comment

"As well as actual staff, we're losing decades of experience" **SCARLETT McNALLY**
"Government changes will worsen the lives of the most deprived people" **DAVID OLIVER**
"Ideally we'd listen to each patient for as long as they felt necessary" **HELEN SALISBURY**

THE BOTTOM LINE Partha Kar

International graduates need far better support

I'll never forget saying goodbye to my father when I first came to the UK to work as a doctor. He came with me from India—cold and wet, but with hopes of a bright future. My heart ached as he disappeared into the distance on a National Express coach. I remember viscerally the sheer loneliness I felt. My first few weeks were, frankly, awful. Not many people would talk to me, which heightened an inherent shyness.

A low point came one evening, when I went to the mess hall and saw some frozen food in the fridge. It said, "For NHS staff," so I thought it was OK to take. During the meal a young English doctor "explained" the rules by screaming them at me. She ended with the words, "Beggars coming to our country." I walked back to my room, shut my door, and cried. A lot. The frozen meal was for on-call staff. But how would a young man from Kolkata know that? I made a promise to myself: that would never happen to me again. And I would, where possible, ensure others didn't go through that either.

In 2022 we still hear of international medical graduates (IMGs) being treated poorly and used as cheap labour, placed on wards where no one else wants to go, without educational supervision or mentorship. It's unacceptable to encourage doctors to come to the UK and then not give them simple support, whether it's helping them with where to live, a friendly arm, or proper induction.

Let's lay a marker down: IMGs are not cheap labour. They are colleagues trying for a new life and, in turn, helping this country avoid meltdown. We owe them the courtesy of support and help. Work such as the Welcoming and Valuing International Medical Graduates induction programme is a step forward. My advice to employers is, use this programme. Or build your own and use that. What's not acceptable is to have nothing in place.

There's also a need to showcase the organisations and people doing good work, not just offering hashtags and slide presentations. I'll give a few examples from experience—the simple gestures that made a world of difference. Steven How, a house officer, found time to invite me to play Fifa on his PlayStation. Azman Ibrahim took me out for dinner, as "I looked alone" one day. John Gilson always found time for a chat. And Alistair Miller was the kindest consultant one could find—the offer of a pub lunch, an invite to his home, or tips about my career. Their kindness has stayed with me for life.

It's important to have induction courses but also not to forget the loneliness of some IMGs, and how much a kind word means. We can all do little bits beyond the procedural stuff. Our desire to improve morale needs to be wider than coffee vouchers—it needs a human touch.

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Don't forget the loneliness of some IMGs, and how much a kind word means

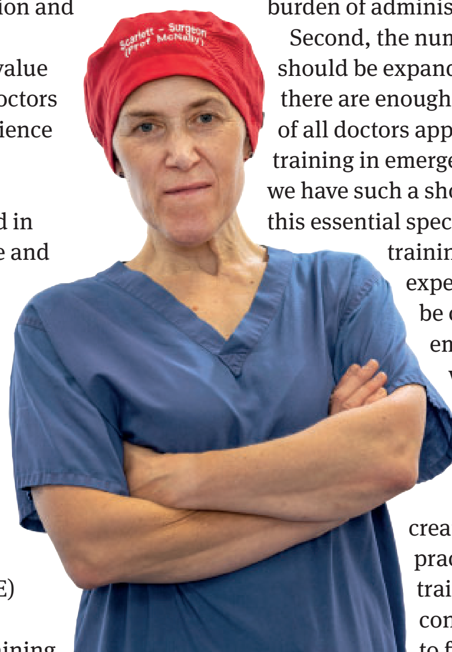
DISSECTING HEALTH Scarlett McNally

How "just one more" harms doctor retention

My five point plan for immediate changes to ease the workforce crisis and improve morale

The stress-strain curve is a stalwart of orthopaedic exams. Its principles guide how implants behave, but they now seem to be applied increasingly to people working in healthcare. We know that the backlog for elective procedures in the NHS is at a record level. Suddenly, there are whole days when the morning's operating list spills over into the afternoon clinic. The notion of "just one more" can be catastrophic for the physical and mental wellbeing of staff and poses a risk for patient safety. Once you're caught in a downward spiral of apologising for being overworked and cutting corners, something will go wrong.

Senior doctors are resigning or retiring early, in large numbers. This is catastrophic for patient care, as they're the ones able to decide what tests to avoid, when to avoid admitting a patient, which patients are safe for discharge, and what the natural history is likely to be. As well as actual staff, we're losing decades of experience. We need radical and swift solutions to the NHS workforce crisis. Here are some immediate changes that could help improve retention and boost morale.



First, we need to value the unique role of doctors at all levels of experience as "diagnosticians and handlers of uncertainty . . . based in scientific knowledge and experience." We should abolish the term "junior doctor": more doctors (77 910) are employed in specialty doctor and associate specialist (SAS) posts, or in locally employed doctor (LE) posts such as "trust doctors," than in training posts (70 195). Training programmes should be improved to take into account excessive commuting, overwork, and the burden of administrative tasks and exams.

Second, the number of training posts should be expanded. Astonishingly, there are enough posts for only a sixth of all doctors applying to start registrar training in emergency medicine, when we have such a shortage of consultants in this essential specialty. And expanding training numbers need not be expensive: many posts could be converted from locally employed doctor posts with additional training and support.

Third, we should be honest about the additional roles created for autonomous practitioners. Their training, selection, and contract should allow them to fill what's needed in

WILLIAM BARTON/ALAMY

ACUTE PERSPECTIVE David Oliver

The government's "levelling up" agenda is in reverse

On 29 September the *Guardian* reported that England's health and social care secretary, Thérèse Coffey, was to scrap the long promised government white paper on reducing health inequalities.

