There are certain questions I really hope patients don’t ask me these days. One is, “When is my hospital appointment going to be?” Quite reasonably, patients expect that when we make a referral to secondary care we’ll have a rough idea of when they might be seen. Nine times out of 10, this just isn’t the case. Either no appointments are available when we make the referral, or internal triage at the hospital makes it almost impossible to give patients an accurate answer. Nowadays, even if I do know the answer, it’s probably not what they’re hoping to hear.

Previously we could have quoted the 18 week referral to treatment time, but only 60% of services currently meet this. This is partly due to a longstanding mismatch in capacity and demand, which the pandemic has exacerbated further. To put this into context, 4.7 million people were on an NHS waiting list in February 2021, but over the past 20 months that has risen to seven million people waiting for elective treatment or care.

Being on a waiting list is, unfortunately, not a neutral position. Long waits lead to poor health and poor outcomes for patients. Patients are waiting over a year for a hip replacement—in pain, unable to walk, losing their confidence and independence, sometimes having falls, sometimes putting on weight because of physical inactivity, and then facing a surgical procedure that comes with greater risk.

A year sounds long, but in other realms of the NHS a one year wait is comparatively short. I really feel for the parents of children waiting anywhere from two to five years to have a diagnosis of autism confirmed. The parents may be going through emotional turmoil, and the child often loses out on a place in a school that can cater for their needs. The impact is truly life altering.

It’s also exhausting for those of us providing care, who are dealing with the repercussions of long waiting times.

The term “demand failure” can be used to define this: it refers to the demand created when we fail to do the right thing for a customer—in this case, the patient. The customer returns, puts more demands on the service, and consumes more resources. Suffice it to say, in the NHS it’s frontline services that bear the brunt of this.

There are plans that patients will eventually be able to access both their GP record and the details of their upcoming hospital appointments using the NHS app. This will mean that waiting times and the associated demand failure we’re picking up in general practice will be fully visible to patients. One can only hope that our patients will then have more success lobbying for change than we have done to date.

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Patients waiting for a hip replacement—in pain, unable to walk—lose confidence and independence
**ACUTE PERSPECTIVE** David Oliver

**Positivity doesn’t trump honesty**

The NHS in England is in deep trouble—more so than at any time in my 33 years working in it. Clinical staff know it, senior managers and national service leaders know it, and so do patients and the public. We won’t change this by sanitising the language we use to describe its state.

It is disappointing when some of the NHS’s most senior and influential people exhort us to avoid negativity. Chris Hopson, NHS England’s new director of strategy, told the *Health Service Journal (HSJ)* in September that we should focus on positive language and avoid talking the service down.

Hopson is a skilled communications professional: during his time in charge of NHS Providers he used Twitter, articles, and interviews to describe the problems and pressures that made life very difficult for his member organisations. In *The BMJ* in 2017 he wrote that we needed “to be honest and realistic about what is deliverable at the NHS front line.” His new role has come with a change of tone and priorities. In the *HSJ* he discussed the need for a “reset” of the “overwhelmingly negative narrative,” highlighting a collective responsibility to emphasise improvements and successes.

**Nightmare**

NHS England’s chief executive, Amanda Pritchard, was reported by the *HSJ* in October to have told a closed meeting of senior executives that “we must not collude with defeatism.” At the same meeting, attendees also reported her saying that the financial situation facing the NHS was a “fucking nightmare” and that ministers were no longer talking about prevention and inequalities.

That same week NHS England reported inflation would increase costs by £7bn in the next year and that pay rises for staff, amounting to £22bn, had not been funded.

I haven’t forgotten the heavy handed news management and message control operation from NHS England and the government during the peaks of the pandemic. It made senior clinicians and executives dealing with the pressures and realities reluctant to speak up. I don’t ever want to see this repeated, let alone for it to become the norm.

As the Care Quality Commission has recently detailed, the distressing figures about NHS and social care access, performance, staffing, outcomes, and funding are in plain sight. The declining experience and satisfaction of people is documented in the British Social Attitudes Survey. Rising health inequalities and worsening population health

**OPINION** Christina Pagel and Christian A Yates

**Flu, pneumonia, covid: NHS is facing its bleakest midwinter**

Last week, NHS England warned of a worst case scenario in which half of all hospital beds could be occupied by patients with respiratory infections—a triple winter threat of flu, pneumonia, and covid-19.

It predicted that this would be a worse capacity crisis than at the height of the pandemic. Even if the worst case does not come to pass, NHS England is nonetheless setting up “war rooms” to try to cope with “one of the toughest winters in its history.”

“Try” is the operative word. The scary thing is that the NHS might fail. In many ways, it is already failing. The statistics paint a grim picture. Things are bleak if you look at people needing urgent care. Ambulance response times are at near record levels and have been consistently high for over a year now.

