

Vaccination matters

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This talk

- Why vaccination is important
- What we can learn from history (in a nutshell)
- Understanding the current system
- Health Inequalities
- Opportunities and challenges

Why it matters

Control of infectious diseases

Safe and effective protection for children and families now and in the future

“Vaccination has made
an enormous
contribution to Human
and Animal health”

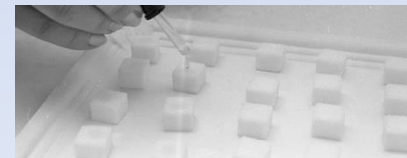
*The contribution of vaccination to
global health: B Greenwood*

“Vaccines are the
tugboats of
preventive health”

William Foege

What went before...

- **Smallpox**
 - High case fatality, roughly 35% of those infected died.
 - Eradicated worldwide through WHO led vaccination programme in 1979
- **Polio**
 - Before polio vaccine was available, epidemics were common (up to 8,000 cases of paralytic polio per year in UK)
 - Last UK case of wild polio in 1984



HINTS FOR MOTHER

1.—Cleanliness and tidiness in a person and home are the hallmark of a good mother.

2.—Pure air is essential to good health. Never entirely close your windows, day or night; and in summer, keep them widely open.

3.—If breast feeding baby, try to keep yourself well nourished.

4.—Diet should consist of good plain food with plenty of green vegetables, and milk; avoid highly seasoned foods and all alcoholic drinks.

5.—Go out every day with baby even although you have just time for shopping.

6.—Baby should be immunised against Smallpox, Whooping Cough, Diphtheria and Poliomyelitis.

7.—Always wash hands before giving baby feeds, and if artificially fed see that the milk, liquid or dry, is kept covered to prevent contamination.

AYR COUNTY COUNCIL.

MATERNITY AND CHILD WELFARE

Child Welfare Clinic Weight Card

Address of Centre:

