



UK Health
Security
Agency

Measles Briefing

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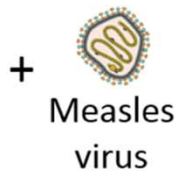
Overview - current situation


- In 2023 we have seen a resurgence of measles in England
- From 1 October, there has been a rapid escalation of cases – mainly driven by outbreaks in West Midlands
- Coverage for MMR vaccine in UK has fallen to the lowest level in a decade:
 - national 1st dose uptake in 2 year olds **89.4%**, 2nd dose in 5 year olds **83.8%**
 - to achieve and maintain measles elimination (and prevent outbreaks) we need **95% uptake with 2 doses of the MMR** vaccine by the time children turn 5 years
 - this target is an NHS [Long-Term Plan](#) (LTP) commitment and high priority within NHS England

Measles: key facts

- Measles is caused by a virus that spreads very easily. One case of measles can infect 9 out of 10 of unvaccinated close contacts

100 susceptible people
(e.g. not vaccinated against measles)



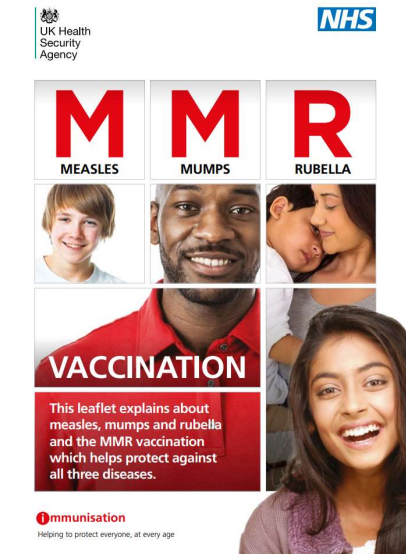
About 90 people will catch measles,
7 with complications .



- Children can be very poorly – rash and fever
 - many will attend their GP, UCC, A&E
 - 20-40% will be admitted to hospital (varies by age)
 - Babies, pregnant women and immunosuppressed most at risk of complications. On rare occasions can be fatal

MMR vaccine

- MMR dose 1 at 1 year of age
- MMR dose 2 at 3 years and 4 months
- 1 dose 95% effective
- 2 doses 99% effective - lifelong protection
- Two products available:
 - practices can preferentially order the porcine gelatine free product for their communities