Over a quarter of patients attending A&E wait longer than four hours, and almost 7% wait more than 12. Before the pandemic, almost no one had to endure such protracted delays. The waiting is too much for many: 6% of people leave before their treatment is completed. This July alone that accounted for 120,000 people not receiving treatment they urgently required. This has led to repeated warnings from NHS leaders that “England’s ambulance service is failing patients and paramedics” (April 2022), that the “NHS has broken its promise to the public” (July), and that the NHS is “overflowing,” placing unworkable demand on paramedics (October).

Things are bleak for patients requiring routine treatment too. Last month saw England’s waiting list reach its highest ever number—more than seven million people are waiting for care. That’s one in eight people. Not one in eight patients; one in eight of the entire population. Almost 400,000 people have been waiting longer than a year to start non-emergency treatment (the target is to have seen everyone within 18 weeks). Instead of being able to ramp up capacity to deal with the backlog, we seem to be losing it, with fewer elective operations and more patients waiting longer after cancellations now than before the pandemic. It’s possible these backlogs are contributing to the poor health of the hundreds of thousands of people who are unable to work owing to chronic, untreated, illness.

Things are bleak if you look at the capacity of the NHS to cope with demand—let alone make inroads on the backlog. First, the buildings we treat people in are crumbling. This is not just dangerous but also expensive, potentially costing £10bn to set right. And the longer we wait to fix it, the more expensive it gets. The failure of the government to fund even the maintenance of the NHS’s existing infrastructure makes a mockery of claims to be building 40 new hospitals by 2030.

Second, the NHS faces a staffing crisis. People are leaving in droves. The number of nurses departing the NHS is at a record high, paramedics are leaving in large numbers, and we simply do not have enough GPs in England. Lower paid staff are massively affected by the cost of living crisis—a quarter of hospitals have set up food banks for their staff this autumn. Nurses are understandably voting on strike...
**MARK THOMAS**

**TALKING POINT** John Launer

**Why we need to hear words of wisdom now more than ever**

Few of us could offer a precise definition of wisdom, but—to use the famous words of a US judge when asked to define pornography—we know it when we see it. We can all think of colleagues who seem unusually wise. They listen, reflect, sympathise, and offer an analysis of the situation and advice that nearly always hits the mark.

For those who prefer to be more evidence based, there is now an entire field of research into wisdom, along with some well established ways of measuring it. One such method was created by Monika Ardelt, now a professor of sociology in Florida. Drawing on research from psychology and the social sciences, she created a “three dimensional” model of wisdom that is now used widely. It includes elements of reflection (being able to look at events from many perspectives), cognition (the ability to perceive reality without preconceptions), and emotion (sympathy for others). Ardelt has described how these interact. She has also shown that people who rate highly according to the model not only deal with adversity better but also become wiser through it.

The model has been applied recently to GPs by Sabena Jameel, herself a GP in Birmingham and an associate professor at the city’s medical school. Her main research interest is “phronesis,” a term associated with Aristotle and sometimes translated as “practical wisdom”—or simply knowing the right and virtuous thing to do. (Aristotle might be astonished to know his ideas make good sense more than 2000 years after his death.) For her doctoral research, Jameel looked for colleagues who were identified as wise. She used a questionnaire designed by Ardelt that required answers to a wide range of questions on different dimensions of wisdom. She then interviewed each participant about their personal and professional lives and what made them tick.

Her findings are fascinating. She confirmed how much “wise” doctors (and presumably all wise health professionals) drew on the full range of their life experiences, including their suffering, to build up their wisdom. Many had been patients or carers or had faced other challenges, and had integrated these experiences into their ways of thinking and acting. Perhaps of equal significance, wise doctors seem to be happier and more flourishing in their work: 90% believed it was good or great, even in these stressful times.

Reading Jameel’s research reminded me how much we are all supported by the wisdom of people around us. They help to make our working lives tolerable in challenging circumstances and can raise our morale when we feel under siege. In Jameel’s words: “The time is right for understanding and teaching wisdom. We need to learn how to flourish, now more than ever.”

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**MARK THOMAS**

**MARK THOMAS**

**Wise doctors seem to be happier and more flourishing in their work**

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Eliminating the negative and accentuating the positive does not fool anyone

are a matter of record. There are no credible policy solutions on the horizon.

I’m proud of the NHS, proud to work in it, and every bit as keen as Pritchard and Hopson to support the model. I think it’s important to celebrate its successes, to praise good practice, and to value and highlight the tireless work of the remaining staff. But “bigging up” the service by eliminating the negative and accentuating the positive doesn’t fool anyone.

We need honest, open discussion about the challenges we face—not evangelism delivered with a fixed and false grin.

