

The National Immunisation Schedule

Update and Current issues

Dr Brenda Corcoran
National Immunisation Office



www.immunisation.ie

Objectives

- To outline immunisation schedules in Ireland
 - Primary childhood schedule
 - Vaccine uptake rates
 - School immunisation programme
- To highlight development of new vaccines



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 - 2013	
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

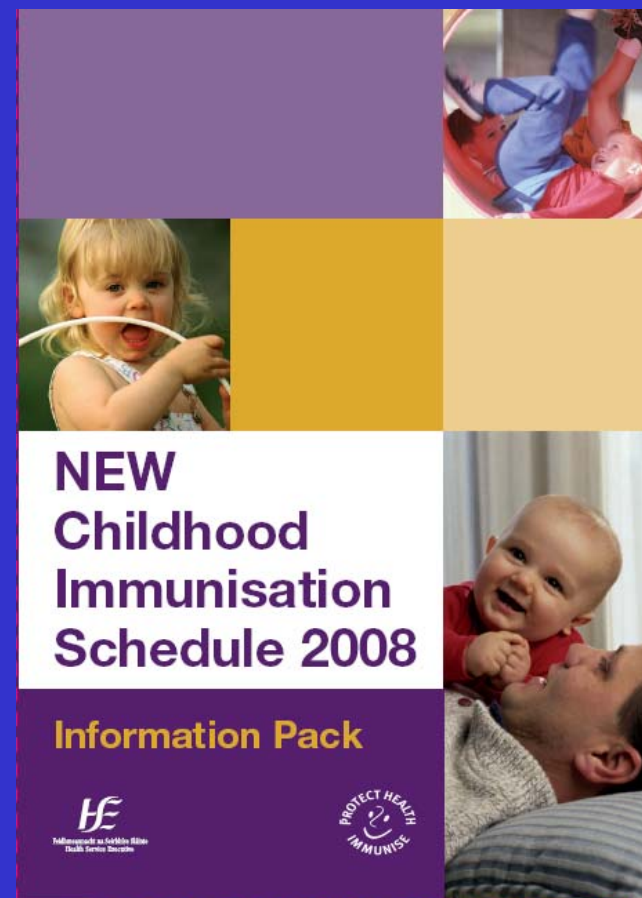


www.immunisation.ie

Primary Childhood Immunisation (PCI) Schedule

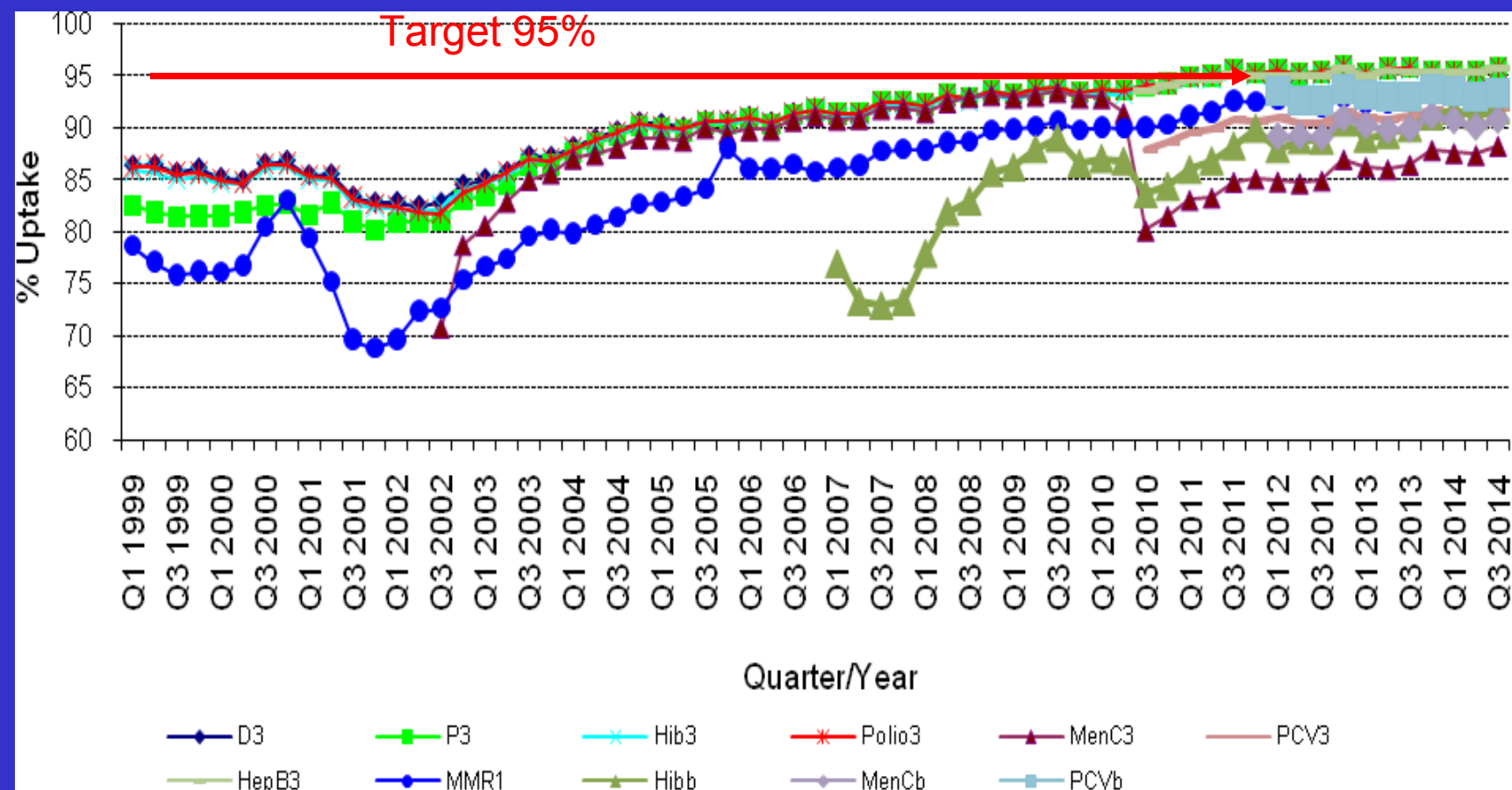
- Birth BCG
- 2 months 6 in 1 + PCV*
- 4 months 6 in 1 + Men C
- 6 months 6 in 1 + PCV + Men C
- 12 months MMR + PCV
- 13 months Men C + Hib