This U turn came only days after the World Health Organization had published a key report on preventing non-communicable diseases (NCDs): it estimated that 74% of the world's deaths each year were caused by NCDs, with 86% of those deaths counted as "premature" (in people under 70). Several heads of state had already signed up to an NCD compact to save 50 million lives by 2030.

Some 77% of deaths from NCDs in the WHO report were in low and middle income countries. But high income, developed nations such as the UK are not exempt, especially our more deprived communities. The UK has substantial variation in life expectancy and healthy life expectancy, much of it accounted for by potentially preventable NCDs, inextricably linked with multiple indices of socioeconomic deprivation, which in turn affect access to healthcare.

This is why I don't like the term "lifestyle related diseases," as the "lifestyle" is often affected by factors far beyond individual choice—housing, education, poverty, nutrition, employment, transport, or access to affordable healthy food. I'm equally troubled by Public Health England being partly replaced by the "Office for Health Improvement and Disparities." The widely accepted term in public health is "inequalities"—whereas "disparities" seems designed to portray the major variations in NCD prevalence and life expectancy as somehow due to chance,

We need to value the unique role of doctors at all levels of experience and abolish the term "junior doctor"

particular rota gaps. They should be part of out-of-hours rotas at foundation doctor or senior house officer levels (or RCP tiers 1a and 1b), in clinics and doing ward work. Otherwise, they may compete for in-hours training opportunities with doctors who are forced to do out-of-hours shifts, often at much lower pay.

Somone to delegate to

Fourth, NHS trusts should train and employ support staff, allowing doctors to work on tasks they're trained to do. Doctors currently have no one to delegate to. Admin staff are a rarity. Many doctors spend over 50% of their time on tasks that don't require a medical degree.

My trust pioneered the "doctors' assistant" role—recruited from the trust's existing healthcare assistant workforce—to undertake administrative and basic clinical tasks. It improved the flow of patients through the system and doctors' efficiency, and it's now offered as an apprenticeship. This scheme should be expanded nationally and funded accordingly.

Finally, doctors should embrace some interactive working with patients, communities, and charities to include prevention of ill health. This could entail learning skills for motivational interviewing, refocusing on the holistic nature of health, and reclaiming their role in leading the healthcare team, all in the hope of improving morale and retention.

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rather than being partly the result of government policy decisions.

As well as the health secretary's decision not to publish the white paper, the Conservative government's tax changes and welfare "reforms" could increase inequality or worsen the lives of the most deprived people. It has also set out plans to reverse policies on processed food and sugar tax, relax restrictions on gambling (which can be linked to mental health problems), and freeze duty on alcohol, with more "deregulation" to follow.

Since 2010, Conservative governments have repeatedly pushed policies focused on individual responsibility and choice for lifestyle changes, rather than deploying broader public health policy on the wider socioeconomic determinants of public health. They've also cut support for local government and public health teams, as well as local recreational facilities that might enable participation in exercise. These cuts have also reduced access to smoking cessation services and support for people with drug or alcohol addiction—meaning that these patients increasingly have to turn to the private or voluntary sectors.

Tories have pushed policies focused on individual responsibility rather than broader public health policy

This approach is driven partly by small state, neoliberal ideology and partly by the influence of lobbyists from the food, tobacco, and drinks industries. Indeed, several of the right wing think tanks that currently influence government thinking receive deliberately opaque funding from these sectors. Meanwhile, support for people with NCDs comes principally from primary and community healthcare services, which have been relatively neglected or reduced over several years in terms of funding and staffing—and, in the case of primary care, repeatedly briefed against by politicians.

Since Liz Truss became prime minister, the government's much trumpeted "levelling up" agenda has gone into reverse gear.

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PRIMARY COLOUR Helen Salisbury

Being a GP in an unequal society

This week I learnt that England has the second highest income inequality in Europe, and the recent "fiscal event" and a forecast return to austerity are likely to make things worse for those at the bottom. We all know that lower income brings poorer health and earlier death, but while sitting in my consulting room doing my best for the patient in front of me, it often feels as if there's nothing I can do to change this.

GP services are poorly distributed across the country, as areas of deprivation are relatively under-doctored and underfunded. One thing I could do, of course, is go and work on the other side of town, where the surgeries are harder pressed and the patients less affluent. However, one of my other preoccupations is the value of continuity of care, and I'm not ready or willing to end relationships with patients and colleagues that I've built up over 20 years.

But even within our practice there's variation—and the inverse care law, which says that people who most need healthcare are the least likely to receive it, plays out on this small scale. Some of my more confident and informed patients would like an in-depth discussion about the evidence for bio-identical hormone replacement therapy, or the science behind statins in primary prevention, and I enjoy these conversations. However, if these consultations spill over they cut the time for others, who may be struggling to control diabetes or to find an effective treatment for depression or arthritis (sometimes all in the same patient).

In an ideal world we'd listen to and talk with each patient for as long as they felt necessary, but this doesn't reflect today's general practice, with its 10 or 15 minute slots (or worse, the unlimited, untimed flow of firefighting on a duty doctor day). It takes skill and tact to keep our more talkative patients to time, but if we don't the patients who are less demanding and feel less able to ask questions may receive a smaller share of that rationed resource, the doctor's care and attention.

Complex issues around social status and power dynamics are at play here, alongside patient expectations. We're attempting to tackle existing inequalities in our practice by making fresh efforts to engage with patients with long term conditions who we hardly see. It's possible that they have no apparent health needs, but it's also likely that many lack the time to prioritise their long term risks or their low mood or joint pain, or they don't believe that their GP will be able to help.

As an individual, I'm paying particular attention to the length of my consultations, trying to ensure that my time is distributed according to need rather than demand.

