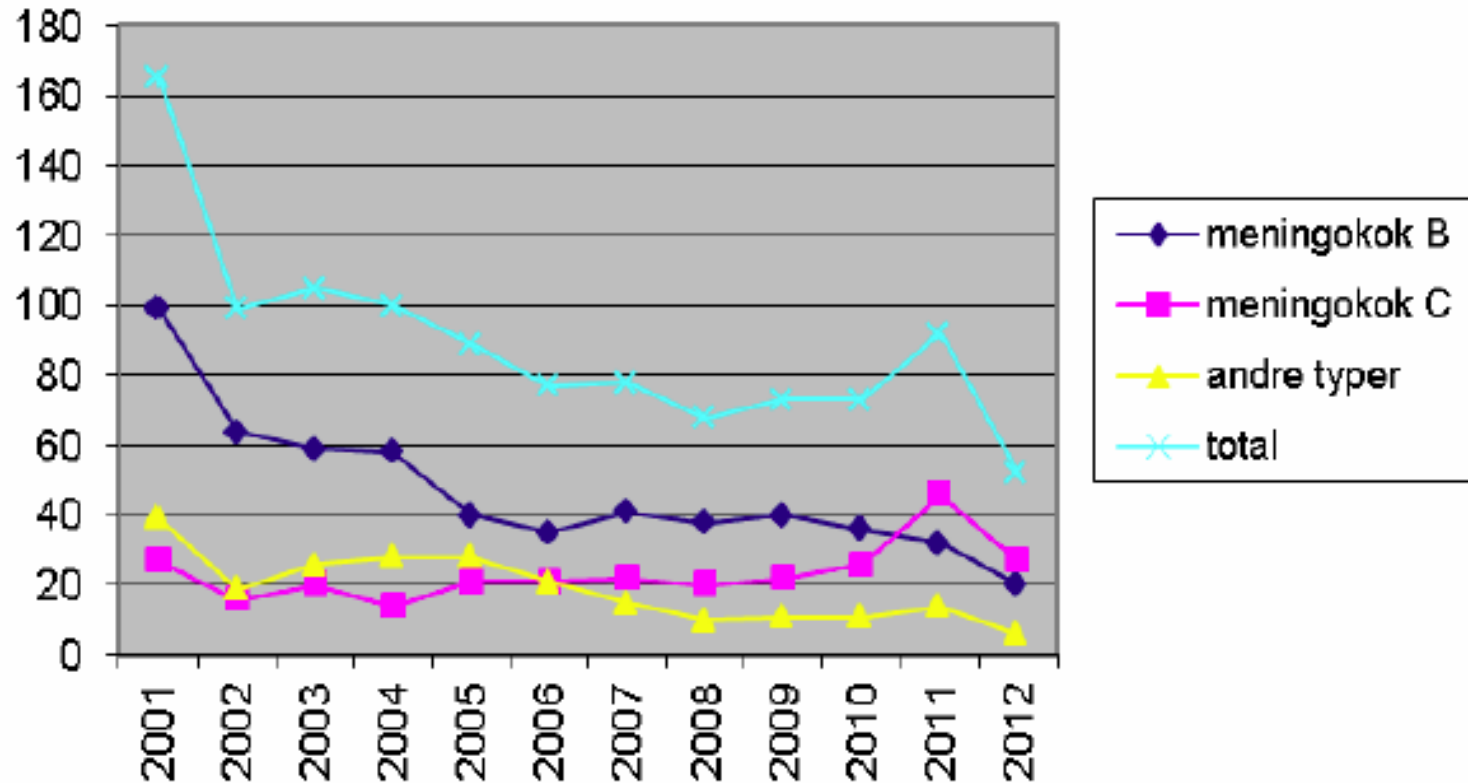
- Vaccines against diseases with a high mortality and risk of permanent complications
- Vaccines against diseases with a high burden, but less serious outcomes

Potential new vaccines



- Vaccines against diseases with a high mortality risk of permanent complications
 - Meningococcus group C
 - Meningococcus group B
(vaccine not yet on the market)

Notified cases of meningococcal disease in Denmark



Men C

-
- In 2011 70% of cases were due to genotype 5,2:F:3-3 which has been associated with a higher mortality in other countries
 - The increase has ceased in 2012
 - Even in 2011 the incidence in Denmark was lower than in other European countries at the time vaccination was introduced
 - Serious disease, we follow the situation closely!

Potential new vaccines



- Vaccines against diseases with a high burden, but less serious outcomes?
 - Varicella (mortality all agegroups: 0.5/million pyrs)*
(longterm sequelae <16 yrs: 0,5-1 /10.000pyrs)**
 - Rotavirus (mortality infants: 10-20/million pyrs??)***
 - Influenza (mortality in children: 2-8/million pyrs)****

*Nguen et al. NEJM 2005

** Matthew et al. Pediatric 2004

*** Personal communication with Thea Fisher while jogging yesterday

*** Heikinen et al. Eur J Pediatr 2006

Visions summarized



- An increased vaccination coverage
 - Need for continuous information and education of citizens and healthcare personnel
 - Danish Vaccination Register enrolled in 2013, which may also be used for sending recall reminders
- New vaccine candidates
 - MenC & B? however the overall incidence rate of meningococcal disease is lower than ever!
 - SST has to continuously reconsider the present criteria for including new vaccines
 - Delicate and difficult balance to maintain a high confidence in the programme and a high coverage and also adding new vaccines

Thank you for listening