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Christina Pagel, professor of operational research, Clinical Operational Research Unit, UCL

Christina A Yates, senior lecturer in mathematical biology, University of Bath

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Disquiet over patient access to notes

From Tuesday patients were supposed to have access to their electronic GP record. This has been delayed as the two major general practice software suppliers, EMIS and TPP, have paused the automatic rollout. Previously, patients signed up for online access could see coded data such as diagnoses, repeat medicines, and vaccinations. Under the new proposals, going forward, they’ll be able to read all free text entries and attached documents, such as hospital letters.

More partnership working with patients is generally welcomed, but there’s disquiet among GPs about this plan. The switch-on was already delayed from July and is now delayed again, as many GPs—on the advice of local medical committees and the BMA’s General Practitioners Committee—are asking their software providers not to turn this function on.

Doctors have concerns about the potential volume of work from patients requesting explanations, or disputing entries. However, the evidence on this front is reassuring, from early adopters and from similar projects abroad. The much greater worry is that vulnerable patients could lose privacy. In theory only they can access their record, but we can’t be sure that this will always be so.

The Office for National Statistics estimates that one in 20 adults is subject to domestic abuse. GPs have been advised to exempt the records of patients at risk of coercion, but this implies we know who they are. The nature of this crime is private and often experienced as shameful by the victim, so it’s unlikely I’d know more than a fraction of such patients on my list.

A lot has gone into preparing resources to make this process safe, but not every practice will have found time to train all their staff, as suggested by NHS Digital. Even assuming a stable workforce and time for training, the tools we’ve been given are too clumsy. We can add codes to exempt entire records from this scheme, and we can hide whole consultations or letters from online visibility, but we can’t (for example) blank out names of third parties.

Access to GP records may greatly benefit some patients, but it can undeniably harm others. We should not proceed until we have confidence in the systems to mitigate those harms. I worry whether NHS England understands what’s going on in primary care—that they haven’t heard, or are ignoring, the staffing and morale crisis.

On its website, one particular phrase stands out: “Although GPs will be required to consider the potential impact of each entry […] we expect that the overall long term benefits will outweigh any increase in workload.” Please don’t tell me about these benefits when I’m reviewing patient letters and filing pathology reports at 9 pm, after a long duty day—you might not get a polite response.

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We should not proceed until we have confidence in the systems to mitigate harms

Students, sex work, and stigma

It’s been estimated that around 5% of students have, at some point, been involved in the sex industry. In this episode of the Sharp Scratch podcast, the panel talk to Jessica Simpson, a lecturer in sociology, about attitudes towards student sex workers and the specific implications it has for medical students. Simpson starts by explaining more about the accuracy of the 5% statistic:

“There’s been a number of studies carried out in the UK and that figure keeps recurring. So 5% is an estimate, but it’s likely an underestimation. As with all sex work statistics, it’s very difficult to gauge the true numbers. Obviously sex work is stigmatised, so it’s unlikely that we’d ever know exactly how many students are doing sex work.”

Sarah Fabyan, a fourth year medical student, talks about how sex work may affect personal-professional identity:

“One side of the coin is this stigma associated with sex work, but the other side is the pedestal that we put doctors on in society. All through medical school, it’s drummed into you that you’re not just yourself, you’re an ambassador for your profession. So, anything that you do that is seen as untoward can be seen as besmirching the profession. We’re told to uphold this persona, but are the people who we’re treating actually affected by this?”

Simpson concludes by describing how she’d like to see this public conversation progress:

“Rather than spending time discussing whether or not a student should be disciplined for bringing the profession into disrepute, maybe the focus should be on properly funding students. We should actually look at why people are entering [the industry] in the first place and that’s because, for students specifically, they are severely underfunded by the government. It might also tell us more about how wages in mainstream jobs that students are able to enter are really low paid.”

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Edited by Kelly Brendel, deputy digital content editor, The BMJ

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Analysis

Making better use of natural experimental evaluation in population health

Rather than arguing about the suitability of the research methods to inform decisions we need to focus on refining their scope and design, say Peter Craig and colleagues

Natural experiments have long been used as opportunities to evaluate the health impacts of policies, programmes, and other interventions. Defined in the UK Medical Research Council’s guidance as events outside the control of researchers that divide populations into exposed and unexposed groups, natural experiments have greatly contributed to the evidence base for tobacco and air pollution control, suicide prevention, and other important areas of public health policy. 1

Although randomised controlled trials are often viewed as the best source of evidence because they have less risk of bias, reliance on them as the only source of credible evidence has begun to shift for several reasons. 2 3 First, policy makers are increasingly looking for evidence about “what works” to tackle pervasive and complex problems, including the social determinants of health, 2 3 and these are hard to examine in randomised trials. In Scotland, for example, legislation to introduce a minimum retail price per unit of alcohol included a sunset clause, which means that the measure will lapse after six years unless evidence is produced that it works. This has resulted in multiple evaluations, including natural experimental studies using geographical or historical comparator groups. 4 Similarly, the US National Institutes of Health has called for greater use of natural experimental methods to understand how to prevent obesity, 5 and a consortium of European academies for their greater use to understand policies and interventions to reduce health inequalities. 6

Second, a wider range of analytical methods developed within other disciplines, mostly by economists or other social or political scientists, are being increasingly applied to good effect. A good example is the use of synthetic control methods to evaluate the effect on mortality of the introduction of a pay-for-performance scheme for financing hospital care. 6 There is also a greater availability of large administrative and other “big” data sources that link information on exposure to public policies with health and other outcomes.