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Complex issues around social status and power dynamics are at play

LATEST PODCAST

Musculoskeletal pain and osteoarthritis

New draft guidelines from NICE have recommended a move away from pharmacological treatments for osteoarthritis. This episode of the Deep Breath In podcast focuses on how best to manage musculoskeletal pain. GP Imran Sajid talks about the importance of educating patients on what arthritis really is:

"I know one of the things the NICE guidelines say is that you don't necessarily need to do x rays routinely—which is a challenging conversation. We don't always have time to explain to patients why it doesn't necessarily change management, but we do often see that the correlation between what you see on an x ray and people's pain isn't particularly strong. And I think we have to be careful about the verbiage that we use when we describe people's condition to them. If we start saying things like 'degenerative joint' or 'bone on bone,' this can have quite enduring effects on people. It can affect their perception of their condition, what type of treatments may or may not work, and it might ramp up their avoidance behaviours."

He also emphasises the importance of gaining a holistic understanding of a patient's pain:

"My general view is that if you're trying to treat the pain using just the medical model it will work, but to a very limited degree. When you're taking someone's history, you need to have a really good understanding of the whole pain journey that person has been on. What initially triggered that pain? What movement, patterns, or activities bring it on? What things have they found that help? What is the pain stopping them doing? I often say to people, if you are not in pain tomorrow, what would you be doing more of? That might help tailor some of the goals of what they can get back to."

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

COVID INQUIRY

Lessons from the UK's implementation of covid-19 vaccinations

Decisions about approving vaccines and strategies for their use must be rapid and transparent, say **Azeem Majeed and colleagues**, and a sustainable infrastructure should be in place for public delivery

Within one year of the genome of SARS-CoV-2 being sequenced, vaccines had been developed, tested in randomised controlled trials, and rolled out in population based vaccination programmes across the world. This is one of the great success stories of the covid-19 pandemic.

The UK's vaccination programme has been described by the government as "world beating" on many occasions.[2] But is this the case? What can be learnt from the approval of vaccines in the UK and the implementation of vaccination programmes by the NHS? Because vaccination had such a key role in the pandemic, it is essential to review the vaccine programme in the UK and define the key questions about the programme that need to be considered by the public inquiry. We focus on implementation in England because health in the UK is a devolved responsibility and implementation of vaccination programmes differed between the four UK countries.[3]

The covid-19 vaccination programme started well in the UK and sooner than in other countries; it began to decelerate in summer 2021 before speeding up again towards the end of the year and slowing down again in early 2022. The UK has been overtaken by many other countries in the proportion of the population vaccinated with two doses, although it does remain ahead of many countries in the proportion of adults who have had three vaccinations. The UK was also slower to approve vaccines for use in children than some other countries.

One limitation of current vaccines is that although they are very successful in reducing the number of serious cases of covid-19, they are less effective in preventing infection from SARS-CoV-2, which means that vaccinated people can still become infected and infect others. Early in the vaccination programme, this was often not communicated well to the public, leading to unrealistic expectations about how well vaccines would suppress the risk of infection, particularly with the emergence of new variants that reduced vaccine efficacy.[8]

KEY MESSAGES

- The development of safe and effective covid-19 vaccines is one of the great success stories of the covid-19 pandemic
- Decisions about implementing vaccination programmes in the UK must be robust, clear, and open to public and professional scrutiny
- A sustainable infrastructure for vaccine delivery is needed that integrates with general practices and pharmacies
- The UK needs to ensure that it has the academic and industrial infrastructure to develop, test, and secure vaccines for the current and any future pandemics

Approval of vaccines in the UK

The UK became the first country in Europe to grant emergency use authorisation for a covid-19 vaccine when the MHRA gave approval for use of the Pfizer-BioNTech vaccine in adults on 2 December 2020. The AstraZeneca vaccine was approved for use in adults on 30 December 2020. These decisions took place when the UK was still operating under EU law and were therefore unrelated to Brexit.

After MHRA approval, the Joint Committee on Vaccination and Immunisation (JCVI) makes recommendations on the use of the vaccines by the NHS and the prioritisation of different groups of people for vaccination. Final decisions about the implementation of vaccine programmes are made by the UK and devolved governments. The UK government was also responsible for decisions about which vaccines should be procured and in what quantity, through a vaccine task force established to support the pandemic response. The UK procured many more vaccines than it needed, and some procured vaccines were not included in the UK's vaccination programme. The purchase in advance of such large quantities of vaccines by the UK and other wealthy countries raises questions about global vaccine equity.

Given the limited supply of vaccines available to the UK in the early part of the programme, the JCVI produced a priority list for vaccination, largely based on age as modelling data showed that the greatest population benefits from vaccination would come from targeting older people. High priority for vaccination was also given to health and care workers and the residents and staff of care homes. The rationale was to vaccinate the groups most at risk from serious illness and death and those at greatest occupational risk of exposure to infection first, before moving on to other groups.[10] Overall, the policy was fair but was criticised for not including ethnic minority groups or key occupational groups other than health and care workers, such as people working in public transport or teaching. The pandemic had major effects on the education of children, for example, and it could be argued that staff working in schools should have been prioritised in the same way as NHS staff to reduce the disruption caused by the pandemic to children's education.[11]

Shortly after the start of the vaccination programme in the UK, the government made the decision to prioritise delivery of the first dose of covid-19 vaccine over the second dose, based on advice from the JCVI. This meant a delay in giving the second dose of vaccine from 3-4 weeks after the first dose to 12 weeks. In theory, this would boost protection from SARS-CoV-2 in the population, but at the cost of a short term reduction in protection for people whose second dose was delayed.

