



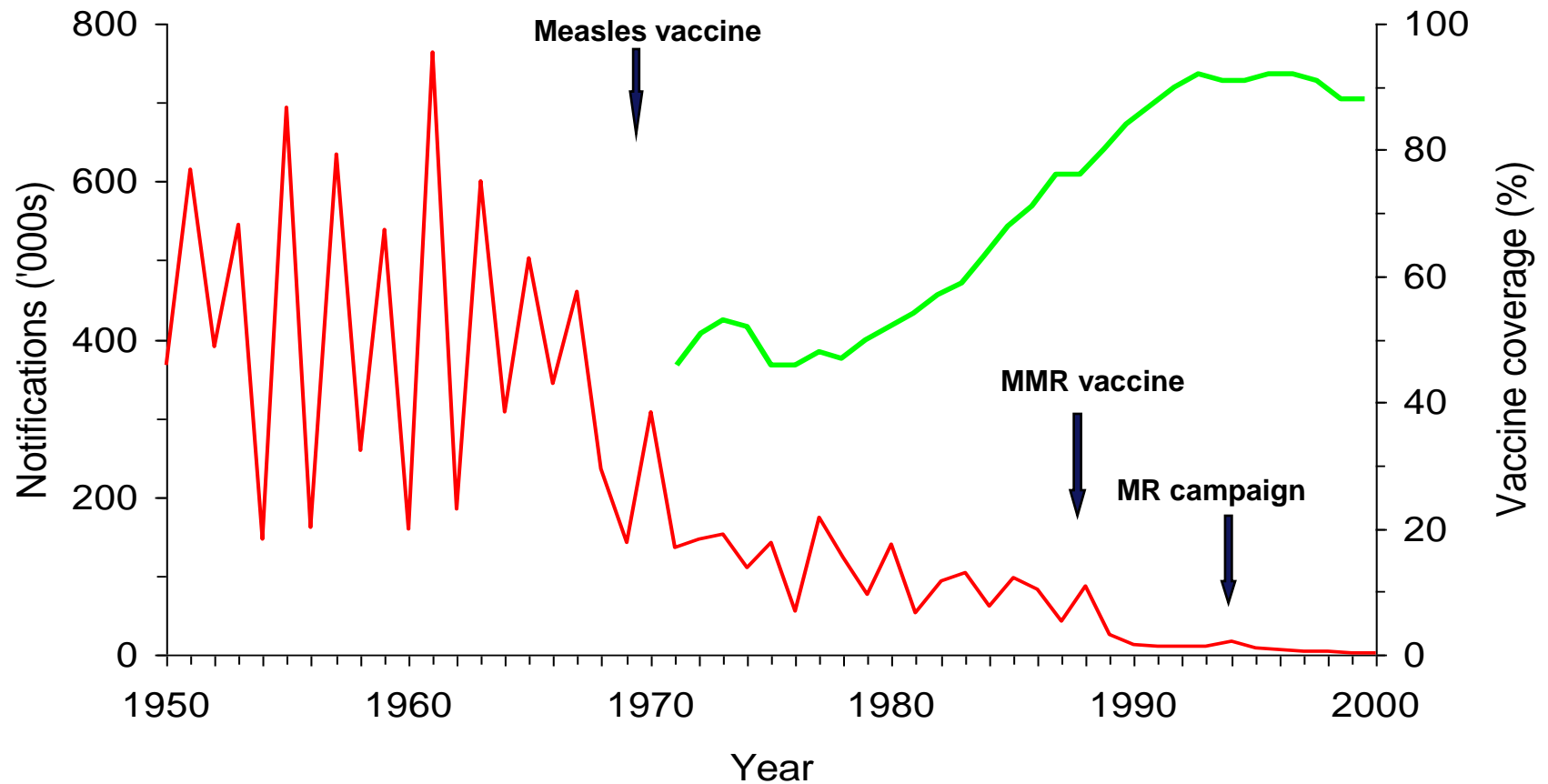
Public Health
England

Measles in England 2012 and 2013

Dr Mary Ramsay, Head of Immunisation, PHE



Annual measles notifications & vaccine coverage *England and Wales 1950-2000*



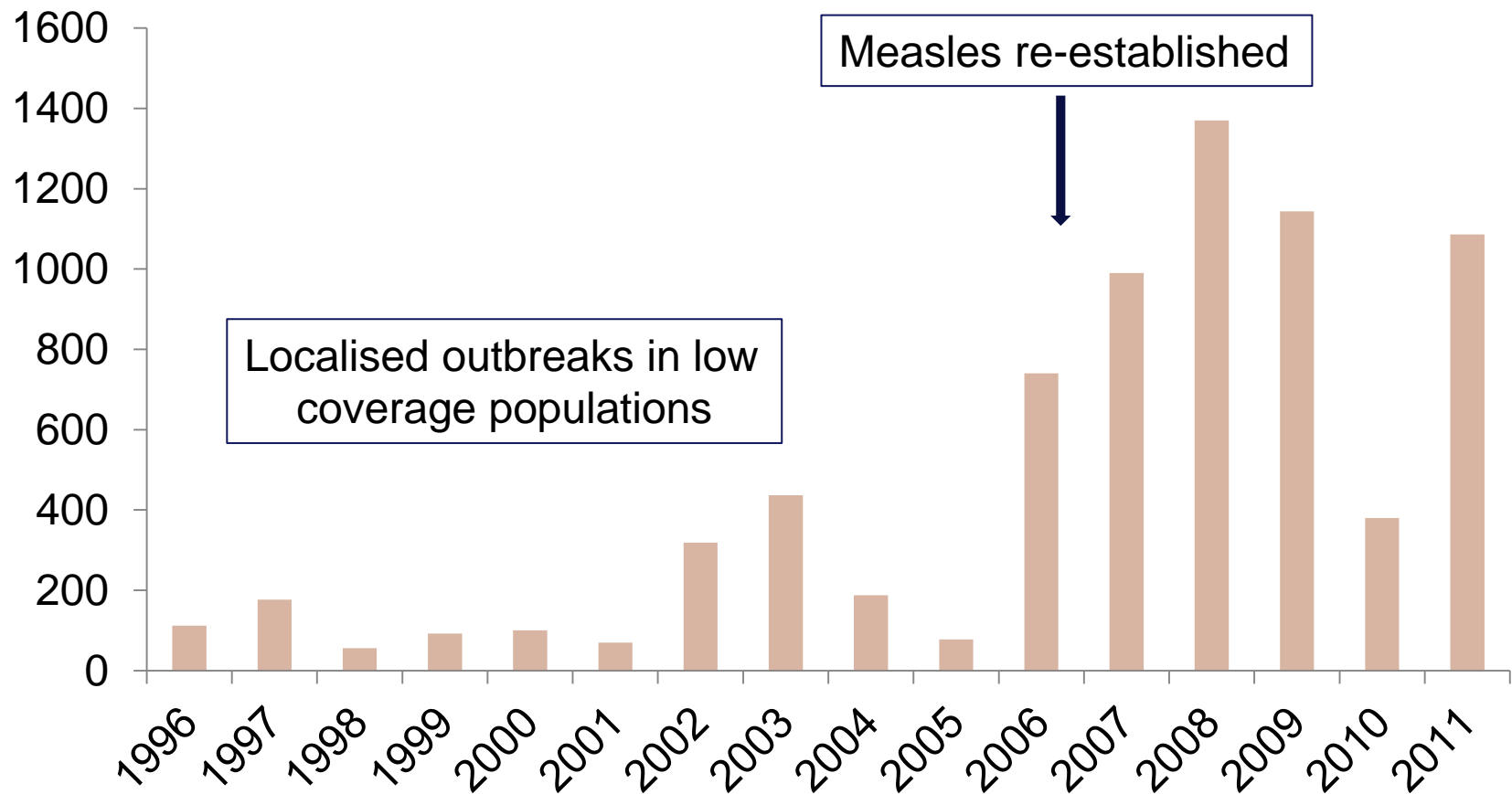


History of measles in the UK

- Before the introduction of vaccine, hundreds of thousands of cases in each epidemic year
- Measles vaccine was introduced in 1968 but with low coverage
 - 80,000 cases and 16 deaths in 1988
- **MMR was introduced in October 1988**
 - Coverage improved to over 90%
 - Schools campaign with MR in 1994
 - Second dose introduced in 1996
- **Transmission of measles interrupted**

