medicine inside

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NHS leaders call for redundancy fund

NHS leaders in England have urged the government to "rapidly create a national staff redundancy fund" after integrated care boards (ICBs) and NHS trusts were told to halve their costs.

ICBs have been told they must cut their running costs by 50% from October and must submit plans for government approval by the end of May, while trusts have been told to cut their "corporate cost growth" in half.

According to the NHS Confederation, some trusts will have to axe between 200 and 500 jobs, while some ICBs will need to lose 300 to 400 people. Several trust leaders have told the confederation redundancy payouts and associated costs could cost around £12m.

Without a national fund to cover these costs, leaders have said the required staffing cuts will take much longer to deliver, stalling efficiency savings, and could derail plans to reform the NHS and reduce waiting times.

The government is expected to publish its 10 year plan for the NHS in June. It previously promised to cut NHS waiting times to 18 weeks by the end of this parliament (2029).

NHS Confederation chief executive Matthew Taylor said that although health leaders understand the "need to improve efficiency" the "scale and pace of what has been asked of them to downsize is staggering." He said that many were "fearful of being able to find the right balance between improving performance and implementing the reforms needed to put the NHS on a sustainable footing."

Taylor added, "They have told us that unless the Treasury urgently creates a national redundancy fund to cover these job losses, any savings the government hopes to make risks being eroded, at best, and completely wiped out, at worst. If the 10 year plan for health is to be realised, it requires the NHS to be in a position of financial stability."

The warning came after reports that redundancy payouts from the abolition of NHS England could reach £1bn. Moving its functions back into the Department of Health and Social Care is expected to result in 20000 to 30000 job losses.

When asked by *The BMJ* if a redundancy fund was being considered, a department spokesperson did not directly answer but said "plans to bring the NHS back into the department will eliminate duplication, improve productivity, and free up hundreds of millions of pounds for frontline care and better treatment for patients." The Treasury was also contacted for a comment.

Elisabeth Mahase, *The BMJ* Cite this as: *BMJ* 2025;389:r766

Matthew Taylor, chief executive of the NHS Confederation, said the scale of cuts demanded by the government was "staggering"

LATEST ONLINE

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 "targeted"
 drug
 capivasertib
 for advanced
 breast cancer



MEDICAL NEWS

Streeting looks to end "crazy" competition between UK and overseas doctors



Wes Streeting and chancellor Rachel Reeves with staff at St George's Hospital in London last October

The health and social care secretary, Wes Streeting, has said he is reviewing the "bizarre situation" of UK medical graduates having to compete with doctors from overseas for jobs in the NHS.

Speaking on GB News on 8 April, Streeting said, "We've got this bizarre situation where graduates from UK medical schools are competing on an equal basis with overseas applicants. I think that is a crazy position for our country to be in. As we speak, I am looking at the changes we need to make to end that situation, so students who are going through UK medical schools get jobs that are available in our NHS."

The overall competition ratio for specialty training posts in the UK in 2024 was 4.7, up from 1.9 in 2019.

The BMA's UK Resident Doctors Committee has called for UK graduates to be prioritised for specialty training posts, for an increase in the number of those posts, and for a mechanism to protect international graduates in the UK. The committee's co-chairs, Melissa Ryan and Ross Nieuwoudt, said that while waiting for more training places "it is vital we do everything possible to keep UK medical graduates in the system."

Zosia Kmietowicz, The BMJ Cite this as: BMJ 2025;389:r742

Workforce

Resident doctors re-enter dispute over pay

The BMA's UK Resident Doctors Committee has re-entered a pay dispute with the government because the Review Body on Doctors' and Dentists' Remuneration (DDRB), which advises the government on doctors' pay, has been late in publishing this year's recommendation. The BMA said that publishing this report at the start of the financial year had been part of the deal it agreed with the government when ending its pay dispute last year. The union's move is a first step before potentially balloting members for industrial action.

Extra 1500 GPs appointed in past six months

More than 1500 additional GPs, equating to 851 full time doctors, have been recruited in England in the past six months under the additional roles reimbursement scheme, the government announced. The scheme was opened to doctors last year with £82m to allow primary care networks to hire GPs in 2024-25. Katie Bramall-Stainer (right), chair

General Practitioners Committee, said, "We are making steps in the right direction, but we are a long way from a destination as we are still painfully aware of far too many GPs facing unemployment."

Half of PAs have applied for GMC registration

Since associate regulation began last December the GMC has received more than 2500 registration applications, representing about 47% of physician associates (PAs) and 61% of anaesthesia associates (AAs) on the voluntary registers. The figures, as of the beginning of March, were reported in the GMC's response to the Leng review. The GMC added that regulation was starting to raise standards of practice by ensuring that only those individuals with the right clinical knowledge and skills were admitted to its registers.

Pneumonia

NICE: Treat children with three days of antibiotics

Babies and children aged
3 months to 11 years with
uncomplicated, community
acquired pneumonia should be
offered a three day rather than
five day course of antibiotics,
said NICE in draft guidance. The
recommendation follows

evidence that a three day course of antibiotics was as effective as five days. It is also in line with shorter courses of antibiotics for



many common infections, such as those of the urinary tract. A consultation on the proposed update runs until 12 May.

Research

Plan aims to speed up access to datasets

The government announced plans for a new Health Data Research Service to give researchers a secure, single access point to national scale datasets as well as NHS trust level data. The service, created in collaboration with the Wellcome Trust, is backed by £600m and will start at the end of 2026. The government also aims to "fast track" clinical trials, cutting down the average set-up time to 150 days by March 2026. In 2022 the average was over 250 days.

Waiting lists

Numbers fall for sixth month in England

The waiting list for hospital treatment in England fell for the

sixth month in a row to 7.4 million in February, down from 7.6 million last August. Waits of over a year fell for the ninth month in a row to 193 516 in February 2025, down from 304 919 in February 2024. Overall, 59.2% of patients began treatment within 18 weeks. By March 2026 the government aims to raise this to 65%. This February 80.2% of cancer patients were told that they had cancer or had it definitively ruled out within 28 days, against a 75% target.

Health inequalities

Physicians call for plan on avoidable illness

The Royal College of Physicians has called on the government to set out how its health mission will tackle health inequalities, after a survey of college members showed widespread concern. It found that 89% (of 882 respondents) were concerned about the effects of health inequalities on their patients, and 46% (of 857 respondents) said that at least half of their workload was due to illnesses linked to social factors. John Dean, the college's clinical vice president, has urged the government to set out how it will tackle the root causes of ill health, such as poor housing, unemployment, tobacco use, obesity, and poor air quality.

of the BMA's

IN BRIEF

Avian flu

Mexico reports first human A(H5N1) death

Mexico reported its first human death caused by the A(H5N1) virus known as avian flu. A 3 year old girl was confirmed by health officials to have died on 8 April after contracting the virus. The virus has killed millions of birds worldwide and has spread to mammals, but there have been no confirmed cases of human-tohuman transmission. A confirmed case of H5N1 was reported in the UK in January—only the second such case in the UK.

Self-harm

LGB+ people are twice as likely to self-harm

People who identify as lesbian, gay, bisexual, or "other sexual orientation" (LGB+) are more than twice as likely as heterosexual people to self-harm or to die by suicide, the Office for National Statistics reported. It said that the



rate of intentional self-harm among people who identified as LGB+ in the 2021 census of England and Wales was 1508.9 per 100 000 people, which compared with 598.4 per 100 000 in people who described themselves as straight or heterosexual. Suicide risk in people identifying as LGB+ was also 2.2 times as high as in those identifying as heterosexual.

Mental health

CQC survey highlights lack of patient support

People are waiting too long for mental healthcare and do not know who to contact in a crisis, found a survey by the Care Quality Commission. The survey of more

than 14000 people who used community mental health services found that 33% waited three months or more for their first treatment, and four in 10 said that they received no support while waiting. Results from young people using child and adolescent mental health services indicated poor experiences across multiple areas, with 45% of respondents waiting three months or more for their first appointment.

Weight loss

Crackdown on weight loss drug advertising

Three UK regulators issued a joint warning over rules on advertising weight loss drugs online. The Advertising Standards Authority, the Medicines and Healthcare Products Regulatory Agency, and the General Pharmaceutical Council issued a joint enforcement notice making it clear that adverts for named prescription only weight loss medicines are prohibited, including online, on social media, and by influencers. They emphasised that any such remaining adverts must be removed immediately. A search in January found around 1800 unique paid-for weight loss adverts that were identified as potentially advertising a prescription only medicine—a breach of the rules.

Cite this as: BMJ 2025;389:r756

HEARING

In Mexico a 3 year old girl

was confirmed to have

died after contracting

avian flu

So far, 107
children in England
have been found to
have had deafness
misdiagnosed from
2018 to 2023 when
they may just have
needed hearing
aids or cochlear
implants. A further

2000 children are being

re-examined [NHS England]

SIXTY SECONDS ON ... ANDI BIOTIC

MY NAME IS BIOTIC. ANDI BIOTIC

The UK Health Security Agency has a new superhero in the form of a pill shaped cartoon character known as Andi Biotic (below). He's heading up the UKHSA's "Keep antibiotics working" campaign to tackle misconceptions about antibiotics among young adults.

A DOSE OF GOOD MESSAGING?

The agency is piloting this new six week digital campaign, which is being promoted across social media networks and by general practices and pharmacies, to test its "potential to capture people's attention and imagination" so as to "help raise awareness of good antibiotic stewardship."

A HARD PILL TO SWALLOW

Indeed. An Ipsos survey of nearly 6000 UK residents aged 16 or older, commissioned by the UKHSA last year, found that over half of respondents incorrectly believed they either could not do anything personally to prevent antibiotics becoming less effective against infections (26%) or were unsure whether they could (28%).