Although natural experimental evaluations have an established foothold in population health research, particularly to support policy making, more work is needed to identify the best opportunities for natural experimental studies and to support their design, conduct, and synthesis to realise their full potential.

A wider range of study designs is needed, including those that work in situations when a planned experiment would not be feasible or ethical

Diversifying the sources of evidence

The idea that there is a hierarchy of study designs, ranked according to susceptibility to bias, remains influential. 7 8 A common shorthand for this view is that randomised controlled trials are the gold standard for evaluation, and that observational study designs are irredeemably weaker in all circumstances. An alternative view is that while unbiased estimates of effectiveness are an important goal of evaluations they are not the only goal, and may be unachievable in some circumstances. 9 If research seeks to produce evidence that is useful for policy and other decision making, a wider range of study designs is needed, including those that work in situations when a planned experiment would not be feasible or ethical.

During the covid-19 pandemic, for example, randomised trials provided crucial evidence about the efficacy of vaccines in reducing risk of infection and severe disease, as well as the efficacy of treatments. 10 11 But observational studies of the effects of interventions in practice have also made important contributions: 12 13 evidence on longer term effectiveness of vaccines has

Key messages

- Natural experimental evaluations can provide useful information to guide decision making about interventions
- Most discussion has focused on which quantitative methods are suitable for natural experimental evaluations
- Key definitions and concepts remain contested and there is a lack of consensus about the circumstances in which they should be used
- Guidance should help identify the circumstances that make for good natural experimental evaluation, and a range of applicable methods

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been established through cohort studies conducted in the context of large scale vaccination campaigns when it was unethical to withhold vaccines that had already been shown to be efficacious, and evidence on the impact of physical distancing interventions was generated employing interrupted time series analyses using routine data from 149 countries. Furthermore, evidence on the effectiveness of surveillance was obtained from ingenious natural experimental evaluations that exploited flaws in the implementation of the test and trace programme in England. The adverse effects of the UK Treasury’s “eat out to help out” scheme on infection rates were likewise identified by treating the scheme as a natural experiment.

Despite growing acceptance of the value of natural experimental evaluations, most discussion of their design focuses on quantitative methods. Other aspects of study design, conduct, and interpretation, such as how to identify a good opportunity for a natural experimental evaluation, how open science principles such as registering a study should be applied, or how to place effect estimates into a broader framework of whether, how, and in what circumstances the intervention achieves its effects, have been largely neglected.

Moving from classifications to opportunities

One key conceptual issue is how broadly or narrowly natural experiments should be defined. A related question is whether it is useful to distinguish sharply on methodological grounds between natural experimental evaluations and other observational studies that attempt to identify causal relationships using change or variation in exposure that is not associated with a specific event or process, such as the implementation of a new policy.

The UK MRC’s broad definition of a natural experiment contrasts with attempts to narrow the definition to include only studies that use one of a prescribed range of analytical methods, or that satisfy some other criterion such as “as if randomisation” (a real world process leading to variation in exposure that approximates random allocation in a trial, such as the use of lotteries to allocate military conscription or school places). However, broad study design labels are an inadequate proxy for study quality, which depends on the extent to which assumptions are tested, threats to validity evaluated, and robustness checks performed. Lists of approved analytical methods can rapidly become dated as new methods are developed and existing ones refined. For example, synthetic control methods, which use a weighted composite of control areas rather than a geographical control area, have been widely applied to evaluate public health and healthcare interventions such as state level tobacco and firearms control policies in the US in the past decade but rarely feature in such lists.

Additionally, even though “as if randomisation” provides a strong basis for causal inference from a natural experiment, other than in clear-cut cases such as lotteries it is difficult to define precisely when the criterion is satisfied: few population health interventions are or could be implemented in this way. Rather than trying to sharply differentiate natural experimental evaluations from other observational studies on methodological grounds, it may be more useful to think about the sets of circumstances that are likely to generate useful opportunities for robust research using natural experimental evaluations.