* PCV 7 introduced in September 2008
PCV13 introduced in December 2010



www.immunisation.ie

Vaccine uptake rate at 24 months 1999-2014

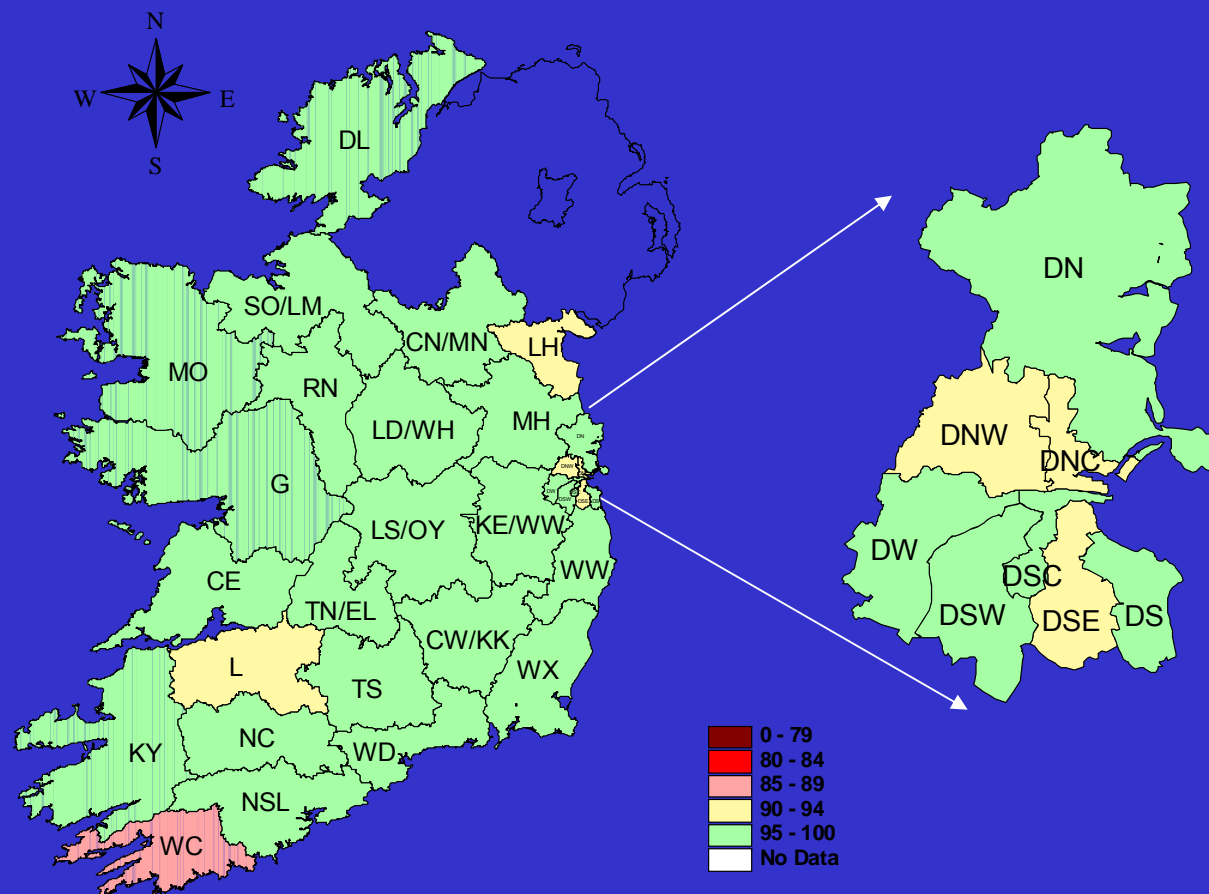


Source: HPSC

www.immunisation.ie



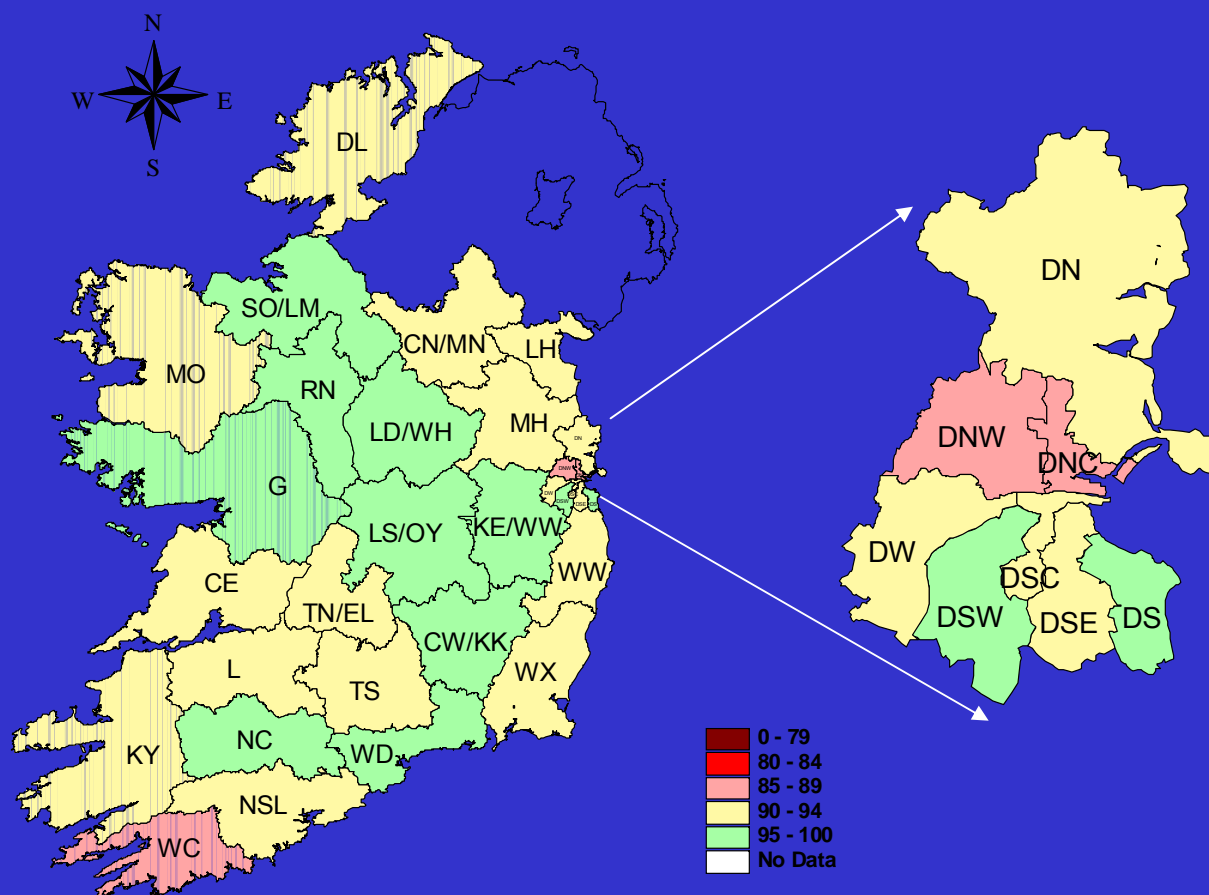
Quarter 3 2014 D3 immunisation uptake rates (%) by LHO, in those 24 months of age in Ireland and Dublin (source HPSC)



www.immunisation.ie



Quarter 3 2014 MMR immunisation uptake rates (%) by LHO, in those 24 months of age in Ireland and Dublin (source HPSC)



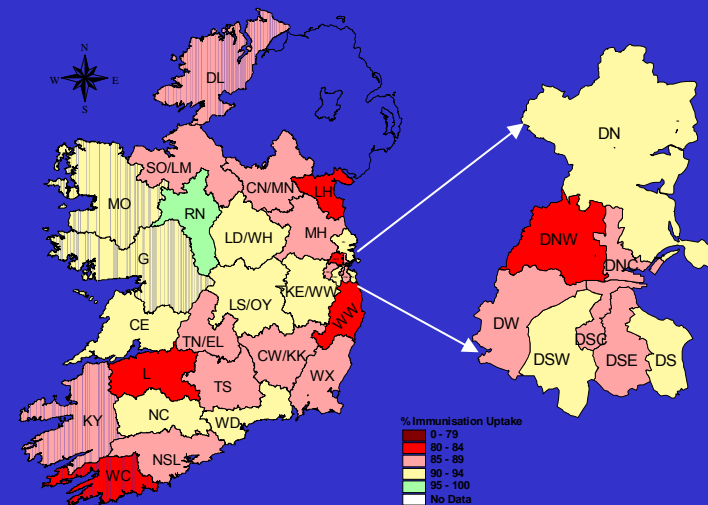
www.immunisation.ie



Decline in vaccine uptakes

Quarter 3 2014 Men C₃ immunisation uptake rates (%) by LHO, in those 24 months of age in Ireland and Dublin (source HPSC)

	Q1 2010	Q3 2010	Q3 2014
Men C ₃	93%	80%	88%
PCV ₃	-	88%	92%
Hib _b (booster dose)	89%	84%	92%



www.immunisation.ie



Reithmeannacht na Seirbhíse Sláimte
Health Service Executive

Decline in vaccine uptakes

Actions

- Highlight 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

What common reactions can my child get **after being vaccinated** and what should I do?

