

# this week

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## Researchers welcome anonymised data

Coded general practice patient data will soon be shared with approved research groups in England, the government has announced.

Researchers have called it a “momentous step” that will drive forward research into the causes, treatment, and prevention of diseases often managed in primary care, such as diabetes, dementia, and depression.

Anonymised GP data could be shared with “consented cohorts” such as UK Biobank, Genomics England, and Our Future Health, said the health secretary, Wes Streeting. If a patient consented to the data in their GP records being shared, then NHS England would take responsibility for making this happen, rather than GPs. A previous stumbling block had been that the BMA was opposed to handing over data because of fears that a GP would be held responsible, regardless of whether the patient consented.

The OpenSAFELY software platform was developed by Oxford University and the London School of Hygiene and Tropical Medicine to securely hold electronic health records. During the pandemic, emergency legislation allowed researchers to access the anonymised data to understand which patients were most at risk and evaluate the effectiveness of vaccines and treatments.

In November 2023 NHS England

announced it would expand the use of the OpenSAFELY platform to enable research beyond covid. However, almost a year on this has not happened. UK Biobank, which has collected data since 2006 on half a million people as part of a large scale prospective study, said approved researchers who will be able to access data in the future will receive only coded data related to diagnoses, prescriptions, and referrals, not any confidential notes that GPs might hold.

Rory Collins, principal investigator of UK Biobank, said, “This is a momentous step forward that will transform the research potential of our database overnight.

“Adding primary care data to UK Biobank will roughly double the cases of depression and dementia that can be identified, as well as allowing detection at an earlier stage. This means researchers could then study the full spectrum of disease severity, bringing new diagnostic tools and treatments closer.”

David Wrigley, deputy chair of the BMA’s General Practitioners Committee for England, said, “We are pleased [the] government will thoroughly review the consent processes and will take full responsibility for the safe and proper onward sharing of data.”

Jacqui Wise, Kent

Cite this as: *BMJ* 2024;387:q2201

**Rory Collins (left), of UK Biobank (background image), and the BMA’s David Wrigley have welcomed the decision of Wes Streeting (right) to allow GP records to be shared with “consented cohorts”**

### LATEST ONLINE

- Former GP is jailed for 22 years for indecent assault of female patients
- More targeted spending on prevention could double return on investment, say analysts
- Government backs multiple cancer blood tests as part of £11m early diagnosis push



# SEVEN DAYS IN

## Sickle cell drug is withdrawn over safety concerns just months after rollout



The sickle cell treatment voxelotor (Oxbrtya) has been withdrawn from all markets by the manufacturer Pfizer after a “higher than anticipated” number of deaths was reported and clinical evidence showed that the drug’s benefits no longer outweighed the risks.

In a recall notice issued on 30 September the UK drug regulator MHRA told clinicians and patients that “emerging data” suggested an “unfavourable imbalance in vaso-occlusive crises (acute painful crises) and fatal events” in patients treated with the drug.

A letter from Pfizer said that all patients currently taking voxelotor must be contacted to ensure they discontinue treatment and return any remaining pills. No new patients should be started on the drug, and patients who stop should be monitored, the letter advised.

Voxelotor has been approved in more than 35 countries since 2019. In the UK it was initially rejected by NICE this February because the key clinical trial was too short, the trial population was unrepresentative of NHS patients, and, crucially, the cost was too high. NICE then recommended the drug in May for people aged 12 and older after agreeing a price with Pfizer. At the time it said the once daily pill might improve anaemia more than standard care, reduce the need for blood transfusions, and improve quality of life.

Elisabeth Mahase, *The BMJ* Cite this as: *BMJ* 2024;387:q2147

### Obstetrics

#### Staff get extra training to reduce baby brain injury

Maternity staff in nine NHS units are being given extra support and training to help identify when a baby is in distress and to act quickly to reduce avoidable damage. The Avoiding Brain Injury in Childbirth (ABC) pilot projects will also help staff deal with emergencies during caesarean births. In 2021 around 2490 babies (4.2 in 1000 live births) received at least one episode of care for a brain injury during or after birth. The scheme is expected to reduce clinical negligence claims related to birth damage, which in 2018-19 hit £1.86bn.

### Surgery

#### Call for more investment in infrastructure

Tim Mitchell (below), president of the Royal College of Surgeons of England, has said that efforts to reduce NHS waiting times for elective care will stall unless the government makes major investment in infrastructure and new technology to boost capacity. He told the Future Surgery conference in London on 1 October, “The prime minister

has warned there can be no extra funding without reform. Ahead of the budget, I say: ‘There cannot be meaningful reform without extra funding—especially in our estates and technology.’”

