

Measles vaccination

(Routine and Catch-up)

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Overview

- Measles vaccine
- Measles elimination strategy 2007
- Routine MMR1 and MMR2
- MMR catch-up campaigns

Measles vaccine

- 95% Seroconversion after 1st dose
- 99% Seroconversion after 2nd dose

As a result of the high transmissibility of the measles virus, the herd immunity threshold is very high, and very high coverage ($\geq 95\%$) is necessary to interrupt virus transmission.

Measles elimination strategy 2007

A. Surveillance

B. Immunisation

1. Achieve and maintain high coverage of routine two doses of MMR

- MMR1 at 12 months -uptake $\geq 95\%$
- MMR2 at 4-5 years -uptake $\geq 95\%$

2. Providing opportunity for 2nd dose of MMR – supplementary activity

A school based catch-up campaign was recommended for children aged 4 to 18 years regardless of immunisation status

3. Other groups for whom MMR is required during elimination phase

Recommendations regarding groups at risk should be realised during the elimination phase.

- Women of childbearing age should be protected against rubella
- Health Care Workers should be appropriately immunised with MMR
- During outbreaks consider lowering age of MMR for infants to 6 months and expedite MMR2 in crèches and day centres.
- Encourage crèches and day centres for children to maintain immunisation records of children attending

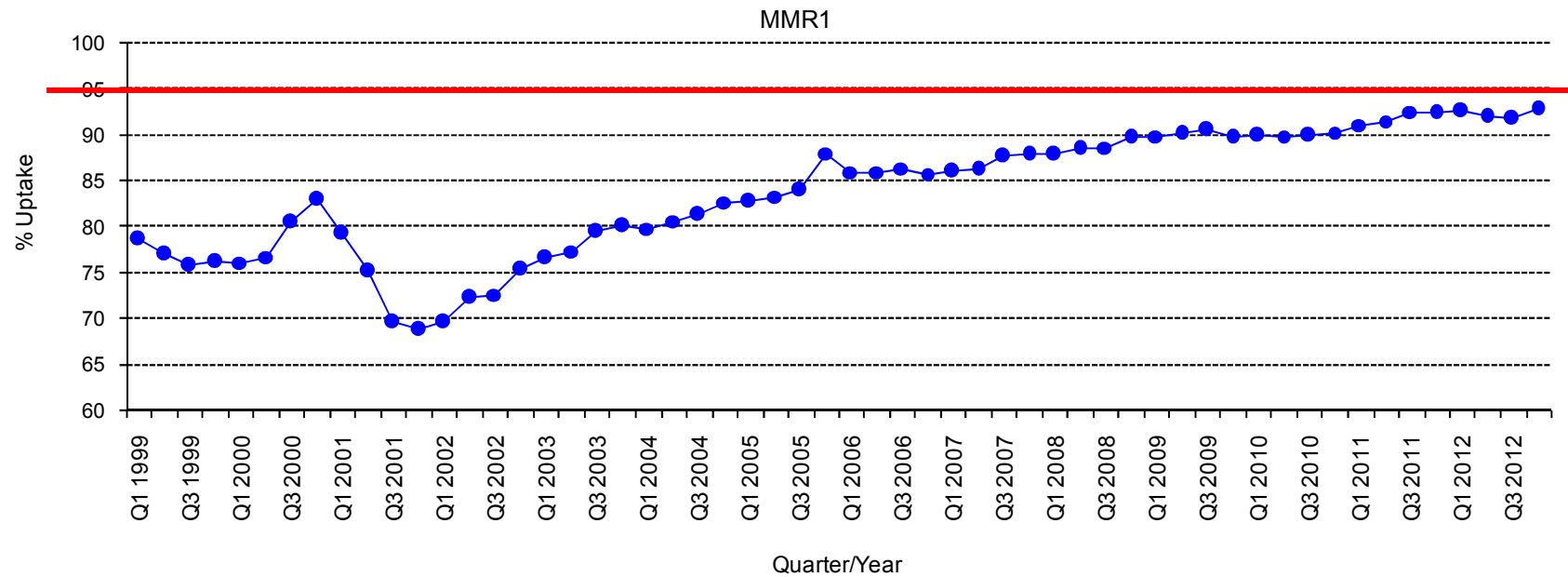
C. Immunisation information systems

Routine MMR1

MMR1 at 12 months -uptake \geq 95%

- Identification and registration of all children due MMR1
- Target MMR1 defaulters systematically and opportunistically
- Monitor uptake in a timely manner
- All vaccinated children should be provided with a vaccine certificate/parent held child health record
- Opportunistic MMR immunisation should be provided for children in other health care settings (GP, hospital settings)

