

Institute for Public Policy Research



ON THE HORIZON

REALISING THE VALUE OF VACCINES

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ABOUT THIS PAPER

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FOREWORD

Vaccines have been behind extraordinary leaps forward in health and prosperity in modern history. From Edward Jenner's smallpox vaccine to Jonas Salk's polio vaccine, they have allowed once unimaginable progress on diseases that would otherwise have continued to kill millions.

They provide these benefits with remarkable cost efficiency. The World Health Organisation (WHO) has said that vaccinations are "one of the best health investments money can buy". Estimates have put the return on investment on vaccines as high as £14 for every £1 spent (ABPI 2023).

The Covid-19 pandemic once again reminded us of the power of vaccines. After the enormous pressure of 2020 and 2021 – years defined by social distancing, lockdowns and an overwhelmed NHS – it was the pace at which vaccines were developed, manufactured and rolled out to patients that offered an exit. That pace was testament to business, government, industry, the NHS and communities coming together to collaborate on a common mission.

But vaccines are not just for emergencies. As the UK gets sicker; as the NHS continues to face persistent pressure; and as the consequences of sickness weigh increasingly heavily on the economy, vaccination could provide the answer we need. They can prevent sickness, reduce pressure on GP clinics and A&E departments, and support productivity and participation in work. Our need for new, better, more and more innovative vaccines is only rising.

We will only get the most from vaccines if we have the right policy environment – one that supports their creation, approval, roll-out and uptake. That is why I so strongly welcomed the recent publication of the NHS vaccination strategy, with its emphasis on boosting uptake and optimising clinical trials.

But one area not covered in the strategy is horizon scanning. Horizon scanning is the route through which the NHS and the government understand what new vaccines are coming down the pipeline – to help prepare, proactively, to roll them out to people quickly. It is self-evident why this is important to realising the health and economic benefits of immunisation.

I was delighted to recently chair a roundtable discussion on horizon scanning with participants from government, industry, civil society, academia and patient groups. That discussion – on which this report is largely based – demonstrated a huge will to improve horizon scanning, through collaboration and partnership. The group recognised that the UK does much well – and contributed ideas in the spirit of striving to make our approach world-leading.

Vaccines could be a pillar in taking prevention seriously, in boosting UK health and supporting a strong economy. To achieve that, we need to take opportunities – like horizon scanning – to get there. This report hopes to contribute to achieving that shared goal.



Baroness Ritchie of Downpatrick

SUMMARY

Vaccines have significant value. They are, most obviously, among the best tools we have to improve both individuals' and the nation's health. But evidence also shows a significant benefit on NHS sustainability and the economy. As a preventative intervention, they are one of the best ways to reduce NHS pressures, and the impact of sickness on economic productivity.

England has a welcome new vaccines strategy. This includes commitments to improve rollout of vaccines, to boost clinical trials and address inequalities. Delivered in full, the strategy has the potential to significant benefit health and prosperity in this country.

However, there are still opportunities to go further. The English NHS vaccination strategy makes little reference to horizon scanning – the process by which we monitor and understand innovation. This can mean adoption and rollout of new vaccines is slow. This report focuses on how horizon scanning can be improved in England.

Drawing on stakeholder interviews, literature review and a recent roundtable, we suggest several practical next steps for horizon scanning. Policy recommendations include the following.

- Expanded resourcing for the Joint Committee on Vaccination and Immunisation (JCVI) secretariat, to ensure it can fully expand its vaccine horizon processes, including to reflect the increasing number of innovative vaccines in the pipeline.
- Adoption of learnings from National Institute for Health and Care Excellence (NICE)'s approach to horizon scanning – particularly, to embed greater engagement and transparency in the process.
- Greater engagement with horizon scanning by government bodies and agencies beyond JCVI – including NHS England, UK Health Security Agency (UKHSA), and DHSC – to ensure work on vaccine approval and rollout happens concurrently rather than sequentially.
- Use of horizon scanning to create a more systematic account of the full economic and social benefits of vaccines – and review of the existing UK vaccines health technology assessment to bring that value to bear on decision-making.

1. THE VALUE OF VACCINES

The value of vaccines is in the things they prevent from happening: the illness avoided, the sick day we didn't take, the patient not seen in A&E. Because of this, their value can often be hidden – underestimated by policymakers and the public alike.

Covid-19 brought this hidden value into the limelight. It was the speed and efficacy with which we developed and rolled out the Covid-19 vaccines that allowed countries to move to living with Covid-19, and away from measures like lockdowns, social distancing and business restrictions. In this case, the value of vaccines could not be more visible: in allowing us to once again go to work, see friends and family, open for business or leave the house.

