Position paper from MSD

Leveraging the full potential of the childhood immunisation schedule

The Joint Committee on Vaccination and Immunisation (JCVI) should expedite the ongoing review of the childhood immunisation schedule as a matter of urgency to enhance the protection offered to all children from the harms of vaccine-preventable disease.

Introduction

Childhood immunisation is one of the most important tools in our public health arsenal. It protects children, families, communities, and the NHS from the burden of – sometimes serious – infectious disease,[1] promotes the health and wellbeing of all children from birth, and is an important way to address health inequalities.[2] While the UK's childhood immunisation schedule is comprehensive, challenges do remain that limit the strength of the UK's response to vaccine-preventable childhood disease when compared to comparable countries around the world:

Coverage rates across the childhood immunisation schedule have been steadily declining in recent years

For three years running, none of the routine childhood immunisations offered have met the World Health Organization target of 95% uptake[3] and, the majority of vaccines have seen further declines during the COVID-19 pandemic. This trend has culminated in the lowest uptake of measles, mumps, and rubella (MMR) in a decade – leaving 1 in 10 children starting school at risk of measles.[4] Following the UK's loss of its measles free status in 2019,[5] the UK remains one of the few countries in Western Europe with endemic measles as classified by the World Health Organization.[6]

Gaps exist in the UK's childhood immunisation schedule, in divergence from other comparable nations

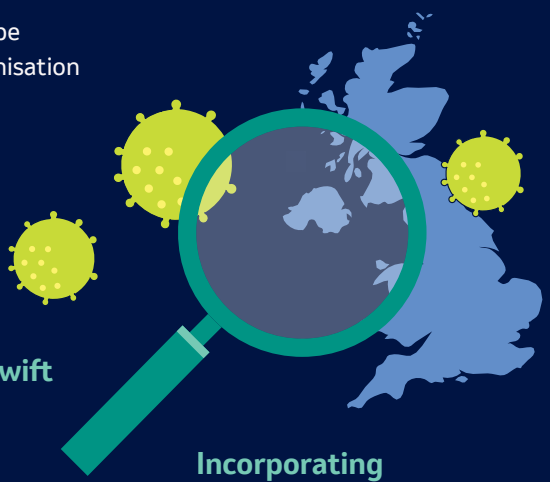
For example, while varicella (chickenpox) has been a vaccine-preventable disease for over 30 years,[7] the UK has not yet taken the step to introduce universal varicella vaccination (UVV), despite the significant primary and secondary care burden associated with this common childhood disease. This is in contrast to countries such as Australia, Canada, Germany, and the USA, where UVV programmes have long been in place.[8]

Underserved groups face particular challenges in accessing vaccination, widening the health equity gap

For too many children, their ability to access the full range of vaccines – in a timely manner – is unfairly influenced by where they live, their ethnic or religious group, or their socioeconomic background.[2] As a result, outbreaks of diseases such as measles often place a particular burden on underserved communities.[9]

Considerations on how the UK could tackle these challenges

The JCVI's ongoing review of the childhood immunisation schedule can be leveraged to address existing gaps and drive the highest possible immunisation coverage across all communities. The UK could optimise its childhood immunisation schedule – placing it among the best in the world – through the following steps:



Bringing forward the second dose of MMR from three years and four months to 18 months

In some London boroughs, such as Lewisham, where an accelerated MMR schedule was implemented over ten years ago in the face of below average uptake and a significant measles burden, coverage is now in line with the national average. Supported by robust parent education and engagement, the change has improved the accessibility of MMR immunisation for parents, including those from more underrepresented groups such as mobile families.[10]

Recommending the swift introduction of UVV

Filling existing gaps in the childhood immunisation schedule is vital to broadening the protection offered to children. In Australia, where a combined MMR and Varicella (MMRV) programme has been offered at 18 months since 2019, improved uptake and population-level protection has been observed across all component diseases, including measles. This has been achieved without increasing the burden of appointments for parents and providers.[11]

Incorporating mechanisms for continuous horizon scanning

This may help to ensure that as new diseases and serotypes of new and existing diseases emerge, and future vaccines become available, the schedule is adopted in the most optimal way, allowing children to be protected from emerging threats and benefit from new innovations as quickly as possible.