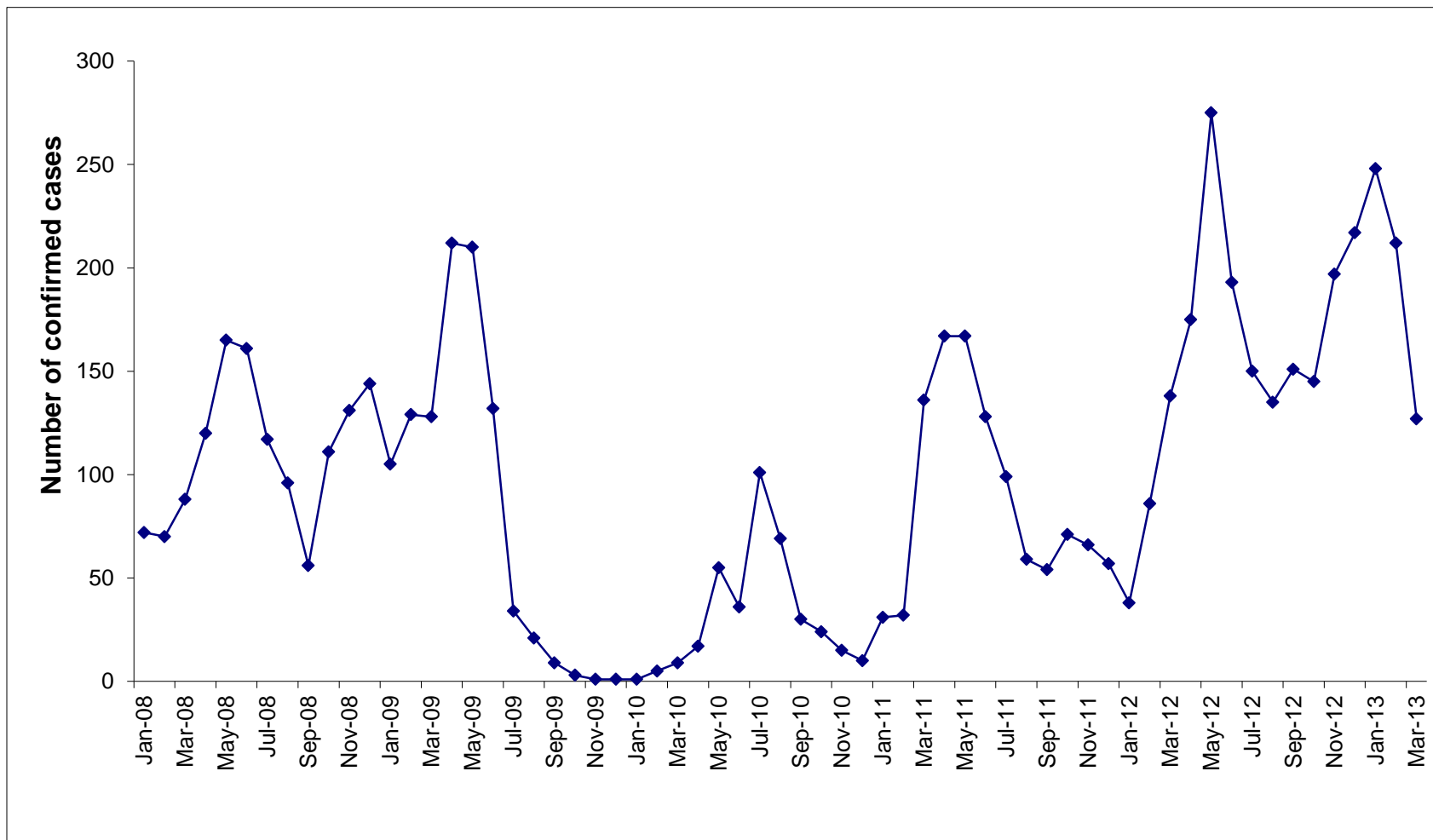


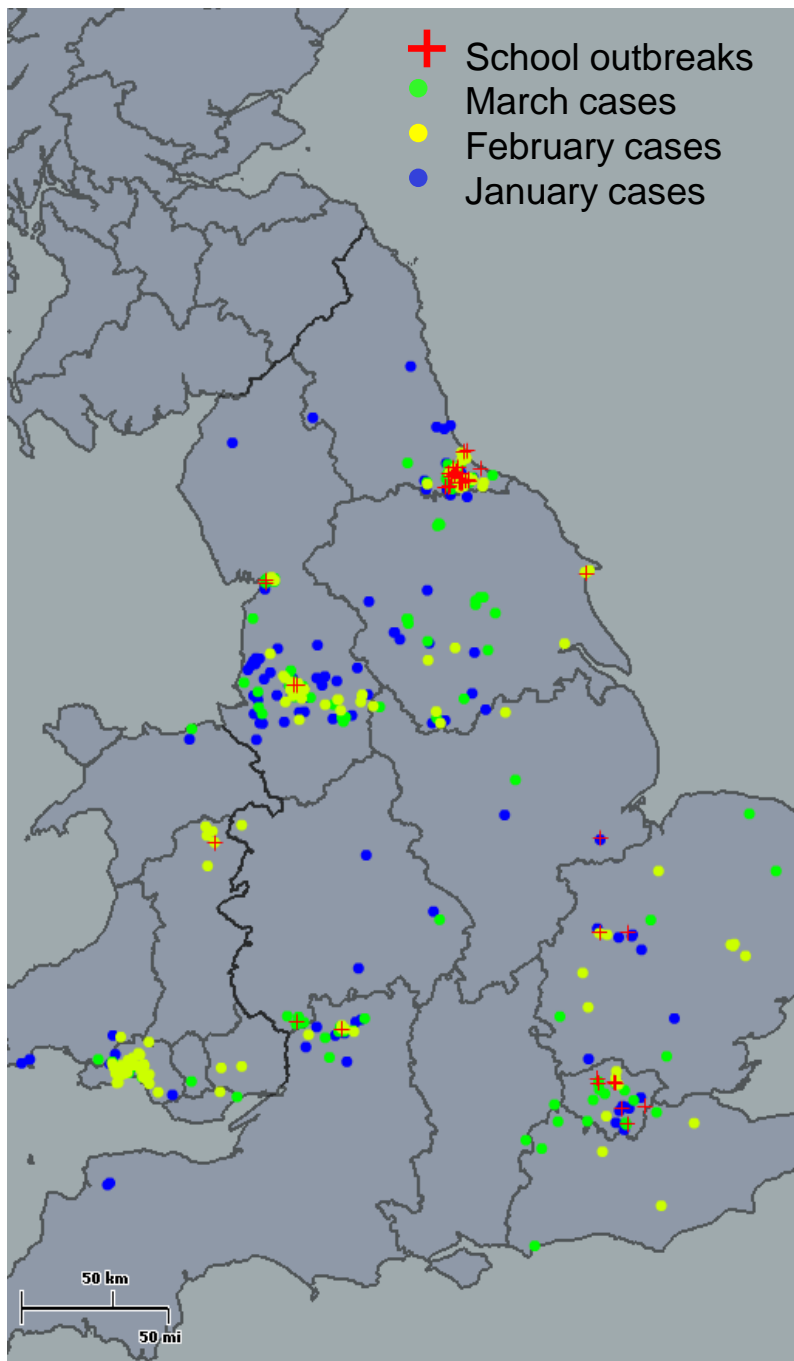
Annual confirmed cases of measles England and Wales 1996 to 2011





Monthly cases of confirmed measles, 2008- March 2013, England





Confirmed measles cases in 2013

England and Wales

- 587 cases in England
- North-East and North-West most affected (in addition to Wales)
- Localised to specific hot-spots
- 119 (20%) cases associated with schools outbreaks