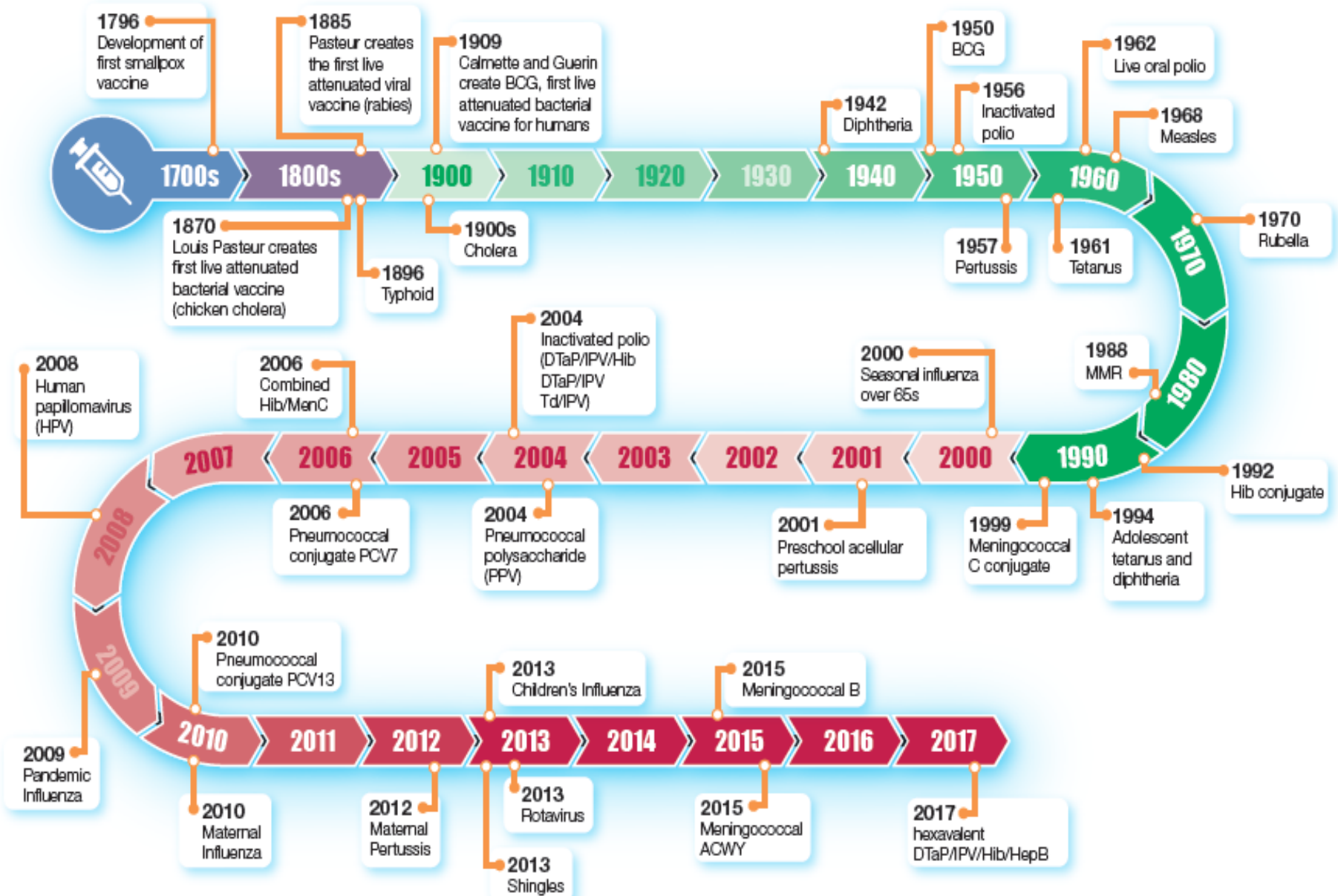
7112 BATH Street

Name of Baby:

JOY TOMLINSON

The Card provides a record for the Baby's weight which is one of the best indications of the Baby's progress. The record and chart should be filled in weekly or fortnightly.

Historical vaccine development and introduction of routine vaccine programmes in the UK



Routine Childhood Immunisation Schedule from October 2017

When to immunise	What vaccine is given
8 weeks old	Diphtheria, tetanus, pertussis (whooping cough), polio, <i>Haemophilus influenzae</i> type b and Hepatitis B (DTaP/IPV/Hib/HepB)
	Pneumococcal (PCV)
	Rotavirus
	Meningococcal group B (MenB)
12 weeks old	Diphtheria, tetanus, pertussis (whooping cough), polio, <i>Haemophilus influenzae</i> type b and Hepatitis B (DTaP/IPV/Hib/HepB)
	Rotavirus
16 weeks old	Diphtheria, tetanus, pertussis (whooping cough), polio, <i>Haemophilus influenzae</i> type b and Hepatitis B (DTaP/IPV/Hib/HepB)
	Pneumococcal (PCV)
	Meningococcal group B (MenB)
12 to 13 months old	<i>Haemophilus influenzae</i> type b and meningococcal group C (Hib/MenC)
	Pneumococcal (PCV)
	Measles, mumps and rubella (MMR)
	Meningococcal group B (MenB)
2 to 11 years - annually	Influenza (flu)
3 years 4 months old or soon after	Diphtheria, tetanus, pertussis (whooping cough), and polio (DTaP/IPV or dTaP/IPV)
	Measles, mumps and rubella (MMR)
Girls aged 11 to 13 years old	Human Papillomavirus (HPV)
Around 14 years old	Tetanus, diphtheria and polio (Td/IPV)
	Meningococcal groups A, C, W, and Y (MenACWY)

Non-routine immunisations for babies at higher risk from certain diseases

When to immunise	What vaccine is given
At birth	BCG (against tuberculosis)
At birth, 4 weeks and 12 months old	Additional doses of Hepatitis B
6 months old to 2 years - annually	Influenza (flu)