But vaccines do not only have an immense value during emergencies and pandemics. Covid-19 should not be an excuse to rest on our laurels regarding vaccines – but rather a catalyst to value them more fully: as IPPR have argued elsewhere, to create the 'vacci-nation'.

Indeed, vaccines do not just have an abstract 'value'. They offer answers to some of the bigger challenges Britain faces in 2024. These include the following.

Immediate NHS pressures

At the turn of the century, it was rare for the NHS to be described as in crisis. Towards the end of the first decade of the 21st century, analysts began to identify the NHS' annual winter crisis – as a service with relatively less capacity began to more frequently struggle with seasonal conditions. More recently, the NHS has been described as having a 'all year-round crisis', as struggles to adequately meet demand have extended beyond winter (NHS Confederation 2017).

There are two ways to solve this problem. First, we could simply increase resource and capacity in the NHS – new staff, new beds and new funding. However, recent increasing staff and funding levels have translated into only very slight increases in activity in the NHS in recent years (Warner and Zaranko 2022). The second strategy is to actively manage demand: that is to prevent more need. It is this approach that is underutilised, but one where innovative vaccines could prove particularly useful.

One study of a sample of four vaccine programmes in England found that they could save primary and secondary care resources worth £65 million. This includes tens of thousands of avoided elective care appointments, as well as reduced primary care pressures. And while this may sound relatively small in the context of

a 7.5 million backlog, the study's sample of four vaccine programmes represents just a small fraction of the current vaccine pipeline. That is, the benefits could be scaled by an order of magnitude (NHS Confederation 2024).

Elsewhere, there is a long-standing literature on the extent to which vaccines can help the NHS cope with acute winter pressure. This includes reducing patient demand overall; reducing complexity of patient need, among those who do fall sick; and ensuring workforce capacity.¹

Long-term NHS sustainability

Beyond the immediate benefits of vaccines, we also find that they could help secure the future sustainability of the NHS. The NHS faces a finance puzzle in the following ways.

- Even keeping performance at current levels in the NHS will require significant investment in the future – with Health Foundation analysis finding that the NHS would need an average of 3.8 per cent real terms funding growth for 'sustained improvement' and 2.9 per cent real terms growth to maintain current standards (Health Foundation 2024).
- In lieu of that level of investment in the last decade, NHS outcomes have been getting worse in recent years **even though real-terms funding has increased** and the NHS' share of total government expenditure has risen substantially (see Patel et al 2023).
- Over time, more money for the same (or worse) outcomes will make the NHS an inevitably worse investment – and is unlikely to sit well with either the public or politicians.

However, there are ways to ensure the NHS works better both for public health and public finances. IPPR analysis has recently found that, over the next 10 years, reforming the NHS' approach to prevention and productivity would save the NHS a cumulative £200 billion while improving outcomes (ibid).

There are few better ways to embed prevention and value for money than vaccines. The return on investment for public health interventions is £14 for £1 invested – but the more specific return achieved on health protection interventions (the more specific category that includes vaccines) is £34 for £1

¹ the NHS as an employer has among the highest rates of sickness absence in the economy. Despite this, only 49.4 per cent of all frontline health care workers received the influenza vaccine in England, down over 11 points on 2021/2, and down nearly 25 points on the 2019 peak (UKHSA 2023).

spent (DHSC 2018). Despite this, the government only spends 3.9 per cent of its health budget on preventative interventions like immunisation (down from 7 per cent in 2021 and 4.1 per cent in 2020) (ONS 2023).