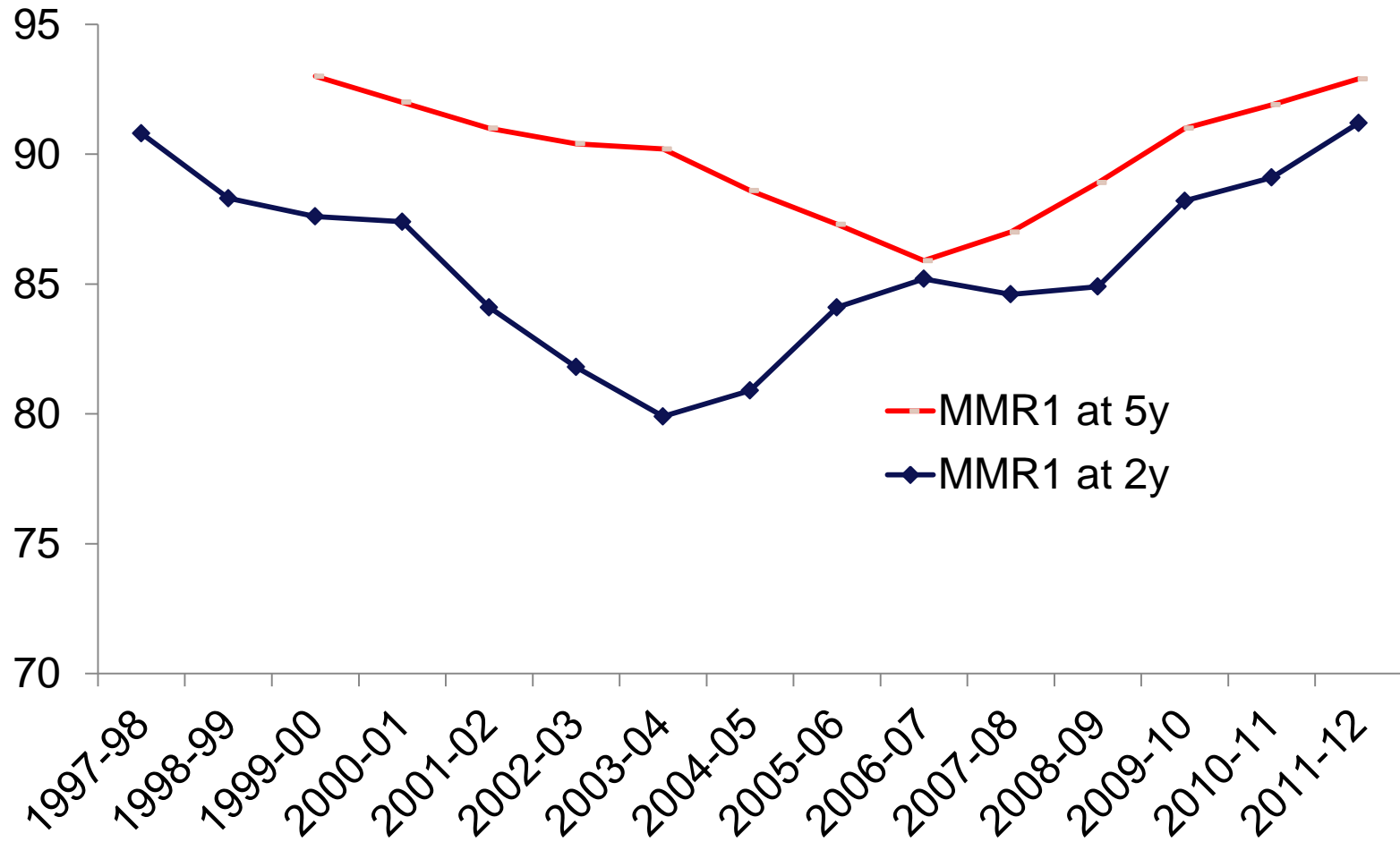


Reasons for the increase in cases

- MMR vaccine is offered at 12-13 months and again pre-school (around 3½ years) of age
 - A single dose offers around 95% protection
 - Two doses offer >99% protection
- Measles is one of the most infectious diseases known to man
- High levels of immunity are required to eliminate measles
 - Lower levels are sufficient in younger children (85%-90%)
 - Higher levels (>95%) are required in older children (secondary schools) and adults