Primary Childhood Immunisation Schedule

Common reaction	AGE	WHERE	VACCINATION
Soreness, swelling in the area where the vaccine was given	At Birth	Hospital or HSE Clinic	BCG
Fever (over 39.5°C)	2 Months	GP	6 in 1 + PCV
Headache or irritability	4 Months	GP	6 in 1 + Men C
		GP	6 in 1 + PCV + Men C
		GP	MMR + PCV
		GP	Men C + Hib

appointment for your child's next visit?

Next appointment

Remember, it takes **5 GP visits** to fully vaccinate your baby.

5

PROTECT. PREVENT. IMMUNISE. www.immunisation.ie



www.immunisation.ie

NIAC recommendations

	Recommendation	Implementation
MenC* (Aug 2014)	Schedule change from 4,6 and 13 months to 4,13 months	July 1 st 2015
	Introduction of adolescent dose at 12- 13 years	2014/2015
Rotavirus (2013)	Oral vaccine recommended 2 -3 doses at 2, 4 and 6 months	??
MenB (Jan 2015)	Introduction to PCI schedule	??

* MenC

- Evidence 1 dose is sufficient in infants
- Same schedule introduced in the UK in 2013

www.immunisation.ie



Primary Childhood Immunisation (PCI) Schedule

	CURRENT SCHEDULE		NEW SCHEDULE	
Date of birth	Babies born up to 30 th June 2015		Babies born on or after 1st July 2015	
Age	Immunisations	Comment	Immunisations	Comment
2 months	6 in 1 + PCV	2 injections	6 in 1 + PCV	2 injections
4 months	6 in 1 + MenC	2 injections	6 in 1 + MenC	2 injections
6 months	6 in 1 + PCV + MenC	3 injections	6 in 1 + PCV	2 injections
12 months	MMR + PCV	2 injections	MMR + PCV	2 injections
13 months	MenC + Hib	2 injections	MenC + Hib	2 injections

6 in 1 Diphtheria, Tetanus, Pertussis, Polio, Hepatitis B, Haemophilus influenzae B

PCV Pneumococcal conjugate vaccine

MenC Meningococcal C vaccine

MMR Measles, Mumps Rubella

Hib Haemophilus influenzae B

www.immunisation.ie



New PCI schedule

July 1st 2015

NEW

- Guidelines for Vaccinations in General Practice
- Frequently asked questions
- Information booklet – Your Child's Immunisation
- Passports
- Posters
- Fridge magnets

To be delivered to all GPs in June 2015



www.immunisation.ie

Primary school immunisation schedule 2014/2015

Age (years)	Vaccine
4 -5	4 in 1 MMR

4 in1	Diphtheria Tetanus Pertussis Polio
MMR	Measles, mumps and rubella




www.immunisation.ie

4 in 1 adverse events

- More reactogenic
 - hot, swollen, red and tender arms from the shoulder to elbow
 - large, localised swelling (diameter > 50 mm) occurring around the injection site
- Begin within 48 hours of vaccination
- Resolve spontaneously
- Antibiotic treatment or anti-inflammatory not indicated
- Not usually associated with significant pain or limitation of movement
- Inform parents in advance

4 in 1 and MMR Booster School Vaccination Programme for Children in Junior Infants

Name: _____
Date: _____
Time of vaccination: _____



Your child was given the following vaccines today

4 in 1 ☐ **MMR** ☐

Common reactions expected after these vaccines may include

- mild fever
- soreness, swelling and redness where the injection was given. Sometimes this swelling can be from the shoulder to the elbow. This usually occurs within 2 days of the vaccination and gets better over 4 – 5 days. Antibiotics are not needed to treat this local reaction.

After MMR vaccine


- some children may get "mini measles" with a rash and fever 6 to 10 days after the injection
- on rare occasions, children may get "mini-mumps" with swelling in the jaw in the third week after vaccination

These are not contagious.

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 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.