Covid case numbers were high in the UK for long periods in 2021. Delaying second doses could drive transmission of infection in a partially vaccinated population, leading to the risk of developing SARS-CoV-2 vaccine escape variants. This delayed booster approach was not widely adopted by other countries. Subsequent research, however, did indicate some population benefits in delaying the second dose,[12] but no benefit was seen in infection rates from a delayed second dose in the participants in the SIREN randomised controlled trial.[13]

The immunisation programme was disrupted by this decision. Much of the information that the JCVI used to recommend a delay in the second dose was available before the start of the vaccine programme. Why did the JCVI not consider a delayed second dose policy before the programme started? And why was there no clear mechanism for evaluating the effects of its recommendation on clinical outcomes such as infection, hospital admission, and case fatality rates and on the delivery of the vaccine programme?

Approval of vaccines for adolescents and children

The UK was slower than many other countries to implement vaccination for under 18s. The delay in authorising vaccination for 12-15 year olds resulted in programmes not beginning until after the start of the 2021-22 school year. The programme was then beset by delays, resulting in slow progress with vaccination at a time when many schools faced large covid-19 outbreaks.

The policy in the UK was initially to offer one dose to younger people to limit the remote risk of cardiac inflammation. But a one dose policy would reduce the benefits of vaccination, particularly against the delta variant. In December 2021, a two dose approach was finally agreed for 12-15 year olds. Booster doses were later approved for 16-17 year olds.

The JCVI faced considerable criticism for its delay in recommending vaccination for children and adolescents. But, early on, data supporting the unequivocal benefits versus risks for the use of covid-19 vaccines in children were lacking. Severe disease is much rarer in children than in older people.[15] The risk-benefit analysis was therefore finely balanced. Emerging data indicate that vaccine associated myocarditis and pericarditis, although extremely rare and usually self-limiting, might be more widely spread across the vaccinated population than previously thought, particularly after the second dose.[16]

Third primary doses and booster doses

Additional problems arose after the decision to give some immunocompromised people a third primary dose of vaccine.[17] The programme was rolled out with little central or local planning, resulting in considerable confusion among both the public and NHS staff and leading to delays in many eligible people getting their third primary vaccine dose.[18] The NHS needs adequate time to plan and to ensure that NHS staff are fully briefed in advance of any public announcement or media briefing about vaccination policy.

The NHS needs adequate time to plan and to ensure staff are fully briefed in advance of any announcement or media briefing about vaccination policy

Around the same time, the NHS also began to offer selected groups of people a booster vaccine dose. Real world evaluations of vaccine efficacy indicated that protection from vaccines began to decline a few months after the second dose and that a booster dose offered increased protection from serious illness and death. The JCVI announced another booster programme in spring 2022 for selected groups, followed by a wider booster programme for autumn 2022. The autumn 2022 booster programme does not use the AstraZeneca vaccine, casting doubt on its continued use in the UK despite its lower cost and easier storage requirements than mRNA vaccines.

QUESTIONS FOR THE INQUIRY

- What should we be doing to secure the legacy of the covid-19 vaccine research and delivery strategy for vaccine science, vaccine manufacturing, public health, and pandemic preparedness?
- Why hasn't the UK established a pipeline for the rapid development of RNA vaccines?
- Why did the UK lag behind many other countries in recommending covid-19 vaccines for children?
- How would we respond to a future pandemic causing high levels of morbidity and mortality in children?
- Was sufficient attention paid to targeting groups who were likely to be vaccine hesitant?
- What can be done to build on the JCVI's communications and operations—particularly around public and patient involvement and engagement and its position on equality, diversity, and inclusion?
- Why did the JCVI not recommend a delayed second dose strategy in its initial recommendations in 2020? What impact did this have?
- What is the best method of covid-19 vaccine delivery in the future?
- Would school staff being included in the initial occupational groups targeted for vaccination reduce the effect of the pandemic on schools, given the many adverse effects of the on the education, social development, and the physical and mental health of children?
- Did the UK government take the correct decisions about vaccine procurement? Was the UK correct to work alone on procurement or should there have been greater collaboration with the EU?
- What impact did the over-procurement of vaccines by developed countries such as the UK have on vaccine equity and on the supply of vaccines for lower income countries early in the pandemic?

IT systems

In England, a decision was made at the start of the vaccination programme to record data using IT systems separate from patients' medical records.[3] After vaccination, data were transferred to the patient's general practice to ensure that the vaccination showed up in their electronic primary medical care record. This process sometimes failed, resulting in missing vaccination data for many patients. There were also issues with recording third primary vaccines and vaccines for people who had been vaccinated in another UK country or overseas.

Other problems arose in the transfer of data to the NHS app in England, which is essential to show the proof of full vaccination often required for international travel. General practices faced many questions from patients about data and vaccine passport problems and about eligibility for vaccinations in immunocompromised people. A well functioning IT system and clear processes for recording vaccines for people vaccinated outside the UK's programme are essential.

Tackling vaccine hesitancy

Early survey data showed that the UK had lower overall rates of vaccine hesitancy than many other countries and that people in the youngest age groups and those from ethnic minority groups were more likely to decline covid-19 vaccination. One key lesson for the future is to have clear plans in place to improve confidence in vaccines and vaccine uptake, particularly among younger people, those from ethnic minority groups, and people living in deprived areas. Local community engagement is essential.

Infrastructure for vaccine delivery

The NHS has used a range of sites to deliver vaccines, including locations run by hospitals, GPs, and community pharmacies. The NHS needs to decide how covid-19 vaccines will be delivered in the longer term. A GP led programme, supported by pharmacies and hospital sites, offers many potential benefits, including easier access for patients to GP and pharmacy sites than hospitals and high vaccination rates as a result of the ongoing relationships that primary care teams have with their patients. The greater frequency of contact between NHS primary care staff and patients also provides the opportunity for health promotion activities, including co-administration of other vaccines such as for influenza.

