Measles in England
2012 and 2013

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Annual measles notifications & vaccine coverage

*England and Wales 1950-2000*

**Source:** Public Health England
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

- Localised outbreaks in low coverage populations
- Measles re-established
Monthly cases of confirmed measles, 2008-March 2013, England
School outbreaks

March cases
February cases
January cases

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

1. Coverage at two years of age fell to around 80% in 2003/4
   - now increased to highest recorded levels (92.4%)

2. 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)

3. 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

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<th>Year</th>
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Distribution of confirmed measles cases in England by year of birth, 2013
Summary

- 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
Catch-up programme

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)
Local plan development
NHS England Area Teams

- 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