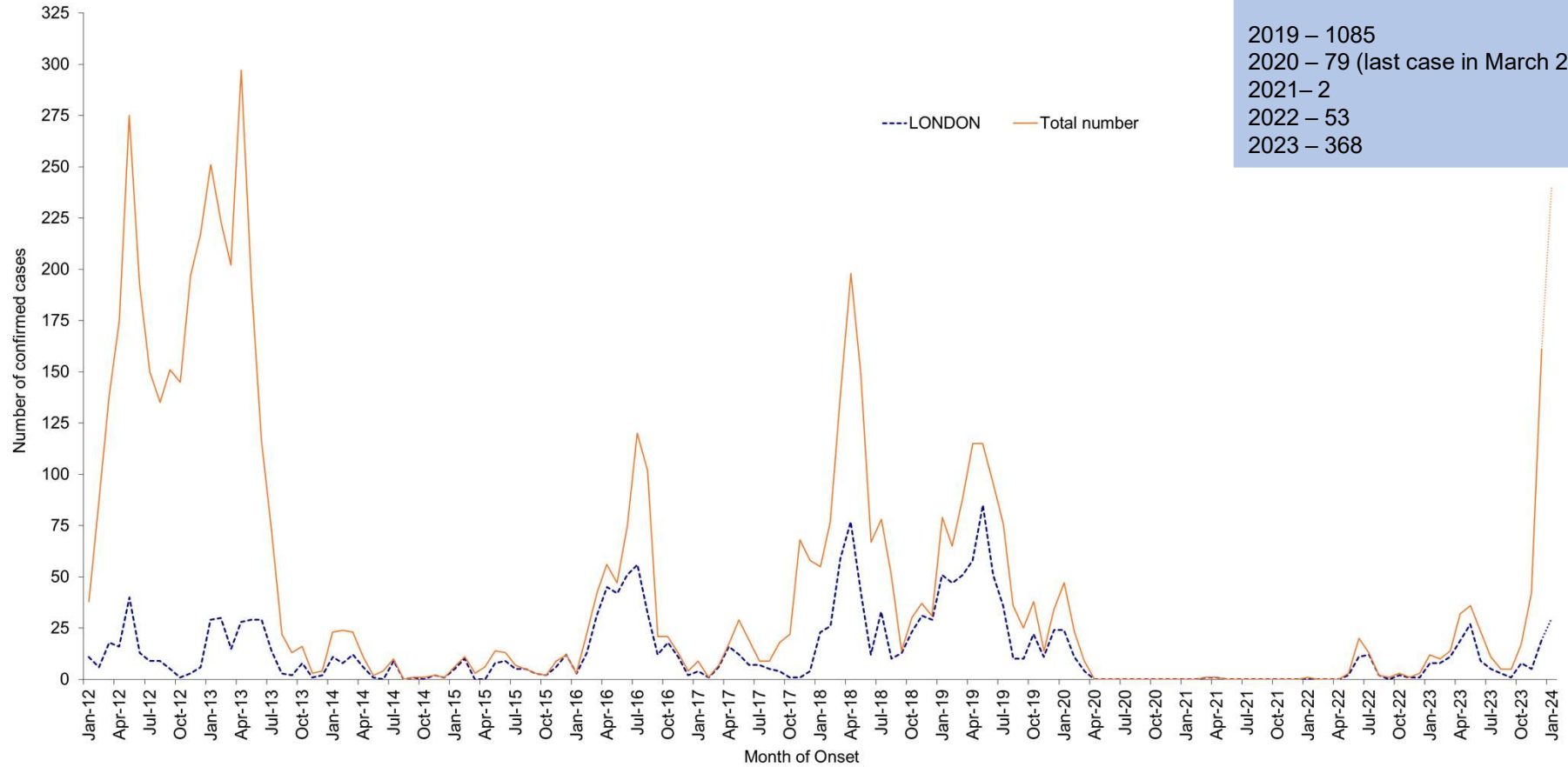


**Driving up MMR vaccine uptake in under-vaccinated communities is key control measure
To prevent outbreaks need to reach 95% uptake**

Measles total laboratory confirmed* measles cases from January 2012 to January 2024, London and England

Annual lab confirmed measles cases, England

2019 – 1085
 2020 – 79 (last case in March 2020)
 2021 – 2
 2022 – 53
 2023 – 368



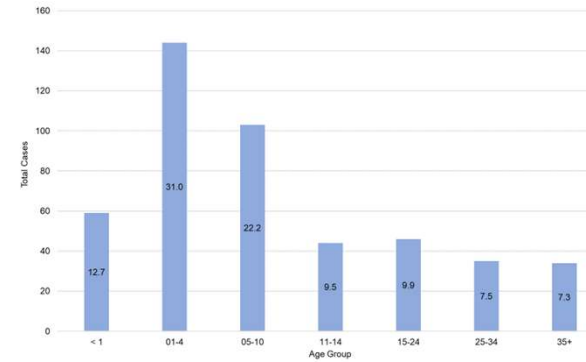
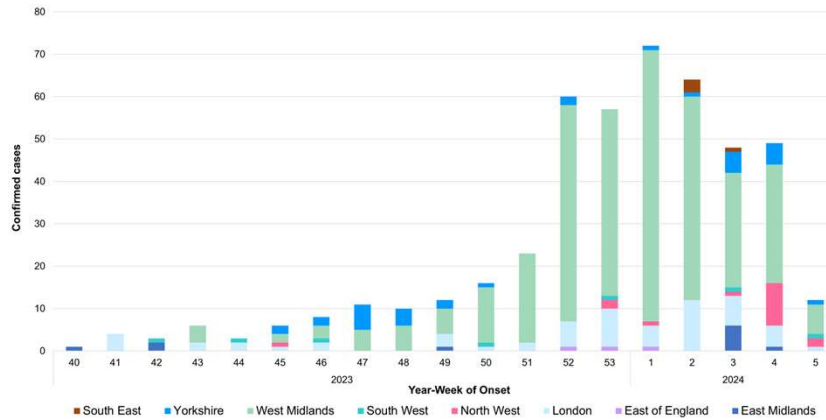
* Cases confirmed through either local or reference laboratory testing

