

The National Immunisation Schedule

Update and Current issues

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National Immunisation Office



www.immunisation.ie

: Dates vaccines introduced into the Irish immunisation schedule

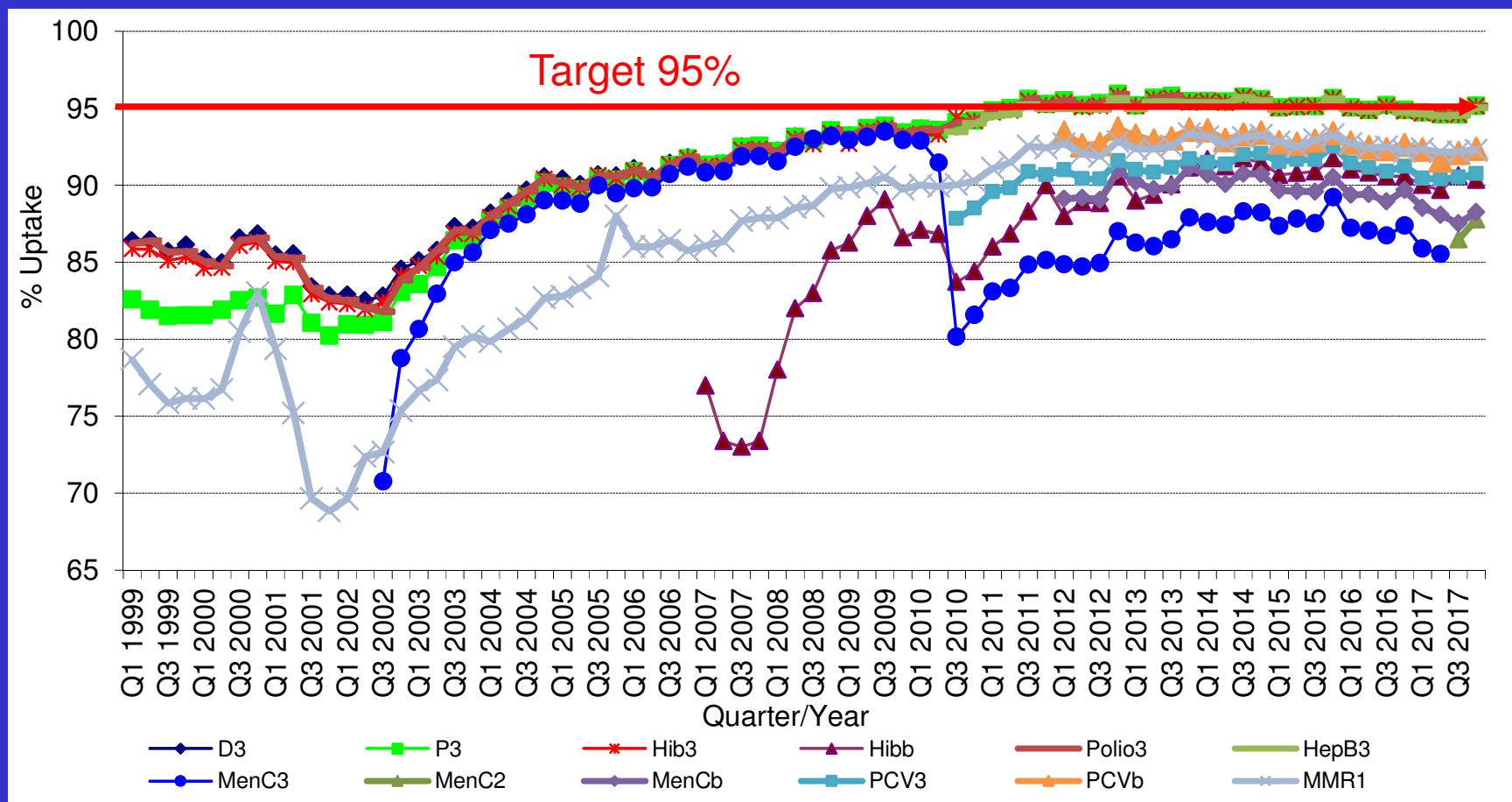
| 1937 - 1999 | |
|-----------------------------|-----------------|
| Vaccine | Date introduced |
| 1. BCG | 1937 |
| 2. DT | 1930s |
| 3. DTP | 1952 |
| 4. Oral Polio Vaccine (OPV) | 1957 |
| 5. Rubella | 1971 |
| 6. Measles | 1985 |
| 7. MMR | 1988 |
| 8. MMR2 | 1992 |
| 9. Hib | 1992 |

| 2000 - 2017 | |
|------------------------------------|-----------------|
| Vaccine | Date introduced |
| 1. Men C | 2000 |
| 2. DTaP-Hib-IPV (5 in1) | 2001 |
| 3. Inactivated Polio (IPV) | 2001 |
| 4. Hib Booster | 2006 |
| 5. Hepatitis B (as part of 6 in 1) | 2008 |
| 6. PCV7 | 2008 |
| 7. HPV | 2010 |
| 8. PCV13 | 2010 |
| 9. Tdap | 2012 |
| 10. Men C (adolescent booster) | 2014 |
| 11. Rotavirus | 2016 |
| 12. Men B | 2016 |



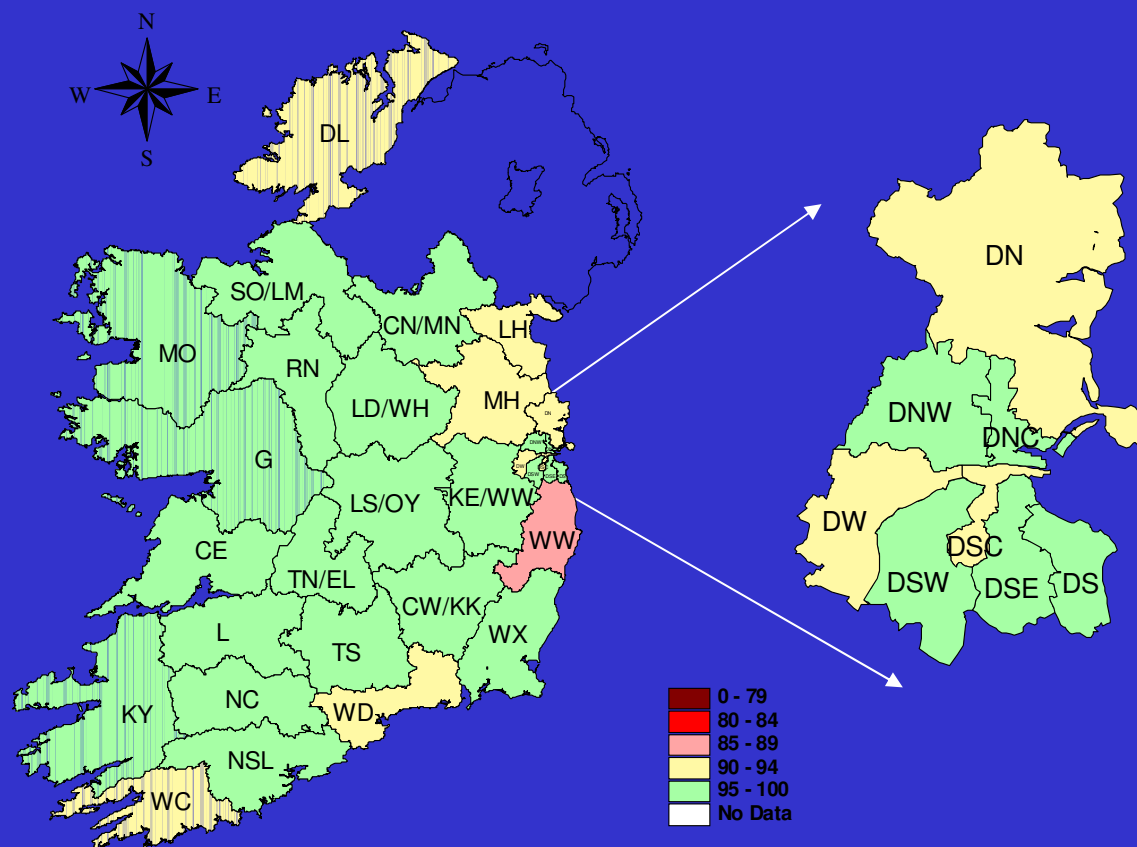
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Vaccine uptake rate at 24 months 1999-2017