MMR1 uptake 1999-2012



Routine MMR2

MMR2 at 4-5 years -uptake $\geq 95\%$

- Identification and registration of all children due MMR2
- **Target children without evidence of MMR1 at 4-5 years for routine MMR2 at least 1 month later**
- Develop a national system for monitoring MMR2 uptake
- Target MMR2 defaulters systematically and opportunistically
- All vaccinated children should be provided with a vaccine certificate/parent held child health record
- Opportunistic MMR immunisation should be provided for children in other health care settings (GP, hospital settings)

MMR2 uptake 2011/2012

HSE School Immunisations Programme for Junior Infants Academic Year 2011/2012						
Dublin Mid Leinster	Cohort	Number children who have received 1 dose 4-in-1 vaccine	%	Cohort	Number children who have received 1 dose MMR vaccine	%
Dublin South	1,759	1,612	91.6%	1,759	1,633	92.8%
Dublin South East	1,365	1,046	76.6%	1,365	1,052	77.1%
Wicklow	1,857	1,779	95.8%	1,857	1,771	95.4%
Dublin South City	1,428	1,158	81.1%	1,428	1,152	80.7%
Dublin South West	2,038	1,756	86.2%	2,038	1,731	84.9%
Dublin West	2,644	2,124	80.3%	2,644	2,134	80.7%
Kildare/W Wicklow	3,908	3,670	93.9%	3,908	3,670	93.9%
Laois/Offaly	2,635	2,419	91.8%	2,635	2,407	91.3%
Longford/Westmeath	1,992	1,927	96.7%	1,992	1,940	97.4%
Totals	19,626	17,491	89.1%	19,626	17,490	89.1%
Dublin North East						
Louth	GP	GP	GP	GP	GP	GP
Cavan/Monaghan	GP	GP	GP	GP	GP	GP
Meath	GP	GP	GP	GP	GP	GP
Dublin Nth West	2,892	2,190	75.7%	2,892	2,154	74.5%
Dublin Nth Central	GP	GP	GP	GP	GP	GP
Dublin North	4,004	3,567	89.1%	4,004	3,557	88.8%
Totals	6,896	5,757	83.5%	6,896	5,711	82.8%
West						
Limerick	1,976	1,784	90.3%	1,976	1,779	90.0%
Clare	1,775	1,662	93.6%	1,775	1,646	92.7%
Tipperary North	1,593	1,523	95.6%	1,593	1,522	95.5%
Galway	GP	GP	GP	3,646	2,656	72.8%
Mayo	GP	GP	GP	2,160	1,070	49.5%
Roscommon	932	811	87.0%	933	814	87.2%
Donegal	GP	GP	GP	GP	GP	GP
Sligo/Leitrim	GP	GP	GP	GP	GP	GP
Totals	6,276	5,780	92.1%	12,083	9,487	78.5%
South						
North Lee/South Lee	5,529	4,812	87.0%	5,529	4,739	85.7%
North Cork	1,422	375	26.4%	1,422	378	26.6%
West Cork	833	636	76.4%	833	632	75.9%
Kerry	2,017	1,867	92.6%	2,017	1,867	92.6%
South Tipperary	1,379	1,052	76.3%	1,379	1,072	77.7%
Carlow/Kilkenny	1,926	1,653	85.8%	1,926	1,653	85.8%
Waterford	1,961	1,873	95.5%	1,961	1,881	95.9%
Wexford	2,345	2,009	85.7%	2,345	1,982	84.5%
Totals	17,412	14,277	82.0%	17,412	14,204	81.6%
National Total	50,210	43,305	86.2%	56,017	46,892	83.7%

