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We need to increase MMR vaccine uptake urgently

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In response to a decline in vaccine coverage, the Office for Health Improvement and Disparities (OHID), supported by the UK Health Security Agency (UKHSA) and NHS, have launched a campaign to increase uptake of the MMR vaccine in England.[1] Two doses are necessary for optimum protection and, due to the highly infectious nature of measles in particular, a sustained 95% vaccine coverage is required to prevent outbreaks. The latest data for July to September 2021 reported 88.6% uptake of the first dose of MMR at 24 months, with 85.5% uptake of two doses at 5 years—a decline on previous quarters.[2] Even a small decline in MMR vaccine uptake—the "canary in the coalmine"—can herald disease outbreaks.

Despite a lack of evidence, the decline has been blamed on covid "vaccine fatigue" among the public or an increase in "vaccine hesitancy." Certainly, the intense focus over the past two years on covid and, since their development, on covid vaccines has been to the almost total exclusion of other infections and vaccines. Although covid-19 vaccines have been shown to be highly effective in protecting against severe disease, they are less effective at preventing transmission of infection and this may have affected parents' perceptions of the effectiveness of routine childhood vaccines; this needs investigation. Future vaccine communication needs to be clear that not all vaccines work in the same way or that all vaccine programmes have the same aims.

Other factors are likely to have contributed to the decline in vaccine uptake. When announcing the lockdown on 23 March 2020, Boris Johnson, the UK prime minister, told the British public "..... you must stay at home," with few legitimate reasons for leaving. Communications stressing the importance of vaccine programmes continuing followed only later. Parents were reported to have interpreted this as vaccine services not being available.[3] This research also identified parents' concerns about overstretching the NHS or risking infection if they attended health services as barriers to vaccination. General practice nurses who provide the majority of childhood vaccines continued to vaccinate throughout the pandemic, but primary care services have been significantly disrupted, with many additional calls on nurses' time including the covid vaccination programme. Although some areas developed innovative methods of continuing vaccine provision, such as setting up drive through clinics, these may not always be feasible, particularly in areas such as inner London, which already had lower vaccine uptake.

Additionally, many health visitors, whose numbers were already depleted pre-pandemic, were redeployed to other parts of the health service, leaving families without support and advice including promotion of vaccination.[4 5]

Successful vaccine programmes can be a victim of their own success. In the absence of disease, their seriousness can be forgotten, with vaccination seeming unnecessary. In a recent survey of 2000 parents of young children, almost half were not aware that measles could result in serious complications.[6] Social distancing and other public health measures to curtail spread of covid have also reduced the spread of other infections, including measles, with only two confirmed cases both linked to importations since early 2020.[7] And yet, as a sharp reminder of its potential seriousness, between 2018 and 2020 nine children and adults died from measles in England and Wales, three due to acute measles and the remainder due to its late effects.[8]

Although the focus of the current campaign is measles, we must not forget mumps and rubella. All three diseases can be severe for adults as well as young children, as shown by recent outbreaks of mumps and measles. The MMR programme has also been successful in controlling rubella and congenital rubella syndrome, but a cohort of young adults who did not receive MMR in childhood may remain unprotected against rubella. Travel to countries without effective rubella vaccine programmes or importations of infection could pose a risk to these susceptible people once they start having children, resulting in the return of congenital rubella syndrome.

The dramatic fall and subsequent return of vaccine confidence following the 1998 MMR vaccine safety debacle demonstrated that recovery is achievable. Contrary to assertions that vaccine hesitancy has increased, in a survey of 600 parents of young children conducted in August 2021, over 95% agreed that vaccines were important for their child's health.[9] Before we see disease outbreaks, we must build on this confidence and improve vaccine uptake by ensuring all parents are aware of its importance; taking all available opportunities to remind them to attend for vaccination even if vaccines are overdue; ensuring vaccination services are accessible and family friendly; and offering discussion about vaccine concerns. As there is no upper age limit for the MMR vaccine, this extends to unvaccinated young people and young adults. Sadly, it often takes an outbreak of disease to prompt vaccine uptake, but by taking immediate action and working together we can prevent the re-emergence of these potentially devastating infections. Encouragingly, vaccine coverage data published on 29 March as this article goes to press shows a 0.3% increase in uptake of MMR at 24 months of age to 88.9% in England.[10]

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