NOT WHAT THE DOCTOR ORDERED

The survey also found that 41% of respondents aged 16 to 34 obtained their antibiotics incorrectly, compared with 23% in the general population. Incorrect methods included purchasing antibiotics in a shop that was not a pharmacy, obtaining them while abroad without a prescription, buying them over the internet, or using medicines prescribed for someone else.

SIDE EFFECTS OF MISINFORMATION

To tackle some of the misconceptions and encourage young adults to take antibiotics correctly, Andi will "come to the rescue in a variety of scenarios" to make sure people are not taking them for colds and flu, are taking only those prescribed to them, and are not saving them for future use.

REMEDYING THE SITUATION

The campaign came after figures showed there were 66 730 serious antibiotic resistant infections in England in 2023, up 14.6% since 2022. NHS England's medical director, Stephen Powis, has warned rising resistance could "send us back to a pre-antibiotic era" where routine surgeries "would become risky." He said it was "crucial young people understand the proper use of antibiotics to help prevent 'superbugs."

Elisabeth Mahase, *The BMJ*Cite this as: *BMJ* 2025;389:r712

Family of doctor who took own life after GMC email cannot sue regulator

he family of a doctor who took his own life within hours of receiving an email from the GMC has failed in their bid to sue it for damages over his death.

Sridharan Suresh (below), a consultant anaesthetist, drowned himself in the river Tees in May

I am satisfied that the claims should be struck out Marcus Pilgerstorfer 2018 after receiving an email telling him that he would be called before an interim orders tribunal over allegations he had inappropriately touched a 15 year old female patient.

He had given the girl midazolam, which can have hallucinatory side effects. He strongly denied the allegation, her description of the perpetrator was strikingly different from his appearance, and the police dropped the case for lack of evidence.

Suspended

Suresh was suspended from work at North Tees and Hartlepool NHS Foundation Trust for an initial period of two weeks but was told by the medical director that the trust would not report him to the GMC unless police found enough evidence to charge him. But police reported him, although Suresh and the trust's medical director were unaware.

The medical director believed that nothing would come of the police investigation, and Suresh had been expected to go back to work soon.

His widow, Visalakshmi Suresh, and sons Mukunth and Tharun, backed by the BMA, sued the GMC in the High Court, alleging negligence and breach of the right to life under the Human Rights Act (HRA). But deputy High Court judge Marcus Pilgerstorfer ruled that the claim could not succeed under the law as it stands and that it should not go to trial.

"I am satisfied that the claimants' claims in both negligence and under the HRA disclose no reasonable grounds for bringing the claims and should be struck out. In the alternative, the claims do not enjoy real prospects of success and fall to be summarily dismissed," he said.

The judge said the GMC did not have a duty of care to Suresh when the email was sent because "this would be incompatible with the statutory scheme which the GMC were obliged to operate." He added, "The recognition of a duty of care to those who are subject to investigation would in my view risk giving rise to



Plastic surgeon guilty of attempting to murder colleague

A plastic surgeon has been found guilty of attempting to murder a senior colleague and burn down his house after falling out with him more than 10 years ago.

Peter Brooks (right) was three days into a disciplinary hearing in January 2021 and was threatened with being dismissed by Nottingham University Hospitals NHS Trust when he broke into the home of Graeme Perks late at night, dressed in full camouflage gear and armed with petrol, matches, a crowbar, and a kitchen knife, and doused the ground floor in petrol.

Perks, who was head of plastic surgery and had provided a statement for the trust's investigation, heard a noise and came downstairs to investigate. Brooks stabbed him. Perks, who had worked with Brooks at Nottingham City Hospital, was found by his wife and son and taken to hospital, where he was put into an induced coma. The court heard he survived thanks only to "quick action and amazing surgical skill."

Prosecution

Opening the trial for the prosecution, Tracy Ayling KC told the jury at Leicester Crown Court, sitting in Loughborough, that Brooks "made a conscious decision to take the law into his own hands." She added, "It is clear that the defendant hated Graeme Perks, and you can conclude on the evidence you will hear that he wanted him out of the way."

Brooks was found guilty of

two counts of attempted murder, attempted arson with intent to endanger life, and possession of a knife in a public place. He had refused to attend his trial, sacked his lawyers several times, and went on repeated hunger strikes.

He gave the court a statement in which he blamed "deliberate use of disciplinary processes to drive him out of his NHS trust or to make him insane so that



he could be dismissed." Experts found no evidence that he lacked mental capacity. He will be sentenced on 3 June.

Jurors heard that the disciplinary proceedings against Brooks had been going on for six years and that the hearing was the final part of the process. He was excluded from work in 2014 and brought an employment tribunal case in 2015 claiming he had been persecuted for whistleblowing over patient safety issues. But he was unsuccessful and was ordered to pay costs of £170 000 to the trust.

Clare Dyer, *The BMJ*Cite this as: *BMJ* 2025;389:r709

BROOKS claimed he was being persecuted but was ordered to pay costs of £170000

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clear conflicts where the interests of those subject to the investigation would point in one direction, whereas the duty to investigate in accordance with the overarching objective would point in the other."

Case law

With regard to the claim under the HRA, the claimants argued that the case was one in which the state's "operational duty" to protect certain individuals in "well-defined circumstances" applied. But, having reviewed the case law, the judge said, "I have reached the clear view the sending of communications by the GMC to Dr Suresh about a forthcoming investigatory process did not occur in circumstances which amount to the 'well-defined circumstances' required to give rise to the operational duty under Article 2 ECHR [European Convention on Human Rights]."

A spokesperson said the GMC remained "deeply saddened" by Suresh's death, had met the family, and made changes to their processes.

If you're struggling, you're not alone. In the UK and Ireland Samaritans can be contacted on tel 116 123 or email jo@samaritans.org

Clare Dyer, *The BMJ*Cite this as: *BMJ* 2025;389:r739

NHS must offer more support to sexual misconduct victims, say surgeons

The Royal College of Surgeons of England is calling for urgent reform to tackle sexual harassment in the NHS after a High Court judge ruled that a surgeon who harassed junior colleagues over more than a decade should not be struck off the medical register.

Mr Justice Calver decided erasure would be a "disproportionate" sanction for James Gilbert (above), a leading transplant surgeon and supervisor of surgical trainees at the Oxford Transplant Centre who touched women "inappropriately" without their consent, including in the operating theatre, and made sexually suggestive comments.

Appeal

A medical practitioners tribunal decided last August to suspend him from the register for eight months without review. The GMC appealed to the High Court, arguing he should be struck off. But the judge instead



GILBERT WAS SUSPENDED AFTER A DECADE OF HARASSING COLLEAGUES

extended his suspension to 12 months, followed by a fitness to practise review.

A 2023 report by the Working Party on Sexual Misconduct in Surgery found 63% of women reported sexual harassment by colleagues, 30% said they had been sexually assaulted, and there were 11 cases of rape. But only 16% made a formal report. Those who kept silent cited a fear for their careers or that no action would be taken.

In a new policy paper RCS England and the working party call for NHS action to enhance reporting of sexual misconduct and to better support those targeted, including a national anonymous reporting system.

Key recommendations deal with how the medical practitioners tribunal service takes its decisions. It said, "We call on the MPTS to strengthen decision making methodology and sanctions banding to ensure clear, consistent, and appropriate penalties."

The college and working party also "call on the MPTS to conduct a review of the appropriateness, influence, and evidentiary weight of character references and testimonials."

Tim Mitchell, RCS president, said, "For too long, targets of sexual misconduct have faced a tribunal process that is intimidating, retraumatising, and unfair. Many are forced to waive anonymity, making their professional lives intolerable. This is unnecessary, harmful, and needs to change."

Clare Dyer, *The BMJ*Cite this as: *BMJ* 2025;389:r725

Judge rules in case of safety data for associate regulation

Campaigners who are taking the GMC to court alleging failure to properly regulate physician associates (PAs) and anaesthesia associates (AAs) have been cleared to submit new patient safety evidence.

A judge has granted
Anaesthetists United's bid to
submit two reports that were
published after it began its legal
case, and which the GMC had
argued were inadmissible, for a
judicial review in the High Court
on 13 and 14 May. One report is a
systematic review published in *The*BMJ in March 2025, which found
little evidence supporting the
safety and efficacy of PAs and AAs
in the UK.

The other is a coroner's regulation 28 "prevention of future deaths" report published



The outcome we want is for the GMC to have to go back to the drawing board

Richard Marks

in February, after the death last year of Pamela Marking, who was seen by a PA and died after having a nosebleed misdiagnosed. The coroner highlighted a lack of national and local guidelines and regulation of the scope of practice for a "physician associate," a term they described as "misleading."

In an order issued on 4 April allowing the new evidence,

Mr Justice Saini also ruled that Anaesthetists United would be able to respond to the GMC's defence of its case made by the regulator's lead witness, Colin Melville.

Saini ruled that "it would be wrong for the judges to consider the underlying legal issues without the full range of relevant evidence and the history."

National standards

The case by Anaesthetists United alleges that the GMC failed to set and enforce national standards, including setting limits on what PAs and AAs can and cannot do in their role, and that this was "incorrect and unsafe." It is being brought with the family of Emily Chesterton, one of several patients whose deaths led to coroners raising concerns over the role of PAs.

Anaesthetists United welcomed the Saini ruling, claiming the GMC had sought but failed to "blindfold the court to important new evidence and prevent us from responding to its lead witness."

Richard Marks, a consultant anaesthetist and cofounder of Anaesthetists United, told *The BMJ*, "The outcome we want is for the GMC to have to go back to the drawing board and look at setting the scope of practice. How they do that is up to them."