Recognising opportunities for natural experimental studies

Natural experimental evaluations are most commonly used in situations where there is a clear division in presence, level, time, place, or type of exposure between two or more otherwise similar subpopulations—for example, when a policy is implemented in one state within a federal jurisdiction but not in neighbouring states. Several other situations recur in the literature and provide useful pointers for the design of future studies, including policies with eligibility criteria that clearly define exposure, phased implementation of policy, the use of randomisation to determine entitlements or obligations, and flaws or shortcomings in policy delivery (table).
Whether such situations generate opportunities for good evaluations depends as much on availability and quality of data as on the nature of events or processes themselves. Many natural experimental evaluations are conducted retrospectively so good quality, routinely collected data from administrative systems, population surveys, or other sources is critical. Similarly, it is important to be able to accurately characterise the nature and timing and, where relevant, the intensity and implementation of the intervention being evaluated to correctly identify individuals or groups who were or were not exposed, or had varying levels of exposure. This often relies on access to good quality documentary evidence, as well as access to key informants who can remember and reliably describe the intervention, including how and when it was implemented.

Study registration policies

Another question that has been relatively neglected with respect to natural experimental evaluations is the registration of study protocols. For prospective studies such as randomised controlled trials, registration, especially if enforced by funders and stipulated by journal editors, is a powerful safeguard against some forms of manipulation, such as selective publication of favourable findings. For retrospective studies, where researchers may be familiar with a dataset before the study begins, transparency about how such prior information has affected design choices is vital. The protocols for natural experimental evaluations may have to be amended to accommodate changes as the evaluation progresses, such as developments in theoretical understanding of the nature of the intervention or a fuller appreciation of the characteristics of the data. For example, missing data may require modification of the analysis plan to use a different set of covariates or an alternative analytic method. Often protocols are published in a journal with no facility for updating. Natural experimental evaluation protocols may benefit from the flexibility now accepted for systematic review protocols, which can have amendments recorded.55 56

Greater awareness and use of a range of methods to estimate the effects of interventions not under researchers’ control is essential

Evidence from natural experimental evaluations can provide insight beyond estimates of effect size and contribute to understanding the importance of mechanisms or context of interventions within systems.57 58 Greater awareness and use of a range of methods to estimate the effects of interventions not under researchers’ control—and to understand how, where, and for whom those effects are realised—is essential for developing a robust and useful evidence base for policy. Indeed, natural experimental evaluations have already proved their value across a wide and disparate range of health and non-health policy areas, providing otherwise unobtainable evidence about the effects on population health of clean air legislation, suicide prevention, tobacco and gun control, trade agreements, non-pharmaceutical pandemic control measures, and many other kinds of interventions. We believe they can contribute much further to these and other areas if the focus moves beyond justifying their use to optimising their execution. Making the most of evidence that can be obtained from natural experiments requires incorporating economic evaluations and modelling59 as well as qualitative methods that could provide vital information about possible causal mechanisms.60 41 Further guidance on how to identify opportunities for natural experimental evaluations, on how to design, conduct, report, and synthesise the evidence from such studies, and on what kinds of research infrastructure and governance processes are needed will help to realise this potential.

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LETTERS Selected from rapid responses on bmj.com

LETTER OF THE WEEK

Wealth as a determinant of brain health

Farina and colleagues’ recent editorial argues that “public health messaging should promote brain health as a valuable goal to aspire to, like physical fitness” to reduce dementia risk and promote the wellbeing of young people (Editorial, 1 October). Their objective of shifting the focus of dementia risk reduction away from later life is laudable, as later changes mean lower impact. But the onus of brain health policy making should be on mitigating the effects of inequalities and improving access to richer environments in which risk reduction can take place.

Paradoxically, the authors argue that young adults are vulnerable because of poor mental health and economic prospects and yet “have the opportunity to make early and long term changes to minimise risk.” Literature from conditions such as obesity, alcoholism, and smoking indicates that public health messaging directed at individuals to change their behaviour is ineffective. Although the authors recognise that “interventions to change behaviour must happen at individual and societal levels,” they do not discuss occupational health advice, regular assessments, and screening for sleep disorders.

Attention has been drawn to viewing health inequalities through the lens of patient safety (Analysis, 9 April). This reframing should also be applied to the health inequalities of staff involved in patient safety incidents.

Inequalities among staff should also be tackled as good outcomes as male surgeons and raises the question of why women remain disadvantaged by being more likely to have one or more limiting, longstanding illnesses and to be obese, be diabetic, smoke, and report bad health.

Inequalities affecting shift workers are likely to be compounded by secondary occupational fatigue related incidents are a key health risk in shift work. Risk is much higher among night shift workers and in those with sleep problems. Shift work is also linked to lower socioeconomic class and racial inequality. Shift workers are disadvantaged by being more likely to have one or more limiting, longstanding illnesses and to be obese, be diabetic, smoke, and report bad health.