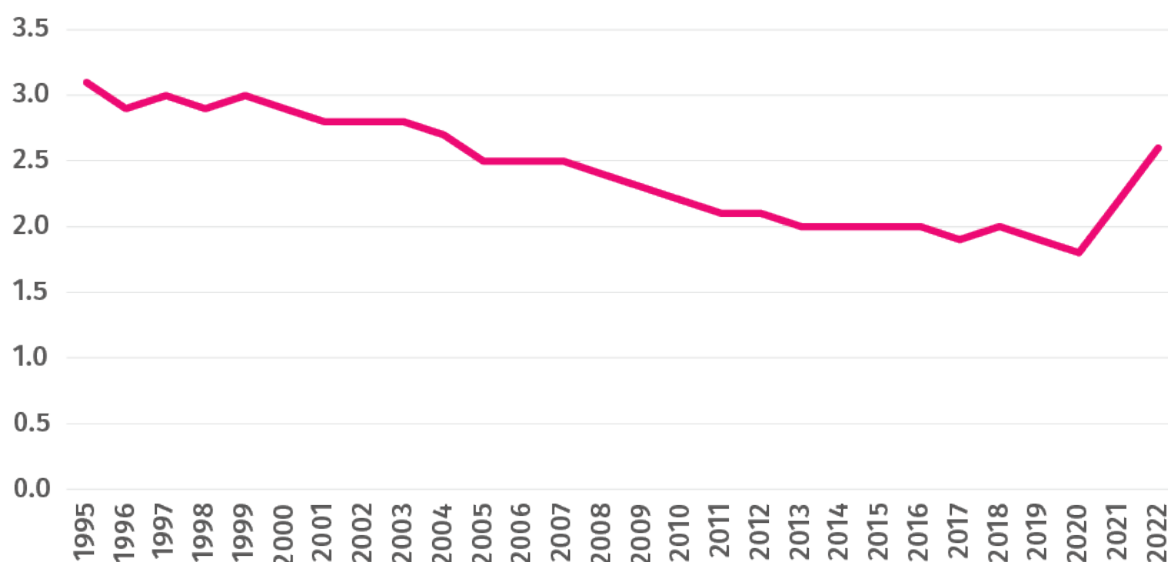
Work and productivity

Finally, vaccines can support the economy, particularly by supporting labour productivity. With rising sickness among the working age population – and with low productivity perhaps the most important problem the UK economy faces - this is likely to be an increasingly important policy focus in the coming years and decades.

Perhaps the most obvious way vaccines can support productivity is in reducing sick days and rates of ‘presenteeism’ within workplaces. The UK has among the highest rates of presenteeism – working, detrimentally, through sickness of any comparable country (forthcoming). And while we have lower levels of sick leave than other, similar countries, we have seen sickness absence rise sharply in recent years (figure 1.1).

Figure 1.1. The UK absence rate has risen sharply in the last three years, after steady improvement

Annual sickness absence, UK



Source: ONS 2024

Despite a strong evidence base on the economic and business benefits of vaccination on the whole, these kinds of benefits are still not comprehensively captured or fully incorporated into the existing UK vaccine health technology assessments of value for money.

2. HORIZON SCANNING

Towards the end of 2023, NHS England published a new vaccine strategy. This stands as an ambitious plan to achieve the following.

- Improve access to vaccines, including through online services.
- Deliver more vaccines in convenient, local places – with targeted outreach for underserved populations.
- Support the future vaccine pipeline by maximising NHS support for clinical trials.

However, despite the focus on strengthening the vaccine pipeline, the strategy makes no mention of horizon scanning. We define horizon scanning as a systematic attempt to identify potentially important vaccine developments (namely, new products).

The promise of horizon scanning lies in supporting government bodies and public services to budget and plan for rollout of innovative vaccines. The best systematic horizon scanning processes would give national bodies the information needed to prepare, proactively, for faster approval processes. They would support budgeting for high priority vaccines, and could also support regional bodies like integrated care systems (ICSs) in identifying opportunities for pilots; in ensuring the right vaccination workforce is in place; or in pre-emptively engaging underserved communities.

As it stands, horizon scanning is led by the Joint Committee on Vaccination and Immunisation (JCVI), who conduct an annual, paper-based horizon scanning exercise. However, there are some relatively clear limitations in this approach. First, it is predominantly an internal facing exercise, and does not fully help DHSC or NHS England in their own decision making. Second, it is a sizable task for a small JCVI secretariat (under 5 full-time equivalent staff). And finally, it represents a less systematic approach than that used for medicines (led by NICE).

There are some signs that this is changing. At the start of 2024, JCVI announced a new, bespoke sub-committee focusing on horizon scanning. Further, the government has indicated a willingness to bring immunisation within the scope of PharmaScan – the new platform for medicine horizon scanning. Both are welcome steps, but neither represents an apex for what horizon scanning could look like.

One of the most important signs of opportunities in horizon scanning is a slower rollout of vaccines. For example, analysis by Newmarket finds that the UK is

relatively slow in moving from marketing authorisation to a JCVI recommendation. This stage of the process was found to last over six years on average in the UK, but substantially less in Cyprus, Lithuania, Estonia, Malta, Ireland and others.

Given this promise, and on the back of previous work by IPPR on vaccination policy in England, we hosted an expert roundtable to identify current stakeholder views on horizon scanning policy. The rest of this report brings together their views on next steps and IPPR's key recommendations for government.

3. FURTHER AND FASTER

Both our research and our roundtable found extensive support for JCVI and the work that it does. Ideas for improvement were almost always proposed as ways for England's approach to go from 'good' to 'great'.

