Boosting the nation against covid-19: are the vaccination targets feasible?

What are the practicalities of delivering more than one million covid-19 vaccine doses a day?

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With the number of covid-19 cases from the Omicron SARS-CoV-2 variant rising exponentially in the UK, Boris Johnson, the prime minister addressed the nation on 12 December 2021, announcing a target to deliver a booster covid-19 vaccine to all eligible adults in England by the end of December. The devolved governments in Wales, Scotland, and Northern Ireland are expected to set similar targets. This extremely ambitious target will involve delivering over one million covid-19 vaccines per day in England over the next couple of weeks. So far, 81.3% of adults have received two vaccine doses in England, but despite this the covid-19 alert system in England moved from 3 to 4 as a result of the large increase in daily case rates and the concerns that the latest variant is overwhelming the NHS.

In response, the Joint Committee on Vaccination and Immunisation has recommended reducing the time between second doses and boosters from six months to three months, rendering 14 million more individuals eligible for boosters. Across the NHS, staff are once again having to rapidly mobilise to ensure that as many people are vaccinated as quickly and as safely as possible, while not compromising other important areas of healthcare.

The UK’s initial vaccination programme was world leading, but then faltered mid-2021, before picking up speed again more recently. The covid-19 vaccination programme is delivered in multiple venues, including mass vaccine centres, schools, and workplaces, but the majority of vaccines are still administered in primary care, placing additional pressure on already overstretched GP and community pharmacy teams. There is a well documented GP crisis: falling numbers of GPs are failing to keep up with population growth and the increase in primary care workload, leading to fewer physicians caring for more patients in a chronically underfunded primary care system. This has led to increased waiting times and access issues, with a knock-on effect on hospitals at a time when there are also shortages of other key NHS professionals in secondary care.

With a rising number of Omicron cases requiring further medical care, more resources are urgently required to safely manage this ambitious booster campaign, along with ongoing core NHS work and the usual winter demands. NHS England and the British Medical Association have agreed some pragmatic changes to focus on essential work and deprioritise some of the bureaucracy that has limited patient benefit.

Despite the proposed acceleration of the booster rollout, frontline NHS staff were not given advance notice and GPs are yet to be informed about key details, including when they should expect deliveries of vaccines. To ensure efficient ramping up of the vaccination programme, the UK’s chief medical officers have agreed to temporarily waive the 15 minute wait policy as the majority of adverse reactions occur in the first two minutes following vaccinations, with case rates of 4.7 per million vaccinations reported for anaphylaxis.

The success of the covid-19 vaccination programme has required essential healthcare services to be compromised. The pandemic has exacerbated already existing challenges in the NHS, further compounding a severe backlog for specialist care, which has now reached six million, and will take many years to resolve. While the public health benefits of covid-19 vaccinations are clear, specific groups remain disadvantaged by mass vaccination. Some have argued that the suspension of services, including urgent and elective surgical services, may require more equitable decision-making processes as they may not be in line with the four pillars of medical ethics: beneficence, non-maleficence, autonomy, and justice. With the booster rollout now escalated, primary care teams are having to increase vaccination uptake without recommendations set out to address patient’s concerns, and alleviate the impact this may have on other healthcare services.

The UK is well placed to deliver large scale vaccination programmes, with all four devolved nations achieving some of Europe’s highest vaccination rates pre-pandemic. Appropriate and timely government planning and preparation are still needed to mitigate the risks, including economic decline and additional lockdowns, and to prevent exacerbating the impact observed across non-covid-19 healthcare services. For several months, the government ignored warnings from experts requesting an urgent move to “Plan B,” and requests to mandate standard public health measures, including mask wearing, ventilation measures (i.e. installing air filtration devices in schools), working from home, lateral flow testing before social events, and physical distancing. These have become the norm in the other three UK nations and in many European countries. The government also ignored calls to establish a sustainable, cost-effective system for covid-19 vaccination that could respond rapidly to any new demands, including the requirement for booster vaccinations. At this critical time, it is essential that the government invests in the systems that it relies on so heavily and that it adapts its covid-19 roadmap accordingly.

We have seen an “unimaginable” £37 billion squandered on test-and-trace—much of it on private consultants—and highly criticised by the
The booster rollout can showcase the power and flexibility of UK's primary care system—but not immediately; it must be planned effectively by local NHS teams and the government. The number of booster doses will increase gradually albeit not at the rate the government hopes, and boosters take two weeks to be fully effective. We must hope that what we can achieve with boosters in the coming weeks will be sufficient to limit the impact of Omicron on public health, attenuate NHS pressures, and prevent the introduction of more severe measures.

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