### Inequalities

#### Structural racism “is exacerbating inequalities”

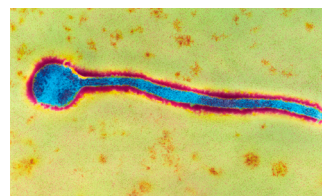
Structural racism is harming the health and wellbeing of minority ethnic communities in London and contributing to “avoidable and unfair inequalities” between ethnic groups, a review by University College London’s Institute of Health Equity has found. It called on community leaders, institutions, and employers to “prevent racism from continuing unchecked” and to improve people’s lives. The institute’s director, Michael Marmot, said, “It is a profound injustice if the conditions for good health are unequally distributed, especially where that unequal distribution results from the evils of racism.”

### Marburg virus

#### First cases in Rwanda spark global alarm

Twenty six confirmed cases of Marburg virus disease and eight deaths have been reported in Rwanda, causing concern

among African and international health authorities. These cases are the country’s first reports of the virus (below), and the source of the current infection has yet to be identified. Rwanda’s health ministry said over 70% of cases were in workers from two health centres in the capital, Kigali. The World Health Organization has warned that the risk of Marburg’s



international spread is high because Kigali has an international airport, and many cases have been seen in districts bordering the Democratic Republic of the Congo, Uganda, and Tanzania.

### Public health

#### HIV diagnoses rise in heterosexual adults

HIV diagnoses in England rose by 36% in heterosexual men (from 445 in 2022 to 605 in 2023) and by 30% in heterosexual women (from 602 in 2022 to 780 in 2023), showed data from the UK Health Security Agency. The rise in cases was steepest in minority ethnic heterosexual people, up 45% from the previous year. While HIV testing

in sexual health centres overall rose in 2022-23, it remains lower than before the covid pandemic.

#### Scotland raises minimum unit price of alcohol

The minimum price per unit of alcohol in Scotland increased by 15p from 30 September. Welcoming the rise, Alice Wiseman, vice president of the Association of Directors of Public Health, said that since minimum unit pricing was introduced in Scotland in 2018 the number of alcohol related deaths and hospital admissions had fallen significantly. She said, “We haven’t had a new alcohol strategy in England since 2012, and I would urge the government to take heed of the evidence from Scotland.”

### Whistleblowing

#### Concerns rose last year, shows GMC report

The GMC’s annual report on whistleblowing showed that 60 concerns were raised from April 2023 to March 2024, up from 48 the previous year and similar to 62 in 2021-22. Of the concerns raised, 23 were from doctors, 14 were from other professionals, and 23 were anonymous. The concerns related to staff structures, professional misconduct, and individual dishonesty.



# MEDICINE

## Vaping

### Million non-smokers in England use e-cigarettes

The number of adults in England who use e-cigarettes despite never regularly smoking tobacco has risen sharply to around a million people, showed research published in *Lancet Public Health*. Vaping rates among adults who have never regularly smoked were relatively stable from 2016 to 2020 and represented around 133 000 people (around 1 in 200) in December 2020. But this rose sevenfold to around 1 006 000 people (around 1 in 28) by April 2024 after disposable vaping devices became widely available in 2021.

## Oral health

### Child hospital admissions for decay remain high



Tooth decay remains the leading cause of hospital admission among 5-9 year olds in England, showed data from NHS England. Some 19 381 children were admitted for tooth decay in 2023-24, a very small improvement on the previous year's 19 560. Sondas Albadri, a paediatric dental surgeon and a board member of the Faculty of Dental Surgery at the Royal College of Surgeons of England, said, "The latest findings paint a distressing picture about the state of children's oral health."

## Vaccination

### Flu jab uptake drops

The UK Health Security Agency described a fall in uptake of flu vaccine last winter as "concerning." While uptake in older people remained high last year, only 41% of people with long term health conditions received



**A million adults in England who have not previously smoked are using vapes, says a study**

the flu vaccine, along with only 44% of 2-3 year olds and just a third of pregnant women. Over the past two winters at least 18 000 deaths were associated with flu, despite data showing that last winter was a relatively mild season.

## Genomics

### Newborn test will screen for 200 genetic conditions

Newborn babies in England will be offered whole genome sequencing using blood samples taken from the umbilical cord shortly after birth as part of the Generation Study, led by Genomics England. The study analyses the genomes for more than 200 genetic conditions that can be treated in the NHS in early childhood. More than 1 000 participants have so far consented to join the study, which aims to screen as many as 100 000 newborns.

## Women's health

### Investment in O&G would reap dividends

For every extra £1 of public investment in obstetrics and gynaecology services for each woman in England, the estimated return is £11, said a report from the NHS Confederation. If an extra £1 per woman were invested in these services the economy would benefit from an extra £319m in total gross value added. The report said that the economic cost of absenteeism because of severe period pains, endometriosis, fibroids, and ovarian cysts was nearly £11bn a year.

Cite this as: *BMJ* 2024;387:q2196

## AMR

UN member states signed a declaration committing to reduce

the **6.22m** annual deaths from antimicrobial resistance by **10%** by 2030  
[United Nations]



## SIXTY SECONDS ON... FOOD EMISSIONS

### MMMM, BISTO . . .

Not those kinds of emissions. We're talking carbon emissions—which food and drink companies are failing to substantially reduce, according to youth led campaign group Bite Back. In fact, the world's top 10 food and drink companies were responsible for 477 million tonnes of carbon dioxide equivalent emissions in 2022—more than the aviation industry (426 million tonnes).