Nonetheless, stakeholders had a variety of ideas for how horizon scanning could be improved. In this section, we bring together a selection of these ideas – as opportunities for the new government to deliver immediate 'quick wins' on horizon scanning policy.

1. Back a more systematic process with the right capacity

Stakeholders welcomed the creation of a new bespoke, horizon scanning sub-committee in JCVI (confirmed earlier this year). However, there remained concerns that a truly systematic horizon scanning exercise is a substantial task for a secretariat of only 4.5 people. Without increased capacity, there is a risk a new horizon scanning subcommittee will not significantly add to how broad or systematic our horizon scanning processes can be.

Remarks on JCVI capacity often leads to comparisons between it and NICE. It is true that JCVI's paid headcount of 4.5 people is far smaller than NICE's 818 full-time equivalent staff. However, given the scale of NICE's functions, it is not an entirely fair contrast. More telling might be the difference in JCVI's headcount with other, similarly committee-led bodies. For example, the Climate Change Committee has approximately 35 members of staff.

Moreover, other similar panels have greater capacity to commission research. JCVI does not have the means to fund external research (though it can signpost gaps in evidence to others). By contrast, both the Climate Change Committee and the Advisory Council for the Misuse of Drugs have capacity to commission research. This can add capacity and support a faster process of filling key, strategic evidence gaps.

In addition, a recent report published by the Association of the British Pharmaceutical Industry (ABPI) showed that there are over one hundred vaccine candidates in the pipeline, therefore it is important that the JCVI secretariat are adequately resourced to ensure that they have the capacity to avoid bottlenecks when multiple vaccines are due for assessment at the same time (ABPI 2023).

The government should ensure that JCVI is adequately resourced so that it can deal with the increasing number of innovative vaccines in the pipeline, and its expanding remit (for example the horizon scanning sub-committee). They should

also consider allocating JCVI budget for externally commissioned research in support of horizon scanning.

2. Expand the available data and bring it to bear on decisions

Participants highlighted that horizon scanning could be a powerful tool to better account for the full value of vaccines. Vaccinations can reduce system pressures, boost economic outcomes or address health inequalities to varying degrees. Yet, there is little systematic account of this benefit.

A well-designed horizon scanning system would signal the kinds of data that central bodies would find useful, helping researchers and industry to create that data at the earliest possible stage – either in trials, or through pilots. Incorporating that data into a horizon scanning process would help ensure findings are standardised, rigorous and comparable.

From there, it is important that the measurement of these important benefits is genuinely influential on decision making. It is an anarchism of our assessment of a vaccine's 'value for money' that – as the impact of sickness on the economy grows, and economic institutions like the Office for Budget Responsibility (OBR) warn sickness is a key fiscal threat – that we do not take the full range of vaccines' benefits into account in assessing value for money.

This gives grounds for a review of the existing UK vaccine health technology assessment to more fully account for this value. It may also give grounds to reduce the discount rate applied to the long-term benefits of vaccines – to the 1.5 per cent used for other public health interventions (Office of Health Economics 2020).

The government should use horizon scanning to create a much more systematic account of the value of vaccines to patient pathways, system pressures and the economy, and commit to review the existing UK vaccine health technology assessment methodologies to ensure that the full economic and social value of vaccines is recognised in decision making.

3. Increase engagement and concurrent working

One of the key aims of a stronger horizon scanning process is its potential to speed up the time it takes to get vaccines through approval processes. While it is important that every institution involved in this process is rigorous and takes the time needed to prioritise safety, it is not necessary for them to work in siloes or sequentially.

The key here is plugging NHS England, DHSC, UKHSA and others into the horizon scanning process. A more proactive approach to vaccines might actively involve key NHS and DHSC officials in horizon scanning – both in the act, and in the dissemination of findings. One model may be a joint ‘horizon scanning implications’ working group between all government departments involved in vaccine approval and rollout, working alongside the horizon scanning subcommittee.

This does not necessarily need to be a reactive process. While as it stands, horizon scanning passively explores what is in the pipeline, a more involved process might take demand-signalling more seriously. For example, learning from schemes like the Accelerated Access Collaborative, this working group could also achieve the following.

- Identify and promote the key vaccines and benefits it is prioritising.
- Oversee an accelerated pathway for priority innovations.

This would be in line with the logic of prioritising the Covid-19 vaccine.

All government bodies involved in vaccine approval and rollout should be ‘plugged in’ to horizon scanning. This is an opportunity to ensure work is coordinated – and happens concurrently, rather than sequentially. But it is also an opportunity to allow government to more effectively signal demands to industry and innovators.