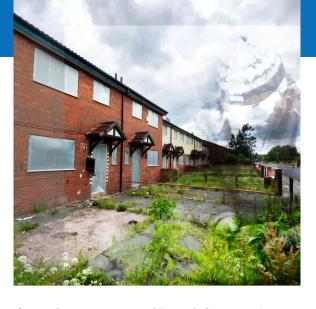
A GMC spokesperson told *The BMJ* that as the regulator it expected that PAs and AAs should always work under supervision, practise within their competence, and clearly communicate who they are and their role in the team.

Matthew Limb, London Cite this as: *BMJ* 2025;389:r746

NEWS ANALYSIS

HEALTH INEQUALITIES What can we learn from Manchester's approach?

Making lives better when times are hard can seem an insurmountable challenge. But local initiatives with joined-up working can have an impact, reports **Emma Wilkinson**





We did achieve change, and we can do it again Clare Bambra

hildren born in 2008 in the UK have not yet hit their 18th birthday but have already lived through a global financial crisis, a period of austerity, a pandemic, and now a cost-of-living crisis. Inequality has widened in that time, and local authorities' budgets have been dramatically cut.

Before last year's election the Labour Party set out its health mission, where it acknowledged that much of what made people healthy sat outside the remit of the NHS. It set out plans for jobs, housing, and policies on unhealthy food, alcohol, and tobacco. But with its laser focus on fiscal policy, many public health experts believe that the government is simply not being ambitious enough.

Since gaining power the Labour government has announced a ban later this year on TV advertising of unhealthy food before the 9 pm watershed and funding of £125m for trailblazer programmes to help people with long term chronic conditions to get back to work. Yet a planned overhaul of welfare has been heavily criticised after figures showed that it will push more children into poverty.

The NHS will shift its focus from sickness to prevention, the government has said. But with health service finances in a dire state, NHS England is set to be abolished and steep redundancies will be made at integrated care boards.

It was against this background

that public health professionals met in March at the UK Health Security Agency's annual conference. In a session on health inequalities Clare Bambra, professor of public health at the University of Newcastle, told the audience of the need to remind ministers how effective the strategy of the Blair-Brown government had been in tackling inequality—citing Sure Start, child tax credits, and a spending boost to the NHS.

"I am not sure if the current Labour government knows the impact that the policy of their predecessors in the 2000s had," she said. "We did achieve change, and we can do it again." Yet, in the absence of a clear strategic national direction, devolution may provide an opportunity for progress, she added.

Greater Manchester's mayor, Andy Burnham, told the conference that the covid pandemic had laid bare inequalities that had always existed but had been ignored. That vulnerability had not been properly dealt with since, he said.

Burnham, a former Labour health secretary, added, "Resilience starts, in my view, in homes, in communities, in workplaces—and we have a long way to go, but we're starting to build it."

Equal partnership model

In Greater Manchester, which has a population of 2.8 million, Burnham inherited a system where 10 local councils were closely aligned. On top of this they developed a "place based

approach" to include community, voluntary, faith, and social enterprise sector organisations as equal partners.

Greater Manchester is one of 10 combined authorities that will be given more power over local approaches to issues such as air quality, housing, and training and employment. Its integrated settlement will come into force this month.

This strategy of collaboration was used to tackle rising cases of measles last year. GPs, primary care networks, public health teams, schools, and community groups joined forces in 2024 to give 29% more measles, mumps, and rubella (MMR) vaccinations (80 700) in 0-25 year olds than in 2023 (62 700).

A coordinated communications strategy was coupled with targeted resources based on a data dashboard that highlighted the gaps in vaccine uptake. The result was no significant rise in cases or outbreaks at a time of national emergency, when cases in the West Midlands soared.

Live Well—described by Bambra as Sure Start with a health focus—is Manchester's approach to social prescribing. The "community led" approach aims to provide easier access to services dealing with the social causes of ill health, including getting people into good jobs.

The Making Manchester Fairer five year plan for tackling health inequalities, launched in 2022, reported that 42% of children under 16 in Manchester were living in poverty. It also pointed to the impact of systemic discrimination and racism. Working with communities would be the key, it concluded.

Cordelle Ofori, director of public health for Manchester, told *The BMI*

Infrastructure
that enables
you to work
across
agencies
and sectors
makes a big
difference
Cordelle Ofori



COMMUNITY groups joined forces in 2024 to give 29% more measles, mumps, and rubella

vaccinations to 0-25 year olds than in 2023

that committed leadership at both the council and regional level had "changed everything."

"It makes it a lot easier to make things happen, even within the context of the national strategy and financial challenges," she said. "With Live Well, having an infrastructure that enables you to work collaboratively across different agencies and sectors makes a big difference."

Having an agreed focus has led to sustained engagement, which in the past had been hard to achieve, she added. "It meant we have been able to develop and deliver programmes that aren't just through the lens of one agency or professional group."

One example is the Kickstarter programme for children. Primary schools were stratified to receive universal, targeted, or intensive levels of support, depending on measures such as poverty and deprivation as well as speech and language attainment. Interventions included staff training on emotional and mental health needs. Wraparound support for families was provided from outreach workers to help with health and socioeconomic challenges.

Outcome improvements

Data seen by *The BMJ* from the programme's first year show that children's educational outcomes improved, but so did their behaviour and their social and emotional wellbeing. There was also more interest from parents in services such as smoking cessation and help in getting access to benefits.

Ofori said one of the most important steps was to ensure representation at the board level to reflect different ethnic groups, sexual orientation, and people with experience of poverty and homelessness. She explained, "We have taken deliberate steps to reflect Manchester's communities in the decision making forums, as well as in community development and engagement work. Our structures have [previously] been systemically not inclusive, but to be accountable we need people to genuinely have a voice."

Katherine Merrifield, assistant director in the Healthy Lives team at the Health Foundation think tank, said that combined authorities hold many levers to tackle inequalities and are likely to be given more in time. They can be in a better position than Whitehall to understand their communities and to take a long term approach, she added.

"It feels like there is momentum, and many of the regional mayors have been elected on a platform around health and wellbeing. They are passionate about it," said Merrifield.

Safe place to sleep

She gave the example of South Yorkshire's mayor, Oliver Coppard, who has set aside £2.2m over four years to guarantee a safe place to sleep to any child under 5 who needs it—be it a Moses basket, cot, cot bed, or toddler bed.

"There are definitely some opportunities, but on the flip side of that is ongoing financial challenges, said Merrifield. "The churn and change that we're likely to see in the NHS, which is obviously a really key partner, is going to make that landscape quite difficult." Not all regions have the same geographical and political history of close working as Greater Manchester, she added.

Alice Wiseman, vice president of the Association of Directors of Public Health, agrees that a lot can be done to tackle inequality at the local and regional level, but she said that this must be in the context of national leadership.

"The things that make a great difference are educational attainment, access to good jobs, and a safe home—and that sits outside the direct responsibility of public health teams," she said. "Work we're doing locally in Gateshead and Newcastle is around how we make sure that every decision made by councils is informed by the health impact and equity."

Burnham is outspoken in voicing his desire to prove that highly integrated public services closely linked with communities and the voluntary sector can make a big difference. He told the UK Health Security Agency conference, "In Greater Manchester we are positioning ourselves as the UK prevention demonstrator."

Emma Wilkinson, Sheffield Cite this as: *BMJ* 2025;389:r727

"Shingles vaccine may help cut dementia risk"

Vaccination for shingles could be linked to a reduction in the risk of developing dementia, a study published in *Nature* has reported.

For the study, researchers at Stanford University in California took advantage of a public health policy in Wales in which people born on or after 2 September 1933 were eligible for the Zostavax vaccine from 1 September 2013, while older people were not. The researchers used this "natural experiment" between the two populations to compare rates of dementia.

After accounting for the fact that not everyone who was eligible for the zoster vaccine received it, the researchers found that receiving the vaccine reduced the probability of a new dementia diagnosis over a follow-up period of seven years by 3.5 percentage points, corresponding to a 20% (6.5%

to 33.4%) relative reduction. The protective effect was stronger in women than in men.

"Profound" implications

Pascal Geldsetzer, lead author of the study and assistant professor of medicine at Stanford University, said, "For the first time, we have evidence for a cause-and-effect Common viruses that reside silently in the body may play a role in driving neurodegenerative disease Kenneth Muir

relationship between live attenuated shingles vaccination and dementia. The effect sizes appear to be large and, if truly causal, would have profound implications for population health and dementia research."

Kenneth Muir, senior author of a 2021 paper published in *BMJ Open* that reported a similar size reduction in dementia in people who had the vaccine, said that one theory for the possible mechanism of the protective effect was the "viral hypothesis" of Alzheimer's disease and other dementias. He explained, "This theory suggests that common viruses that reside silently in the body—particularly neurotropic herpesviruses like herpes simplex virus type 1 and varicella zoster virus—may play a role in driving neurodegenerative disease through cycles of reactivation, inflammation, and cumulative neural damage.

"Reactivation later in life—commonly presenting as shingles—is typically triggered by stress, immunosenescence, or illness. Each episode may induce localised inflammation, vascular injury, and microglial activation—processes that have also been implicated in dementias."

Gareth lacobucci, *The BMJ*Cite this as: *BMJ* 2025;389:r722



Of the 282 541 adults in the study, 190004 (67.2%) were eligible to receive the vaccine and 92 537 (32.8%) were not. Some 84 071 adults (29.8%) received the vaccine, and during the seven year follow-up period 35 307 of 282 541 adults in the study (12.4%) had dementia newly diagnosed

AI IN HEALTHCARE: What does good evidence and regulation look like?

Artificial intelligence is infiltrating medicine at many levels, from providing patients with advice to aiding diagnoses. **Elisabeth Mahase** looks at how research needs to adapt to keep patients safe

How are Al tools being evaluated?
So far, NICE has evaluated and published reports on five AI technologies. The sixth evaluation, on the first autonomous AI tool, is due to be published later this year.

"Most of the AI tech that we have evaluated has been in the diagnostic space and is imaging based technologies," said NICE's HealthTech programme director Anastasia Chalkidou. "It's still a med tech fundamentally."