MMR coverage at two and five years of age, England 1997/8-2011/12





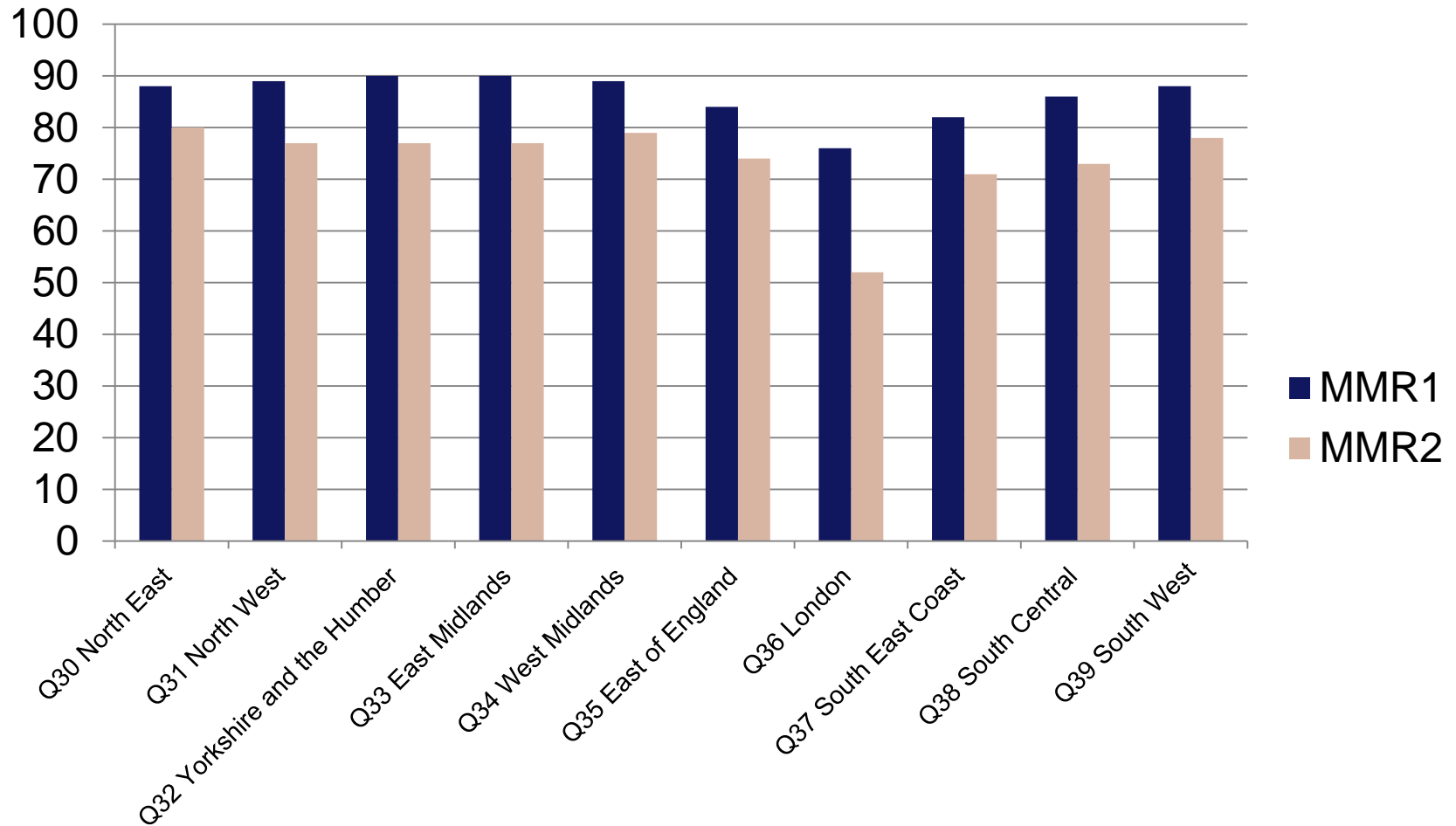
Trends in vaccine coverage

- Coverage at two years of age fell to around 80% in 2003/4
 - now increased to highest recorded levels (92.4%)
- Coverage of MMR1 at five years of age was always higher
 - Some children received MMR late
 - Lowest point was 85.9% in 2006-7 (children born in 2001/02)
- Young people born between 1997 and 2003 remain under-vaccinated
 - Some may have received MMR in 2008 catch-up campaign
 - Most of the secondary school population under-vaccinated