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POST-MARKET OVERSIGHT OF MEDICINE SAFETY

Transparency and robustness of safety signals

Dhodapkar and colleagues assessed the impact of safety signals from the US FDA’s Adverse Event Reporting System (FAERS) database on subsequent regulatory actions (Research, 8 October). Spontaneous reporting systems are a cornerstone in generating post-marketing safety signals. Regulatory agencies and drug companies use these so-called disproportionality analyses to detect unexpected reporting patterns of adverse events.

Many disproportionality analyses are carried out by academic researchers and published in medical journals, most of which remain unnoticed and unresolved, whereas others have a strong impact in the media and a direct effect on drug prescribing or patients’ adherence, even without regulatory actions or validation. Yet, owing to the lack of consensus on minimum reporting requirements, published disproportionality analyses are highly heterogeneous in conception and quality.

We need recommendations for reporting disproportionality analyses, such as the READUS-PV project, to support better prioritisation of safety signals for further validation and inform proactive regulatory actions.

Charles Khouri, pharmacologist, Grenoble; Michele Fusaroli, doctoral student, Bologna; Francesco Salvo, professor of pharmacology, Bordeaux; Emanuel Raschi, associate professor of pharmacology, Bologna

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In search of accountability

Mintzes and Fuller’s call for “radical transparency” about available evidence of regulatory judgments based on Dhodapkar and colleagues’ article is a cul-de-sac.

The lack of concordance of regulatory agency judgments about drug toxicity issues among four similar countries (Australia, Canada, the US, and the UK) has already shown that judgments are not reliable. The problem is systemic.

Finding a prudent middle ground to protect patient interests represents an immense tension for drug regulators. But the system is out of control, having been on a slippery slope for a long time. It is accelerating drug approval, while remaining too slow for drug withdrawal, despite the rise in big data technology. Faculty members, professional colleges, and prescribers are also accountable.

When we prescribe, benefits are almost definite, whereas harms are at worst only a risk. Similarly, Mintzes and Fuller and Dhodapkar and colleagues only used the term safety signals, but the signals are about toxicity.

Alain Braillon, retired senior consultant, Amiens

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LABOUR’S PLEDGE TO DOUBLE MEDICAL SCHOOL PLACES

Fixing a leaking system

Doubling the number of medical school places could have a huge effect on the workforce crisis (This Week, 1 October), assuming the extra 7500 people would all go on to become doctors and continue working in the NHS throughout their careers. Unfortunately, we can’t make this assumption. Over the past 10 years, the number of doctors continuing into specialty training has gradually declined.

We also need to consider the practicalities. When the cap on the number of places was lifted in 2020, the Medical Schools Council warned of a “greater than usual failure rate” caused by eased entry requirements. The result of this proposal could be similar.

It costs £230 000 to train a medical student in the UK—an investment that is expected to yield a return. We need a training pathway that facilitates high retention rates, instead of a leaking system. If we continue to lose trainees, it won’t be such a wise investment.

Adam Darnley, trust grade doctor foundation level, Manchester

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It doesn’t add up

While preparing to apply for core surgical training, I, like many others, was disappointed to learn of the sudden addition of the multi-specialty recruitment assessment to the application pathway mere weeks before the recruitment window opened.

Health Education England defends this decision as a tool for shortlisting due to a 30% increase in applicants since 2017. Instead of increasing the number of surgical training posts, Health Education England shifts the burden on to applicants by introducing an extra exam, originally designed for GP recruitment, at very short notice, when burnout is already widespread. How will the NHS cope with the 6.84 million people waiting for elective treatment without increasing surgical training capacity?

Politicians, the public, and those working in the NHS wax lyrical about the need for more doctors, but “increasing the number of medical students” without mirroring that growth in the number of foundation and specialty training posts does not tackle the problem.

Jessica P J Larwood, foundation year 2 doctor, Southampton

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UNHAPPINESS OF TRAINING GRADE DOCTORS

The NHS fails to care for its own employees

Oliver’s article on the realities of being a junior doctor is refreshingly honest (David Oliver, 24 September).

Trainees are disgruntled about the length of training, with many having to obtain additional degrees to make their application stand out for competitive specialties. Many doctors feel under-appreciated by the NHS, with the pandemic having exaggerated this.

Simple measures such as not having to pay for parking or for mandatory portfolios could go a long way towards making the workforce happier.

It is disheartening to see the new president of the Royal College of Physicians telling doctors not to strike. Striking is a last resort and only comes after repeated impediment from the government.

As an organisation with the primary objective of caring for the mental and physical health of the population, the NHS ironically fails to do so for its own employees. A strike might be needed to keep the NHS afloat.