Chalkidou told NICE's annual conference on 27 March that most AI tools were being evaluated through its early value assessment (EVA) process. To be considered for this pathway, technologies with evidence uncertainties must aim to meet an unmet need. If they are conditionally recommended for "early use in the NHS," an evidence generation plan must be followed to produce "evidence that needs to be gathered while in use." Once this evidence is collected, NICE will make a full recommendation.

Priority areas for EVA consideration include mental health, cardiovascular health, early cancer detection, and medical technologies that boost healthcare capacity.

One AI technology type that has been given an early recommendation through this system is AI assisted contouring for radiotherapy treatment planning. Such tools aim to save consultants' time by marking up the organs at risk of radiation damage, as well as the site of the cancer, before radiotherapy.

"Marking up all the images takes time and a certain level of accuracy, and it's quite repetitive. But it needs to be done really well for the treatment to be successful. What AI autocontour promises to do is to press a button and it will do that automatically for the consultant," Chalkidou said. However, she emphasised that, to minimise risk, a simple safety check can be put in place. "At the end, you still have your consultant going through



At the end, you still have a consultant going through and saying, 'Yes, yes, that's fine' Anastasia Chalkidou very quickly and saying, 'Yes, yes, that's fine,' or, 'We missed that bit here, I'll adjust it."

What evidence is needed for an EVA recommendation?

In the case of autocontouring tools, Chalkidou said retrospective and prospective studies were provided but not randomised controlled trials. "But the value proposition was so obvious, including from the experience of experts, and the committee could see a signal from the evidence. It was almost a no brainer," she said.

These technologies were conditionally approved in 2023, and the companies were given three years to provide evidence on several outcomes: clinical acceptability of contours and amount of edits needed, impact of AI autocontouring on radiation dose to organs at risk and the tumour, time saving resource use as defined by practitioners grade and time, and contouring errors and adverse events associated with AI autocontouring.

Once this evidence is provided, NICE will re-review the technologies and determine whether they should be used in the NHS.

What is gold standard evidence?
To date there is no consensus on what standards of evidence regulators should be

asking for for AI technologies.

Xiaoxuan Liu, associate professor in artificial intelligence and digital health at Birmingham University, said that although she had always been "very much against AI exceptionalism" and believed that it should be evaluated "in the same way that we do all technologies in healthcare," her view has changed in the past year.

"For me it has become undeniable that the pace of development has now tipped past this point and we have to adapt our evidence generation approach in more innovative ways," she said. She added that not changing



We must prioritise equity, diversity, inclusion as a core principle, not as an afterthought
Xiaoxuan Liu

would mean "we're no longer serving our patients, we are no longer making the most out of the potential of these technologies."

However, she emphasised that this didn't mean "compromising a high evidence bar, but it's how we deliver that evidence." She said researchers needed to develop "more dynamic and responsible evaluation approaches that are in real world settings, to keep pace with the speed at which this technology is now improving . . . without compromising our definitions of 'safe, effective, and equitable' and to do so in a way that builds trust—that is collaborative and transparent."

Jess Morley, postdoctoral researcher at the Yale Digital Ethics Center, told *The BMJ* there had been much discussion on the utility of randomised controlled trials (RCTs) for AI, as these types of studies were "primarily designed for static interventions," while AI is "often not static—it can learn and adapt in real time and is very context dependent."

She continued, "The challenge is that, while there is general agreement that RCTs may not work, there is no agreement on what an alternative gold standard might look like. In part this is because the standard required varies, depending on the risk level assigned to the AI intervention, and this is not always clear.

"This is where exceptionalism comes in. Many AI tools are 'under-risked' because it is presumed the impact is minimal; as a consequence, they are subject to lesser evidence requirements. Without the legal incentive to push the community to agree on a gold standard it's difficult to reach consensus."

Morley said it was "absolutely essential that AI is not purchased and deployed" in the NHS "simply because it has been shown to be statistically accurate in an in-house validation test. As a minimum we should be pushing for external validation and independent



It is essential Al tools are not simply deployed and left on their own. There has to be regular checks Jess Morley validation of safety and effectiveness, be that through a multicentre trial, retrospective trial, or whatever is deemed suitable." On top of this, companies must provide information on where the tool was developed, what data it was trained on, and for what purpose.

"If none of this information is available there is no guarantee it will work in the area in which the NHS is seeking to deploy it. So it's really about asking a lot of questions and not being easily swayed by big claims of big tech."

Paul Kirk, programme leader in biostatistical machine learning at Cambridge University, said that although he believes the gold standard will likely "combine multiple approaches tailored to the tool's function, intended use, and risk level," RCTs will "certainly remain appropriate in many cases."

He added, "For tools that directly influence treatment decisions or diagnoses, RCTs can assess patient outcomes when clinicians use AI versus standard care. On the other hand, RCTs may be less easily applicable in some cases, such as for rapidly evolving systems that are designed to continuously learn and adapt or for tools that seek to optimise workflows or administrative functions."

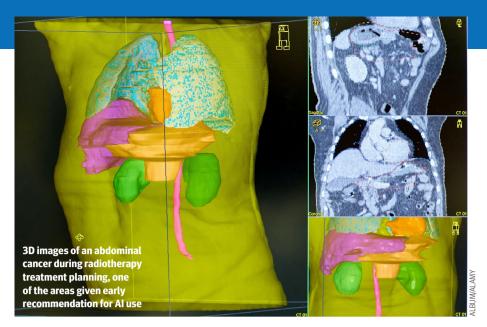
For such tools, Kirk suggested measuring performance across multiple sites, before and after implementation, could be more suitable, alongside continuous monitoring of the tools.

Ultimately, it is crucial for AI systems to recognise their limitations Paul Kirk

Last year a scoping review of RCTs on AI warned that although interest was growing more research was needed to determine the success of many of these applications. It called for more "multicentre trials and the incorporation of diverse endpoint measures, especially patient relevant outcomes."

Is post-market surveillance needed?
Post-market surveillance or "near
continuous monitoring" of AI tool performance
will be "essential," Morley said. This is because
"very small differences, such as formatting
of a particular data entry field in one location
versus another, can have a significant
difference on performance."

She added, "Of course, what the model 'learns' might also affect performance. Thus, it is essential that AI tools are not simply deployed and left on their own. There need to be regular checks of statistical accuracy and clinical performance—for example, monitoring of outcomes is still essential and for different groups of patients." She emphasised that this monitoring "must be accompanied by a plan to remove the AI if it has been found to be faulty."



How is AI being used by researchers and drug companies?

AI is not only being used in clinical practice but in medical research and evidence generation. Pall Jonsson, programme director for data and real world evidence at NICE, said, "Pharma companies are using AI to create economic models and network meta-analyses, so they can look at comparative effectiveness of medicines much quicker than they used to."

However, he said companies have not always made this clear to NICE. As a result, NICE issued a position statement stating that organisations submitting evidence to it must declare when they have used AI, "clearly justify" its use, and "should engage with NICE to discuss their plans" if they intend to use AI. It added that "any use of AI methods should be based on the principle of augmentation, not replacement, of human involvement."

Academics and researchers are also considering how AI can help them. Kirk said, "In my field, the potential opportunities for AI in medicine are vast. By integrating multiple molecular datasets together with clinical information, AI may be able to uncover disease subtypes and biomarkers not yet identified, which could transform precision medicine."

He said AI could also be used to "identify complex patterns in electronic health records" and "provide insights into population health, as well as assisting clinicians in individual patient treatment." But he added, "Critical to success is ensuring the tools' reliability and safety, to ensure both clinicians and patients can have confidence in their application."

Can Al say "I don't know" or provide confidence levels?

For Kirk, a key challenge is the expression of uncertainty. "In statistical machine learning we aim for models that not only make predictions but also quantify their confidence in those predictions. Bayesian methods provide

uncertainty estimates, but many deep learning methods produce point predictions without reliable confidence scores," he explained.

He added, "Reliably assessing confidence matters tremendously in medicine" and if a system could not do this it "may result in harmful decisions." On the other hand, appropriately expressed uncertainty in "ambiguous cases" could lead to "prompt additional investigation or consultation."

Kirk added, "In my research group we develop and apply Bayesian approaches that naturally quantify uncertainty. However, scaling these to complex AI models presents challenges. Moreover, communicating uncertainty to clinicians in ways that inform rather than confuse decision making is an active area of interdisciplinary research.

"Ultimately, it is crucial for AI systems to recognise their limitations and be able to say 'I don't know' or 'I'm not sure' for them to earn the trust of clinicians and patients."

Could AI tools worsen inequalities?