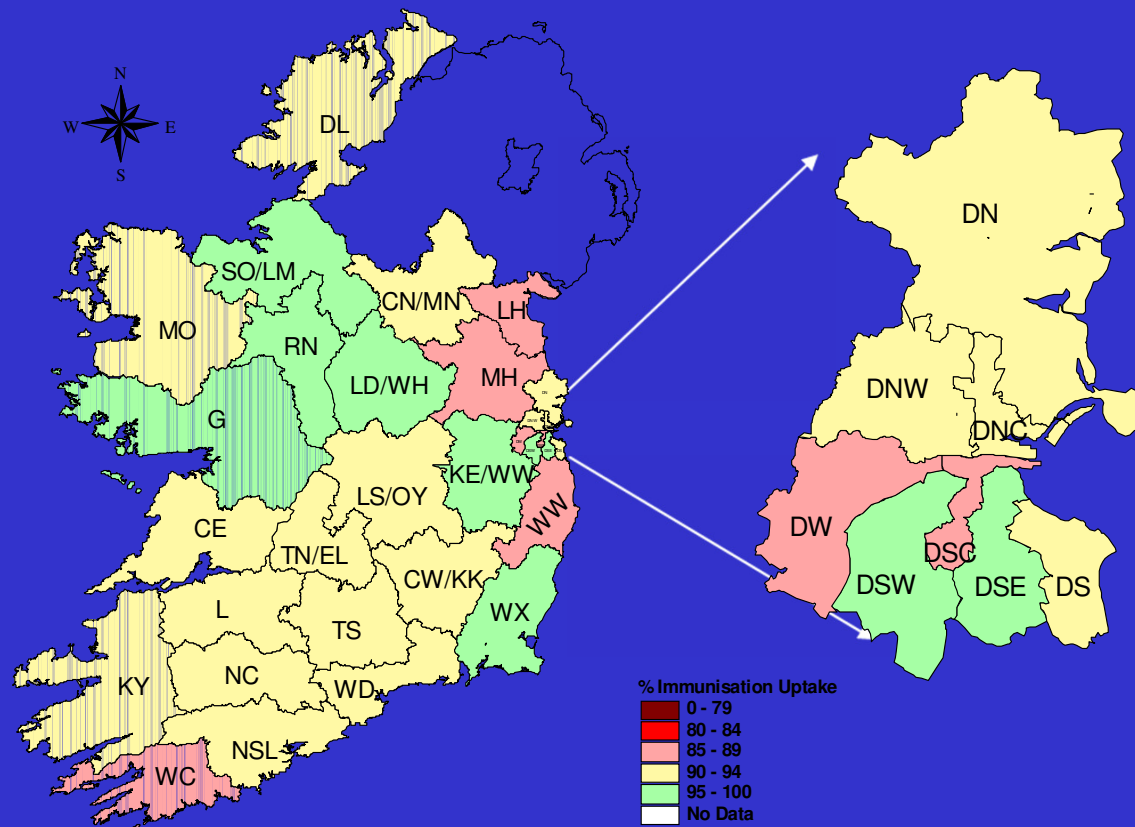


Source: HPSC

Quarter 4 2017 D3 immunisation uptake rates (%) by LHO, in those 24 months of age in Ireland and Dublin (source HPSC)



Quarter 4 2017 MMR immunisation uptake rates (%) by LHO, in those 24 months of age in Ireland and Dublin (source HPSC)



