

Editorials

Action to maximise childhood vaccination is urgently needed

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Declining uptake in England must be reversed to avert disease outbreaks

Changes to the UK's childhood vaccination schedule over the past three decades have seen both a wider range of vaccines offered and overall improvements in vaccine coverage. In 1988, when the single antigen measles vaccine was replaced with the measles, mumps, and rubella (MMR) vaccine, uptake was only just above 70% for 2 year old children in England and Wales,² with 16 deaths from measles reported in that year alone.³ Today's preschool children are routinely offered protection against 14 potentially serious infections with further vaccines offered to teenagers.¹

Overall uptake rates had improved significantly in the UK, with highs of over 90% for the primary vaccines at 12 months and first dose MMR vaccine at 24 months up to 2012-13. However, the 2022-23 childhood vaccine figures show a continuing and concerning downward trend that began before the pandemic.¹ For example, the 85.2% coverage for two doses of MMR vaccine among 5 year olds is well below the 95% target required for population immunity; this target has never been met and uptake peaked in England in 2014-15 at 88.6%.¹ Also concerning is the wide variation in uptake between local authorities, ranging from 94.4% to 56.3% in England.¹ Uptake is lowest in London, where overall a quarter of 5 year olds have not received two doses of MMR vaccine. Persisting disparities in uptake between ethnic and sociodemographic groups and geographical areas have also been exacerbated by the pandemic.⁴

Despite historical concerns about routine vaccine statistics underestimating uptake, these downward trends are unlikely to be due to data quality problems, even among London's more mobile and deprived populations.⁵ Comparing UK vaccine uptake with that in other northern European countries is difficult because of different schedules, health systems, and methods of calculating uptake, but France and Germany do not seem to be experiencing similar downward trends in uptake of measles vaccination.⁶

Despite declining vaccine uptake, cases of vaccine preventable disease remain low in the UK, but there is little room for complacency. In 2022-23, toxigenic *Corynebacterium diphtheriae* was isolated from 73 recently arrived asylum seekers,⁷ and vaccine derived polio was identified in London sewage.⁸ Both represented a low risk to the population overall but had the potential for spread in low coverage areas, such as London.⁸ A greater risk is posed by rising cases of measles in London.⁹ The UK's Health Security Agency

(UKHSA) warned in July that without improved vaccine coverage, including catching up unvaccinated older teenagers and young adults, there could be a measles outbreak in London of up to 160 000 cases.¹⁰ These examples serve as sharp reminders of the ever present threat of infectious diseases and the need to maintain high vaccine uptake. However, vaccine programmes are a victim of their own success: the resulting lack of disease makes it challenging to convey to the public the risks of disease and continued need for vaccination.

Reversing the trends

Media reports of declining vaccine uptake often highlight the influence of the anti-vaccine movement, but there is no strong evidence that it is a major contributor to declining uptake in the UK.¹¹ Indeed, UKHSA's regular surveys of parents and other research find high levels of vaccine confidence.^{12,13} Instead, uptake is affected by multiple well described factors,¹⁴ including disadvantage and high population mobility causing parents difficulties in accessing vaccinations.¹⁵

To reverse the ongoing decline in childhood vaccine uptake in the UK requires focus, commitment, and resource. Maximising uptake must be prioritised by policy makers, public health leaders, and general practice and given the required resources, including extra funding and staff for general practices, which were struggling with workload pressures even before the pandemic.¹⁶ Recommendations for increasing vaccine uptake published by the National Institute for Health and Care Excellence (NICE) in 2022¹⁴ included improvements to service organisation, identifying eligible children, and sending invitations and reminders.¹⁴ Reducing inequalities in uptake also relies on local knowledge and initiatives, requiring dedicated time and energy from public health and primary care teams.¹⁷ Implementation of the NICE guidance should be supported alongside publication of the long awaited vaccine strategy.¹⁸

Families need easy and timely access to vaccination services, as well as to trusted staff for vaccine information. Conversations with healthcare professionals have an important influence on vaccination decisions, and parents may have more questions about vaccines since the covid-19 pandemic, making it even more important that all healthcare professionals involved in vaccination have high quality training on discussing vaccination.^{12,19} More research is needed to identify the most effective ways of communicating vaccine information, particularly to more disadvantaged and vulnerable parents.

The UK's universal primary healthcare system remains expertly placed to continue delivering the country's historically successful routine childhood vaccination programme. However, general practices, particularly in more deprived areas, will struggle to reverse declining uptake without more resources. Exciting new vaccines are on the horizon for UK children—for example, for respiratory syncytial virus.²⁰ But we must remain focused on reversing declines and maximising uptake of existing routine childhood vaccinations to prevent the resurgence of dangerous infectious diseases.

Footnotes

- Competing interests: The BMJ has judged that there are no disqualifying financial ties to commercial companies. The authors declare the following other interests: HB was a member of the NICE guideline committee on vaccine uptake in the general population (2022) and both authors are involved in a co-production research

project the Mosaic Community Trust into why some parents and families think children are unvaccinated. Further details of The BMJ policy on financial interests are here: <https://www-bmj-com.iclibezp1.cc.ic.ac.uk/sites/default/files/attachments/resources/2016/03/16-current-bmj-education-coi-form.pdf>.

- Patient and public involvement: Frances Edwards, a parent of children aged under 5 years, contributed to this editorial, commented on the content, and suggested revisions.
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