Monitoring vaccine uptake, safety, and efficacy

One area in which the UK excelled internationally was using data from the NHS, covid-19 testing, and national mortality records to monitor vaccine uptake, safety, and effectiveness. Public Health England established a dashboard that displayed daily vaccine delivery data from the four UK nations.[21] Other outputs included weekly vaccination publications with more detailed data on vaccine uptake by age group. Some vaccine efficacy data were also included in these publications.[22]

Additional data on vaccine safety and efficacy came from electronic GP records linked to other data and the yellow card scheme.[9] This allowed research on the effectiveness of vaccines and on the side effects of vaccination. Because randomised controlled trials are generally too small to identify rare but serious side effects, large clinical databases are needed, such as OpenSAFELY and QResearch.[23 24] Real world data have informed vaccination policy in groups that lack data from clinical trials—for example, pregnant women and young people.

In the longer term, the large clinical databases established in the UK will provide information for public health planning globally. This would include information on how quickly vaccine efficacy weakens in different groups and the effectiveness of booster doses, which will guide policies on the necessity and frequency of

The public has to have full confidence in decisions. This may require the JCVI to hold public meetings and rigorous press conferences, and respond to written questions

additional vaccinations. It will also be possible to compare the safety and efficacy of different vaccines and examine the effectiveness of vaccines against any new variants of SARS-CoV-2 that emerge.[9]

Ensuring vaccine supply for the UK

Early on in its vaccination programme, the UK government found itself in a dispute with the European Commission related to AstraZeneca's failure to supply the contracted volumes of vaccine to member states of the European Union.[25] The European Commission then threatened to reduce export of Pfizer vaccines to the UK. In the end, no restrictions were imposed, and the UK continued to receive its due quantities of Pfizer vaccine. But the UK is currently very reliant on overseas manufactured mRNA vaccines from Pfizer and Moderna. The UK government will need to consider how it works with the drug industry, biotechnology companies, and universities to ensure that the UK can develop, test, and manufacture vaccines for the current and any future pandemics at the speed and quantity needed. The decision by Moderna to build a research and manufacturing centre in the UK is a good start.[26]

Lessons for the future

The UK's covid-19 vaccination programme had many successes, such as the excellent data on vaccine uptake and effectiveness and the rapid rollout of vaccination by the NHS, but it also encountered problems that need to be examined in the covid-19 public inquiry. Investment in scientific infrastructure is essential so that the UK is prepared for any future pandemics. Sharing of scientific information and data between countries is also important.[27] We need rapid systems for approving vaccines for use in the UK, as well as the rapid acquisition and analysis of data for monitoring safety and effectiveness. Good IT systems are essential for identifying patients in priority groups for vaccination and for establishing vaccine booking and recording systems that are easy for the public to use and that seamlessly transfer data to primary care medical records and the NHS app.

We need an effective public and professional dialogue on all decisions about the approval of vaccines so that the public has full confidence in decisions taken by bodies such as the JCVI, particularly when the UK veers away from policies in many other developed countries, such as in the use of vaccines in children and adolescents and in modifying dosing schedules. This might require the JCVI to hold meetings in public, have rigorous press conferences after its meetings, and respond to written questions from the public and professional organisations. Publication of JCVI meeting minutes is laudable but insufficient for the widespread communication of decisions, particularly during times of national crisis. The continued threat of emerging infections with pandemic potential means that the work of the JCVI remains critical to preserving confidence in vaccines.

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LETTERS Selected from rapid responses on bmj.com

LETTER OF THE WEEK

Public health, healthcare leadership, and scientific advice must all be independent of government

Jarman and colleagues discuss why science and medical advisers must be separate from government decisions and emphasise that the system must be transparent—thank you for addressing the elephant in the room (Analysis, 10 September).

Throughout the covid-19 pandemic, the chief medical officer for England and the UK's chief scientific adviser stood side by side with the prime minister during televised press briefings. The government's restrictions became synonymous with science.

The public was told that advice was guided by science, and they often believed it. So when things went wrong—the death toll was rising and new variants were emerging—people questioned not only politicians but also science.

The breakdown in the relationship between the public and science was seen in the rollout of covid-19 vaccination. People who declined vaccines often quoted mismanagement of the pandemic as the reason. To us, this mismanagement was against scientific advice. But to the public, science was politics.

As an emergency medicine doctor working directly with patients, I see the ripple effects of pandemic mismanagement on the doctor-patient relationship. Patients from marginalised backgrounds were already underserved by the healthcare system before the pandemic, and now they are far worse off.

Doctors, scientists, and healthcare professionals are some of the most trusted professionals in Britain; politicians are the least. This is not just a Whitehall problem but goes right down to individual patients in my emergency department. If we are to rebuild trust between the public and science, then public health, healthcare leadership, and scientific advice must all be independent of government.

Jahangir Alom, emergency medicine doctor, London

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ANTIDEPRESSANTS AND SEROTONIN HYPOTHESIS OF DEPRESSION

Recognising the influence of drug companies

The serotonin hypothesis was propagated by drug companies and academics (Editorial, 10 September). It is still widely disseminated, but the evidence is unconvincing. No other biological hypotheses for depression are proved or accepted.

Understanding that antidepressants produce mental and physical alterations that might account for their effects has quite different implications from the idea that they work by reversing an underlying abnormality, which makes the use of drugs seem necessary and reassuring. Many people might have made different decisions about using antidepressants if they knew this.

False claims were also used to promote oxycodone ("not addictive for people in pain"). We need to recognise the influence of drug companies on medical discourse and the effects of hiring academics as drug advocates. Similar narratives of a drug reversing speculative biological abnormalities are currently being used to promote the use and development of various new "antidepressants" including esketamine and opioids.

Joanna Moncrieff, professor of critical and social psychiatry and consultant psychiatrist; Mark Horowitz, honorary clinical research fellow in psychiatry, London

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What does "work" mean for antidepressants?

For many people who think that depression is caused by low serotonin, an antidepressant "working" means that it corrects their serotonin system. The honest message to such patients is that their serotonin system is likely to be more abnormal after treatment than before.