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Decline in vaccine uptakes

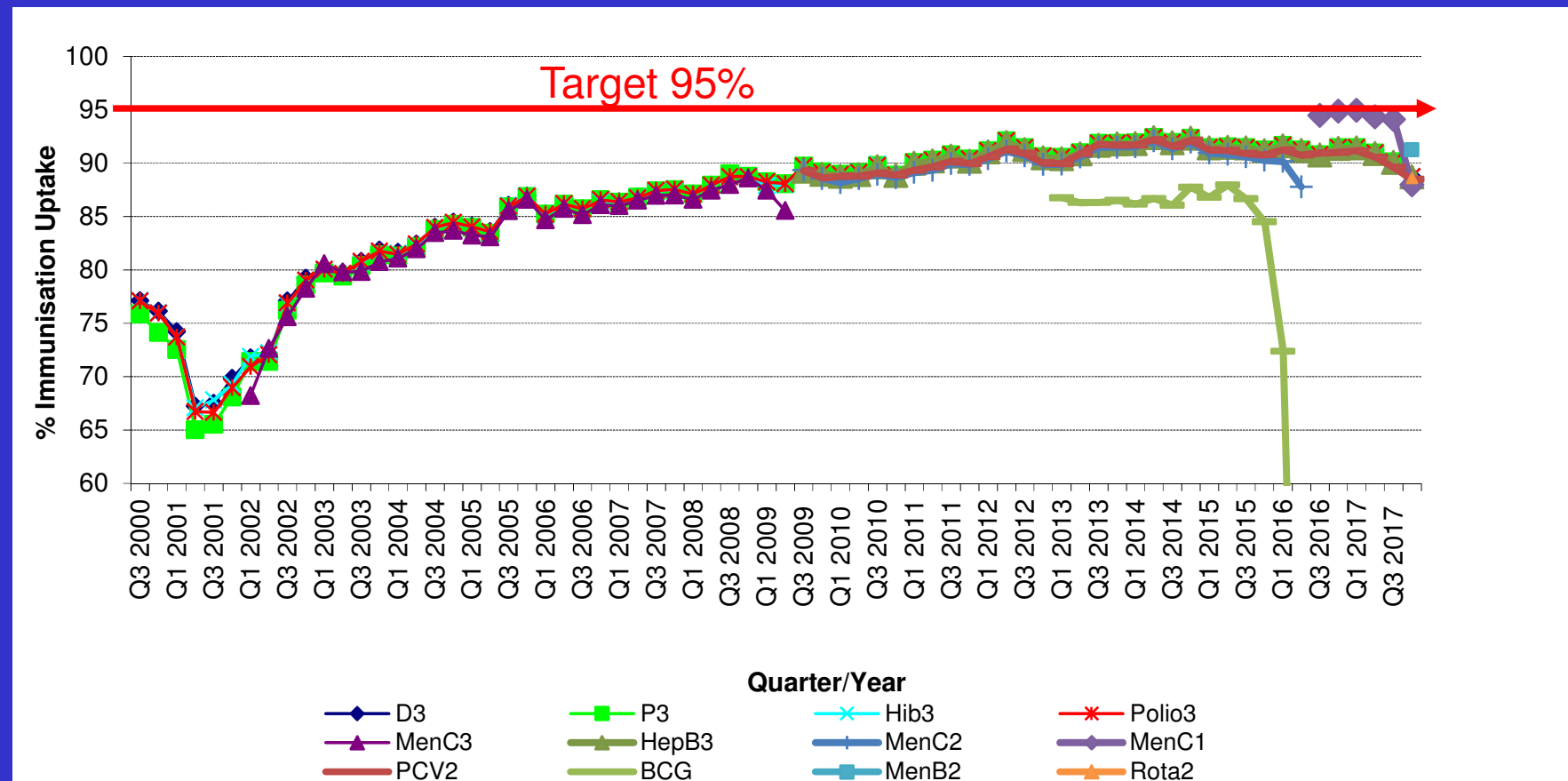
| | Q1 2010 | Q3 2010 | Q4 2017 |
|--------------------|---------|---------|---------|
| Men C _b | 93% | 80% | 88% |
| PCV _b | - | 88% | 91% |
| Hib _b | 89% | 84% | 90% |

Source: HPSC



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Vaccine uptake rate at 12 months 1999-2017

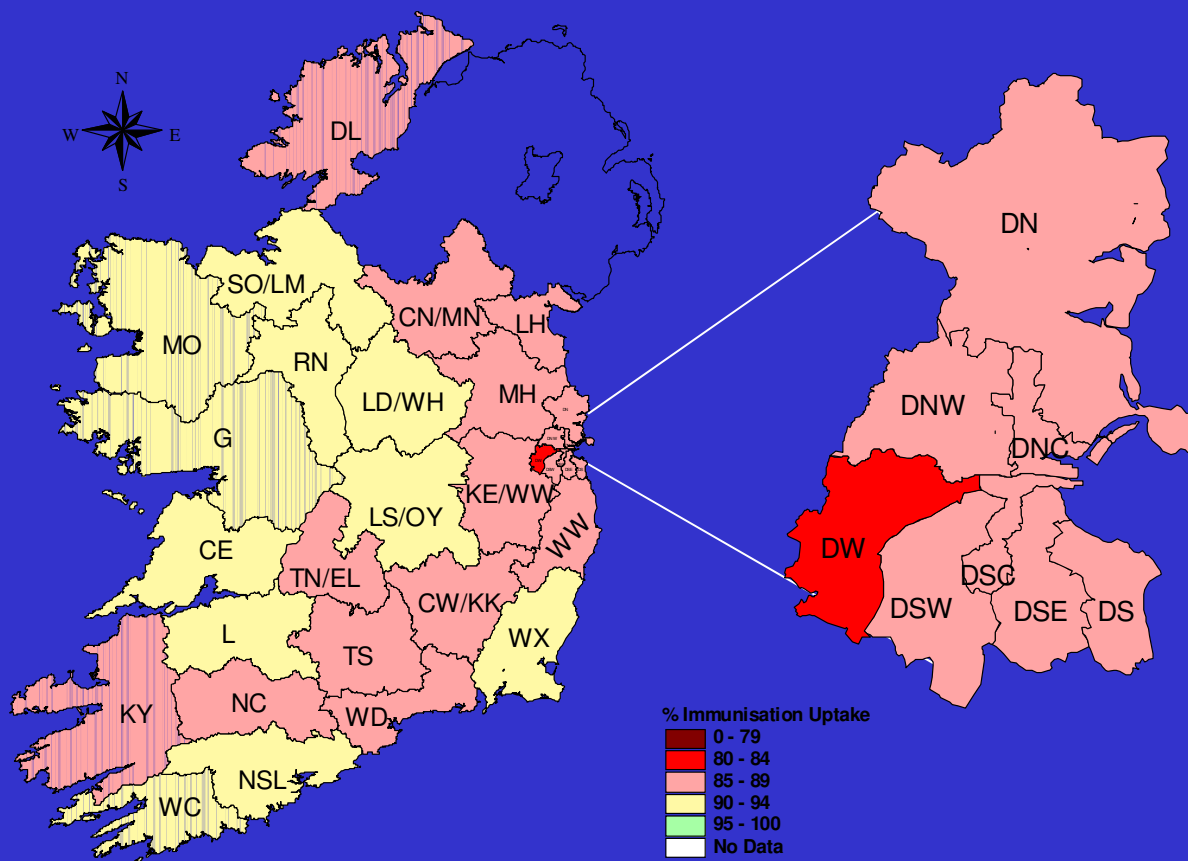


Source: HPSC



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Health Service Executive

Quarter 4 2017 Rota₂ immunisation uptake rates (%) by LHO, in those 12 months of age in Ireland and Dublin (source HPSC)



Decline in vaccine uptakes

Actions

- Highlight importance of
 - all vaccines on time
 - rotavirus vaccine before 8 months
 - 5 visits at every opportunity
- Give an appointment for next visit
- Send a text reminder before appointment
- Follow up defaulters as soon as possible
- Send vaccine returns on time
- Defaulters need appropriate vaccines even if they are over the recommended age


the vaccines in the table below:


| Age | Vaccination |
|---|---|
| 2 months | Visit 1 6 in 1+PCV+MenB+Rotavirus 3 Injections+Oral Drops |
| 4 months | Visit 2 6 in 1+MenB+Rotavirus 2 Injections+Oral Drops |
| 6 months | Visit 3 6 in 1+PCV+MenC 3 Injections |
| No Rotavirus vaccine on or after 8 months 0 days | |
| 12 months | Visit 4 MMR+MenB 2 Injections |
| 13 months | Visit 5 Hib/MenC+PCV 2 Injections |

Your child needs five GP (doctor) visits.
Bring your child's vaccine passport to each GP (doctor) visit so that your child's vaccines are recorded and you have this information when they are older.