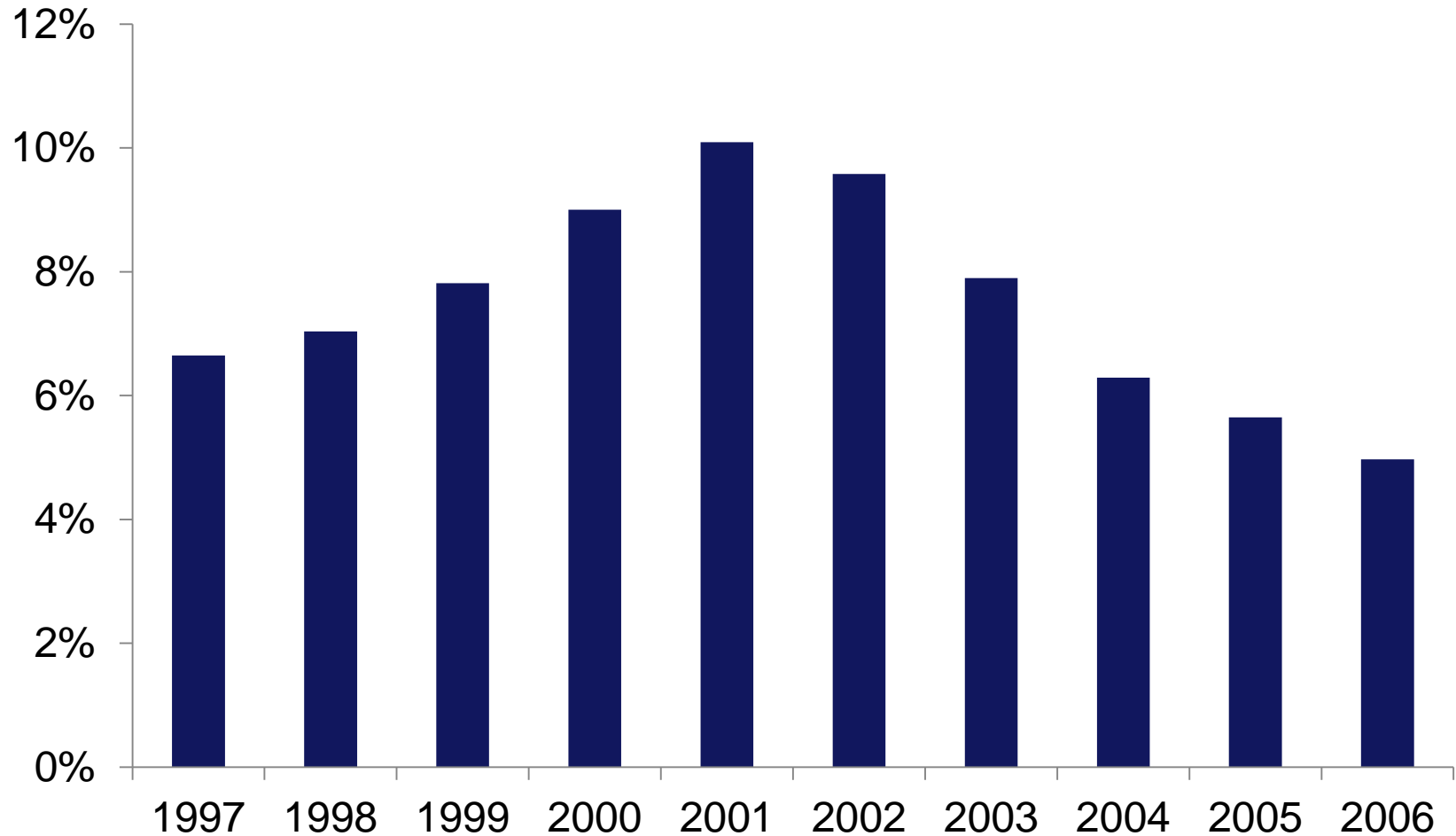
MMR coverage by region at five years, 2006/7