 For more information see www.immunisation.ie

09/14

Second level school immunisation schedule 2014/2015

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



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

HPV vaccination programme

Gardasil (Sanofi Pasteur)

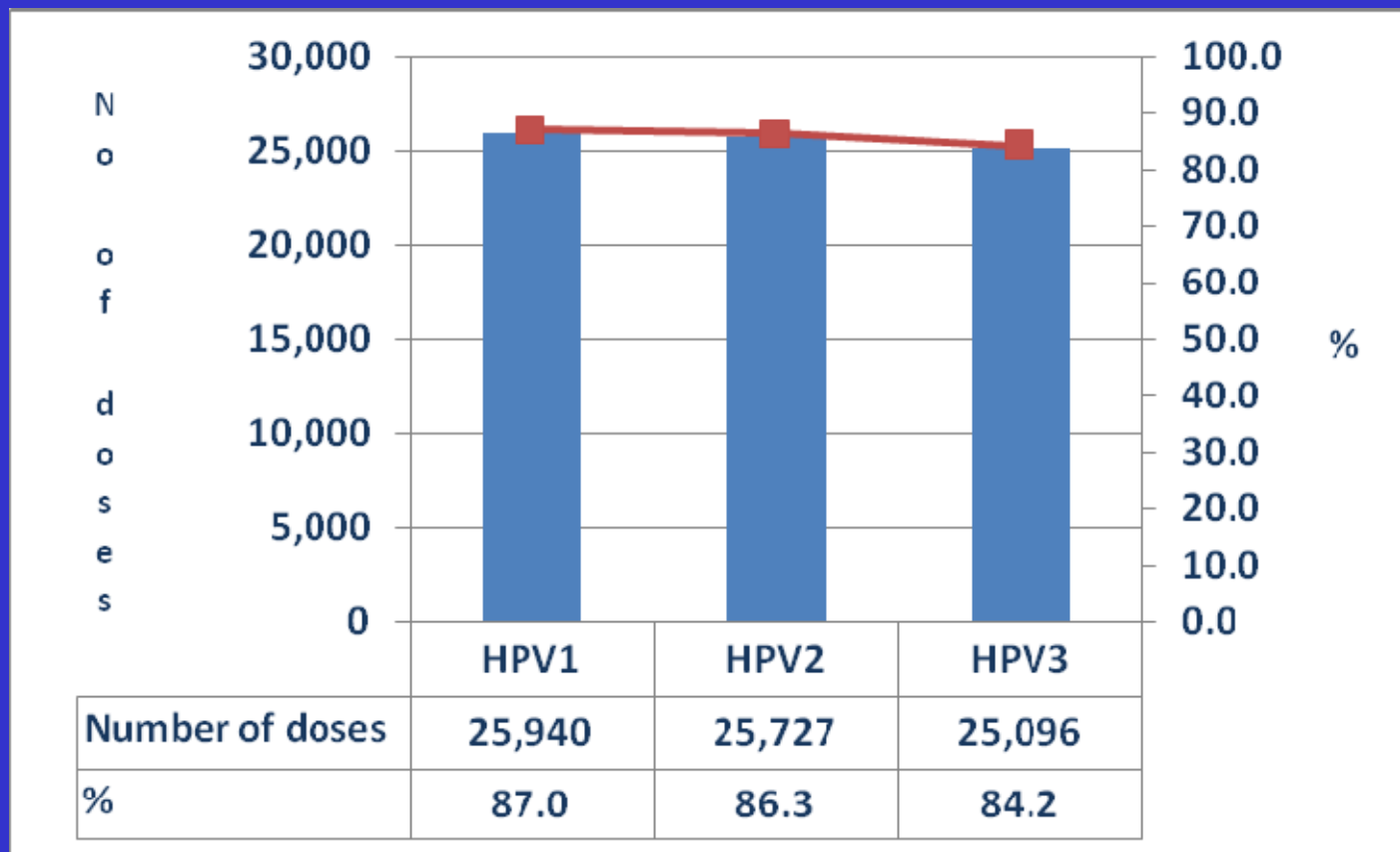
- protects against
 - HPV 16 and 18
(causes 70% cervical cancers)
- and
 - HPV 6 and 11
(causes 90% anogenital warts)



Computerised image of
the human papillomavirus
Courtesy of Dept of
Pathology, University of
Cambridge