Remember you will need paracetamol for your baby's 2 and 4 month vaccinations.

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Order code: HN000988

 **PROTECT PREVENT IMMUNISE**

 **HSE**
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Health Service Executive



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Primary school immunisation schedule 2017/2018

| Age (years) | Vaccine |
|-------------|-----------------|
| 4 -5 | Tdap/IPV MMR |

Tdap/IPV low dose diphtheria
 Tetanus
 low dose pertussis
 Polio
 (IPV Boostrix)

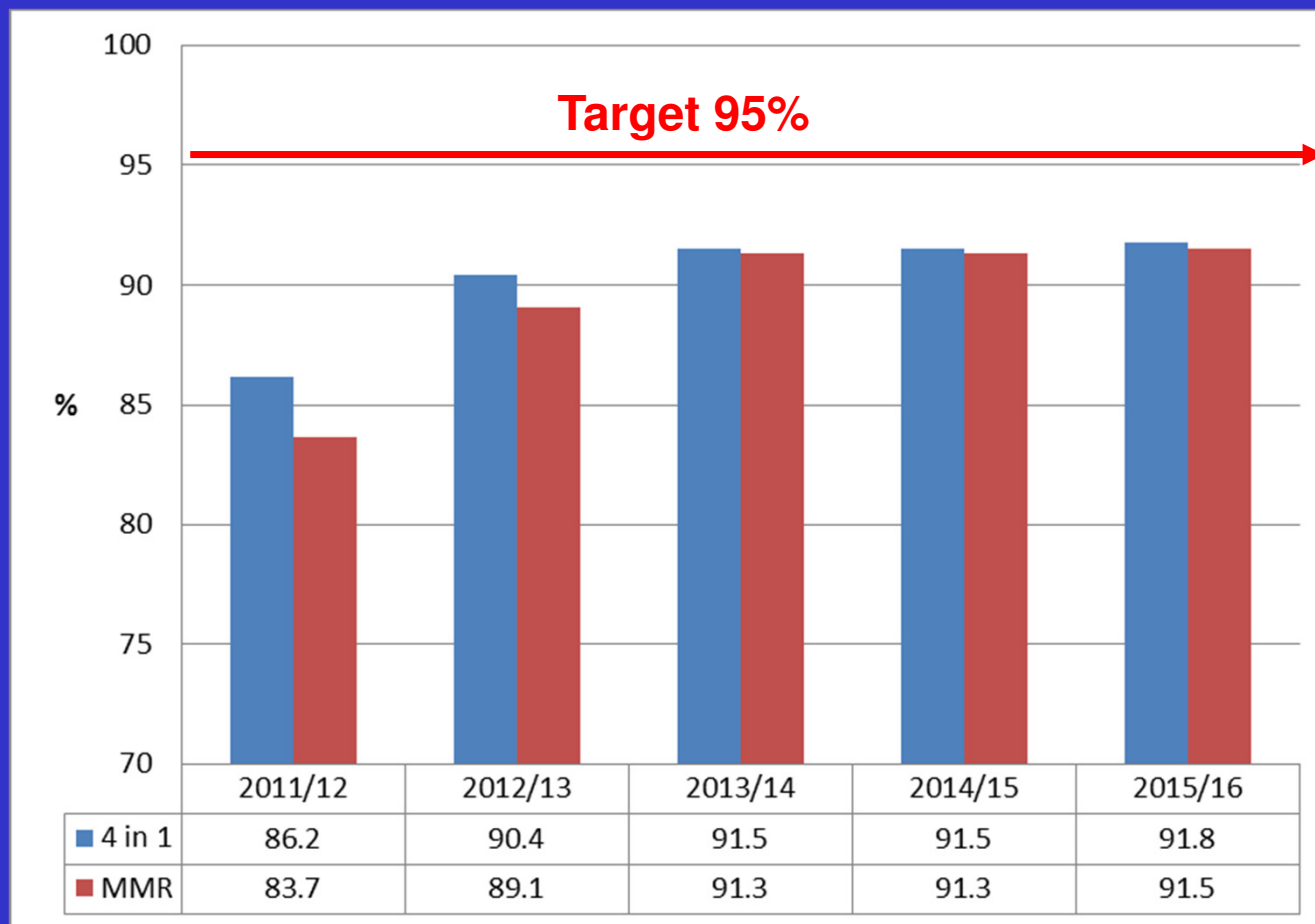


MMR Measles, mumps and rubella



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Primary school immunisation uptake 2011/12 - 2015/16



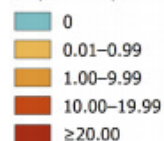
13,475 cases

21 deaths

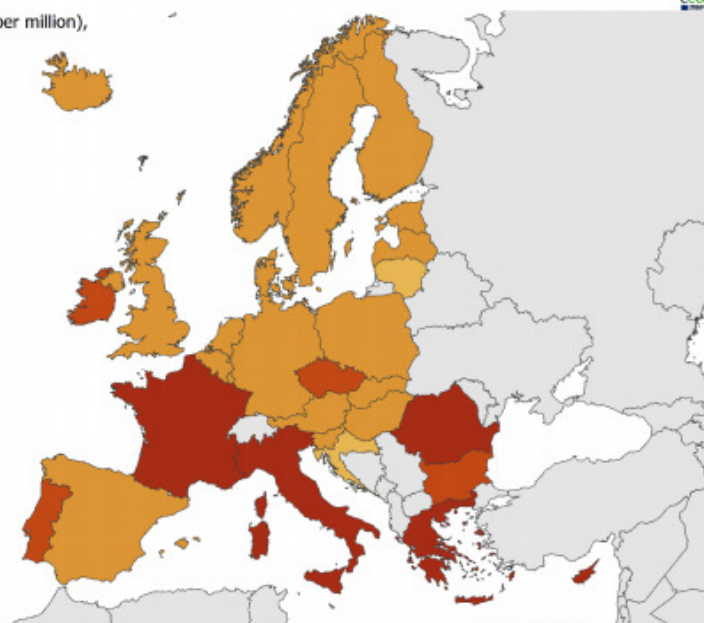
83% unvaccinated

Figure 2. Measles notification rate per million population by country, EU/EEA, 1 May 2017–2018.

Notification rate of measles (per million),
May 2017–April 2018



Not included



ECDC. Map produced on: 28 May 2018
ECDC map maker: <https://emma.ecdc.europa.eu>

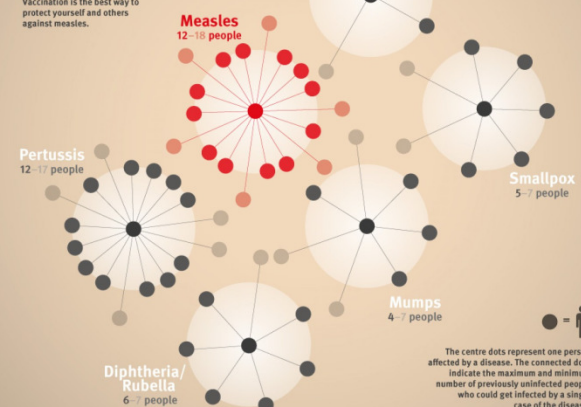
THINK MEASLES

Children, teenagers, young adults and anyone who has missed their MMR vaccination can get measles.



