People appear to have forgotten…

When the smallpox and polio vaccines were discovered, there was much celebration and parents queued to have their children vaccinated. Since those early days of vaccination prophylaxis, there has been an enormous expansion of what is offered both in the UK and globally.

The current early childhood cover of vaccination evaluated rapidly (COVER) programme is extensive, starting at 8 weeks of age, with a combined vaccine to immunise against diphtheria, tetanus, pertussis (whooping cough), polio, haemophilus influenzae type b (Hib) and hepatitis B. It has a separate vaccine to immunise against meningococcal group B (MenB) and an oral vaccine against rotavirus gastroenteritis, culminating with booster and first dosages at the first birthday or after, against Hib and meningococcal group C (MenC), pneumococcus, measles, mumps and rubella (MMR), also known as German measles, and MenB with seasonal influenza vaccination each autumn (UK Health Security Agency (UKHSA), 2024a).

The COVER programme extends to school year 9 (14 years of age) and offers vaccinations against cancers and genital warts caused by specific human papillomavirus types and meningococcal groups A, C, W and Y, as well as booster doses to protect against tetanus, diphtheria and polio (UKHSA, 2024a).

Despite the proven efficacy and strong promotion of the childhood COVER programme, its uptake has fallen to dangerously low levels in some areas. Population immunity is no longer sufficiently high to prevent outbreaks of serious diseases such as whooping cough (UKHSA, 2024b) and measles (UKHSA, 2024c), which led to the issuance of UKHSA (2024d) and NHS England (2024) guidance on the management of cases.

While the World Health Organization (WHO) target is to have 95.0% of children under five years of age vaccinated, the UK figures are disappointing. Only 91.5% of those under two years of age and 84.5% of the entire under five years of age have received the six-in-one vaccine (UKHSA, 2024e). The UK-wide uptake of MMR is disappointing (MMR1 at one year of age is 92.5%; MMR2 between 3–5 years is 85.2%), while the figures for Scotland and Wales being slightly better than those for

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England (UKHSA, 2024e). This vaccine hesitancy trend is concerning, not only for child health, but also for adults, especially those susceptible to serious illness resulting from a circulating infectious disease. WHO estimated that COVID-19 vaccines have saved 1.4 million lives in the European region, including 400 000 lives in England, up till March 2023. This number was highest during the period of Omicron variant dominance (December 2021–April 2023), where people aged 80 years and over received the most significant benefits from COVID-19 vaccination (WHO, 2024).

Evidence from the UK autumn 2023 programme suggested that current COVID-19 vaccines offered good protection against severe illness and were effective in reducing hospitalisation, from two weeks following vaccination (UKHSA, 2024f). The data suggested that protection was long lasting for those who received a primary course and a booster, plateauing from around 6 months after the most recent dose, with a modest level of protection even after 15 months or more.

For those aged 65 years and older, the protection plateaued at 50.0% after a year. The uptake of the autumn 2023 programme was 61.5% for those included (aged 65 years and over on 30 November, and the clinically vulnerable), rising to 89.5% of all eligible care home residents by 21 December 2023 (UKHSA, 2024g). The more focused spring programme (for those aged 75 years and over, and the clinically vulnerable) had a 62.3% uptake and ended on 30 June. This was despite COVID-19 case numbers indicating that the virus, with its different lineages, continues to circulate throughout the summer months, perhaps encouraged by large gatherings, sporting events and concerts (UKHSA, 2024g).

There are probably a range of factors underpinning the limited uptake of the spring COVID-19 vaccination, not

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least a poor understanding of how vaccination stimulates the body's immunological response and the duration of that response that varies across infectious diseases. It remains a long-standing goal for vaccinologists to develop a universal influenza vaccine, which offers protection against all those variants that emerge through the continuous antigenic evolution of seasonal influenza viruses, together with a universal COVID-19 vaccine with long-term durability (vaccine-induced immune memory)(Beans, 2022). Though the material focuses on COVID-19 vaccine uptake, the local government association (LGA, 2021a) provides a useful overview of research regarding vaccine uptake in the UK and lists the groups/communities that have lower vaccination uptake; it applies to both COVID-19 and influenza vaccinations.