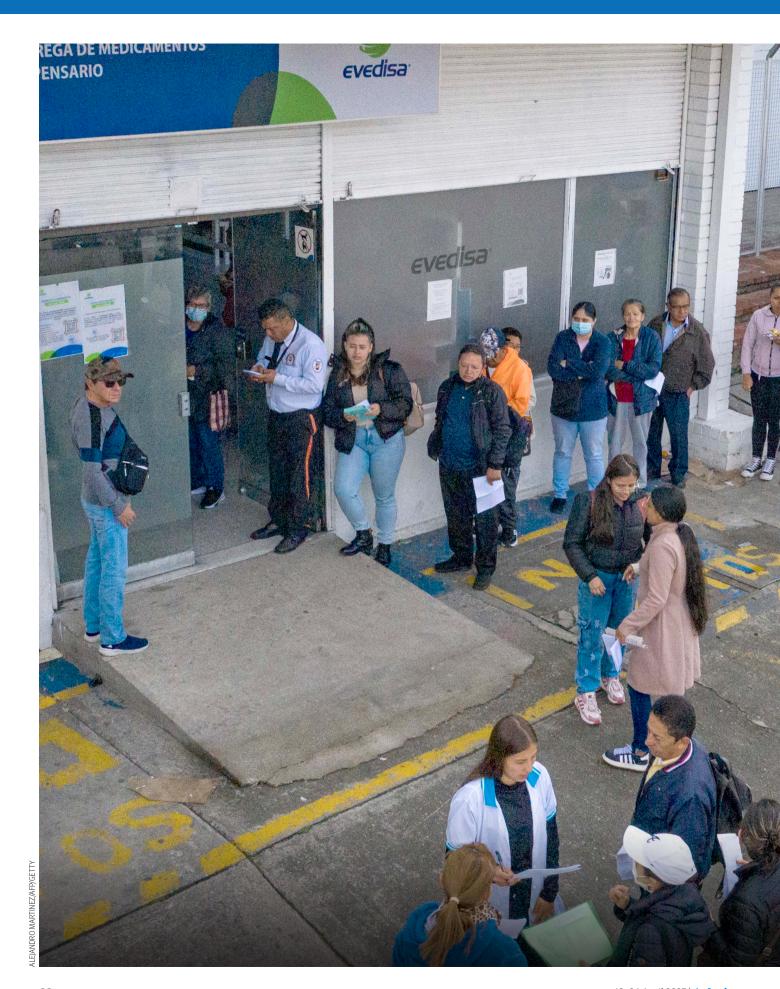
One major consideration for developers and regulators must be ensuring AI reduces inequalities rather than worsen them, Liu said.

"These technologies should be for all, not just the majority. At every part of the AI development life cycle we must prioritise equity, diversity, inclusion, representation as a core principle, not as an afterthought," she said.

To do this, Liu said developers must ensure representative datasets are used to develop these tools, and studies that seek to test them must look at both the general population and subgroups, particularly those who are "already disadvantaged within our health system and have poorer health outcomes."

She added, "We need development teams that have this as a core principle in the algorithms they're seeking to design."

Elisabeth Mahase, *The BMJ*Cite this as: *BMJ* 2025;389:r692



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THE BIG PICTURE

Colombia's health system in meltdown

Long queues snake outside a pharmacy in Bogotá, as in other towns and cities across Colombia, as patients try to collect drugs, only to be told that even basic medications are unavailable, as the country's health system suffers as a result of growing debt and political turmoil.

There are reports that vital drugs such as diuretics, insulin, and antivirals are unavailable.

The health system operates through a network of insurers, the Entidades Promotoras de Salud (EPS), which cover 98% of the population, with government subsidises for low income users. Some insurers are so heavily indebted to clinics that affiliated patients are being denied treatment.

Despite the worsening health crisis and growing EPS debts, President Gustavo Petro has ruled out paying off the debt. "The private companies must pay their debts, and if they don't they will be liquidated," he told reporters last month.

Luke Taylor, Bogotá

Cite this as: *BMJ* 2025;389:r760

Widening access to medical school

Working class students continue to face barriers to entry

s the UK government plans to double places at medical school by 2031,¹ The Sutton Trust's *Unequal*

Treatment? report offers a timely analysis of how this expansion could either mitigate or entrench existing disparities. The report shows that, despite increasing efforts to widen participation, only 5% of entrants in 2021 came from the lowest socioeconomic groups. This reflects a longstanding trend: students from less affluent backgrounds are less likely to apply and less likely to receive offers to study medicine. The students from less affluent backgrounds are less likely to apply and less likely to receive offers to study medicine.

While the Sutton Trust urges greater collaboration between medical schools and more consistency across admissions processes, it stops short of prescribing nationally agreed widening participation criteria. Standardised approaches would improve transparency, support accountability, and ensure that efforts are better targeted towards those facing the greatest barriers. Substantial variation exists in how medical schools currently define disadvantage and apply contextual data, with limited transparency and availability of information.27 This inconsistency makes it harder for applicants to identify where they are both eligible and have a good chance of success.

The University of Birmingham, for example, applies contextual weighting for applicants from low attainment schools or those eligible for free school meals, offering reduced entry grades of AAA at A level, compared with the standard requirement of A*AA.8 Applicants facing multiple other disadvantages, such as being the first in their family to attend higher education or living in an area where the rate of progression to higher education is low, might qualify for an offer of ABB on completion of an access programme.⁹ The University of Birmingham is



Nationally agreed widening participation criteria must now be established

one of seven participants of the UK
Widening Participation in Medicine
collaboration and recognises
access programmes from partner
institutions. 10 It publishes detailed
admissions criteria and application
scoring frameworks online. 11

By contrast, King's College London only offers an extended medical degree programme with reduced entry requirements of ABB at A level (compared with A*AA for their standard programme). This is limited to applicants who have completed one of King's College's widening participation programmes—offered to pupils in Greater London or within a commutable distance to Londonwhich limits access to those who live in geographical reach. 12 13 How contextual data and admissions tests are used in the selection process is unclear, potentially disadvantaging some applicants. 14 15

Local factors, such as workforce needs or the pursuit of academic excellence, might influence institutional widening participation policies, but must not come at the expense of fairness or transparency. The Sutton Trust rightly calls for greater cohesion between medical schools, clearer information for applicants, and more ambitious use of contextual admissions. But this is still not enough. Nationally agreed widening participation criteria and standardised contextual admissions frameworks must now be established.

An essential and actionable aspect overlooked in the Sutton

Trust report is the role of individual healthcare educators in advancing socioeconomic diversity. Strengthening partnerships with schools, delivering outreach activities, and providing mentorship are equally important. You Can Be A Doctor, for example, is a charitable organisation founded and run by volunteer doctors and medical students, offering application support and outreach for underprivileged students, their educators, and care givers. The team works with educational institutions to advocate for equal access to medical education.18 Without cultural change in institutions, policy reforms risk being undermined in practice.¹⁹

Many of the Sutton Trust's recommendations could be achieved at relatively low cost, but others rely heavily on financial investment,² and widening participation efforts cannot be pursued in isolation from the broader funding crisis in UK education. Institutional and individual financial constraints are likely to remain a persistent challenge given the current economic climate, but a cohesive and collaborative approach is essential to deliver equity in admissions and build a future medical workforce that better reflects the diversity of society. Increasing the number of medical school spaces provides the opportunity to tackle the disparities discussed in the *Unequal Treatment?* report. But without standardised widening participation admissions policies and meaningful engagement from healthcare educators, progress will stall. Only by firmly embedding widening participation in both policy and practice can we build a more inclusive profession, where opportunity is driven by potential, not privilege.

Cite this as: *BMJ* 2025;389:r695

Find the full version with references at http://dx.doi.org/10.1136/bmj.r695

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EDITORIAL

A UK wealth tax for better health

Revenue could reduce funding gaps and inequalities

he UK's health and social care services are increasingly strained by rising demands and widening health inequalities. The government has decided to cut welfare benefits for people with disability,3 with the minister for intergovernmental relations defending the cuts by saying you can't "tax and borrow your way out of the need to reform [the] state." This is in the world's sixth largest economy, where private fortunes continue to grow. Could taxing wealth be a viable approach to address these critical challenges and promote equity across the population?

In simple terms a wealth tax is a tax on a person's or a business's assets, such as their cash and bank holdings, land, and other real estate. There are many ways to tax wealth, including one-off windfall taxes (for example, on a bank or fossil fuel profits) and annual taxes on assets.⁴

Proponents argue that wealth taxes are more equitable and reduce inequality, and are therefore justifiable in terms of social justice alone, that they are a counterweight to unfair economic advantages and excessive influence of the wealthy in politics. They would also raise substantial revenue that could be used to turn the tide on deteriorating population health and rising inequalities, while avoiding a return to the austerity policies that are a root cause of these adverse trends. Opponents fear that wealthy individuals or businesses will move their assets in response, thus reducing the domestic tax base, and argue that wealth taxes penalise success and discourage investment. The practicalities of taxing wealth are also debated, with one-off taxes, especially if unexpected, seen as easier to implement than annual wealth taxes, which might lead to more planned tax avoidance and evasion.

Wealth taxes have waxed and waned in popularity over the past half century



A wealth tax could raise £60bn a year to help tackle widening inequalities

among countries in the Organisation for Economic Co-operation and Development, increasing from six countries in 1965 to a peak of 12 in 1996. Six countries have some current scheme (Norway, Spain, Switzerland, and Columbia have annual wealth taxes, France taxes real estate, and Italy taxes some assets held abroad). Wealth taxes have typically been discontinued following negative experiences with poorly designed or implemented schemes.8 International cooperation on ownership transparency, including global registration of assets, would facilitate implementation and capture of wealth taxes, and there has been recent progress in this area. An improved international governance context would also mitigate fears of mass relocations of wealth, although such migrations have been shown to be minimal in scale and significance. $^{\tiny 10\text{-}12}$

The UK Wealth Tax Commission, Oxfam, and many others propose levying a tax on wealth above £10m-a threshold which demarcates the wealthiest 0.04% of the population, accounting for around 20000 people. A 1-2% tax would raise £10-24bn annually and cost only £300m to administer. 13 14 Wealth tax commissioners Arun Advani and Andv Summers highlight a range of proposed tax measures-including taxing capital gains (profits from selling assets) at the same rate as income, and removing tax relief on inheritance of agricultural, business assets, and pension pots—as a "win-win-win." These measures

could bring in £60bn a year, reduce inequality, and improve economic efficiency with more streamlined tax schemes.

Public health benefits

However we might, as a society, choose to direct those billions to improve the health of the population, there is no doubt that they could be put to good use and offer public health wins.