### SMELLS FISHY . . .

The *Fuel Us, Don't Fool Us* report also showed that only one of the industry giants—Unilever—met or exceeded its own reduction target, while eight missed their targets and one company hadn't set any. Three increased their emissions: Ferrero International by 15.8%, Kraft Heinz Co by 6.6%, and PepsiCo by 3.9%.

### ☆☆☆☆

Exactly! The global food system is responsible for almost a third of all greenhouse gas emissions—second only to the energy industry. Food production is the single biggest contributor to biodiversity loss, deforestation, drought, freshwater and plastic pollution, and the destruction of aquatic wildlife, the report said.

### HOW IS THAT POSSIBLE?

Every stage of food production releases greenhouse gases, from carbon dioxide produced when clearing land for planting crops to methane emitted by rice fields and livestock and the nitrous oxide released by chemical fertilisers and plastic packaging.

### ARE COMPANIES NOT PUTTING MONEY WHERE THEIR MOUTH IS?

Since 2008 the UK has reduced emissions by more than 30%, and yet food emissions have fallen at less than half this rate, the report found. Bite Back chief executive James Toop is not convinced the industry will be able to meet the government's net zero targets by 2050.

### WHAT NOW?

The charity is calling on industry giants to set better targets, both short term and long term. Bite Back is also urging the UK government to make it mandatory for businesses to report publicly on the sales of unhealthy food and drinks, as well as sustainability metrics, every year.

Elisabeth Mahase, *The BMJ*

Cite this as: *BMJ* 2024;387:q2157



# More GPs needed in deprived areas to reduce widening care gap, says RCGP chair

**T**he chair of the Royal College of General Practitioners has condemned “devastating” figures showing that GPs in deprived areas of England are responsible for at least 300 more patients per doctor than those in wealthier areas, a gap that has widened over the past six years.

The RCGP analysis showed that the number of patients per fully qualified, full time GP working in areas with the highest level of income deprivation rose from 2190 in 2018 to 2450 in 2024, a 12% rise. This was nearly twice the average increase among practices in the least deprived areas (from 1990 to 2129 per GP, or 7%).

In her keynote speech to the college’s annual conference on 3 October, the chair, Kamila Hawthorne, said the analysis showed that “almost all areas are underdoctored.”

She said, “When I began in general practice, it was normal for a GP to have a list size of between 1600 and 1800 patients. The role was busy and challenging, but it was manageable. Our analysis of the latest figures reveals the average is now 2300. The numbers have shot through the roof, and so has our workload.”

Hawthorne, who practises in south Wales, said it was “simply wrong” that the most disadvantaged areas were being hardest hit. “It can’t be right that a GP in Kingston upon

Thames looks after 1800 patients while a GP in Kingston upon Hull, one of the most deprived places in England, is expected to cover twice that,” she said.

“It is more than 50 years since Julian Tudor Hart, a fellow GP from south Wales, first defined the now famous ‘inverse care law’ to describe how—perversely—people in deprived communities who need healthcare most were least likely to receive it. How devastating that more than half a century later we are still

facing the same inequity.

“Surely, as a country, we cannot allow such inequality of health provision to continue to grow.”

Hawthorne also referred to the “scandal” of newly qualified GPs not being able to get jobs. She cited an RCGP survey of GP registrars who were due to complete training between July and September, which found that GPs were struggling hardest to find roles in areas

with higher levels of deprivation. She called on the government “for greater investment in general practice and a commitment to channel more spending to areas of greatest need, as well as supporting initiatives to increase the number of GPs.”

Addressing the audience of GPs directly, she said, “The NHS could not function without you. You deserve better, and so do your patients.”

Gareth Iacobucci, *The BMJ*  
[Cite this as: \*BMJ\* 2024;387:q2182](#)

**A GP in Kingston upon Thames looks after 1800 patients while a GP in Kingston upon Hull, one of the most deprived places in England, is expected to cover twice that**

Kamila Hawthorne

## Care for people with severe ME “nonexistent,” says coroner in call to action

A complete lack of specialist care in England for patients with severe myalgic encephalomyelitis (ME, or chronic fatigue syndrome, CFS) could cause deaths in future unless urgent action is taken, a coroner has warned.

Deborah Archer’s hard hitting prevention of future deaths report after the inquest of Maeve Boothby O’Neill, 27, also highlighted the lack of research funding, training, and guidelines on treating the condition.

The report, thought to be the first on the death of a patient with ME, has been sent to health secretary Wes Streeting, health minister Andrew Gwynne, NHS England, NICE, the Medical Research Council, the National Institute for Health and Care Research, and the Medical Schools Council.

### Tube feeding

O’Neill, who was bedbound, died at home in October 2021, after three admissions to the Royal Devon and Exeter Hospital, with tube feeding on one occasion, failed to treat the consequences of her severe ME.