The LGA (2021b) features six case studies (Hampshire, Havering, Norfolk, Hackney, Wirral and Hounslow) illustrating how behavioural science techniques can be used to understand choices and increase vaccine uptake. Other case studies (LGA, 2021c) offered examples of interventions to engage people from low socio-economic, ethnic minority backgrounds and marginalised groups to improve vaccine uptake. While sub-optimal uptake of vaccinations is not limited to the general population, it also extends to healthcare professionals.

In the 2023–24 season, 42.8% of all frontline healthcare staff undertaking direct patient care in NHS trusts in England received the influenza vaccine, which was a 7.1% (49.9%) decrease compared to 2022–23 (UKHSA, 2024h). This is the lowest uptake of the influenza vaccine since 2010–11, and it is the third consecutive season to record a decrease in vaccination rates among frontline healthcare staff. Only 1.3% of NHS trusts achieved the influenza vaccine uptake target of 75.0% or more (uptake in NHS trusts varied considerably at 7.1–82.2%).

Frontline doctors in NHS trusts achieved the highest influenza vaccine uptake at 48.7% and support staff with patient contact achieved the lowest at 38.2%. The influenza vaccine uptake rate among the community nurses in NHS trusts is not known as it is not reported separately. All the nurses in GP practices achieved the highest influenza vaccine uptake at 68.8%. The lowest vaccine uptake in GP practices at 59.0% was recorded by the support staff.

The data for the 2023–24 COVID-19 vaccination programme uptake were bleak with a 30.2% uptake for England (25.0–37.3% across the seven commissioning regions). This limited uptake (below the target of 75.0% or more for seasonal influenza) is concerning on two counts; the duty of healthcare professionals to protect their patients/clients from avoidable health risks by avoiding becoming vectors of an infection, and the importance of being role models of desired health behaviour by taking recommended vaccinations against infectious diseases.

Given the importance of increasing vaccine uptake among nurses, especially in comparison to doctors, it is concerning that intervention studies have not been conducted to test potential improvement strategies. Flanagan et al (2023) attempted to conduct a systematic review exploring six databases and found only one cluster randomised controlled trial, testing a complex intervention (multiple educational interventions plus an incentive), conducted across older care settings in France in 2006–2007.

A Portuguese case study (Augusto et al, 2025) suggested that adopting participatory, reflective and creative methods to develop vaccine hesitancy interventions had the potential to address the issue among healthcare staff and to provide them with the practical insights and skills required to navigate challenging conversations with vaccine-hesitant individuals and to promote vaccine acceptance.

The influenza vaccine is promoted on the basis that it protects against severe illness and hospitalisation. However, a meta-analysis (Behrouzi et al, 2022) of six randomised clinical trials (n=9001 adults vaccinated versus placebo) found a significant difference in cardiovascular outcomes. The findings indicated that the vaccination of 56 patients prevented one cardiovascular event, and higher-risk patients with recent acute coronary syndrome had a 45.0% reduced risk when vaccinated.

A review of global literature (Chen et al, 2022) found that vaccination acceptance was associated with free provision (the Joint Committee on Vaccination and Immunisation (JCVI) makes a recommendation to the UK government regarding those who should receive a free vaccination); perception of influenza vaccine efficacy and disease severity; recommendation from healthcare staff and having previous influenza vaccinations. This highlights the importance of reducing known barriers to vaccine uptake, such as ease of getting a vaccination itself and sharing of information by healthcare staff at every opportunity ('making every contact count'). It assures people of the vaccine's efficacy and its protective effect against severe illness and hospitalisation, thereby promoting a continuous awareness of the benefits of vaccination for personal safety to counter growing vaccine hesitancy.

With the 2024–25 COVID-19 and seasonal influenza vaccination programmes about to begin, the role of district nurses and their teams in promoting vaccination uptake remains as important as ever, especially because the memories of the COVID-19 pandemic have begun to fade.

As Dr Hans Kluge of WHO European Regional Office has said: 'COVID-19 hasn't gone away. We have merely learned to live with it' (WHO, 2024). Learning to live with the COVID-19 virus and continuing to live with the influenza virus means that achieving high vaccine uptakes is imperative to minimise severe illness and to reduce avoidable hospitalisations. **BJCN**

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