The first potential health promoting wins could come from reductions in poverty and inequality. 15 16 Among developed countries, higher income inequality is related to worse health, lower social cohesion, and environmental problems.16 Wellbeing adjusted life years (WELLBYs), which combine life satisfaction and life expectancy, are lower in countries with greater inequality; the UK ranks 14th. 17 18 Reducing inequality is crucial as the UK faces rising economic inactivity because of ill health, with nearly three million people unable to work because of mental health and musculoskeletal issues. Action on poverty and inequality could address the depression and anxiety at the heart of this epidemic of economic inactivity. 19 20

A second health promoting win from a wealth tax could be realised if the £10bn-£60bn estimated annual revenue were used to address NHS shortfalls, support social care, or fund a universal basic income for population health benefits.21 Thirdly, investing in early childhood always pays off through reducing poor health, school dropout, crime, and promoting economic growth. 22 23 Tackling child poverty would yield lifelong improvements in health and wellbeing, with every £1 spent on childcare delivering £7 societal return.24

Perhaps we can no longer afford not to tax wealth for health.

Cite this as: BMJ 2025;389:r720

Find the full version with references at http://dx.doi.org/10.1136/bmj.r720

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BMJ INVESTIGATION

Industry lobbying derails councils' bans on outdoor junk food advertising

Local authorities trying to introduce policies to protect the public from unhealthy product advertisements face a "tobacco playbook" of tactics to stymie their plans, and some bans have been shelved as a result, **Sophie Borland** reports



obbying by the advertising industry is thwarting plans that aim to protect public health by banning junk food advertisements from bus stops and billboards, *The BMI* has found.

Companies and their representatives are warning local authorities in financial crisis that the councils' advertising revenues will plummet if they restrict the promotion of food products high in fat, salt, or sugar (HFSS). These warnings have led some local authorities in England to shelve their plans despite the potential benefits to public health, *The BMJ*'s investigation discovered.

Those councils that push ahead with their plans despite such lobbying are facing delays of up to eight years to enforce the bans, because of their existing contracts with the advertising firms. Even when the bans come into effect they allow adverts for products such as McDonald's chicken nuggets and KFC burgers to continue to be displayed (box 1).

The BMJ's findings expose a gap in government plans to ban junk food advertising aimed at children. Experts now urge a ban on "out-of-home" HFSS advertising, in line with restrictions on such foods being advertised on television before the 9 pm watershed and in paid-for online adverts at any time, which are due to come into effect in October 2025. The industry lobbying exposed by The BMJ's investigation has a "chilling effect" on such national policy making, they say.

"The government is leaving individual local authorities to fight for this policy against powerful vested interests," says Fran Bernhardt of Sustain, the alliance for better food and farming. "This is inconsistent and leaves children at risk, so we need comprehensive restrictions nationwide."

The BMJ used freedom of information requests to uncover how advertising firms and lobby groups are deploying a "tobacco playbook" of tactics to target council policies to restrict junk food advertising. Some of the local authorities being lobbied, including Liverpool City, Tower Hamlets in east London, and Luton in Bedfordshire, have among the highest rates of childhood obesity in England.

Out-of-home advertising is "one of the most regulated forms of advertising," says Outsmart, the trade body for the sector, adding that it remains "committed to a constructive dialogue on this issue."

Advertisements for McDonald's chicken nuggets and fries and for KFC chicken burgers are able to continue being displayed even where councils have implemented bans on advertising of foods high in fat, salt, or sugar (HFSS). This is because they "pass" a complex scoring system used to decide whether a product is HFSS.

Most councils in England, and Transport for London, have based their policies on a tool called the nutrient profiling model. This was devised by the Foods Standards Agency 20 years ago to help Ofcom decide which adverts should be banned at times when children's television programmes are shown. The model calculates a score for each product that is based on their beneficial nutrients balanced against their less healthy ingredients.

Sources in public health told *The BMJ* that McDonald's fries were a "pass" in the model, meaning adverts for fries on their own would be allowed under the ban.

"I don't think anyone would see these products as 'healthy,'" says Mark Green, a professor of health geography at the University of Liverpool. "It reflects a limitation of the way they are categorised and the ability of large companies to find ways around [bans]."

Other adverts that have bypassed the ban include one for a KFC teriyaki burger, shown on the London Underground in August 2023. At the time Transport for London (TfL) explained that nutritional information on the item sent to it by KFC was "found to be compliant."

An advert for McDonald's chicken nuggets was reportedly displayed at Angel tube station in London last year, and again TfL said McDonald's had sent it the nutritional information, which was found to be "compliant" and "non-HFSS."

Adverts for KFC have also been reported on the London Underground and in tube stations in the past 18 months. Green says he has recently seen adverts for McDonald's chicken chilli wraps on the London Underground. "McDonald's themselves also deploy other tactics," he adds, citing adverts for an empty cheeseburger wrapper "with a slither of cheese," which he'd seen in other cities and which feature in a joint report he has produced in partnership with the charity Bite Back, published this week.

He says, "It's clearly advertising the cheeseburger. They are being a bit devious about how they get around some things ... They spend a lot of money and resources on designing advertisements that are clever or can bend around the rules."

Transport for London told *The BMJ* that as of March 2025 there were 18 advertising "campaigns" for McDonald's running across the network on bus shelters and on the rail network, all compliant with the HFSS policy. There were no such adverts for KFC.



I don't think anyone would see these products as healthy

Mark Green

"Only a snapshot" of true scale of lobbying

The BMJ sent freedom of information requests to 52 of England's 317 local authorities, focusing on those that had recently announced restrictions on HFSS food advertising and those in major urban areas. We asked about correspondence and meetings with the advertising industry in the past three years relating to local plans for advertising restrictions on HFSS products.

Eight councils sent us evidence showing an attempt by the advertising industry to influence their policy making: Brighton and Hove, Cheshire West and Chester, Leeds, Liverpool, Luton, Peterborough, Southampton, and Tower Hamlets in east London.

Experts tell *The BMJ* that the freedom of information responses offer only a snapshot of the true scale of industry lobbying going on behind the scenes. Much lobbying will not be officially recorded, such as emails to personal accounts and informal meetings, they say.

Bernhardt tells *The BMJ* she has been working with around 150 local authorities across the UK to try to bring in HFSS advertising restrictions. So far, 22 councils in England, and Transport for London (TfL), have signed off what Sustain describes as "robust" policies. This means that HFSS adverts are banned across all council owned

advertising—although not privately owned billboards, buses, or bus stops (box 2). All were approved in the past six years, with TfL being the first in February 2019.

Six of the eight councils that provided *The BMJ* with evidence of industry lobbying were among those to sign off robust policies. Bernhardt says, "They're the ones which have faced the least obstructions, so that doesn't really tell the story. For every one policy we've got over the line there are at least five that have come up against issues."

Bernhardt says she has seen a "range of lobbying tactics deployed, aimed at scaremongering, delaying, weakening, or attempting to block policies from being approved."

Kathrin Lauber, of the University of Edinburgh's School of Social and Political Science, agrees: "It's very likely the FOI responses you've received are a small snapshot... It's really hard to find this because so much of it happens behind closed doors."

The potential benefits to public health of policies to restrict HFSS advertising were shown in a study by the University of Sheffield and the London School of Hygiene and Tropical Medicine (LSHTM) looking at the effects of TfL's ban.

Published in July 2022, the study estimated that up to 100 000 cases of obesity had been prevented, alongside 3000 cases of diabetes and 2000 cases of heart disease,

in the three years since the policy was implemented.

"If the government truly prioritises children's health, it must shift the spotlight away from unhealthy food—across all media," Bernhardt says. "Evidence shows that the healthier food advertising policy reduces illnesses like type 2 diabetes, heart disease, and obesity while saving the NHS money. The time to act is now."

Bans shelved after financial warnings

The BMJ's investigation uncovered evidence of councils being warned they would lose up to 30% of advertising revenue at a time when they are facing a severe funding crisis.

The BMJ is aware of one large urban council with high rates of childhood obesity that has paused its policy after being warned by the industry of the financial cost.

Separately, we were told by sources that Brighton and Hove City Council halted its restrictions for several months after receiving advice from advertising organisations that its plans would affect council revenue. The council's heavily redacted freedom of information response confirms that its staff were invited to meetings with Clear Channel, a major outdoor advertising firm, about the policy.

However, the council denies there was any delay. Council leader Bella Sankey confirms

Box 2 | Junk food adverts move to private space to sidestep council bans

Even where councils have brought in HFSS advertising restrictions, the industry is simply moving junk food adverts elsewhere, *The BMJ* has been told.

In Bristol, which became the first city outside London to bring in a policy in March 2021, researchers found evidence that companies were moving their adverts to areas not affected by the bans, including privately owned advertising space and the neighbouring council area.

Only 30% of Bristol's advertising space is owned by the council. The remainder is on privately owned buildings or company property, including buses. As a general rule, advertising space on private land and property, such as on buildings and shops, and privately owned buses or taxis is not covered by local HFSS restrictions.

Frank de Vocht, a professor in epidemiology and public health at Bristol University who has been evaluating Bristol's policy, tells *The BMJ* that HFSS food advertising has increased in the neighbouring local authority of South Gloucester, which does not have a policy.

Research by de Vocht and colleagues published last year found that the restrictions did not affect consumption of HFSS foods in Bristol, which they attributed to the council owning just 30% of the advertising space in its area.

In Southwark, south London, where restrictions on outdoor HFSS advertising were adopted in July 2019, research has found that more than a third of food adverts were for unhealthy products. The joint study, by Mark Green of Liverpool University in partnership with the charity Bite Back and published this week, found that 38% of food adverts in the borough were for HFSS.

that its policy was introduced in December 2023 "council-wide and with immediate effect." She adds, "It isn't accurate to say these measures were watered down or delayed to protect advertising revenue.

"We remain as determined as ever to do all we can to help reduce obesity among children and adults in our city, and this policy is an important and effective tool in helping us do just that."

The BMJ was told by sources that two local authorities, Cardiff and neighbouring Vale of Glamorgan, both temporarily halted their plans for HFSS advertising restrictions after being told by the advertising industry they would lose significant sums in advertising revenue.