“The inquest heard that provision of care for patients with severe ME such as that which Maeve suffered from was and is nonexistent and that being placed on a ward that did not have expertise in her condition made her admission to hospital very difficult for her to endure,” said Archer, assistant coroner for the county of Devon, Plymouth, and Torbay.

She added, “During the course of the evidence it became clear there were no specialist hospitals or hospices, beds, wards, or other healthcare provision in England for patients with severe ME.



**Maeve Boothby O’Neill’s death prompted a coroner’s prevention of future deaths report**

**THE** rise of **12%** in patient numbers per GP in the most deprived areas was nearly twice the **7%** increase in the least deprived

This meant that the Royal Devon and Exeter Hospital had no commissioned service to treat Maeve and patients like her.”

It also became clear, Archer said, that “there was no current available funding for the research and development of treatment and further learning for understanding the causes of ME” and “extremely limited training for doctors on ME/CFS and how to treat it—especially in relation to severe ME.”

### “No guidance”

In addition, the 2021 NICE guidance on ME did not provide “any detailed guidance at all on how severe ME should be managed at home or in the community and in particular whether or not there is any adaptation needed to the 2017 guidance on nutrition support for adults: oral nutrition support, enteral tube feeding, and parenteral nutrition.”

Boothby O’Neill’s father, Sean O’Neill, described the coroner’s report as “short, stark, and shocking.” He urged Streeting “to respond in a constructive and meaningful way. If ministers are serious about tackling the problem of long term sickness they must improve care and treatment for sufferers.”

A health department spokesperson said, “We are committed to improving the care and support for all those affected [by ME], and we intend to publish a final delivery plan this winter which will focus on boosting research, improving attitudes and education, and bettering the lives of people with this debilitating disease.”

Clare Dyer, *The BMJ*

Cite this as: *BMJ* 2024;387:q2202

## Child protection medicals must be carried out “only by doctors, not PAs”

Physician associates should not be carrying out medical examinations of children who have reported abuse or who are at risk of abuse and should not produce evidence for courts, forensic doctors have said in guidance.

The advice from the Faculty of Forensic and Legal Medicine of the Royal College of Physicians was issued after it came to light an NHS trust had for four years employed a PA to do safeguarding work, instead of a paediatrician.



Alder Hey Children’s NHS Trust said it employed a PA in its safeguarding team between May 2019 and March 2024. The PA undertook sexual abuse medicals up until October 2023, under the supervision of a safeguarding consultant. An audit carried out by the Royal College of Paediatrics and Child Health between March and July 2023 found that the PA shared the on-call rota of the team.

But the arrangement could have prevented prosecutions, because PAs are not recognised as professional legal witnesses, according to the trust’s own risk register.

The faculty’s guidance, issued on 1 October, makes the requirements clear. It states, “A PA should not be

undertaking the examination of children who have disclosed abuse, or when there are concerns children are at risk of abuse, and, it follows, they should not be providing evidence on such matters to the courts.”

Alder Hey ended the PA’s employment this March after learning that the Crown Prosecution Service and police were not able to rely on examination reports prepared by a PA. A trust spokesperson said the PA had always worked under the close supervision of a safeguarding consultant. “At no time was the care of children and young people or the integrity of our service compromised,” they said.

Adele Waters, London

Cite this as: *BMJ* 2024;387:q2172

In other PA news, on 30 September Jeanette Dickson, the chair of the Academy of Medical Royal Colleges, wrote to the health secretary, Wes Streeting, and NHS England’s chief executive, Amanda Pritchard, calling for a rapid review of the role of PAs and anaesthesia associates. Dickson said she recognised doctors’ “mounting concern” but said the social media debate contained a “whirlwind of anecdotes and claims” that was “almost devoid of factual information.” (See *BMJ* 2024;387:q2151)

Dickson’s letter drew an angry response from 40 fellows of the Royal College of Physicians, who published an open letter calling for her to publicly correct her assertion that there was a lack of evidence for the medical profession’s concerns over regulation of PAs. The fellows’ letter said, “We would encourage this to be undertaken urgently to prevent reputational damage to those of us who have engaged on this issue publicly in good faith.”

Meanwhile, the Advertising Standards Authority intervened after a general practice was accused of misleading patients about PAs’ capabilities and level of training. Churchfields Surgery in Bromsgrove was subject to an ASA complaint over website statements that PAs “train in and are examined in all areas of medicine” and that training “encompasses medication and prescribing, just as a trainee doctor would receive.” An ASA spokesperson said, “We sent an advice notice reminding them to ensure all claims are accurate and avoid unduly conflating the roles, training, and duties of PAs and GPs.”

## NHS England consults on obesity injection tirzepatide

NHS leaders are considering a phased rollout of the antiobesity injection tirzepatide (Eli Lilly’s Mounjaro) because of potentially high demand.

Last week NICE launched a three week consultation on the proposals before publishing its final guidance, due in December.