HPV vaccine uptake 2012/2013

Routine programme First years



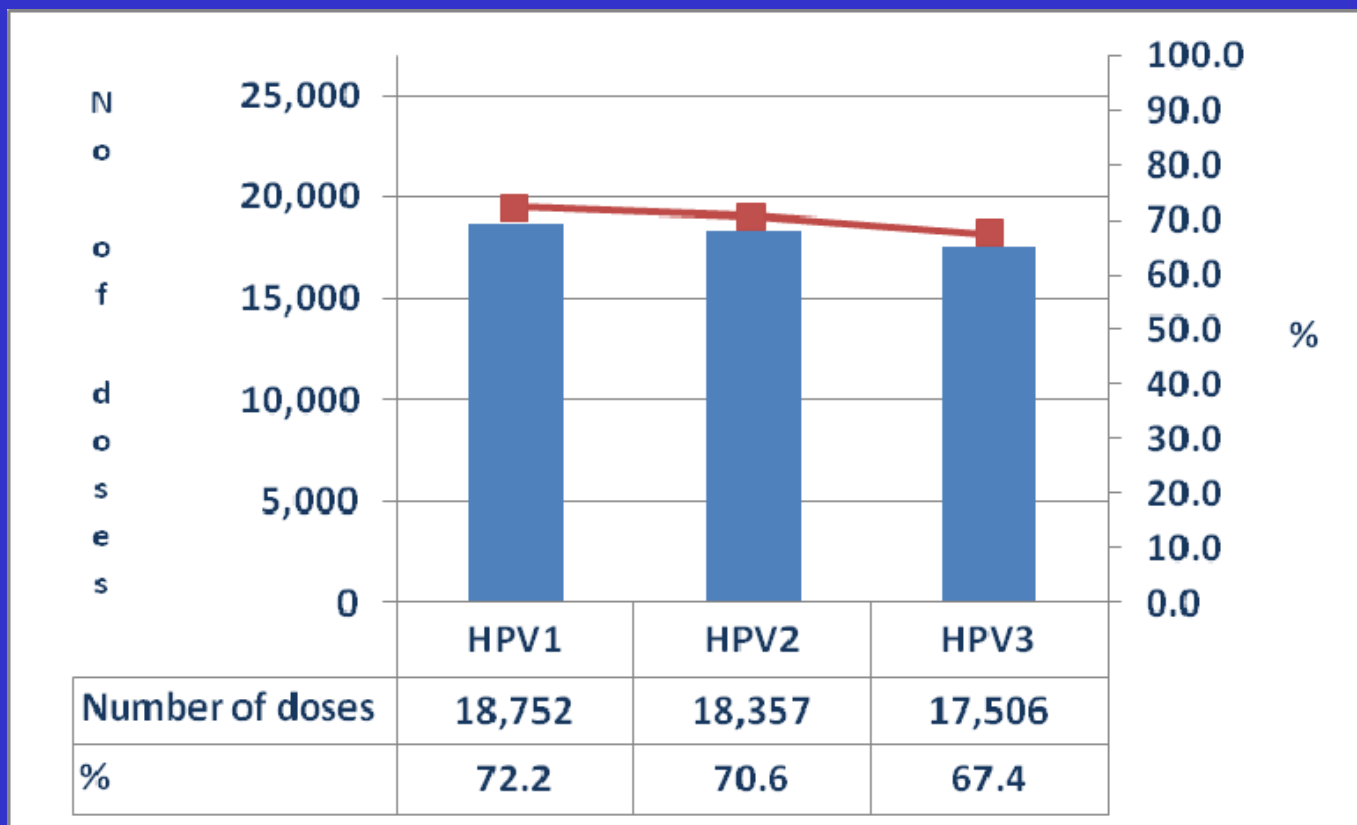
- Over 80% (84.2%) uptake achieved for 3 dose schedule
- Excellent cohort retention
- >96% girls who started dose 1 completed dose 3

www.immunisation.ie



HPV vaccine uptake 2012/2013

Catch up programme Sixth years



- Over 60% (67.4%) uptake achieved for 3 dose schedule
- Excellent cohort retention
- 93% girls who started dose 1 completed dose 3



