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Why Pharmaceutical Pricing Needs Reform

The NHS expenditure on pharmaceuticals, especially in hospital settings, has outpaced the expenditure on other healthcare services. There is a question on whether this allocation of money is the most efficient in terms of saving lives. ***Huseyin Naci, Peter Murphy, Beth Woods, James Lomas, Jinru Wei*** *and* ***Irene Papanicolas*** *argue that the way the National Institute for Health and Care Excellence (NICE) calculates the cost-benefit analysis for new drugs should be more transparent, taking into consideration those who will lose out due to reduced resources for other treatments.*

The National Health Service (NHS) is in crisis. Ara Darzi's independent review of NHS England highlights that the health service is failing to meet its key performance metrics. Waiting lists are unacceptably long, and several quality indicators are declining. There is chronic underinvestment in essential parts of the system. Health Secretary Wes Streeting has signalled that reform is inevitable. One area that has received relatively little attention is pharmaceutical spending.

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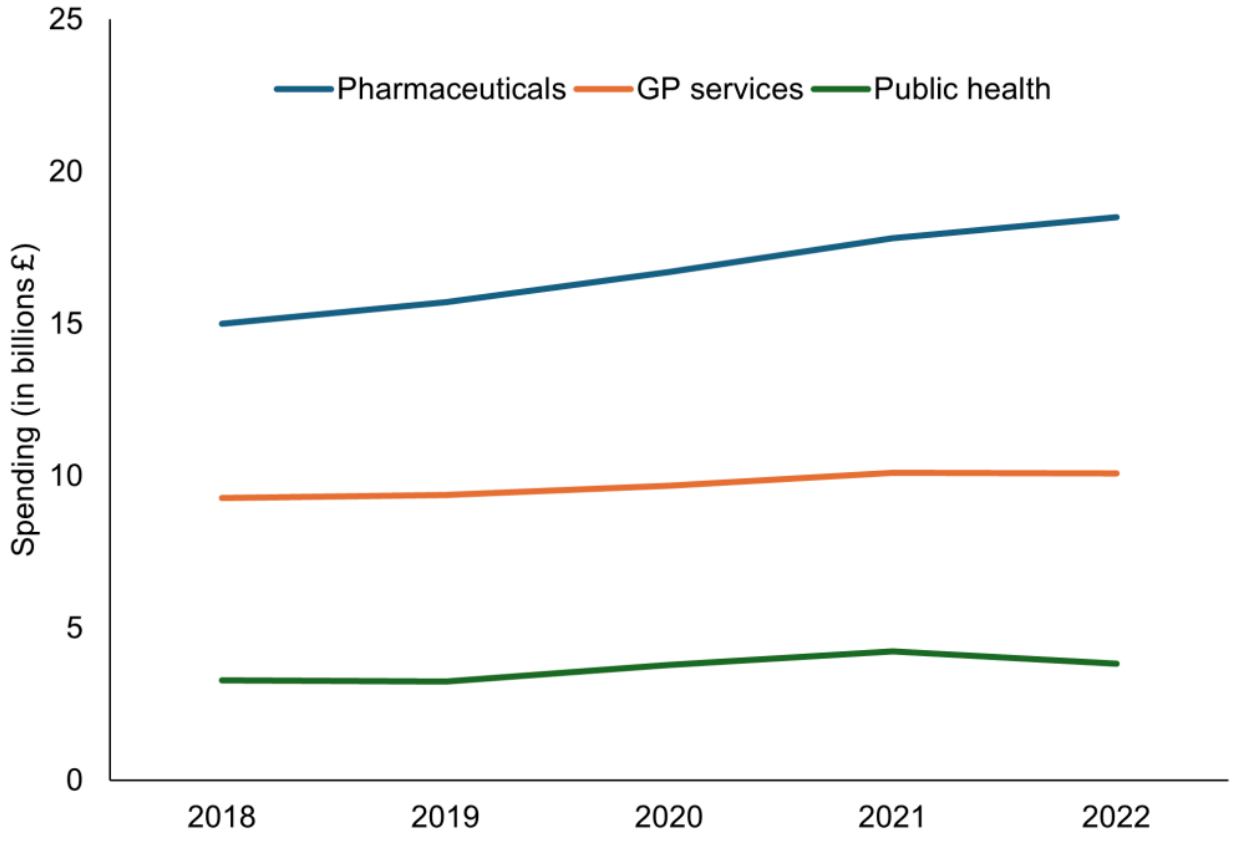
Pharmaceuticals are the second largest expenditure category for the NHS. Since 2018, spending on pharmaceuticals has grown by over 5 per cent, excluding the extraordinary costs of Covid-19 treatments and vaccines. I n the fiscal year 2022-23, the total cost of prescription drugs to the NHS in England exceeded18 billion. A significant portion of this growth is due to increased expenditure on hospital-prescribed medicines. No such increases were observed for spending on public health and general practice (see **Figure**).



Sources: NHS Business Services Authority, NHS Digital, and Department for Levelling Up, Housing and Communities.

In a paper published in The Lancet, we examined the health consequences of pharmaceutical expenditure in the NHS. Our analysis suggested that while new drugs provided substantial health benefits to some patients, they came at a heavy cost toother NHS users. Between 2000 and 2020, new drugs delivered 3.75 million additional years of full health at a cost of £75 billion. However, this expenditure meant fewer resources were available for other treatments and services. Redirecting that funding to existing treatments and services could have potentially added 5 million years of full

health. Therefore, our analysis suggested that paying for new drugs in the NHS has harmed overall population health over this period, as other essential services likely faced disinvestment or underinvestment due to the high prices of new drugs.