Tirzepatide has been shown in clinical trials to be more effective at helping people lose weight than diet and exercise support alone or

when compared with semaglutide alongside diet and exercise support. In draft guidance issued in June an independent NICE committee recommended the weekly injection for people with obesity, costing £122 a month at its maximum 15 mg dose list price.

In an application to NICE, NHS England said in the rollout’s first phase people would be eligible to receive tirzepatide if they have a BMI of more than 40 and at least

three of four specified weight related health conditions. The drug would then be offered to those with a BMI of more than 40 plus two weight related health conditions and then to people with a BMI of more than 40 plus one weight related health condition.

NHS England said that nearly a quarter of a million people could be eligible to receive the drug in the first three years and is proposing new ways to deliver

the drug as quickly as possible, such as digital and community services.

NICE has said the proposed maximum duration of the rollout is “unprecedented.” The medicine would be offered in either primary or secondary care as part of a package including diet and exercise support.

Matthew Limb, London

Cite this as: *BMJ* 2024;387:q2180



# HEAT STRESS: Billions of people are at risk from “invisible killer,” UN warns

Rising deaths should be an economic wake-up call to governments, reports **Elisabeth Mahase**

**H**eat stress, an “invisible killer” that can lead to immediate ill health and “serious and debilitating chronic diseases,” poses an increasing threat in Europe, the UN’s International Labour Organization (ILO) has warned.

The agency’s report on the effects of heat on the world’s workforce shows that at least 2.4 billion people—71% of the working population—are exposed to excessive heat while at work, leading to 22.9 million injuries and around 19 000 deaths a year. These heat related effects cost the global economy around \$361bn (£275bn) a year, it found.

This problem is only expected to worsen, the ILO has emphasised, as workers continue to be exposed to higher temperatures daily, as well as during increasingly frequent and severe heatwaves. Last year was the hottest on record, and July 2023 was the hottest month ever recorded.

Research shows that if a person’s body temperature rises above 38°C



**We need measures to protect workers that are grounded in human rights**  
António Guterres

**A rickshaw rider tries to cool down in Dhaka this April when temperatures reached 40°C**



MAMUNUR RASHID/NURGETTY

The ILO found that the regions worst affected by excessive exposure to heat were Africa (92.9% of its workforce), the Arab states (83.6%), and Asia and the Pacific (74.7%)—all above the global average of 71%. The greatest proportion of excessive heat related work injuries occurred in Africa (7.2% of all occupational injuries) and the Americas (6.7%)

their physical and cognitive functions may become impaired. If it exceeds 40.6°C there is an increased risk of organ damage, loss of consciousness, and death. Around the world more than 26 million people have chronic kidney disease attributable to work related heat stress, accounting for about 3% of all cases, said the ILO.

Extreme heat can also have effects on mental health, as studies show that construction workers experience psychological distress from working in hot conditions. Reduced cognitive performance is likely to increase the risk of accidents, along with slippery or heated surfaces and unsuitable personal protective equipment.

## Fastest rise in Europe and central Asia

The ILO found that the regions worst affected by excessive heat exposure were Africa (92.9% of its workforce), the Arab states (83.6%), and Asia and the Pacific (74.7%)—all above the global average of 71%. The greatest proportions of excessive heat related work injuries occurred in Africa (7.2% of all occupational injuries) and the Americas (6.7%)

Notably, however, the report found that the Europe and central Asia region had seen the greatest rise in heat exposure, up by 17.3% between 2000 and 2020—almost double the global average rise of 8.8%. In 2020, 29% of workers in the region were exposed to excessive heat. Additionally, the Europe and central Asia region has the second most rapidly increasing proportion of workplace injuries (up by 16.4% between 2000 and 2020), behind only the Americas (up 33.3%).

Recent research published in *Nature Medicine* estimated that more than 47 000 heat related deaths occurred in Europe in 2023. This was the second deadliest year during the study period of 2015-23, second only to 2022 (61 672 deaths).

The research paper suggested that the mortality burden would have been as much as 80% higher if current strategies to tackle heat, such as public health behavioural advice, were not in place. The authors said that the findings highlighted the “importance of historical and ongoing adaptations in saving lives during recent summers and the urgency for more effective strategies to further reduce the mortality burden of forthcoming hotter summers.”

In the UK an estimated 2295 heat related deaths occurred during summer 2023 and almost 3000 in summer 2022, when temperatures exceeded 40°C for the first time. Extreme heat has also affected the UK’s health service, said a parliamentary research report, as heatwaves in 2022 led to surgeries being cancelled largely because of staff and bed shortages and overheating operating theatres, causing IT systems to fail in three London hospitals.

## Inconsistent legislation

Despite the increasing burden of excess heat on health, the ILO said that most countries had inadequate provisions in place to keep workers safe.