Shujhat Khan, junior doctor, London; Noreena Iqbal, medical registrar, Oxford

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OBITUARIES

Leslie Harold Blumgart
Hepato-pancreato-biliary surgeon (b 1931; q Sheffield, 1961; MD, DSc (hon), FRCS Eng, FRCS Edin, FRCPs Glas, FACS), died from old age on 27 September 2022
Leslie H Blumgart (“Les”) graduated in dentistry from the University of Witwatersrand, Johannesburg, South Africa. He moved to the UK to study medicine at the University of Sheffield and to undertake his surgical residencies. He held positions in Nottingham, Cardiff, Glasgow, and London before moving to Switzerland in 1986. In 1991 he was recruited to the Memorial Sloan Kettering Cancer Center in New York and from 1992 was professor of surgery at Cornell University. He was elected to honorary membership and fellowship in dozens of surgical associations. Predeceased by his first wife, Pearl Navias, he married Sarah Raybould Bowen in 1968. He leaves Sarah, along with their four children and grandchildren.
William Jarnagin, Graeme Poston, Krish Menon
Cite this as: BMJ 2022;379:a2558

Helen Lightbody Kirkwood
GP (b 1925; q Anderson College of Medicine, Glasgow, 1947; LRCP LRCS Ed, LRCPs Glas, DCH RCPS Glas), died from cardiac failure on 10 June 2022
Helen Lightbody Kirkwood (née Steven) became the first woman GP in Wigtownshire when, after graduating, she joined Gavin Brown in rural practice in Port William. This was groundbreaking, as reflected in the fact that many of his colleagues and patients remarked that Brown had been “sent a lassie.” They looked after all the medical needs of their patients. Helen remained in Port William until 1958 when marriage to Crawford Kirkwood took her to Girvan. After locums in general practice in Girvan she joined Ayr County Council, later Ayrshire and Arran Health Board, where she served as a senior clinical medical officer. Predeceased by her husband, she leaves a son and daughter and three grandchildren.
Helen Kirkwood (Snj), Jim Kirkwood, Helen Kirkwood (Jnr), George Savage
Cite this as: BMJ 2022;379:a2561

William Fairbank Doe
Academic gastroenterologist and dean of medicine (b 1941; q Sydney University Medical School, Sydney, Australia, 1965), died after a long illness on 23 August 2022
William Fairbank Doe (“Bill”) came to the UK from his native Australia to train at the Royal Northern Hospital. In 1968 he applied for a job at the Hammersmith Hospital in London and then with the Medical Research Council Intestinal Malabsorption Group of the Royal Postgraduate Medical School. After spells in the USA and Australia he was appointed professor of medicine and dean of the University of Birmingham Medical School in the late 1990s. In 2007 he left Birmingham to become provost of the Aga Khan University, taking on a wide international role with activities extending from Pakistan to Tanzania. He retired to the Cotswold village of Windrush. He leaves Dallas, his wife of 40 years; three children, and a granddaughter.
Roderick Hay
Cite this as: BMJ 2022;379:a2566

Minou Dokht Foadi
Senior lecturer in haematology and honorary consultant haematologist, Imperial College School of Medicine and Charing Cross Hospital (b 1932; q Tehran University Medical School, Tehran, Iran, 1959; MD), died from ovarian cancer on 22 February 2022
Minou Dokht Foadi won a scholarship to pursue medical training in the US. In 1965, after the Shah of Iran personally intervened to rescind her visa in order for her to return to Iran, Minou moved to London, where she worked at Great Ormond Street Hospital and the Institute of Child Health. She occasionally presented a radio programme on opera at the BBC Persian Service, where she met her future husband, Yadollah Fazel, a doctor and broadcaster. In 1969 she moved to the new Charing Cross Hospital and Medical School. Minou was a devoted adherent of the Baha’i religion and leaves two children (both professors of psychiatry) and eight grandchildren.
Seena Fazel
Cite this as: BMJ 2022;379:a2555

Donald Stewart McLaren
Professor of clinical nutrition American University of Beirut, Lebanon (b 1924; q Edinburgh, 1948; MD, PhD, FRCP), died from acute kidney injury secondary to a urinary tract infection on 9 August 2022
While in India in the 1950s as a medical missionary, Donald Stewart McLaren (“Don”) was struck by the incidence of childhood night blindness and visual issues without a clear explanation. His subsequent clinical research formed the basis of his MD thesis and preclinical research on vitamin A for his PhD. On field trips to Tanzania he studied the causes of blindness and nutrition. Don became head of a nutrition research programme at the American University of Beirut, Lebanon, but the Lebanese civil war in 1975 forced him to go back to the UK, where he worked at Edinburgh University. Predeceased by his wife, Olga, in 2009 Don leaves his son, two daughters, eight grandchildren, and seven great grandchildren.