Measles is more contagious than you think

Measles is an acute, highly contagious viral disease capable of producing epidemics. It is very infectious and spreads easily among unvaccinated people. A person with measles infects an average of 12 to 18 previously uninfected people. Vaccination is the best way to protect yourself and others against measles.



Source: Plotkin S, Orenstein W, Offit P. Vaccines, 10th edition, 2008, Elsevier Inc.



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Second level school immunisation schedule 2017/2018

| Age (years) | Vaccine |
|-------------------------|--------------------------|
| 12-13 | Tdap MenC |
| 12 – 13 (girls only) | HPV (2 dose schedule) |

Tdap Tetanus, low dose diphtheria & pertussis
MenC Meningococcal C vaccine
HPV Human papillomavirus

**Tdap and MenC
booster vaccines**

Information for parents of children
in First Year of second level school



Second level school
vaccination programme

Name: _____

Date: _____

Time of vaccination: _____

Your child was given the following vaccines today

☐ HPV ☐ Tdap ☐ MenC

Common reactions expected after these vaccines may include

- soreness, swelling and redness where the injection was given (this usually passes after a day or two)
- dizziness
- headache

Occasionally your child may feel sick or have a mild fever. On rare occasions some children may have an itchy rash or hives.

You can give your child paracetamol or ibuprofen to relieve aches and pains or to lower the fever. If you are concerned about your child please seek medical advice.

The school vaccination team can be contacted during office hours from Monday to Friday at _____


If you require medical advice after these hours please contact your family doctor.

Before the next vaccine, you should write to the vaccination team if there has been

- a serious reaction to these vaccines
- any change to your child's medical history or your consent

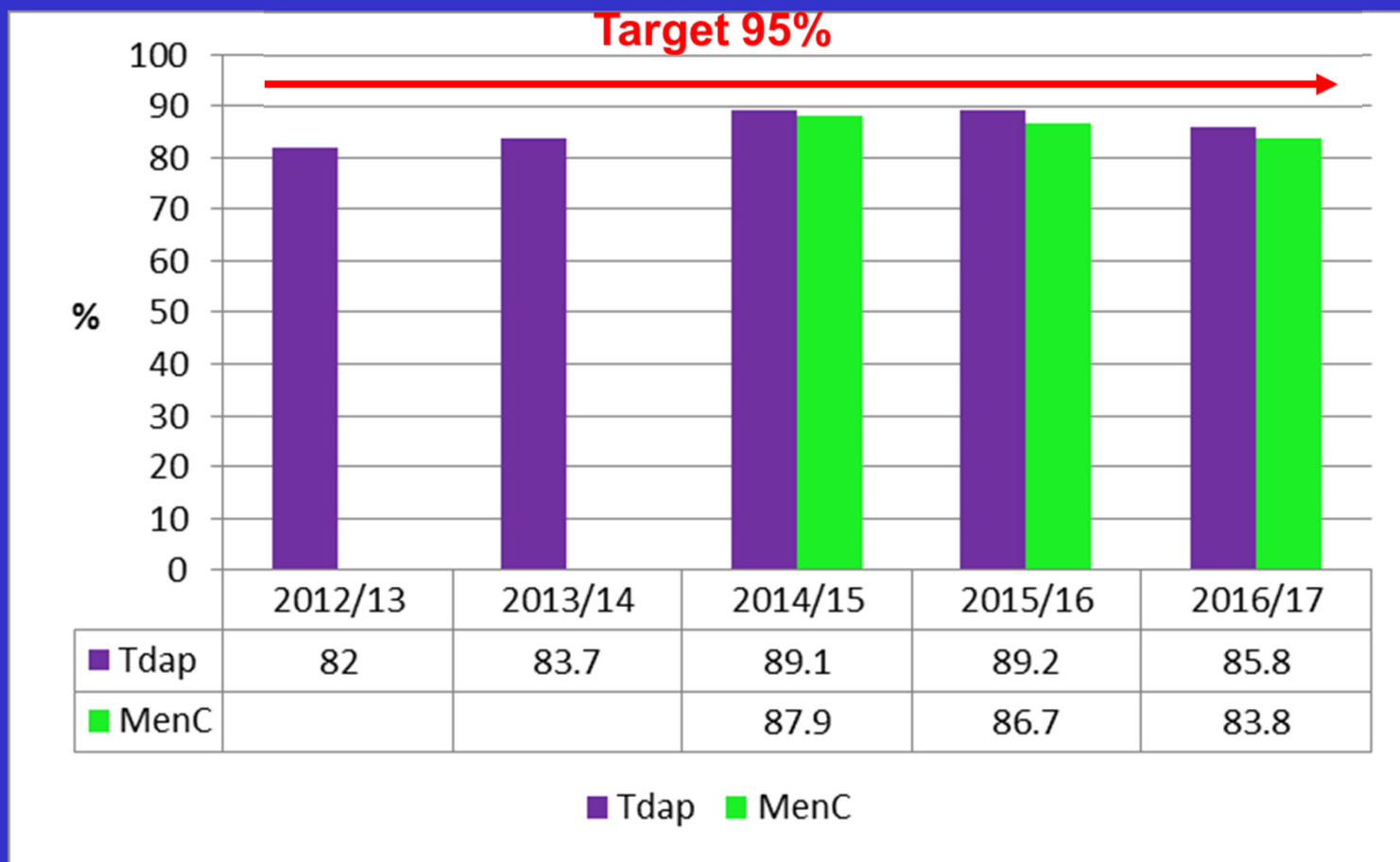
You will get a record of your child's vaccinations when they have all been completed. **Please keep this safe.**

For more information see
www.immunisation.ie




www.immunisation.ie

Second level school immunisation uptake Tdap and MenC 2012/13 – 2015/16



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Adolescent MenC booster vaccine