An analysis of legislation in 21 countries included in the ILO report found a lack of consistency in how excessive heat was tackled, with countries setting different maximum temperature thresholds and just 33% of legislative measures requiring employers to provide cool, shaded, and ventilated rest areas for staff. Less than half of these measures (48%) included health check provision, and only 57% provided rest breaks or modified work schedules to reduce excessive heat exposure.

“Existing strategies to combat heat stress are proving inadequate, especially in the context of rising temperatures and changing weather patterns,” said the ILO report. “Despite



EDMUND LOWE/ALAMY

**Rice field workers in Indonesia, which had its hottest month in three decades in April**

the presence of laws and regulations aimed at safeguarding workers from heat stress, many of these provisions were established in the past, often with basic requirements that fail to address the complexities of contemporary heat stress challenges.”

The UK currently has no law outlining the minimum or maximum workplace temperatures allowed, although health and safety laws stipulate that employers must keep the temperature at a “comfortable level” and provide “clean and fresh air.” Earlier this year MPs said that the UK government was not prepared to deal with the increasing burden of extreme heat and had not grasped the urgency of the problem. Members of the Environmental Audit Committee called on the government to invest in protective measures.

The BMA has also warned that “decades of underinvestment” meant that NHS buildings were not prepared for rising temperatures and were putting the safety of patients, doctors, and other staff at risk.

### **Saving lives and economies**

The ILO has now called for countries to introduce comprehensive workplace plans to protect workers from heat, to be applied during all periods of excessive heat and not just during heatwaves. It emphasised that excess heat should be treated as an occupational health and safety hazard and that national legislation is needed to require employers to do

risk assessments for all staff and take action to mitigate risks.

Commenting on the report, the UN secretary general, António Guterres, said, “We need measures to protect workers that are grounded in human rights. And we must ensure that laws and regulations reflect the reality of extreme heat today and are enforced.”

The ILO has outlined practical actions employers can take, including ensuring that staff are adequately hydrated, introducing work-rest cycles, providing the correct personal protective equipment, and ensuring that workspaces are well ventilated and cooled. In the longer term employers need to adopt technologies and practices that will help to lower greenhouse gas emissions, such as solar powered cooling systems, energy efficient ventilation, better building insulation, natural cooling strategies, and water recirculation and cooling systems.

“The intensification of excessive heat not only jeopardizes the safety and health of workers, but also undermines the resilience of economies and the potential for decent work on a global scale,” said the ILO report. “While climate-related mitigation efforts will necessitate concerted action over time, workers are being injured and dying now, and therefore heat stress preventative measures should be implemented as a matter of urgency.”

Elisabeth Mahase, *The BMJ*  
Cite this as: *BMJ* 2024;387:q2175

**LESS** than half (48%) of employment law measures included health checks, and only **57%** provided breaks or modified work schedules in relation to excess heat

# Doctor struck off after 300 unsecured records found in former home

A doctor who left the medical records of about 300 patients unsecured in a rented apartment when she moved out has been struck off the UK medical register.

Documents found in the former home of Maryam Mohamed Al Qureshi in Southampton included records of abortions and overdoses and of psychiatric treatment, as well as patients’ names, addresses, and birth dates. The documents, from eight healthcare providers, covered dates from 1996 to 2013.

Mohamed Al Qureshi, who was known as Victoria Pickles when she qualified from Leeds University in 2006 but changed her name in 2018, was already suspended after a 2022 medical practitioners tribunal found her culpable of failing to provide good clinical care when a patient called NHS 111.

That tribunal also found that she had failed to cooperate with an NHS inquiry and had made a dishonest statement during an appraisal. It suspended her for a year, with a review hearing set at the end of that suspension to assess her fitness to return to practise as a GP.

She did not attend that 2023 review, which concluded her fitness to practise was still impaired. It extended her suspension, setting a further hearing for 2024. But in the meantime the GMC opened a new case against her, and the tribunal convened to hear the new case was tasked with reviewing the first one.



### **Several binders in an unlocked cupboard**

The new case arose after Mohamed Al Qureshi vacated her rented home in October 2022. The owner and her estate agent found several binders of medical records in an unlocked cupboard under the stairs. They contacted the doctor and made appointments for her to pick up the files, the tribunal heard, but each time she either cancelled or failed to appear.

The estate agent contacted NHS England for advice and was told to return them to Southampton University Hospital. A

week later the head of data protection at the trust reported the doctor to the GMC.

Mohamed al Qureshi sought unsuccessfully to postpone the new hearing, saying she had been unable to obtain legal representation. She did attend the first day virtually but then declared that she would withdraw, and the hearing proceeded in her absence.

Sharmistha Michaels, chair of the latest tribunal, said Mohamed al Qureshi’s unwillingness to engage with the regulator left it with no evidence of remediation. The doctor had made written submissions to the 2023 review, but the tribunal had found these to be “scant and woefully inadequate,” said Michaels.

Announcing the sanction of erasure, Michaels said it would “convey to the profession that demonstrating continued lack of proper engagement with the GMC and persistent lack of insight into serious misconduct risks serious consequences.”