** Data for the past 4 weeks are provisional and subject to confirmation in the reference laboratory and are therefore depicted as dotted lines. One previously confirmed case was discarded through further testing and epidemiological analysis.

Measles laboratory confirmed cases (Data correct as of 6 February 2024)

Data for 2023: In 2023 we have seen a resurgence of measles in England. From 1 January to 31 December 2023 there were 368 laboratory confirmed measles cases, 122 (33%) of these in London and 160 (44%) in the West Midlands, however all Regions have reported cases; while the London cases have remained consistent monthly, the West Midlands cases were extremely low until December 2023.

Data from 1 October 2023 to 6 February 2024: Data from 01 October 2023 to 06 February 2024: There has been a rapid escalation of activity from October 2023, with 465 confirmed measles cases reported between 01 October 2023 and 06 February 2024. 17 cases were reported in October, 42 in November, 161 in December, 240 in January, and 5 so far in February 2024. 71% (329/465) of these cases have been in the West Midlands, 13% (62/465) in London and 7% (32/465) in Yorkshire and The Humber. The majority (306/465, 66%) of these cases are in children under the age of 10, and 25% (115/465) in young people and adults over the age of 15.



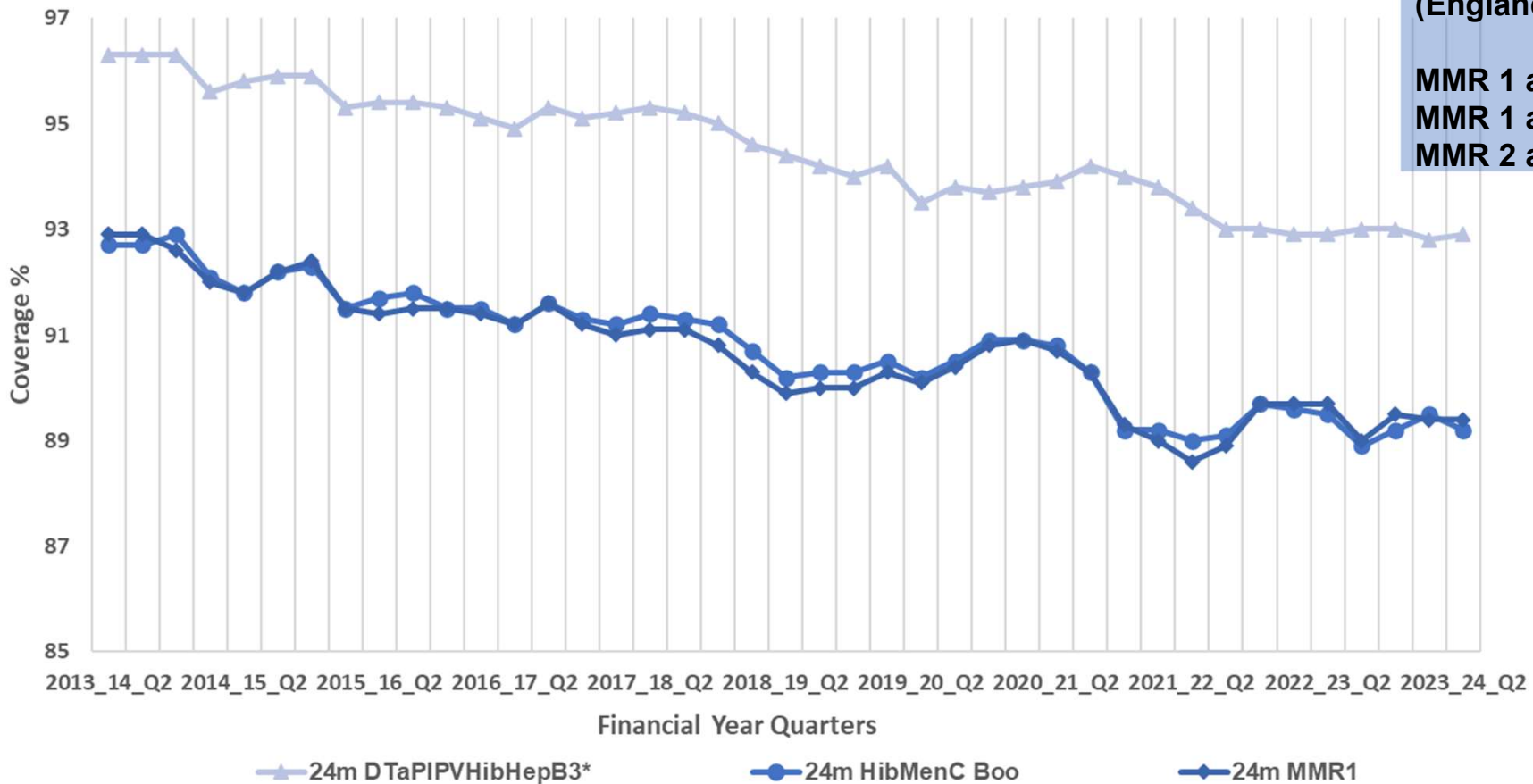
Total (%) lab confirmed measles cases by age group, October 2023 to date, England*