GP - Vaccine administered by GPs in these areas

GP Administered Programme for Junior Infants (data extract Sept-Nov 2012)						
Dublin Mid Leinster	Cohort	Number children who have received 1 dose 4-in-1 vaccine	%	Cohort	Number children who have received 1 dose MMR vaccine	%
Dublin South	HSE	HSE	HSE	HSE	HSE	HSE
Dublin South East	HSE	HSE	HSE	HSE	HSE	HSE
Wicklow	HSE	HSE	HSE	HSE	HSE	HSE
Dublin South City	HSE	HSE	HSE	HSE	HSE	HSE
Dublin South West	HSE	HSE	HSE	HSE	HSE	HSE
Dublin West	HSE	HSE	HSE	HSE	HSE	HSE
Kildare/W Wicklow	HSE	HSE	HSE	HSE	HSE	HSE
Laois/Offaly	HSE	HSE	HSE	HSE	HSE	HSE
Longford/Westmeath	HSE	HSE	HSE	HSE	HSE	HSE
Totals	0	0	0.0%	0	0	0.0%
Dublin North East						
Louth	N/A	N/A	N/A	N/A	N/A	N/A
Cavan/Monaghan	N/A	N/A	N/A	N/A	N/A	N/A
Meath	N/A	N/A	N/A	N/A	N/A	N/A
Dublin Nth West	HSE	HSE	HSE	HSE	HSE	HSE
Dublin Nth Central*	1,288	1,021	79.3%	1,288	1,021	79.3%
Dublin North	HSE	HSE	HSE	HSE	HSE	HSE
Totals	1,288	1,021	79.3%	1,288	1,021	79.3%
West						
Limerick	HSE	HSE	HSE	HSE	HSE	HSE
Clare	HSE	HSE	HSE	HSE	HSE	HSE
Tipperary North	HSE	HSE	HSE	HSE	HSE	HSE
Galway+	3,646	2,531	69.4%	HSE	HSE	HSE
Mayo+	1,768	930	52.6%	HSE	HSE	HSE
Roscommon	HSE	HSE	HSE	HSE	HSE	HSE
Donegal+	2,267	1,987	87.6%	2,261	1,967	87.0%
Sligo/Leitrim+	1,313	1,119	85.2%	1,313	1,127	85.8%
Totals	8,994	6,567	73.0%	3,574	3,094	86.6%
South						
North Lee/South Lee	HSE	HSE	HSE	HSE	HSE	HSE
North Cork	HSE	HSE	HSE	HSE	HSE	HSE
West Cork	HSE	HSE	HSE	HSE	HSE	HSE
Kerry	HSE	HSE	HSE	HSE	HSE	HSE
South Tipperary	HSE	HSE	HSE	HSE	HSE	HSE
Carlow/Kilkenny	HSE	HSE	HSE	HSE	HSE	HSE
Waterford	HSE	HSE	HSE	HSE	HSE	HSE
Wexford	HSE	HSE	HSE	HSE	HSE	HSE
Totals	0	0	0.0%	0	0	0.0%
National Total	10,282	7,588	73.8%	4,862	4,115	84.6%

N/A-Data Not Available

HSE-Vaccine administered by HSE in these areas

*Dublin Nth Central- data for 4-5 year old children in 2011-2012

+ Birth cohort 2005

MMR catch-up campaigns

2009 -April/May to September

- MMR campaign in senior cycle of second level schools in response to national mumps outbreak >70% uptake

2012/2013

- MMR catch-up campaign in second level schools ~20% uptake

2013/2014

- MMR catch-up campaign for first years in second level schools
- ?primary school students