The striking off will take effect 28 days after the doctor is notified of the result unless an appeal is lodged.

Clare Dyer, *The BMJ* Cite this as: *BMJ* 2024;387:q2153



## THE BIG PICTURE

# Helene wreaks devastation in six US states

The death toll from Hurricane Helene reached at least 230 people last weekend as bodies continued to be found across six states more than a week after the storm tore through the US southeast.

A trail of devastation, as graphically illustrated by the photograph of the banks of Broad River, in Bat Cave, North Carolina, and Unicoi Hospital (inset) in Erwin, Tennessee, was wreaked across 800 km after the category 4 hurricane hit Florida on 26 September and moved north. Homes were washed away, roads destroyed, and millions of people left without electricity.

Helene was the fifth hurricane of the 2024 Atlantic season, which continues until the end of November, and the deadliest to hit the mainland US since Katrina in 2005.

Alison Shepherd, *The BMJ* Cite this as: *BMJ* 2024;387:q2198



SEAN RAYFORD/GETTY + REGAN TILSON/ERWIN POLICE

# Climate change, health, and the US election

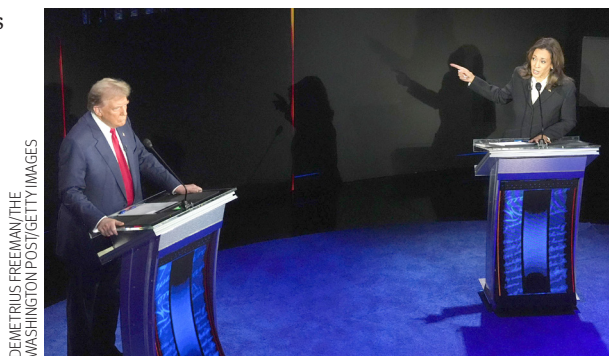
The climate-health link has not been an election focus

**O**n 5 November US voters will head to the polls and make decisions that have far reaching consequences for climate change and health, at home and abroad.

Climate change is a public health emergency<sup>1</sup> that will disproportionately affect vulnerable communities.<sup>2</sup> More than 200 medical journals have declared that it is the greatest threat to global health and requires an emergency response.<sup>3</sup> The two major political parties in the US offer vastly different visions of how they would approach the problem. This comes at a time when the health risks of climate change and the health benefits of climate solutions are becoming increasingly clear.

Reducing greenhouse gas emissions is at the forefront of action to tackle climate change. Initiatives to achieve this would also improve a wide range of health outcomes. For example, decarbonising power generation by eliminating the use of fossil fuels and accelerating the transition to clean energy improves air and water quality, saves lives, and leads to lower rates of cardiovascular, respiratory, and other diseases.<sup>2-5</sup> Transportation and urban planning policies that promote electric vehicles, public transport, and safe walking and cycling provide numerous benefits in the form of better air quality and increased physical activity.<sup>6</sup>

As one of the largest global contributors to greenhouse gases, the US has significant influence in international discussions on climate action. Negotiations between the US and China (another major emitter of greenhouse gases<sup>7</sup>) in 2014 were pivotal in building momentum for the Paris Agreement, the first global initiative to pursue ambitious climate goals.<sup>8</sup> Conversely, the US withdrawal from this accord in 2017 stalled progress.<sup>9</sup> When the US re-committed to the agreement in 2021, its



DEMETRIUS FREEMAN/THE WASHINGTON POST/GETTY IMAGES

**An affirmative stance on climate action can help candidates win votes: 62% of US voters say they prefer a candidate who supports climate action**

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credibility had been weakened, and other nations began to introduce loopholes in their commitments.<sup>10</sup>

Nearly a decade after the Paris Agreement was signed, national commitments on greenhouse gas emissions have failed to put the world on track to limit warming to 1.5-2°C.<sup>11</sup>

## Contrasting approaches

The official Republican Party platform does not even mention climate change. Instead it signals an intention to increase the burning of fossil fuels, reduce regulations that limit emissions of pollutants, and roll back climate policies established by the Biden administration.<sup>12</sup> Furthermore, the Project 2025 report—written by former Trump administration officials and published by the conservative think tank the Heritage Foundation—offers a far more detailed, albeit unofficial window onto how Republican leadership would dismantle efforts to protect climate and health.<sup>13</sup>

Much of the report's blueprint focuses on gutting or eliminating executive level programmes designed to promote clean energy or reduce heat trapping emissions and other pollutants, as well as cutting investments that would help make the US and other nations safer from and more resilient to climate change.

In contrast, the Democratic Party platform includes actions to reduce climate pollution and improve health through substantial investments in clean power, tax incentives for electric vehicles and lower home

energy use, and increased funding for public transportation and sustainable agriculture.<sup>14</sup> Furthermore, improvements in air quality resulting from two pieces of legislation brought in by the Biden administration—the Inflation Reduction Act and the Infrastructure Investment and Jobs Act—are predicted to save \$20bn-\$49bn (£15bn-£37bn) through reduced mortality by 2030,<sup>15 16</sup> along with decreases in non-fatal illnesses, including 85 900 fewer asthma attacks, 3700 fewer heart attacks, 1700 fewer hospital admissions, and 350 700 fewer lost workdays.<sup>16</sup>

However, the Democrats also plan to increase oil and gas development in the US, already the world's largest producer.<sup>17 18</sup> For the US to meet its global responsibilities and reclaim climate leader status, this must change.