This might be a risk worth taking if there were evidence that the drugs saved lives or prevented suicide attempts. But there isn't. Neither is there evidence that antidepressants help people return to work or improve quality of life.

Antidepressants "working" refers to a fall in Hamilton Depression Rating scores. It might be possible to infer that these "work" clinically if the clinician rated disease oriented data were supplemented with positive findings on a patient rated disease oriented scale, a clinician rated global impression scale, and patient rated global impression (quality of life) scale. But there is no antidepressant with positive data across all four rating scale domains.

David T Healy, professor of psychiatry, Hamilton

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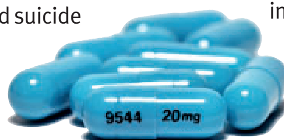
Putting serotonin in its place—again

Moncrieff et al's review justifiably dismantles the serotonin "chemical imbalance" theory and its promotion by the drug industry, but the same cannot be said of its more general critiques of drug treatments in psychiatry.

The review doesn't prove that serotonergic antidepressants are ineffective but rather that their mechanism does not depend on a pre-existing serotonergic abnormality. It downplays evidence that people with personal or family histories are differentially sensitive to serotonin depletion and neglects a key subgroup more likely to respond to physical treatments—people with melancholic depression. And it doesn't consider evidence that impaired serotonergic function is associated with depression during the premenstruum and cytokine activation.

Serotonin deserves to remain in the popular lexicon, but in a rather more nuanced role. A paradigm shift in psychiatry is emerging based on evidence that promotion of neuroplasticity is a mechanism common to various therapeutic modalities—including those active in the serotonergic system.



David B Menkes, academic psychiatrist, Auckland

Cite this as: *BMJ* 2022;378:o2357

YOUNG WOMEN AND ANAL SEX

Concerns are common to other sexual behaviours

Gana and Hunt's arguments on young women and anal sex raise several problems (Editorial, 3 September).

They imply that anal intercourse should be considered risky sexual behaviour, citing associations with factors such as alcohol use. But these associations apply to all sexual behaviour. Specific health concerns such as lubrication or sexually transmitted diseases are also common to other sexual behaviours.

The evidence that anal intercourse is inherently dangerous compared with other sexual behaviour is slight, and sexual health education should minimise risk. Instrumentation of the anorectal region and lower gastrointestinal tract when properly performed carries a very low risk of injury, implying that insertion is not intrinsically associated with trauma.

Given the media attention given to this editorial, it would be unfortunate if it created fear and guilt in the general population. Health professionals should have a high level of awareness and provide accurate information to ensure informed choices.

Michael D E Goodyear, physician, Halifax, Nova Scotia

Cite this as: *BMJ* 2022;378:o2302

Mitigating risks

Health sexuality, including anal sex, requires a respectful approach, self-determination, and the possibility of having a pleasurable and safe experience, free from pressure. Coercion should be reported according to law, as forced anal intercourse denotes intimate partner violence. Moreover, the infectious and traumatic risk is higher, as preventive measures might not be used.

Women should be warned that the risk of sexually transmitted infections is common to all types of penetrative sex. Counselling should be aimed not only at averting unprotected anal intercourse, but also at avoiding alternating anal and vaginal penetration. Awareness of infectious and traumatic risk may ensure women have sufficient negotiating power for the adoption of condom and sphincter relaxation techniques and lubricants. A learning process has been suggested to reduce pain.

Gynaecologists, midwives, and nurses are among the healthcare providers best suited to convey appropriate information

regarding potential harms of anal sex and provide practical instruction aimed at mitigating risks.

Camilla Erminia Maria Merli, registered midwife; Veronica Boero, head of vulvar pathology clinics; Ermelinda Monti, head of the referral centre for HPV related genital disorders; Giada Libutti, gynaecologist; Giussy Barbara, assistant professor of obstetrics and gynaecology, Milan

Cite this as: *BMJ* 2022;378:o2306

Normalise questions about anal sex

Discussion about the neglected topic of anal sex in women is uncommon in general medical journals and raising awareness is generally positive. We are concerned, however, that it has been framed in a negative and judgmental way.

There may be potential physical trauma from anal sex, and anatomical differences could have a role, but there is a risk of trauma from all sexual intercourse. Evidence that anal sex is more "dangerous" in women is lacking. The editorial lacks advice about minimising risk, such as using lubrication or condoms, a missed opportunity to offer practical advice.

An article in a medical journal implying that anal sex is not normal will do little to challenge taboos. We agree all healthcare professionals should be able to have neutral and non-judgmental conversations about anal sex to ensure women can make informed choices. Anal sex is normal for many so we must normalise questions about it in healthcare settings.

Laura Waters, consultant physician sexual health and HIV, London; Claire Dewsnap, consultant physician sexual health and HIV, Sheffield

Cite this as: *BMJ* 2022;378:o2323

Authors' reply

Goodyear and Merli and colleagues comment on coercion, instrumentation, sexually transmitted disease, and sensitive engagement by all relevant specialties. Goodyear asserts iatrogenic instrumentation carries a very low risk of anal trauma. Circular staplers are more analogous to the erect penis. This procedure is known to cause internal sphincter damage and contributes to the faecal leakage seen in low anterior resection syndrome.

Waters and Dewsnap criticise our editorial for not offering practical advice on lubrication. This is an area where meaningful data are not currently available. Lubrication may prevent or reduce some types of trauma, but it is not immediately obvious how it can prevent stretching and diffuse internal anal sphincter trauma. Future observational and endoanal ultrasound studies may be able to shed light on this, and ascertain if lubrication could prevent or reduce some injuries.

We have highlighted data showing anal sex is increasingly common among heterosexual couples and agree with Waters and Dewsnap it would be unhelpful for a medical journal to publish something that implies otherwise.