www.immunisation.ie

Vaccine Impact in Australia

High Grade Cervical Lesions <18 years

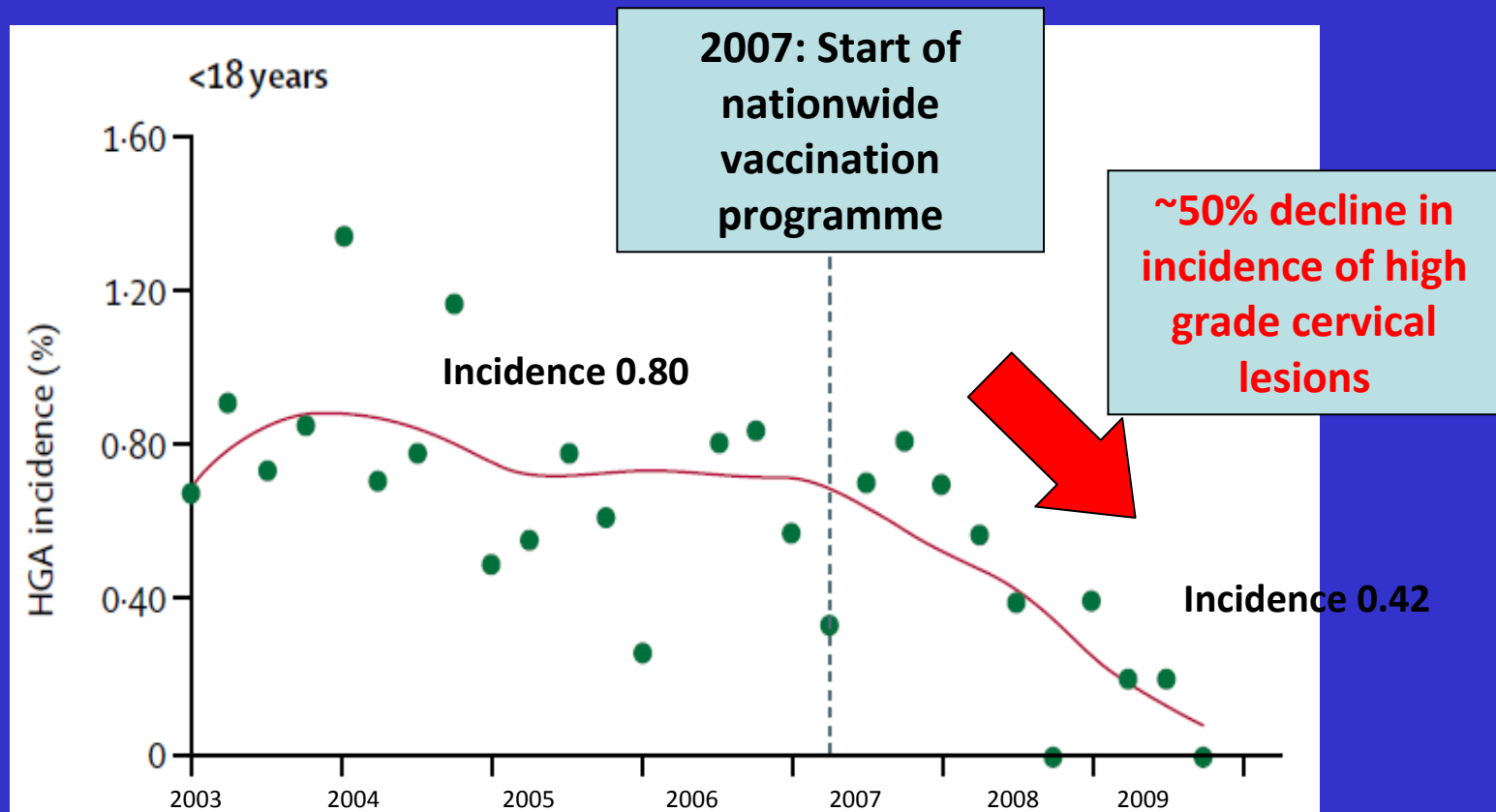


Figure 2: Incidence of high-grade cervical abnormalities, by age group

Incidence of high-grade cervical abnormalities (HGA; green dots) is the number of new diagnoses within a 3-month period per 100 women tested. Lowest smoothing trends are shown with red lines. The vertical lines, at the start of the second quarter in 2007, signify the introduction of human papillomavirus vaccination.



Brotherton et al Lancet 2011; 377: 2085–92

www.immunisation.ie



Reithmeannacht na Seirbhíse Sláinte
Health Service Executive

HPV vaccine schedule

Immunogenicity of 2 Doses of HPV Vaccine in Younger Adolescents vs 3 Doses in Young Women A Randomized Clinical Trial

Dobson et al
JAMA 2013

NIAC recommendation (different from SmPC)

- Girls under 15 at first dose
 - 2 dose schedule at 0 and 6 months
- Girls 15 and older at first dose
 - 3 dose schedule at 0 and 6 months with 3rd dose at least 3 months after 2nd dose
 - No evidence yet to support 2 dose in older girls



www.immunisation.ie

Adolescent MenC booster vaccine

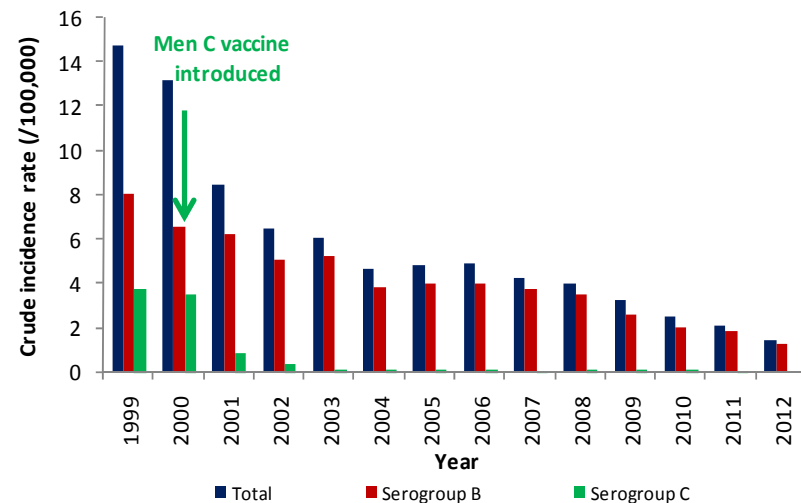
- Peak rates in under 5 years and 15-19 years
- Concerns about waning immunity in adolescents
- Recent study
 - those vaccinated at <1 year, vaccine effectiveness decreased by 50% after 10 years
 - those vaccinated with one dose at 12–19 years showed no changes
 - vaccination at ≥ 12 years related to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



New vaccines

TD calls for
brain bug
vaccine deal

- Meningococcal Group B
 - licensed
 - recommended for contacts and at risk groups
 - NIAC recommendation for universal vaccination ?? date for implementation



Call for meningitis vaccine

By Kevin Keane

HEALTH campaigners have called on the Department of Health to follow the lead of authorities in Britain and the North by making a new vaccine

mentation was for the introduction of the vaccine if a cost-effective agreement can be reached with the manufacturer.

Dependent on deal with drug's maker



www.immunisation.ie

New vaccines

- Meningococcal Group B
 - can be given to healthy children
 - dosage schedule and further details in Immunisation Guidelines
<http://www.hse.ie/eng/health/immunisation/hcpinfo/guidelines/chapter13.pdf>
 - due to an increased risk of fever, local reactions, change in eating habits and irritability when MenB vaccine is given with other vaccines it may be preferable to administer this vaccine with an interval of 1 week before or after other vaccines.
 - consider prophylactic paracetamol at the time or shortly after vaccine for children under 2 years
 - Vaccine supply and more details from Allphar 01 4688456.