4. Increase transparency and engagement

Finally, participants highlighted the benefits of greater engagement in the vaccine horizon scanning process. Horizon scanning could be a powerful opportunity to proactively engage the public, clinicians, businesses and patient groups around new products – as well as industry, who consistently noted infrequent engagement in our stakeholder work. Yet, as it stands, this engagement is limited.

By contrast, NICE's approach to medicine has evolved to embed more engagement and transparency. This includes the following examples.

- NICE's meetings are public, while JCVI's are private.
- NICE are legally obliged to release economic models; JCVI are not.
- NICE's stakeholder engagement includes extensive scoping and a call for evidence, while JCVI have only just initiated calls for evidence.
- NICE has a citizen's council to ensure public engagement; JCVI's approach is less formalised.

While JCVI's reputation is partly down to its authoritative decision making – and this should be maintained as a priority – there may be lessons that can be learned here. Alternatively, as part of aligning vaccine horizon scanning with PharmaScan, it may be that some of NICE's approach (for example, its citizen council) can be shared with JCVI. Regardless of this choice, meaningful progress is likely to rely on expansion of JCVI capacity (as above).

JCVI should ensure it uses a modern approach to engagement and transparency, learning from changes in NICE's approach.

4. CONCLUSION

Vaccines have been crucial to health and prosperity through history, from smallpox vaccines to Covid-19. They continue to have a huge potential to support health and prosperity today.

That Covid-19 has led to further prioritisation of vaccines – namely, in the English vaccines strategy is welcome. And yet, there are still signs that vaccines are not being prioritised – just weeks ago, NHS England cut £50 million from its vaccination and disease screening budget to fill a wider spending blackhole.

We still need to go further and faster on vaccines. Horizon scanning is an untapped frontier. Better data can mean quicker decisions, more proactive planning, and ultimately, faster access to innovative products for people in the UK.

This report has outlined a range of ideas and recommendations to support doing better. Those ideas are put forward in the spirit of getting the UK from good to great – and pursuing a status as a genuine world-leader. Each represents an opportunity for a quick win on vaccines for ministers of the new government.

REFERENCES

Association of the British Pharmaceutical Industry (2023) *Economic and Societal Impacts of Vaccines*. <https://www.abpi.org.uk/value-and-access/vaccines/economic-and-societal-impacts-of-vaccines/>

DHSC (2018) *Prevention is better than cure*. <https://www.gov.uk/government/publications/prevention-is-better-than-cure-our-vision-to-help-you-live-well-for-longer>

Health Foundation (2024) '£38bn extra per year needed to revive the NHS', news article. <https://www.health.org.uk/news-and-comment/news/38bn-extra-per-year-needed-to-revive-the-nhs#:~:text=The%20Health%20Foundation%20analysis%20shows,significant%20improvements%20in%20the%20NHS>

NHS Confederation (2017) *System under strain: why demand pressures are more than a winter phenomenon*. https://www.nhsconfed.org/system/files/media/System-under-strain-report_0.pdf

NHS Confederation (2024) *Exploring the economic and social value of vaccinations* Podcast <https://www.nhsconfed.org/podcast/exploring-economic-social-value-vaccinations>

Office of Health Economics (2020) 'Are Discount Rates Used in UK Vaccine Economic Evaluations Jeopardising Investment in Immunisation Programmes?', news article. <https://www.ohe.org/news/are-discount-rates-used-uk-vaccine-economic-evaluations-jeopardising-investment-immunisation/>

Office for National Statistics [ONS] (2023) 'UK health accounts', dataset. <https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/healthcare/system/datasets/healthaccountsreferencetables>

ONS (2024) *Sickness absence in the UK labour market: 2022* dataset <https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/labourproductivity/articles/sicknessabsenceinthelabourmarket/2022>

Patel P (2023) *For public health and public finances*, IPPR. <https://www.ippr.org/articles/for-public-health-and-public-finances>

UKHSA (2023) *Seasonal influenza vaccine uptake in frontline healthcare workers in England: winter season 2022 to 2023* Official statistics <https://www.gov.uk/government/statistics/seasonal-influenza-vaccine-uptake-in-frontline-healthcare-workers-in-england-winter-season-2022-to-2023/seasonal-influenza-vaccine-uptake-in-frontline-healthcare-workers-in-england-winter-season-2022-to-2023>

Warner and Zaranko (2022) *NHS funding, resources and treatment volumes*. IFS, Report. <https://ifs.org.uk/publications/nhs-funding-resources-and-treatment-volumes>

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