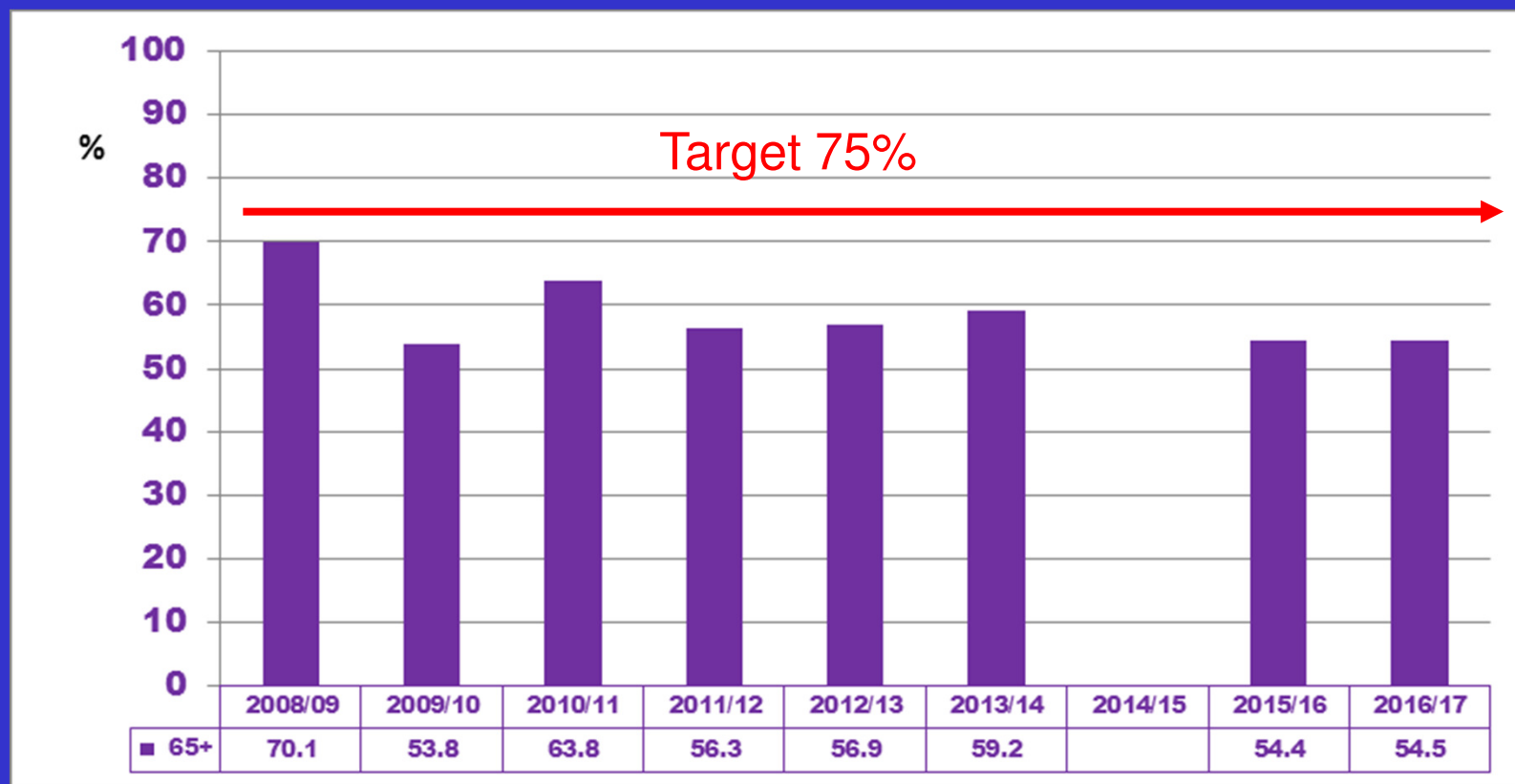
- Peak rates in under 5 years and 15-19 years
- Concerns about waning immunity in adolescents
- Recent study
 - those vaccinated at <1 year, vaccine effectiveness decreased by 50% after 10 years
 - those vaccinated with one dose at 12–19 years showed no changes
 - vaccination at ≥ 12 years related to a low number of vaccine failures and a higher and longer protection over time
- MenACWY in UK since 2015/2016



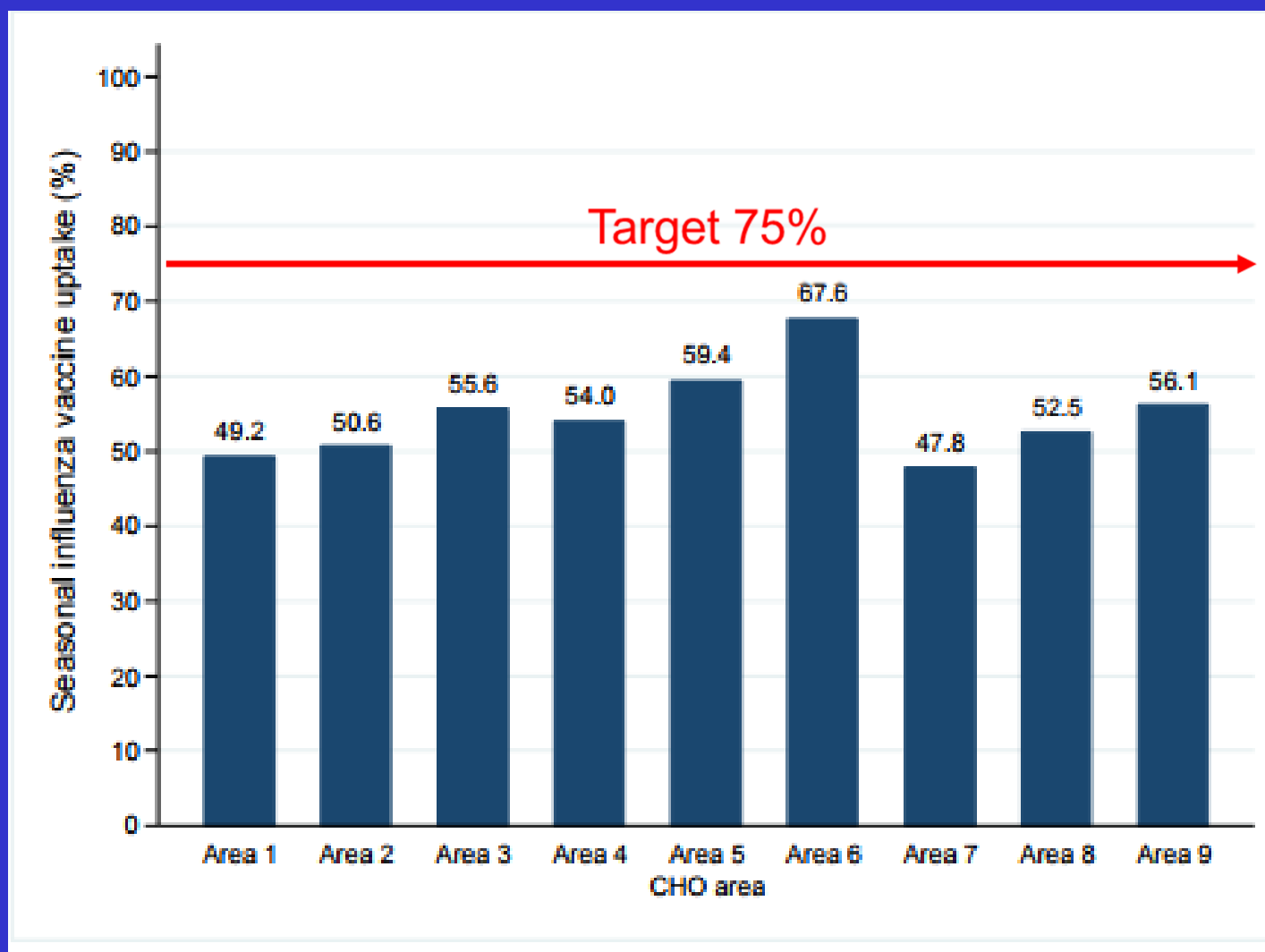
Seasonal influenza vaccination programme