Those giving advice need to be fully conversant with the current literature including its limitations. Where there is a paucity of information, this should be openly acknowledged.

Tabitha Gana, specialty trainee year 8 general and colorectal surgery; Lesley M Hunt, consultant surgeon, Sheffield

Cite this as: *BMJ* 2022;378:o2356

Should we consider rectal PAP smear testing?

Thank you for drawing attention to the increase in heterosexual anal intercourse. In 1983 while finishing my master's thesis and building a sexual function questionnaire for my study, I obtained my data for the tool using heterosexual female graduate students. Anal intercourse activity was reported by 10%.

If anal intercourse is becoming more common, then perhaps it is time to begin anal Papanicolaou test screening on those women reporting such practices—similar to current screening in men who have sex with men—to screen for human papillomavirus.

Martha E Brown, family nurse practitioner, St Petersburg, Florida

Cite this as: *BMJ* 2022;378:o2319

Thomas Bewley

Put addiction medicine on an equal footing with other psychiatric specialties

Thomas Bewley (b 1926; q Dublin, Ireland, 1950; CBE, MD, FRCPI, MA, FRCPsych), died from old age on 26 June 2022

Thomas Bewley emerged as a national figure after reporting in the *Lancet* in 1964 the first evidence of an epidemic of heroin and cocaine addiction in the UK. He later expressed wry surprise after being proclaimed an addiction expert after seeing just 20 patients.

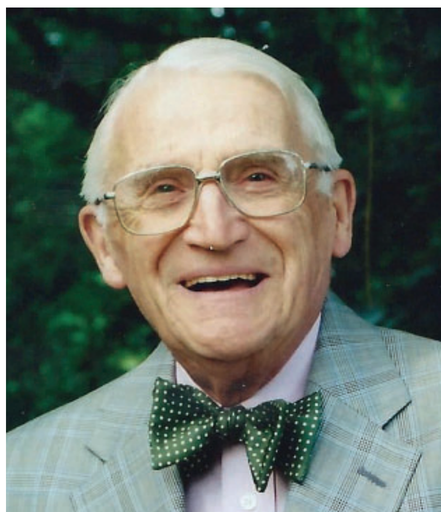
But Bewley was not only a pioneer in addiction medicine, but also the first subdean, the second dean, and the fifth president of the Royal College of Psychiatrists. He also wrote the official history of the college and its forerunners, *Madness to Mental Illness*. One of his first acts as president was to bring addiction out of the academic wilderness within the college and put it on an equal footing with other specialties such as child psychiatry and forensic medicine. He wanted young doctors to think of addiction medicine as a career.

He went to great lengths to encourage trainees. Another former college president, Dinesh Bhugra, recalled, "I met him at an event in Derbyshire when I was a trainee. He made me feel part of the college family. I was shocked that the president wanted to speak to me."

But Bewley was as steely as he was warm. Controversially he began his presidential term by banning lunchtime drinking after council meetings and prohibiting smoking throughout the building—long before this became a commonplace workplace practice.

Background and early life

Bewley's great grandfather was a Quaker, a millionaire entrepreneur who gave up one of his businesses when his partner wanted to sell alcohol. Thomas's father, Geoffrey Bewley, and grandfather, Henry Theodore Bewley, were both leading Dublin physicians who ran a small Quaker psychiatric hospital. The elder of two children, Thomas had an unlikely education for a



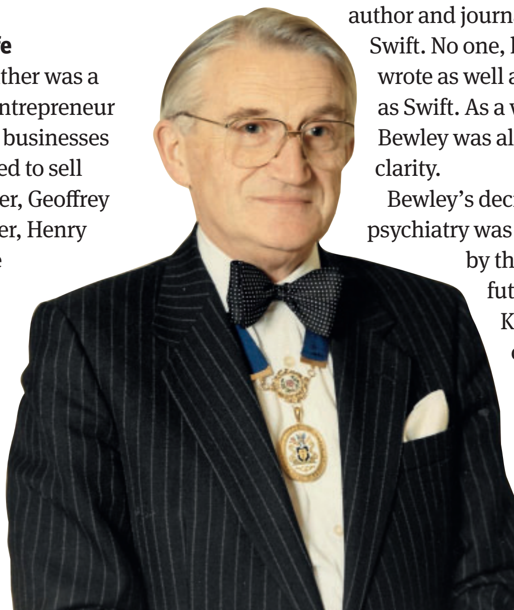
BMJ and Lancet articles in the 1960s consolidated Bewley's reputation at the forefront of addiction medicine

future Irish radical who described himself as an atheist Quaker. At the age of 8, he went to Arnold House, a Welsh prep school, and then to Rugby. He remained at the public school until the outbreak of the second world war, when he moved to St Columba's College, Dublin.

Career

He read medicine at Trinity College Dublin when medical students completed an additional arts degree in recognition of the great cultural divide between the sciences and arts. This suited Bewley who considered a career in journalism and aspired to be "a man of letters." His heroes included the author and journalist Jonathan Swift. No one, he insisted, wrote as well and as clearly as Swift. As a writer himself, Bewley was also noted for his clarity.

Bewley's decision to go into psychiatry was influenced more by the pursuit of his future wife, Beulah Knox, than a commitment to mental health. They met in 1951 while he was at the Adelaide Hospital, Dublin, and she was a Trinity student. He was advised to go to England, but completed two years of psychiatric training at St Patrick's Hospital, Dublin, working with the first members in Ireland of Alcoholics Anonymous.



Following Knox to England, he worked in various psychiatric hospitals, including the Maudsley in London. After getting married in 1955, they moved to Cincinnati, Ohio, in 1957 where Bewley did a doctorate on alcoholism in different ethnic groups.

Psychoanalysis was in vogue in the US, but although Bewley admired Freud as a writer, he did not endorse Freudian theory, especially after working in Cincinnati. US colleagues, he observed, learnt how to get patients into therapy without being taught how to get them out of it.