New vaccines

2 New Ebola Vaccines Pass Important Early Test, Researchers Say

By DENISE GRADY **APRIL 8, 2015**

Email

Two new Ebola vaccines have passed an important test, protecting monkeys against the strain of the virus responsible for the current deadly outbreak, researchers reported on Wednesday. Only one dose was needed



- ~ 30 new or improved vaccines anticipated in next 10 years

CNN News Regions Video TV Features Opinions More...

World Sport Technology Entertainment Style Travel Money

60 years after a vaccine, new technology may finally eradicate polio

By **Ashley Strickland**, CNN and Liz Landau
Updated 1604 GMT 10 April 2015 (HKT) April 10, 2015

Interviews

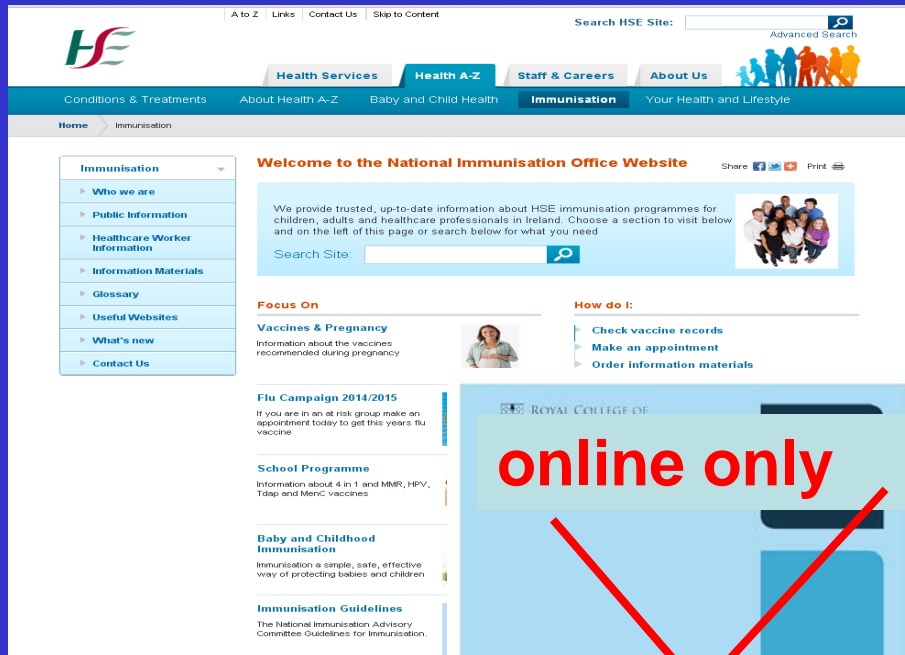
New vaccine technology is almost needle-less 01:24



www.immunisation.ie

HE
Reithmeannacht na Sárbhíse Sláinte
Health Service Executive

More information



February 2015

National Immunisation News

The newsletter of the HSE National Immunisation Office

Changes to the Primary Childhood Immunisation Programme

The National Immunisation Advisory Committee (NIAC) has recommended changing the meningococcal (MenC) immunisation schedule in the primary childhood programme from three doses at 4, 6 and 13 months to two doses at 4 and 13 months because of evidence that a single dose of MenC vaccine provides protection for the first year of life.

This new primary childhood immunisation schedule will be introduced **for all babies born on or after July 1st 2015**. Further details and new information materials for the Primary Childhood Immunisation Programme are being developed.

CONTENTS

- Changes to the PCI programme
- Uptake statistics
- Pneumovax name change
- Flu season
- Common queries
- School Immunisation System
- Ordering online
- Cold chain breach
- Vaccine list
- Preparing vaccines
- Contact information

Primary Childhood Immunisation Schedule

Date of birth	CURRENT SCHEDULE Babies born up to 30 th June 2015		NEW SCHEDULE Babies born on or after 1 st July 2015	
	Immunisations	Comment	Immunisations	Comment
2 months	6 in 1 + PCV	2 injections	6 in 1 + PCV	2 injections
4 months	6 in 1 + MenC	2 injections	6 in 1 + MenC	2 injections
6 months	6 in 1 + PCV + MenC	3 injections	6 in 1 + PCV	2 injections
12 months	MMR + PCV	2 injections	MMR + PCV	2 injections
13 months	MenC + Hib	2 injections	MenC + Hib	2 injections

6 in 1: Diphtheria, Tetanus, Pertussis, Polio, Hepatitis B, Haemophilus influenzae b
 PCV: Pneumococcal conjugate vaccine
 MenC: Meningococcal vaccine
 MMR: Measles, Mumps, Rubella
 Hib: Haemophilus influenzae b

Please continue to use the current primary childhood schedule.

<http://www.immunisation.ie/en/HealthcareProfessionals/ImmunisationGuidelines/>

www.immunisation.ie



Why Immunise?

- Immunisation has saved more lives than any other public health intervention apart from the provision of clean water
- Immunisation is one of the most cost effective and safest of all health interventions



www.immunisation.ie