Vaccine uptake for 65+ years with GMS or doctor only card

Source:HPSC



Vaccine uptake for ≥ 65 with GMS or doctor only card by CHO



Source:HPSC

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Vaccines in pregnancy

Influenza

Maternal influenza associated with an increased risk of

- hospitalisation and maternal death (1 in 11 in the UK 2009-2012)
- congenital abnormalities
 - cleft lip
 - neural tube defects
 - hydrocephaly
 - congenital heart defects
- spontaneous abortion
- preterm delivery
- low birth weight
- birth of a small-for-gestational age infant
- foetal death



Infants under 6 months have the highest rate of hospitalisation and death from influenza



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Influenza vaccine efficacy

Effective

- Disease reductions of 41-91%
 - 70% reduction in 2009/10
- Vaccination during pregnancy provides passive immunity to infants up to 6 months of age
 - incidence of confirmed influenza reduced by 63%
 - 40% reduction in pre term births (as effective as smoking cessation)
 - 57% reduction in small for gestational age infants
- Into adulthood
 - ? reduce long term effects of pre term/ small for gestational age births



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Influenza vaccine safety

- Ongoing global surveillance
 - enhanced since 2009/10
- No evidence of increase in congenital anomalies, learning disabilities, malignancies
- No specific safety issues in pregnancy
- Possible safety signal re miscarriage (2017)
CDC commentary
 - small numbers
 - incomplete records
 - no change to recommendation
 - <https://www.cdc.gov/flu/professionals/vaccination/vaccination-possible-safety-signal.html>

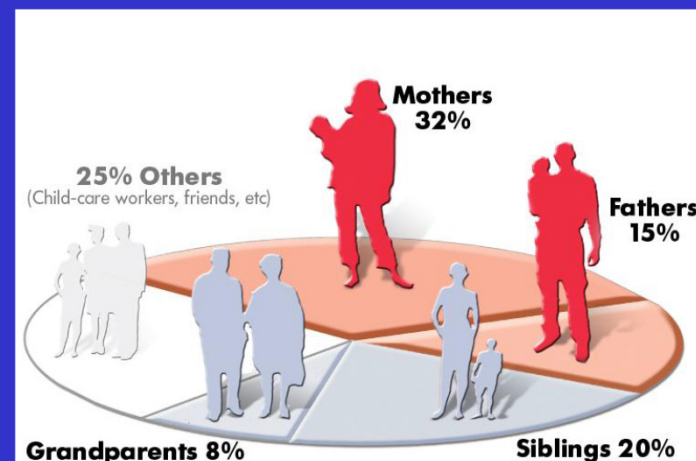


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Vaccines in pregnancy

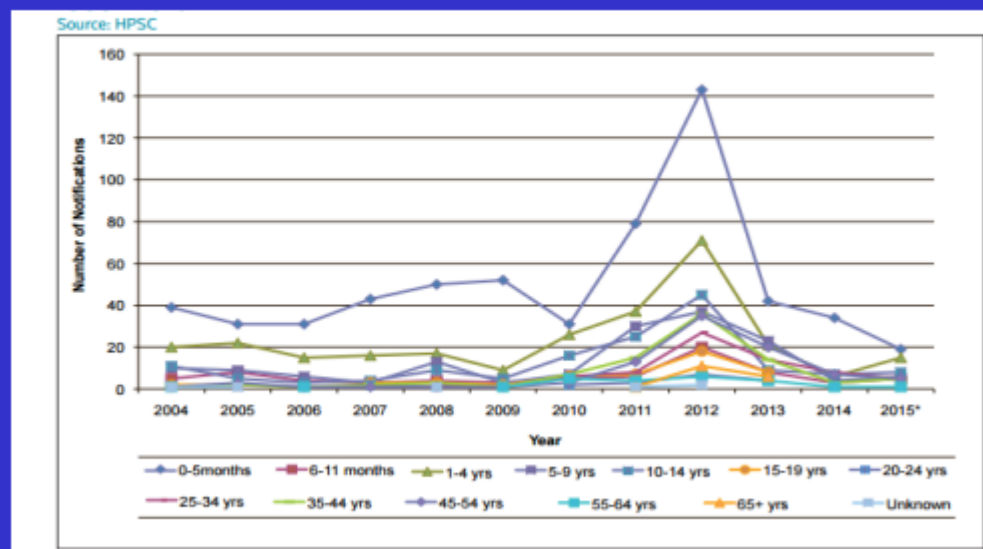
Pertussis

- Highly infectious
 - 90% of susceptible household contacts develop disease
- Young infants < 6 months most at risk
 - 70% infected by family
 - hospitalisation common
 - 50% will have apnoea
 - 20% develop pneumonia
 - 1% will have seizures
 - 1% will die
- Disease does not guarantee lifelong protection



Source of Pertussis Infection in Infants

Number of notifications 1999- 2015



Pertussis Ireland

2012

- Most < 5 years of age
- 48% unvaccinated

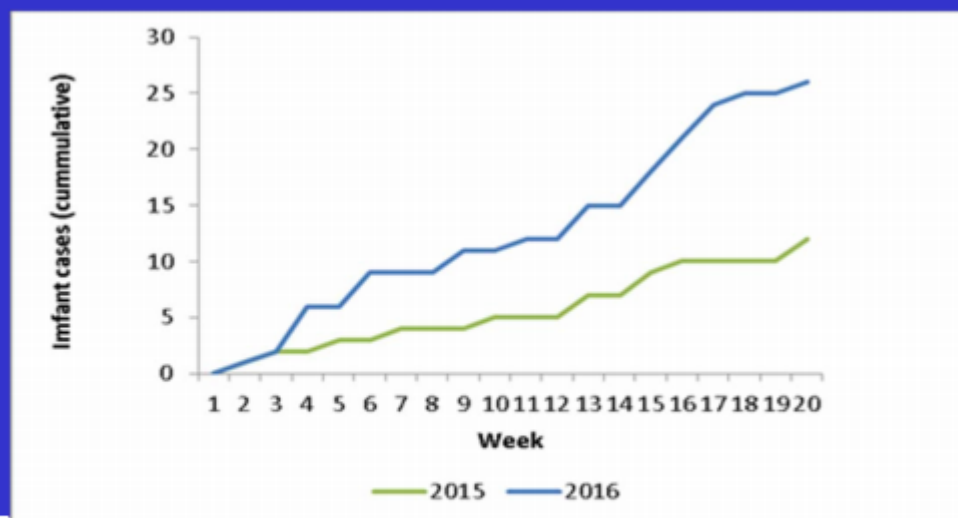
2016

- 213 cases notified
- HSE East (70)
- 31 cases under 6 months
- Majority Mothers unvaccinated