ESEN survey 2003

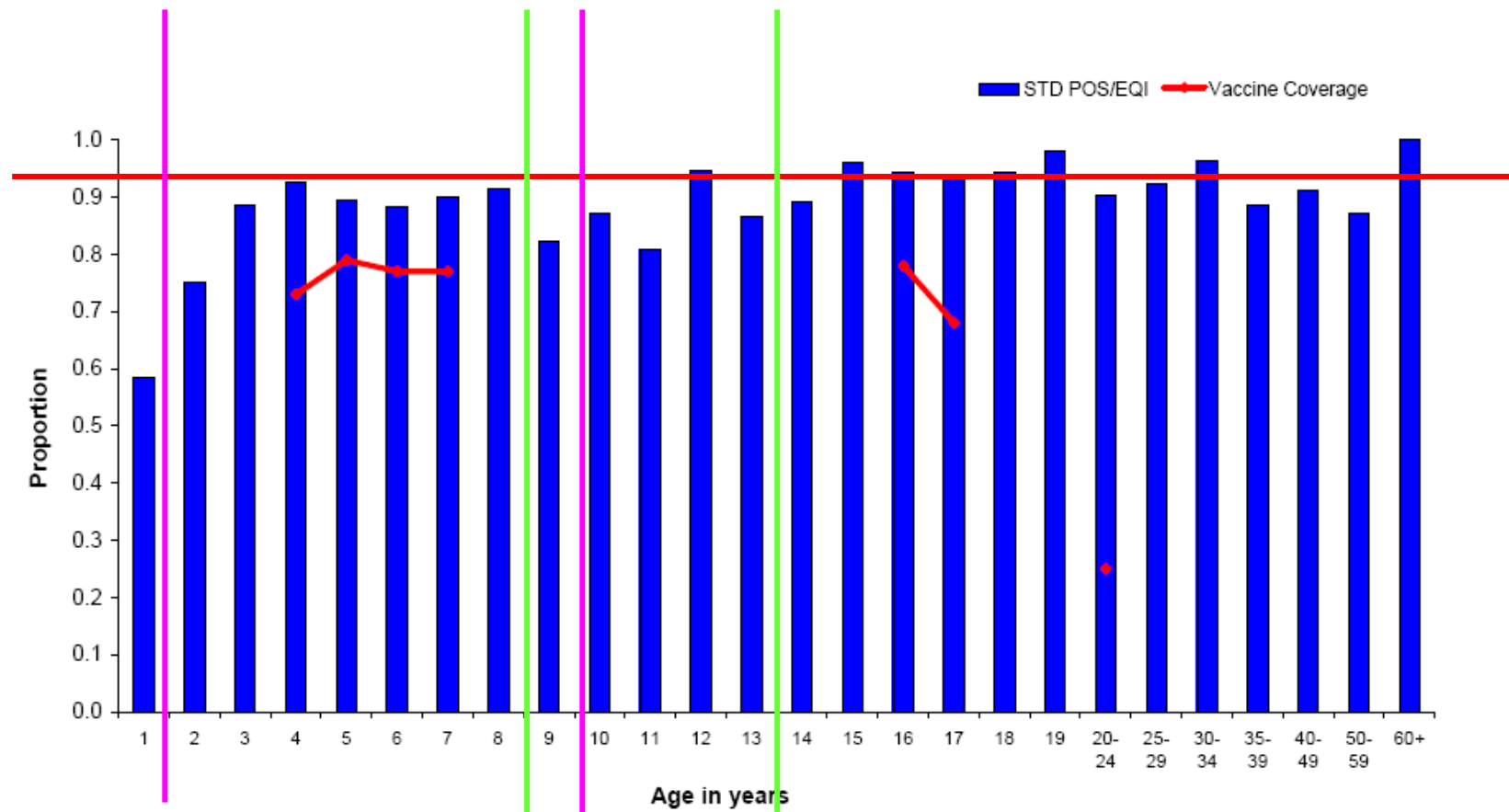


Figure 7.1. Proportion of population with measles immunity (sero-profile) by age group (ESEN2 2003 data)

Target age in MMR campaigns

Age in 2003	Born in	Age 2009	Age 2013	Age in 2003	Born in	Age 2009	Age 2013
1	2002	7	11	1	2002	7	11
2	2001	8	12	2	2001	8	12
3	2000	9	13	3	2000	9	13
4	1999	10	14	4	1999	10	14
5	1998	11	15	5	1998	11	15
6	1997	12	16	6	1997	12	16
7	1996	13	17	7	1996	13	17
8	1995	14	18	8	1995	14	18
9	1994	15	19	9	1994	15	19
10	1993	16	20	10	1993	16	20
11	1992	17	21	11	1992	17	21
12	1991	18	22	12	1991	18	22
13	1990	19	23	13	1990	19	23
14	1989	20	24	14	1989	20	24
15	1988	21	25	15	1988	21	25
16	1987	22	26	16	1987	22	26
17	1986	23	27	17	1986	23	27
18	1985	24	28	18	1985	24	28
19	1984	25	29	19	1984	25	29

Yellow = 2009 campaign.

Blue = 2012/2013 campaign

MMR catch-up campaigns

2007	2013
Junior Infants	Currently in fifth class
Senior Infants	Currently in sixth class
First class	2012/2013 MMR catch-up campaign Students in second level schools
Second class	
Third class	
Fourth class	
Fifth class	
Sixth Class	
1st year	Completed second level school June 2012
2nd year	2009 Mumps campaign Students in senior cycle of second level
3rd year	
4th year/TY	
5th year	Completed second level school June 2008
6th year	Completed second level school June 2007

Achieving measles elimination

Immunisation measures

- Improving MMR1 uptake
- Improving MMR2 uptake
- Supplementary measles immunisation activity

Any questions?