How much can the NHS spend on drugs?

The NHS does not directly set drug prices. Instead, the evaluations conducted by the National Institute for Health and Care Excellence (NICE) indirectly influence the prices charged by manufacturers. NICE conducts cost-effectiveness analyses to estimate the additional cost the NHS pays for a new drug to gain an extra year in full health from using it. If the additional cost needed to achieve this outcome is below NICE's threshold, the medicine is considered cost-effective. It is NICE's threshold that influences drug prices, as pharmaceutical companies typically discount their drug's price to meet this threshold for reimbursement.

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Ideally, NICE's threshold would reflect what is given up in the NHS when paying for new medicines. This would ensure that the NHS doesn't pay more for the health benefits of new drugs than it does for existing treatments and services. However, NICE's threshold is higher than what is needed to deliver health in the NHS. In fact, NICE's threshold is arbitrary. It was never formally set but emerged over time when NICE's independent committees coalesced around £20,000 to £30,000 per additional year of full health. In addition, higher thresholds are permitted by NICE under various exemptions relating to the features of the medicine or the patient group who receive it.

The cost-benefit analysis of drug expenditure

Over the past decade, several econometric analyses have shown that the NHS spends no more than £15,000 to deliver a year of full health, rather than the £20,000 to £30,000 allowed for new drugs by NICE. In our paper, we used the £15,000 figure to estimate how much health could have been

generated with the amount of money spent on new drugs in the NHS. This value is used by the Department of Health and Social Care, and recent empirical estimates are lower. The discrepancy between the threshold used by NICE and the amount the NHS needs to spend to achieve health gains with existing treatments and services explains our findings. The health benefits of new drugs do not sufficiently offset the health benefits lost due to disinvestment from existing treatments and services.

Consider the case of cancer drugs. Over half of the cancer drugs appraised by NICE between 2000 and 2020 were deemed cost-effective at £30,000 or more per additional year of full health. For instance, when trastuzumab was recommended for metastatic gastric cancer in 2010, NICE considered £45,000 to £50,000 per additional year of full health to be cost-effective. However, this meant that for every year gained with trastuzumab, others in the NHS lost more than 3 years of full health due to reduced resources for other treatments and services.

Given the scale of the resource challenge facing the NHS, shielding pharmaceutical pricing from reform may no longer be justifiable. The latest version of the long-standing voluntary agreement between the government and the pharmaceutical industry includes direct spending controls through repayments to the government (i.e., rebates). However, it falls short of significantly lowering the prices of new drugs. For example, in 2024 the rebate is expected to be less than 20 per cent and there are a range of exemptions to the application of this discount, including that new medicines and new uses of existing medicines are fully exempt for the first three years of sales. Our analysis suggests that much larger rebates would be necessary to ensure new drugs contributed positively to population health.

Making NICE's pricing decisions more transparent

So, what needs to change? The debate over whether NICE's threshold for recommending new drugs should align with the NHS's spending to deliver similar health benefits is contentious. While aligning the threshold would be expected to lower prices and ensure drugs offer value for money comparable to other NHS services, reducing NICE's threshold is challenging, and requires strong political commitment. The latest agreement between the industry and pharmaceutical companies commits NICE to maintain its threshold between £20,000 and £30,000 until 2029. Reducing the threshold would be strongly opposed by the pharmaceutical industry due to concerns about the impact on revenue from UK sales. The industry may also be concerned that the UK may influence other countries as it is considered a global leader in its approach to the value assessment of new pharmaceuticals.

One approach is to communicate NICE recommendations in terms of health benefits gained versus health benefits foregone.

NICE can enhance transparency about the trade-offs in its decisions. This includes those who benefit directly from new drugs and those who lose out due to reduced resources for other treatments and services. One approach is to communicate NICE recommendations in terms of health benefits gained versus health benefits foregone. For example, with trastuzumab, 1 year of full health gained by patients with metastatic breast cancer results in approximately 3 years of full health lost for other NHS users, some of whom may have similarly severe conditions. We hypothesise that explicitly communicating this trade-off would encourage NICE's committees to consider the opportunity costs of funding decisions more openly and could shift public discourse around new medicines, which typically focuses on access and anticipated health gains without acknowledging the sacrifices required to achieve them.

NICE is the envy of other health systems. Its rigorous assessments and clinical practice guidelines have earned it a global reputation.

The industry argues that lower prices would harm its profitability and make the UK less attractive for research, development, and product launches. Although such arguments would be totally out of tune with the stark reality facing the NHS, they carry weight in policy discourse. There are other things the government can do to make the UK a more favourable destination for pharmaceutical companies. These include greater investment in research and development, support for the higher education sector, and support for clinical trials. For companies whose revenues are predominantly

generated outside of the UK, these supply-side factors are likely to be much more important in determining where to invest.

NICE is the envy of other health systems. Its rigorous assessments and clinical practice guidelines have earned it a global reputation. Since its inception 25 years ago, NICE has made the NHS more evidence-based than would have been possible without it. It is important to emphasize that our paper doesn't challenge the essential role played by NICE in England, and indeed globally, but it does raise an important – and difficult –question about whether NICE fully achieves its explicit remit of helping the NHS improve population health. In the future, NICE can help the NHS to deliver more health from pharmaceutical expenditures. What it considers good value for money for new drugs will continue to be crucial in determining how well the NHS can deliver health for the population.

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