On returning to London because of the scarcity of medical jobs in Ireland, Bewley became a consultant at Tooting Bec mental asylum in south London in 1960. His now famous letter to the *Lancet* in 1965 accelerated the launch of NHS addiction treatment; he managed the first NHS inpatient detoxification beds.

A series of articles for *The BMJ* and the *Lancet* in the 1960s consolidated his reputation at the forefront of addiction medicine. Adopting a pragmatic approach, he promoted the concept of harm reduction rather than enforced abstinence. When things cannot be changed, he advised, people have to learn how to cope.

Bewley became a consultant adviser to the World Health Organization and the UK Department of Health and a member of the 1969 Wootton Committee that failed to persuade the government to differentiate between drugs on the basis of harm.

One of the remarkable things about Bewley and his wife is that she had a career as distinguished as his (see obituary: www.bmj.com/content/360/bmj.k906). The couple had five children, including Susan, emeritus professor of obstetrics and women's health at King's College London. Among the very likeable characteristics of her father, according to Susan, was the enjoyment he took in her mother's success.

John Illman, London
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Cite this as: *BMJ* 2022;378:o1964

Ian Michael Glynn

Carried out groundbreaking research into the sodium pump

Ian Michael Glynn (b 1928; q Cambridge/London, 1952; PhD, FRS, FRCP), died from old age on 7 July 2022

Ian Glynn was born Ian Galinsky, in Hackney, London, the second of three children to Hyman "Hymie" and Lottie (née Fluxbaum), whose families had fled eastern Europe when they were small children and who changed the family name to Glynn, to avoid the worst of 1930s anti-Semitism.

Glynn attended the excellent local elementary, Sigdon Road School, which helped him win a scholarship to the City of London School, where he resisted the headmaster's attempts to steer him towards classics. In his memoir Glynn described why he decided to read medicine: "I think I must have been around 8 years old when I saw my youngest aunt sitting at the table dissecting a human brain (the rules about the disposal of body parts were of course more lax in those days). She was the second member of our family to 'do medicine'—her younger brother having led the way—and there was a feeling in the family that medicine was the ideal career. 'Well, get qualified first; then you can decide what you want to do!' was almost standard family advice."

Medical studies

Glynn applied to Trinity College Cambridge in 1946 and was accepted as a medical student, a decision that would shape the rest of his life. As an undergraduate he was inspired by the teaching of Alan Hodgkin and Kenneth Bailey.

In his third year he did a part II in biochemistry—encouraged by Bailey, a supportive supervisor who also taught him to enjoy late Beethoven quartets. After graduating Glynn moved back to London and spent three years studying clinical medicine at University College Hospital, where he particularly enjoyed "two weeks spent delivering babies."

By the time Glynn qualified, Hodgkin and Andrew Huxley had completed their work on the mechanism of conduction in nerves that later led to their Nobel prize and raised the questions on which Glynn was to work. Hodgkin offered him a place as a research student in the Cambridge

Glynn particularly liked an experiment in which the sodium pump was made to run backwards and synthesise ATP

physiology lab, which Glynn took up in 1953 after completing his medical training, spending six months as house physician at Central Middlesex Hospital during London's great smog. His national service was his only other clinical practice.

In 1955 he was elected to a research fellowship at Trinity and the following year completed his doctorate, "Sodium and Potassium Movements in Red Cells," which set the stage for his whole research career, and he published his first full paper in the *Journal of Physiology*.

As part of his national service Glynn was appointed medical officer to RAF Sutton Bridge, close to Cambridge. While attending the engagement party of his Trinity friend Tony Jolowicz, Glynn met his future wife, Jenifer Franklin, who had read history at Newnham.

At the end of 1957 the unit at Sutton Bridge was closed down, and Glynn was released from national service on condition that he spend the next half year helping the surgical team at Papworth develop techniques for open heart surgery, working with small piglets.

His understanding of hydraulics solved the difficulties the team had experienced in creating an artificial heart-lung machine for pumping and aerating blood. Afterwards he returned to academic life at Cambridge, where he remained for the rest of his life.

In December 1958 he married Jenifer, who would become the author of four biographies.

Sodium pump

In 1958, back in the physiology lab, Glynn continued his work on the sodium pump. This showed, among other things, that the active transport of sodium ions out of cells and of potassium ions into cells was linked, and the "pump" was the enzyme ATPase. He particularly liked an experiment in which he and a colleague increased the normal sodium and potassium concentrations to make the pump run backwards and synthesise ATP.

His former colleague Steven Karlish, professor emeritus at the Weizmann Institute of Science in Israel, paid tribute: "Ian Glynn pioneered the analysis of sodium and potassium ion transport by the pump, and—together with Nobel prize winner Jens Christian Skou [Arhus University, Denmark], who discovered the membrane bound Na,K-ATPase, and Robert L Post [Vanderbilt University, US], who established the enzyme mechanism—can be considered one of three architects of our basic understanding of its working as a cation pump."

Honours

Glynn was elected fellow of the Royal Society in 1970, received a personal chair in 1975, and became professor of physiology and head of department in 1986. He held senior administrative posts, which included chairing grant boards for the Medical Research Council and the Royal Society and the editorial board for the *Journal of Physiology*. He was vice master of Trinity from 1980 to 1986 and professor of physiology at Cambridge from 1986 to 1995, when he became professor emeritus. He was awarded an honorary doctorate from the University of Aarhus and honorary foreign membership of the American Academy of Arts and Sciences.

Later in life he published two books for a general readership, as well as a smallpox history cowritten with Jenifer.

Glynn died at home and leaves Jenifer and their three children.

Rebecca Wallersteiner, London
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Cite this as: *BMJ* 2022;378:o2010