Current system & recent changes

- New for Childhood vaccination schedule in the last five years
 - Rotavirus introduced 2013
 - Flu vaccine for children 2013
 - Meningococcal ACWY vaccine 2015
 - Meningitis B vaccine 2016
 - Hepatitis B 2017
- Adults
 - Phased roll-out of shingles vaccination for 70-79 yr olds

Why high uptake is important



‘Herd
Immunity’

- The more infectious the disease, the more people who have to be immune to stop it spreading
- Measles is highly contagious, at least 90% of the population must be immune. Target in Scotland is that 95% of children should receive at least one dose of MMR
- High uptake protects vulnerable people such as newborn babies, older people and those who are unable to be vaccinated because of ill-health.
- BUT- Not all infectious diseases are stopped by ‘herd immunity’

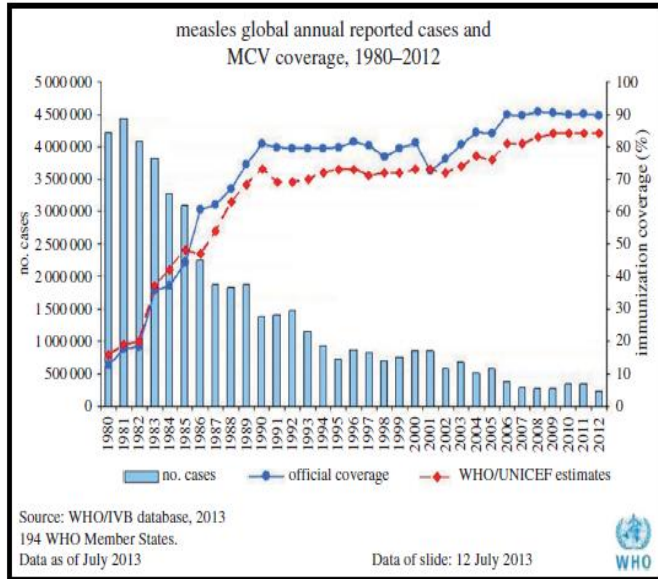


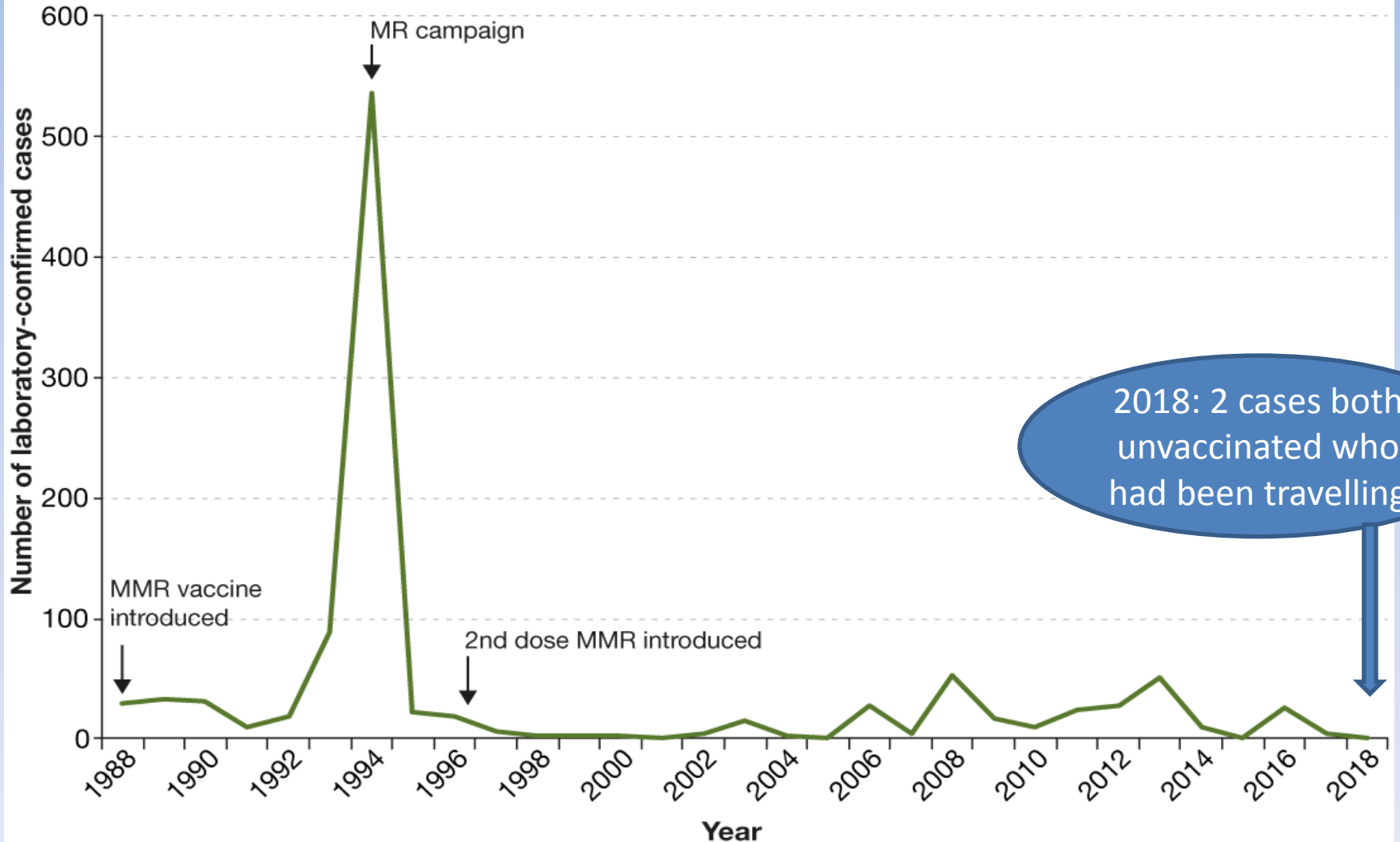
Figure 2. Uptake of measles vaccination and associated decline in the incidence of measles (WHO immunization database). (Online version in colour.)

‘Measles epidemics were a bane of general practice; every second year there would be dozens of calls to miserable and sick children who needed careful supervision because of chest and ear infections, for which antibiotics were frequently prescribed.’



Whole population protection

Figure 1: Number of laboratory-confirmed cases of measles by year in Scotland from 1988 to 2018



2018: 2 cases both unvaccinated who had been travelling



Challenges:

Health Inequalities

- Accessibility of vaccine across whole population, including people with transient/no address