* Data for the past 4 weeks are provisional and subject to confirmation in the reference laboratory and are therefore depicted as dotted lines. One previously confirmed case was discarded through further testing and epidemiological analysis

MMR1, Hib/MenC and Hexavalent vaccine coverage in 2 year olds by quarter from Q2 2013 to Q2 2023: Source UKHSA COVER Quarterly statistics

Quarterly Q2 2023/24 (England)

MMR 1 at 2 years: 89.4%
MMR 1 at 5 years: 92.3%
MMR 2 at 5 years: 83.8%

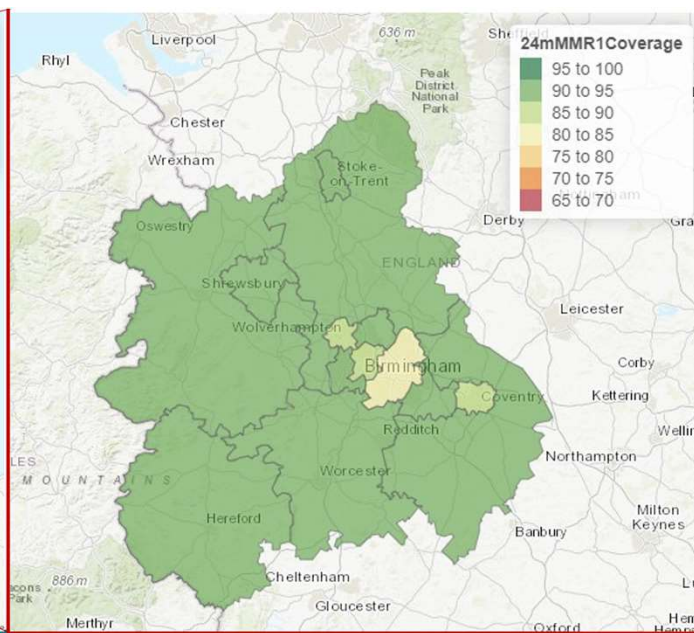
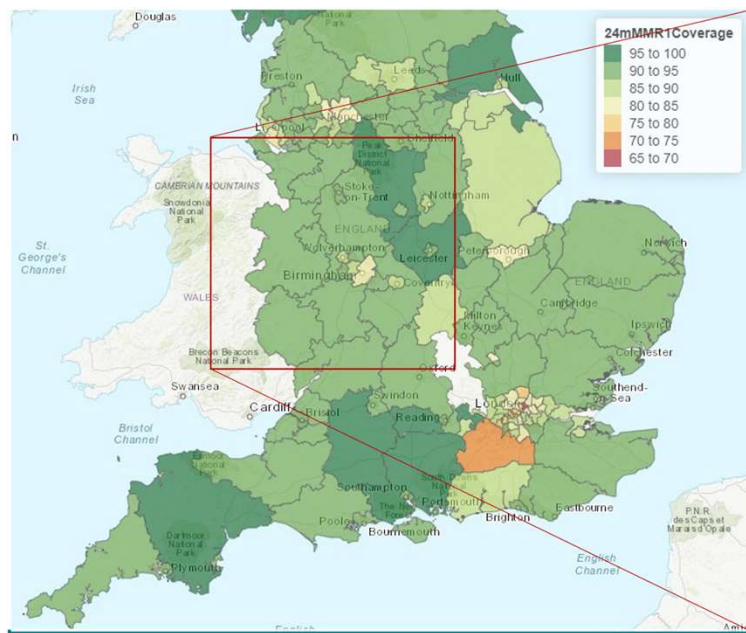