Despite this pressure, the Vale of Glamorgan Council tells *The BMJ* it hopes a ban on HFSS and alcohol advertising will be implemented across the two councils by next winter. A spokesperson says, "We recognise the harmful impact of HFSS advertising, particularly in areas of the vale where residents experience poorer health outcomes."

Claire Beynon, executive director of public health at the Cardiff and Vale University Health Board, the Welsh NHS body responsible for public health policy in the area, says that, in addition to working on local policies, the board is "advocating a strengthening of legislation at a national level so that we can shift the balance across

our advertising landscape towards healthier foods and drinks by restricting HFSS advertising across both public and privately owned advertising hoardings."

"Scary" decrease in revenue

The responses to *The BMJ*'s freedom of information requests show how the advertising industry uses language to frighten councils about the financial impact. Clear Channel sent Cheshire West and Chester Council an email in January 2024, warning that its restrictions could have a "huge impact" on income. It reads: "Are you aware of any HFSS discussions? It's a bit of a scary area for the advertising industry and clients as it could result in up to 30% decrease in revenue for councils."

Councillor Lisa Denson, Cheshire West and Chester's cabinet member for a fairer future, confirms its policy was adopted in July 2024. She says, "Restricting unhealthy food and drink advertising on council owned advertising space is within the gift of the local authority and is one of many steps we can take to make it easier for our residents to eat well, be active, and live longer lives in good health.

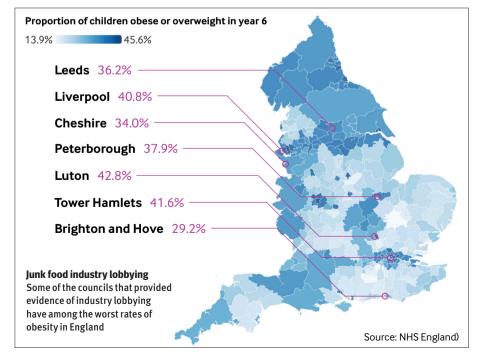
"We will be able to evidence the impacts of the policy once the new advertising contracts come in over the next couple of years."

Liverpool City Council also received an email from Clear Channel saying a ban would have an "adverse effect" on its revenue. The email said, "We estimate that HFSS restrictions could affect revenue by 20-30% but we are still in very early days of analysing our information as only a handful of our councils have it." Liverpool's director of public health, Matt Ashton, says the council's "robust" policy "supports the council in generating income but balances this with a need to promote the health and wellbeing of residents and reduce health inequalities."

Southampton City Council was urged by Clear Channel to set up a meeting to discuss HFSS adverts and impact on revenue.

The authority is yet to impose advertising restrictions. Debbie Chase, director of public health, says, "We are committed to exploring how our contracts can actively support our aspirations of reducing health inequalities in Southampton."

Peterborough City Council tells *The BMJ* it was warned by Clear Channel and JC Decaux, another major outdoor advertising firm, that a ban on junk food adverts



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could "impact revenue generation." Mike Robinson, director of public health, says the council is proud to be among those to have a robust policy. "HFSS advertising is proved to increase the risk of children living with food related ill health."

All four of these authorities have recently warned of funding shortfalls.

Leeds City Council was warned by Clear Channel that HFSS restrictions "have had an adverse effect on revenues." A council spokesperson says, "We are giving HFSS advertising early consideration and have spoken to a range of stakeholders to inform a potential approach. At this stage we have not implemented any restrictions and our proposals have yet to be agreed."

The trade body Outsmart, whose members include Clear Channel and JC Decaux, tells *The BMJ* on their behalf, "Local advertising revenue supports essential services, including significant investment in social infrastructure, and limiting advertising categories could reduce vital funding for councils at a time when they are already under financial pressure."

Experts tell *The BMJ* there is no good evidence that HFSS restrictions affect advertising revenue. Edinburgh University's Lauber says the industry is "playing into [councils'] existing concerns" about funding. She explains these are legitimate concerns, although TfL has previously said its ban did not affect revenues. Liverpool's Ashton adds, "Evidence shows that switching the spotlight away from unhealthy products reduces demand for those products without affecting advertising revenue."

Strategy from tobacco industry: deny, dilute, delay

Three councils that provided evidence of industry lobbying have among the worst rates of childhood obesity in England. They include Luton, where 42.8% of 10 and 11 year olds are overweight or obese—the fifth highest prevalence in the country. The others are Tower Hamlets, which reported a slightly lower rate of 41.6%, and Liverpool, at 40.8%. Across England an average of 35.8 per cent of 10 and 11-year-olds are overweight or obese.

Katharine Jenner, director of the Obesity Health Alliance, a coalition of 60 health organisations working to tackle obesity, says *The BMI*'s evidence shows how the advertising industry is deploying a playbook previously used by food and tobacco firms, one of "deny, dilute, and delay."



Limiting advertising categories could reduce vital funding for councils Outsmart

"It's quite a well proved tobacco playbook strategy," she says. "What the companies try to do is deny and undermine the evidence, to say it's not important; they try to delay policies coming in; and, they dilute them as well, make them as least impactful as possible."

Denv

The BMJ's investigation shows how the advertising industry is telling local councils that HFSS advertising restrictions will not cut obesity rates or help the NHS.

Liverpool City, Luton, and Tower Hamlets were all directed to a review commissioned by the advertising industry that claims a number of "methodological gaps" in the Sheffield University and LSHTM study of TfL's ban. The review document argues that the results showing the large effects of the ban on obesity, diabetes, and heart disease are "not credible." It also points out that HFSS adverts continue to be printed in free newspapers available on the London Underground, "further questioning the study results."

The review argues that the fact that childhood obesity rates rose in London after the ban came in—and at a rate faster than in other regions—is proof that it has not worked. "As a result, the TfL study results should not be relied upon in support of policies that restrict HFSS adverts," the review concludes.

The review was commissioned by the Advertising Association and other industry lobby groups and written by the economist Stephen Gibson, who has previously worked at Royal Mail, Network Rail, and Ofcom. *The BMJ* was told that the document has been circulated among other councils and public bodies.

Dilute

The BMJ's investigation shows how the advertising industry is trying to dilute councils' policies. Liverpool, Luton, Tower Hamlets, and Cheshire West and Chester were all told by Clear Channel that it already had its own "voluntary" rules. These ban HFSS adverts from within a 200 m radius of schools, but public health experts tell The BMJ this would have substantially less impact than a ban across the entire council. Lauber says, "Children do move through the world, so it's not like we can just ban it around schools—that makes no sense."

Delay

Even when restrictions are approved, the industry can delay them coming into effect by as long as eight years, *The BMJ* discovered.

Tower Hamlets signed off a ban on HFSS adverts across advertising owned by the council in May 2023. But Clear Channel is contracted to run the advertising on its bus shelters until 2031, so the policy will not take effect until it can be written into the new contract. An email from the council to Clear Channel dated July 2024 confirms there will be "no change to your current contract." It urges the firm to "adopt this policy before the contract end date to support the council's efforts in creating a healthier environment for children and adults." Tower Hamlets tells *The BMJ* that Clear Channel has not removed all HFSS adverts from its sites in the area.



INDUSTRY INFLUENCE RESTRICTS CAMPAIGN AGAINST JUNK FOOD ADVERTISING

Attempts by a youth activist campaign to buy outdoor advertising space to counter the prevalence of junk food promotion was rejected by the two of the world's largest advertising firms.

This month a campaign by the youth activist movement Bite Back, a charity co-founded by the media chef Jamie Oliver and supported by the Jamie Oliver Group, will see advertising space in south London replaced by a warning against junk food adverts. For three weeks from 9 April adverts on buses, phone boxes, and billboards in Lambeth and Southwark will be emblazoned with the text "Young activists bought this ad space so the junk food giants couldn't."

But Bite Back tells *The BMJ* the campaigners faced resistance when they first tried to buy space from the advertising firms Clear Channel and JC Decaux last year.

Clear Channel told the charity that it anticipated it wouldn't be able to display the advert near branches of the supermarkets Sainsbury's and Asda because, in its view, "their model is selling 'junk food' so they won't want that messaging." JC Decaux said it wouldn't be able to run the campaign owing to "commercial and contractual obligation."

This year Bite Backwas able to buy advertising space from Global, another major company, and JC Decaux.

In Luton the council signed off a ban on HFSS adverts in August 2023. But the policy will not take effect on bus shelters—also managed by Clear Channel—until 2027. "This policy has helped to reinforce the council's position in its duty to continue to advocate for the community to promote healthy outcomes for all," a Luton council spokesperson says. "We have experienced no lobbying by the advertising industry in relation to our policy. Our meeting with Clear Channel was after we had already set our policy."

Companies claim to be "part of solution" to obesity

Liverpool City and Luton were both told by Clear Channel that, rather than causing obesity, advertising "can be part of the solution."

The advertising company sent similar emails to both councils, which stated: "While we all agree that addressing obesity requires a holistic, evidence-based approach, the rules governing HFSS advertising are already among the strictest in the world. Advertising plays a vital role in funding sporting activities and can be part of the solution to tackle the obesity epidemic. Coupled with community-based levelling-up initiatives, policymakers should be supporting schemes that are proved to cut childhood obesity and have a real impact on promoting active lifestyles."

Figures show that many of the companies spending the most on advertising are fast food

brands. McDonald's was the largest out-of-home advertiser in 2024, with a spend of £86.3m, according to Outsmart. Others in the top 20 include PepsiCo, Coca-Cola, KFC, Mars, and Mondelez, the US owner of Cadbury.

Claims of corporate social responsibility are also recognised as an industry "playbook" tactic to deflect attention from the health harms of products. The Outsmart spokesperson says it "supports a comprehensive, evidence based approach to public health." They add, "A whole-systems approach, including positive public health campaigns where advertisers can play a role, would be more effective in tackling this vital issue."