2018

- 46 cases to date

No. of cases in under 6 month age group



Source: HPSC

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Pertussis vaccine

- 2, 4, 6 months (6 in 1)
 - 4 - 5 years (4 in 1)
 - 12 - 13 years (Tdap)
 - low dose tetanus, diphtheria and pertussis vaccine
 - given with MenC and HPV (girls)
- BUT
- vaccine immunity wanes (acellular vs whole cell vaccine)

| Primary Childhood Immunisation Schedule | |
|--|---|
| Babies born on or after 1 October 2016 | |
| Age | Vaccination |
| 2 months | Visit 1 6 in 1+PCV+MenB+Rotavirus 3 Injections+Oral Drops |
| 4 months | Visit 2 6 in 1+MenB+Rotavirus 2 Injections+Oral Drops |
| 6 months | Visit 3 6 in 1+PCV+MenC 3 Injections |
| No Rotavirus vaccine on or after 8 months 0 days | |
| 12 months | Visit 4 MMR+MenB 2 Injections |
| 13 months | Visit 5 Hib/MenC+PCV 2 Injections |

Remember to give your baby 3 doses of liquid infant paracetamol after the 2 and 4 month MenB vaccines.
1. Give 2.5 mls (50 mg) of liquid infant paracetamol at the time of the immunisation or shortly after.
2. Give another 2.5 mls (50 mg) of liquid infant paracetamol 4-6 hours later.
3. Give a further 2.5 mls (50 mg) of liquid infant paracetamol 4-6 hours later.



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Pertussis vaccine

- Recommended for pregnant women
 - US (2011), UK (2012), Ireland (2012)
 - between 16 -36 weeks gestation*
 - can be given later or in 1st week post partum (may not be as effective)
 - every pregnancy as evidence of waning immunity (2012)

*changed September 2016



September 2017

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Pertussis vaccine efficacy

UK

- Vaccine uptake ~60-78%
- < 3 month infants 328 cases 2012 vs 72 in 2013
- 12 deaths in 2012 vs 2 deaths in 2013
(mothers unimmunised)
- 91% reduction in disease in first months of life compared with babies whose mothers had not been vaccinated



Pertussis vaccine safety

Enhanced surveillance in the US and UK

No evidence of

- elevated frequency or unusual patterns of adverse events
 - stillbirth
 - maternal or neonatal death
 - pre eclampsia
 - haemorrhage
 - foetal distress
 - low birth weight
- blunting of response to primary childhood vaccines
- increase in adverse events when influenza and Tdap given together



HSE vaccine programmes for pregnant women

- Influenza and pertussis (Tdap) vaccines provided free of charge
- Influenza vaccine administration free for those with medical or doctor only card
- No administration fee agreed for pertussis vaccine
- Both vaccines recommended for HCWs

Are you vaccinated??



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Summary

- ☐ Vaccine schedules change regularly
- ☐ Important to be vaccinated on time every time
- ☐ Diseases have not gone away
- ☐ Vaccines recommended for pregnant women
- ☐ Keep up to date




More information

March 2018



National Immunisation News

The Newsletter of the HSE National Immunisation Office



National Immunisation Office 2017 Summary

Thank you for all of your support throughout 2017. We would like to share some of:

- HSE National Cold Chain Service vaccines to 2,769 sites on our island
- GP practices delivered the print protecting over 64,000 babies
- Primary schools vaccination team protecting 70,000 children against programme in Donegal, Sligo and
- Second level schools vaccination programme protecting 60,000
- We delivered talks and training members of the public across Ireland
- We dealt with 3,193 queries this year
- For the first time we had over 1

We look forward to continuing to deliver the best immunisation practices to protect more people from

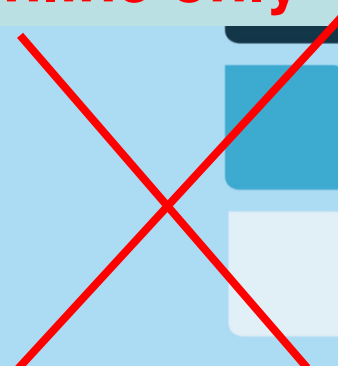
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- Measles – outbreaks in Europe and Ireland
- New Guidelines for Vaccinations in General Practice
- Changes to the Law on Guardianship
- Updated NIAC Guidelines for Influenza
- Seasonal Flu Campaign 2017/2018
- Vaccine administration
- HPV Vaccine Update
- HPV Vaccine School Programme (2017/18)
- Importance of Tdap vaccine in pregnancy
- Rotavirus oral vaccine
- Interval between 2 vaccines
- Common Queries
- Information materials
- Website and social Media
- List of vaccinations from the cold chain

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online only



NATIONAL IMMUNISATION ADVISORY COMMITTEE

Immunisation Guidelines for Ireland

2013 Edition



Immunisation

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[Search the whole site](#)

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- Public Information
- Healthcare Worker Information
- Vaccines Work
- Information Materials
- Glossary



Welcome to the National Immunisation Office Website

We provide trusted, up-to-date information about HSE immunisation programmes for children, adults and healthcare professionals in Ireland.

- HPV Vaccine**
Visit www.hse.ie
#ProtectOurFuture
- European Immunisation Week**
#VaccinesWork #YourBestShot
- Measles Cases**
MMR vaccine is the only protection
- Immunisation Schedule**
Information about the vaccines recommended for babies up to 13 months of age
- School Programme**
Information about the 4 in 1 and MMR, HPV, Tdap and Mmc school vaccination programmes
- Vaccines and Pregnancy**
Information about the vaccines recommended during and after pregnancy

How do I:

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- [Check vaccine records](#)
- [Make an appointment](#)
- [Order information materials](#)
- [Contact the local office](#)
- [Order HSE vaccines](#)
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Further Information

- [Your Child's Immunisations](#)
- [Translation of Immunisation Material](#)
- [Vaccination Schedule](#)
- [Previous Vaccination Schedules](#)

Useful Links

- [School Guidelines for Staff 2017/2018](#)
- [Immunisation Guidelines for Ireland](#)
- [Vaccination in General Practice](#)
- [Vaccine Preparation](#)
- [What is in Vaccines?](#)
- [Catchup Vaccines](#)

<https://www.hse.ie/eng/health/immunisation/hcpinfo/guidelines/immunisationguidelines.html>



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