Completed UK primary immunisations at 24 months by NHS England local team: July to September 2023 (April to June 2023)

NHS England local teams	No. of LAs	DTaP/IPV/Hib/HepB3%	MMR1%
London	33	88.8 (88.9)	82.9 (83.1)
North (Yorkshire and Humber)	15	94.0 (93.5)	91.2 (90.2)
North (Lancashire and Greater Manchester) [note 1]	13	91.9 (92.6)	88.9 (89.1)
North (Cumbria and North East)[note 1]	13	96.4 (96.1)	95.0 (94.9)
North (Cheshire and Merseyside)	9	91.9 (92.0)	89.2 (89.4)
Midlands and East (North Midlands)	8	95.4 (94.5)	92.9 (92.1)
Midlands and East (West Midlands)	10	92.2 (91.7)	88.2 (87.7)
Midlands and East (Central Midlands)	11	92.6 (92.8)	91.1 (91.3)
Midlands and East (East)	7	94.5 (94.5)	92.3 (91.2)
South West (South West South)	8	94.7 (94.9)	93.1 (92.8)
South West (South West North)	7	95.4 (95.2)	93.3 (93.1)
South East (Hampshire, Isle of Wight and Thames Valley)	12	95.4 (95.1)	93.3 (93.1)
South East (Kent, Surrey and Sussex) *	6	92.9 (93.2)	84.9 (89.1)

* Due to data quality issues this quarter due to a change in provider South East data should be interpreted with caution

MMR vaccine dose 1 coverage in children aged 2 years, England, West Midlands (and Upper Tier Local Authorities)



	MMR1 at 2 years
Herefordshire	94.5
Telford and Wrekin	92.4
Stoke-on-Trent	93.1
Shropshire	94.2
Birmingham	81.3
Coventry	88.2
Dudley	91.5
Sandwell	86.9
Solihull	92.8
Walsall	92.6
Wolverhampton	86.1
Staffordshire	93.7
Warwickshire	93.7
Worcestershire	93.8

Predicting outbreaks – UKHSA modelling

- [Risk assessment of measles resurgence in the UK – published July 2023](#)
 - current MMR uptake levels lowest in a decade
 - during pandemic - increased pool of susceptibles in younger children - **around 1 in 10 children starting school at risk of measles**
 - London remains most vulnerable region (also most likely to get importations) – **could sustain large outbreaks 40,000 - 160,000 cases**
 - high risk of outbreaks in:
 - **inner-city areas** with some risk of limited spread to the wider community
 - **under vaccinated communities** e.g. migrant populations, traveller communities, and ultra-orthodox Jewish communities
- **Risk of spillover of current outbreak to other localities and Regions**: work underway to improve uptake and shore up defences