Children now aged 11-12 years



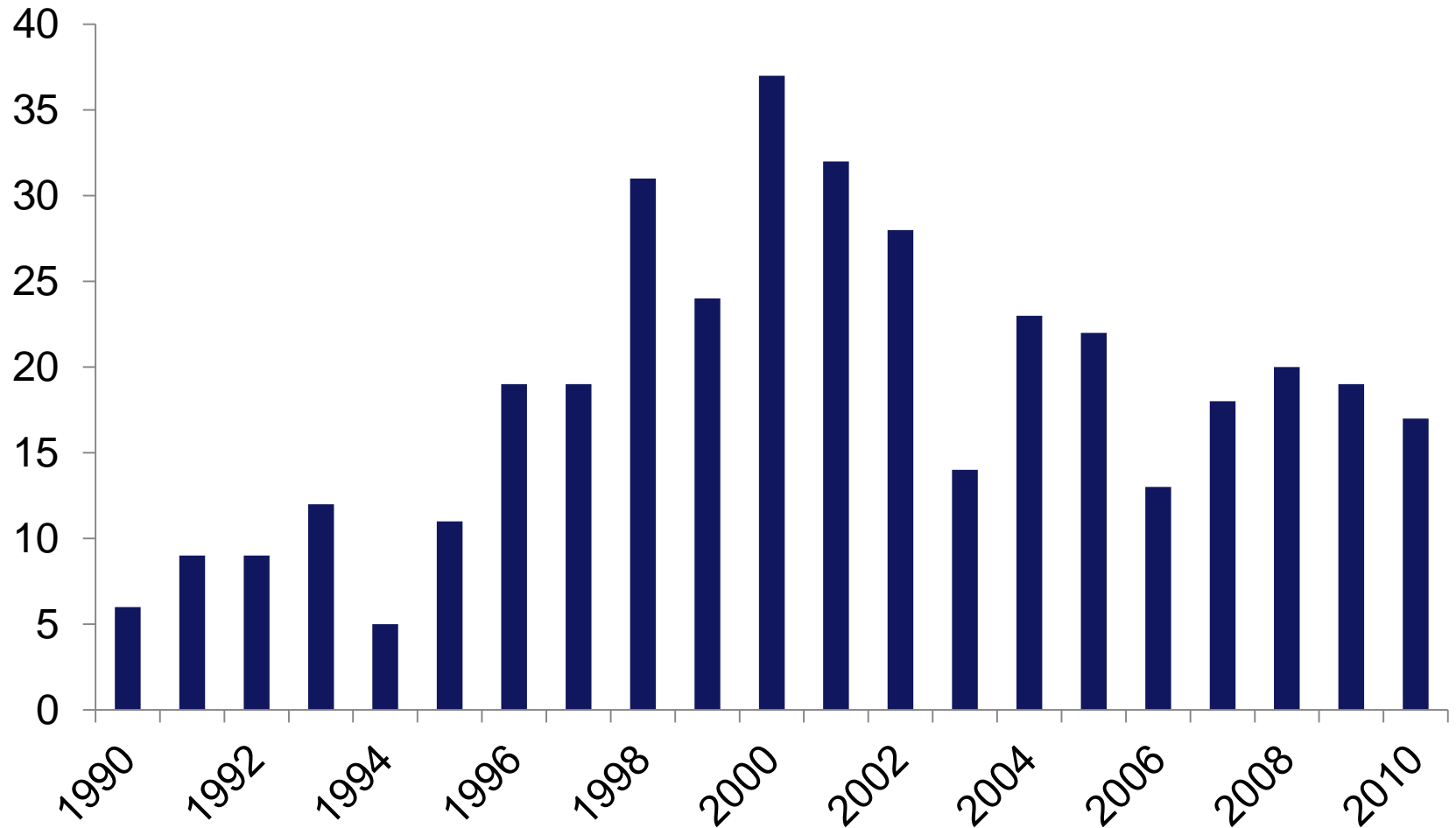


Estimated proportion of children unvaccinated – adjusted from English coverage at age 5 years





Distribution of confirmed measles cases in England by year of birth, 2013





- Increase in measles observed in 2012 and 2013
 - Peak age group affected now aged 10-14 years
- Coverage of MMR is now at historically high levels, BUT
 - Legacy of older children who were not vaccinated as toddlers
 - These young people are now attending secondary schools
 - No routine opportunity to receive MMR
 - Estimated 330,000 unvaccinated 10-16 years of age
- Potential for school outbreaks in many areas of the country
 - London, the South and the East at highest risk



Aim to increasing MMR coverage in older children to reach the levels achieved in younger children

- Drive demand for vaccination in children aged 10-16 years
 - Targeted communications package
 - Active identification of unvaccinated children
- Ensure services are ready to administer vaccine
 - GPs notified and ready to respond
 - Locally determined accessible services
- Likely numbers
 - Target population nationally is around 1 million (1/3 unvaccinated, 1/3 partially vaccinated, 1/3 in other age groups)



- **Identifying unvaccinated children**
 - Child health information systems
 - GP registers
 - Letters and flyers through the school system
- **Providing accessible services**
 - Routine / additional clinics general practice services
 - School based clinics
 - Community based clinics
- **Longer term sustainability**
 - Systems in place to check MMR status at other opportunities
 - Plans to tackle under-served communities with low coverage



Monitoring the programme

- **PHE / NHS England will be tracking**
- Confirmed cases of measles
- Vaccine ordering and supply
- Vaccination status of children on GP registers