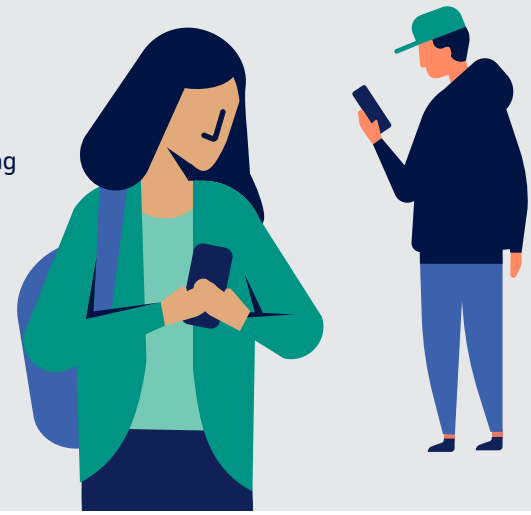
The considerations above would maximise the potential of the childhood immunisation schedule review to strengthen the UK's approach to routine childhood immunisation. Driving successful implementation of the schedule updates outlined above will require national and local health leaders to spearhead broader efforts to secure long-term resilience in the delivery and uptake of routine immunisation. There are three distinct areas where progress could be made, as the Department of Health and Social Care continues to develop its 'new approach' to vaccination:[12]

Strengthening vaccination delivery infrastructure

Learning from the UK's world-leading COVID-19 vaccine rollout, and the Vaccination Transformation Programme already underway in Scotland,[13] innovative models of vaccine delivery could be utilised more widely for routine immunisation. For example, community hubs, pharmacies and pop-up sites would address geographical and time barriers faced by parents, making immunisation more accessible for all communities while reducing the burden on general practice and other vaccination services. Health visitors may also be well-placed to improve accessibility of vaccination services, particularly for those families who struggle to attend local GP services.

Leveraging the potential of digital tools

Learning lessons from the NHS COVID-19 pass which can be accessed in minutes, immunisation records could be digitised and made easily accessible to parents – for example through the NHS App – empowering parents to take on greater agency in routine immunisation. This would rely on data linkage across the health system to ensure the necessary digital infrastructure is in place.



Educating – and engaging – parents and healthcare professionals on changes to the schedule

As evidence emerges that over half of parents are not aware that measles can be fatal,[4] steps could be taken to provide parents and healthcare professionals with a sufficient evidence base on the value of immunisation, and rationale for changes to the schedule. Across nations and regions, all communications – including leaflets, digital communications, and patient group directions – should be updated in a coordinated manner to avoid the risk of mixed messages.

This position paper summarises the key considerations of an expert roundtable, convened and funded by MSD in January 2022, which brought together policy, academic, and clinical stakeholders to explore opportunities to optimise the JCVI's review of the childhood immunisation schedule. For further information, please contact Shannon Lacombe, Associate Director, Vaccine Policy and Communications at MSD: Shannon.lacombe@msd.com

REFERENCES

1 NHS, Why vaccination is safe and important, accessed March 2022 2 Public Health England, PHE Immunisations Inequalities Strategy, February 2021, accessed March 2022 3 Nuffield Trust, Vaccination coverage for children and mothers, July 2021, accessed March 2022 4 UK Health Security Agency, Around 1 in 10 children starting school at risk of measles, February 2022, accessed March 2022 5 World Health Organization, European Region loses ground in effort to eliminate measles, accessed March 2022 6 World Health Organization, 9th Meeting of the European Regional Verification Commission for Measles and Rubella Elimination (RVC), 2021, accessed March 2022 7 CDC, Chickenpox Vaccination: What Everyone Should Know, 2019, accessed April 2022 8 Varela et al., Global impact of varicella vaccination programs, 2019, accessed March 2022 9 Hungerford et al., Effect of socioeconomic deprivation on uptake of measles, mumps and rubella vaccination in Liverpool, UK over 16 years: a longitudinal ecological study, Epidemiol Infect, 2016: 144 (6), 1201-11, accessed March 2022 10 Joint Committee on Vaccination and Immunisation, Minute of the meeting held on 15 December 2021, February 2022, accessed March 2022 11 Macartney et al., Evaluation of Combination Measles-Mumps-Rubella-Varicella Vaccine Introduction in Australia, JAMA Pediatrics, 2017: 171 (10), 992-998, accessed March 2022 12 Department of Health and Social Care, Health and Social Care Secretary speech on Health Reform, 8 March 2022, accessed March 2022 13 Public Health Scotland, Vaccination Transformation Programme, December 2021, accessed February 2022