Philip Owen Nicholas
District medical officer Wirral Health Authority (b 1929; q Bristol, 1953; DCH, DPH), died from old age and the after effects of covid-19 on 25 April 2022
My father, Philip Owen Nicholas, completed his house jobs in Bristol before doing national service in Germany. On his return to the UK he worked at Blackburn Royal Infirmary where he met his future wife, Sue (my mum). They went to Edinburgh together and Philip worked in paediatrics. He worked as deputy medical officer of health in Castleford, Doncaster, and later in Bolton. In 1969 he was appointed as medical officer of health in Birkenhead. He retired from his role as district medical officer for Wirral Health Authority in 1986. In retirement Philip trained to be an adviser for the Citizens Advice Bureau and worked there for many years. He leaves Sue, three daughters, eight grandchildren, and seven great grandchildren.

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Seena Fazel
Cite this as: BMJ 2022;379:a2555

Philip Owen Nicholas
Cite this as: BMJ 2022;379:a2564
OBITUARIES

Valerie Beral

Epidemiologist, academic, and eminent specialist in breast cancer epidemiology

Dame Valerie Beral (b 1946; q Sydney, Australia, 1969; AC, DBE, FRS, FRCOG, FMedSci), died from a cancer of unknown origin on 26 August 2022

Although Valerie Beral, of Oxford University, directed the Cancer Epidemiology Unit in Oxford, she did not shine academically as a young child. Her mother, she recalled, would have been happy if she had become a hairdresser. She then showed a talent for maths, became Australia’s junior chess champion, and obtained a first class medical degree, finding “the medical stuff . . . simple and fun.”

So much so that her tutors asked her to do their homework for them. Speaking on the BBC Radio 4 programme *The Life Scientific* she said, “It didn’t occur to me that this was in any way unusual or special.” She had been more interested, she added, in “partying and other things.” After working in a hospital in Sydney, she joined the “hippie trail” in Asia on the way to the UK, defying a senior doctor warning that if she left Australia he would ensure she never got another medical job there. She later joked that the Australian population was too small to satisfy her needs as an epidemiologist.

### Into epidemiology

Serendipity gave her a career defining nudge. On arriving in England, having never heard of epidemiology, she began work at the Hammersmith Hospital under Charles Fletcher. One of the first “TV doctors,” Fletcher, a leading epidemiologist in respiratory disease, wrote the first report by the Royal College of Physicians (1962) about smoking and lung cancer, based on the landmark research by Richard Doll and Austin Bradford Hill. Doll became a role model and mentor for Beral.

Fletcher saw a kindred spirit in Beral, who had felt uncomfortable in clinical medicine, unable to understand how clinicians could be so sure about making decisions on incomplete evidence. Epidemiology enabled her not to bypass uncertainty, but to confront it.

Fletcher pointed her to the London School of Hygiene and Tropical Medicine (LSHTM), where she spent almost 20 years in the department of epidemiology, building a career that *The BMJ* described as like “a checklist of the epidemiological causes célèbres”: oestrogens in pregnancy, radiation effects, breast cancer and screening, AIDS, gene therapy, Hiroshima survivors, Chernobyl, and food toxins.

In 1974, nearly 10 years before the human papillomavirus was found to be the cause of most cervical cancers, she produced compelling evidence that sexually transmitted infection caused cervical cancer. She also published a landmark study in 1990, linking HIV infection to an increased risk of Kaposi’s sarcoma.

Her Oxford years were her prime, but initially she had reservations about the job, and being exposed to the public eye. This was not “her nature.” There were few more high profile jobs in the field than director of the Cancer Epidemiology Unit in Oxford—and moreover she succeeded Doll, the global doyen of the specialty.

Like Doll, who was told that “you shouldn’t frighten people into thinking that smoking was dangerous,” Beral met fierce opposition from commercial vested interests who tried to dismiss her research linking hormones and cancer. Again, like Doll, she was determined and uncompromising—like a dog getting every last bit out of a bone, according to a colleague. Her longstanding friend and close collaborator, Richard Peto, emeritus professor of medical statistics and epidemiology at Oxford, said, “She was the best epidemiological breast cancer researcher in the world.”

### Million Women Study

Focusing at Oxford on reproductive, hormonal, and infectious agents in cancer, Beral devised and led the prospective UK Million Women Study, the largest ever examination of women’s health. Despite its size, the study was set up on a shoestring, with about 1.3 million participants recruited through the NHS breast screening programme.

Its controversial results included a *Lancet* report in 2003 that use of hormone replacement therapy (HRT) by UK women aged 50-64 years over the previous decade had caused an estimated 20,000 extra breast cancers, Conversely, it concluded that 10 years of contraceptive pill use had reduced later risk of endometrial cancer by half, from 2.3 to 1.3 cases per 100 women. Pill use was estimated to have prevented 400,000 cases of endometrial cancer worldwide over the previous 50 years.

Her unwavering pursuit of such data was rooted in the early 1970s when she worked in Brook advisory centres—family planning clinics opened when GPs wouldn’t give unmarried women the contraceptive pill.

Beral leaves her husband, Paul Fine, a professor and epidemiologist at LSHTM; two sons, and two grandchildren.

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