National outdoor advertising ban

Ashton says Liverpool City Council is "leading the way," by "taking action on council owned advertising space," and he calls on the government to "take national action and restrict unhealthy advertising across all advertising sites—TV, online, and including outdoors."

The other experts *The BMJ* spoke to also urge the government to bring in a national ban on out-of-home junk food adverts, in line with the incoming 9 pm TV watershed and restrictions for online adverts from October.

The Obesity Health Alliance's Jenner says the advertising industry's lobbying of local councils is also thwarting national policy. "This all serves to have an amazing chilling effect on policy making in local councils where they really want to do something.

But, also, it impacts on national policy as well because . . . as long as you're saying that even a local council that has it under their power can't do it, the national government is thinking, well, I'm not going to be able to do it. It has this policy chilling effect.

"The overall idea is just to seed doubt in their minds. As long as there's doubt, it's really hard to make really firm regulatory decisions about things.

"What we would like to see is a national policy or a national commitment to end junk food advertising. And, because we're seeing it on TV and online, it makes perfectly logical sense to me that it should be happening on outdoor [advertising spaces] as well."

A national policy might also solve the problem of advertisers simply moving their placements in response to local restrictions, a problem exacerbated by the fact that councils are not in control of most outdoor advertising real estate.

The Outsmart spokesperson says, "We take pride in being a responsible industry, because our advertising is always subject to public scrutiny . . . Many advertisers are already actively reformulating products to meet the incoming national HFSS regulations for TV and online."

Emma Boyland, professor of food marketing and child health at the University of Liverpool, says the lobbying shown by *The BMJ*'s investigation "matters because [advertising companies] are a powerful voice. Where industries that are affected by the restrictions have a seat at the table in implementing and developing the restrictions, there's plenty of evidence that the restrictions then end up being much weaker or being delayed.

"The fact that it's happening under the radar, it's not being done in a public forum, and it's being done at an individual level of people who work in councils—it creates a power dynamic and a lack of transparency in how these things come about."

Boyland echoes Jenner's calls for a national ban. "There are clear gaps there where you would expect the national government to act. If they're acting on TV and online in the way that they are, that's a recognition that food advertising exposure is harmful. Therefore there would be no reason why there wouldn't be a health impetus to act on all food advertising."

Sophie Borland, freelance journalist, Hertfordshire sophie.borland@googlemail.com

This feature has been funded by the BMJ Investigations Unit with support from Impact on Urban Health. For details see bmj.com/investigations

Cite this as: BMJ 2025;389:r667

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CAREERS

WHY I... do improv

Palliative medicine consultant Esther Waterhouse tells Kathy Oxtoby about the joys of the art form, where performers can't be wrong

hen Esther Waterhouse organised a trip to a children's improvised musical for her daughter in 2018 she little imagined that it would open up a whole new world to her-one she describes as "gloriously silly, joyous, and enormous fun" and where there are "no mistakes."

That visit to the theatre in Birmingham was "like watching magic," says Waterhouse, a consultant in palliative medicine at Walsall Healthcare NHS Trust. "I'd never seen anything like it before, it was completely enchanting and delightful."

She recalls how every step of the story was decided by children in the audience "throwing out comments," and how the performers used suggestions to create a new musical. She was so inspired by the performance that she took an improv beginners weekend course in 2019—and has been doing improv ever since.

Improv is "an art form," she explains. "It's standing on stage, usually with other people, to create something delightful for an audience.

"It might be funny, emotional, or moving. It's created in the moment by a team of people. None of it is scripted. None of it is pre-written or pre-planned."

It also involves teamwork. At one particularly intensive improv training course she attended, her teacher said, "It's your job to look after other people, and if everybody does that, then each of those people will be looking after you." Waterhouse was really struck by this. "I thought, 'What better way to define a team?" she says.

Since her first experience of improv, Waterhouse has been developing her skills. She goes to local improv jams where she performs on stage with others in front of an audiencesometimes with her daughterand attends improv weekends, study days, retreats, and festivals.

Her love of improv has also inspired her to develop medical improv training courses for healthcare staff. As a communication skills trainer she recognised that improv used the same skills as clinical communication and could be used to teach those skills in a different way. "To be good at improv you need to be able to respond, listen to, and support others. Medical improv takes improv practice games and

It has made me a better listenerunderstand more about nuances of

communication

exercises out of the rehearsal space and into the training space," she savs.

She teamed up with Jon Trevor, an improviser and trainer who had been delivering applied improvisation to companies for some time, but not to healthcare.

Last year they launched Medical Improv GB, which delivers communication training to healthcare professionals throughout the UK, using exercises designed to highlight and develop different areas, such as teamwork and leadership.

As well as using medical improv to help health professionals with their communication skills. Waterhouse finds the art has benefited her as a clinician. "Improv has made me a better listener, helped me understand more about the nuances of communication, and given me different tools to use," she says. "And when a scene goes really well on stage it's a natural high. And if it doesn't go well, you forget it because it's improv."

She also loves that improv is a space where you can't make a mistake. "It's all made up so you can't be wrong."

Waterhouse recommends other doctors try improv, not only because it's fun but also because "you're learning skills that are transferable back in everyday life."

She adds, "It's an art form open to every level, from the odd drop-in session to being in a group that performs regularly. It's a door into a liberating world."

She recalls how she was recently on stage with another improviser singing a song about two beachcombers. "I can't remember what we sang or how we did it, but we had a chorus, we had verses, and it was well received. It worked because we listened to and supported each other. But even if the song hadn't worked it wouldn't have mattered. Because what's more gloriously silly than trying to sing a song about being two beachcombers?"

Kathy Oxtoby, London Cite this as: BMJ 2025;389:r596

HOW TO MAKE A CHANGE

- Search the internet for improv classes and courses www.theimprovguide.com has listings
- If you can't find a local improv class, talk to local performers about where to go
- For details of medical improv training visit Medical Improv GB https://medicalimprovgb.com
- Remember that whatever level of improv experience you have, you can become a part of the improv community

CAREERS CLINIC

Can I work while having IVF?

Fertility treatment is exhausting, but there are ways to lessen the burden, **Abi Rimmer hears**



Be kind to yourself Divpreet Sacha, general practice specialty registrar, Birmingham and Solihull

"In vitro fertilisation (IVF) is becoming increasingly common, yet the mental and emotional toll it takes is rarely discussed. The physical effects of IVF drugs are well known, but the mental struggles—stress, anxiety, and emotional fatigue—often get overlooked. IVF isn't a straightforward process; each person's response is different and delays or complications can add even more pressure.

"I struggled with balancing work and IVF. The emotional weight and physical exhaustion were overwhelming and eventually I had to take sick leave to focus on my mental health. As a doctor, especially in the NHS, there's a culture of just getting on with it. Workplace pressures can make it harder to admit when you're struggling. IVF is already a highly personal and emotionally charged journey, and the idea of sharing such private information at work can feel daunting.

"My advice is to be kind to yourself. IVF is challenging and it's okay to acknowledge that. If you can, find someone supportive in the workplace to confide in. While it can feel uncomfortable to share something so personal, having a trusted colleague or employer who understands can ease the pressure. When your employers are aware of your struggles, they're more likely to be supportive if complications arise, giving you the space you need to focus on your health.

"If IVF is part of your journey, remember you don't have to go through it alone. Be gentle with yourself, prioritise your wellbeing, and seek the support you need. Your health should always come first."





Find your supporters Stacey Killick, consultant paediatrician, Glan Clwyd Hospital

"The (IVF) clinic prepares you for what treatment entails, with online training and a lot of support along the way. But managing that treatment while working a stressful job that includes on-calls was a lot to deal with.

"My colleagues were amazing. I was supported with cover when appointments arose during times of clinical commitment, which was a relief as the appointments change each cycle and cannot be planned. I was also blessed to have a few people that I could talk to about the difficulties, symptoms, and emotions that I experienced during this process. I was incredibly fortunate that after my fourth embryo transfer I became pregnant.

"My advice to anyone going through a similar process would be to identify people who can support you along the way; it's both physically and emotionally draining and it's good to have someone ready for when you need them.

"Try to keep your diary fairly free; you need to be able to slot in appointments at short notice. Plan your week and use alarms for your medications and keep spares with you if necessary. Also plan ahead if you'll need refrigerated medication near on-calls and work out how you could access it.

"Be kind to yourself during this time; self-care goes a long way. Try and destress where you can, and appreciate that after embryo transfer there is a 72 hour window of possible implantation where it would be better if you could be resting.

"We are doctors, but we are people too, and we should feel enabled and supported to take the journeys that we feel drawn to take."



Sharing can lighten the load Preetha Biyani, GP

"Looking after yourself is important. It can be all consuming trying to keep the appointments to yourself and managing them around your work schedule. There is the fear of others finding out, or colleagues and managers not being accommodating.

"One thing I've learnt is to be open with your team. That doesn't mean you need to tell everyone but having key people aware of what you're going through helps.

"To add to a mix of complications, I've been having treatment abroad. Both my workplaces are aware of the situation and are supportive, which has allowed me to plan my treatments. It has also meant that they know when I might be struggling with side effects or if booking a baby clinic is not the best idea after a failed cycle.

"If you are open about your treatment you can also discuss the option of working from home or reducing your hours while you're having active treatment.

"Finding the time and privacy to take your injections or pessaries can also cause anxiety. I worked with the IVF clinic to create a twice a day regimen, making it easier to do this around my work schedules.

"Sadly, there is no clear national guidance on IVF leave for doctors working in primary care or secondary care. This is something that has added to my stress levels in the past. It's important to familiarise yourself with your local guidelines and speak to the BMA if you have concerns. You may also wish to speak to your GP. Support at home is also crucial. Counselling is something to consider, with many UK clinics offering this free."

Cite this as: *BMJ* 2025;389:r643

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