 - **Opportunity to increase uptake amongst most vulnerable**
- Sub-groups of population at higher risk of infectious diseases, those travelling to higher risk parts of the world, people in prison, age-groups with particular risks
- Awareness of population concerns among particular groups, regular communication of serious impact from infectious disease and understanding of safety of vaccines.
- Addressing campaigns of misinformation

Challenges and opportunities:

Who delivers vaccination

- Complicated vaccination schedule, but nationally agreed and well understood. Generally high uptake
- There is some variation in uptake at local level, challenges of implementing new vaccines consistently
- Health & Social Care partnerships are locally based, understand transport/geographies and ready for 'new' challenges
- Opportunities to think how vaccination might 'fit' with other priorities for families/children

Opportunities for future vaccinations

- Any new vaccinations would be considered by Joint Committee on Vaccination and Immunisation (JCVI) in UK before changes to schedule.
- Possible future changes.....new vaccinations- HIV, TB, malaria.....
- Non-infectious diseases and new research approaches

Closing thoughts

- High uptake of vaccination coverage has achieved a great deal in Scotland.
- The microbes 'don't care' that we have been successful in previous vaccination programmes.
- Vaccination needs ongoing commitment or there will be outbreaks of preventable illnesses again.
- There are opportunities in the transformation process to strengthen our approaches, particularly for vulnerable groups.