The Democrats also miss an important communication opportunity. Growing research suggests discussing the health relevance of climate change can reduce political polarisation.<sup>20 21</sup> Indeed, surveys suggest taking an affirmative stance on climate action can help candidates win votes: 62% of US registered voters say they prefer a candidate who supports climate action, including 90% of Democrats, 62% of Independents, and 27% of Republicans.<sup>22</sup> The plan treats climate change and health as separate policy domains, overlooking a connection that could foster greater climate action.

The US—and the world—needs strong leadership to avert the worst effects of climate change and make our communities safer, healthier, and more secure. For the Republican Party that begins with recognising the serious threat posed by climate change in its party platform. The Democratic Party has taken great strides to address climate change but could strengthen its efforts by better integrating health into its approach.

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# Rising to the climate challenge: our next steps

The BMJ is acting on its promises, and others must too

In February 2024, the world's five largest listed oil companies were reported to have made record profits of \$281bn since the start of the war in Ukraine.<sup>1,2</sup> While companies benefited from steep rises in oil and gas prices because of the war, millions of households experienced fuel poverty and the associated physical and mental health effects of living in cold, damp homes. Some fossil fuel companies, including Shell and BP, are now reversing their climate commitments and plan to produce more oil and gas than previous targets.<sup>3,4</sup>

This renewed focus on fossil fuels has health harming consequences worldwide. Extraction, production, and use of fossil fuels is directly linked to damage to planetary and human health.<sup>5</sup> Burning fossil fuels has contributed to rising air pollution, resulting in increased cardiovascular and respiratory disease, and premature deaths. The World Health Organization estimates 99% of the world's population lives in places that do not meet its air quality guidelines.<sup>6</sup>

Extraction and production of fossil fuels widens global health inequalities and disproportionately affects poorer, marginalised communities, who are more vulnerable to the impacts of the climate crisis. Those living in areas where fossil fuels are extracted and processed also experience harm from disruption, land disputes, threats, and violence.<sup>7,10</sup> Low and middle income countries are more directly affected by extreme weather events, despite being responsible for producing fewer greenhouse gas emissions; 92% of excess global emissions are produced by the world's richer countries.<sup>11</sup>

Extreme weather events are becoming more common. Flooding in central Europe and the UK, extreme heat in the US, and wildfires in Brazil which covered 60% of the country in smoke this year<sup>12-14</sup> are just some of recent climate related weather events—all of which have a heavy toll on people's lives, health, and wellbeing.



**The objective is for these divestment decisions to be a tangible means of leadership**

The continued use of fossil fuels puts achieving the UN sustainable development goals (SDGs) related to planetary, environmental, and human health at risk. In order to achieve the SDGs, governments must prioritise a transition away from fossil fuels, and towards renewable forms of energy.<sup>15</sup>

## Governmental inertia

Predictably, governments have been slow to act. Rather than holding oil companies accountable for their climate commitments, in some cases, government action has increased the use of fossil fuels. For example, the last UK government granted a licence for a new North Sea oil field. Campaigners estimate that if it goes ahead, burning the oil and gas from Rosebank would produce more than 200 million tonnes of CO<sub>2</sub>, exacerbating the climate crisis.<sup>16</sup>

Last December, COP28 agreed countries will move towards renewable forms of energy. But there are no means of enforcement, and progress relies on individual governments.<sup>17</sup> The final consensus statement fell short of agreeing a phase out of coal, oil, and gas and contained many loopholes.<sup>18</sup> While more concrete action is needed, the agreement does signal that fossil fuel investment is no longer sensible and that states and companies should invest elsewhere, such as in renewables.<sup>19</sup>

Calls for organisations to divest from fossil fuels are not new.<sup>20,21</sup> In January 2020, *The BMJ* launched a campaign calling for healthcare professionals and medical organisations to divest from health harming industries,

notably fossil fuels.<sup>22</sup> Many medical royal colleges and health organisations around the world have since divested.<sup>21</sup> While individually these acts may seem small, the health sector collectively has great power. People can feel powerless in the face of a worsening emergency, but divestment is a positive change that is fully within an individual's or an organisation's control. The objective is for these decisions to be a tangible means of leadership and a way to exert influence on governments and industry.

## Our commitments

In 2020, *The BMJ* also pledged to ban advertising and research funded by companies that produce fossil fuels. We have done so. And we asked others to join us. We will now strengthen our policy further—following criticism that our print edition carried advertising for Barclays Bank, a major funder of the fossil fuel companies—we will allow advertising only from banks that do not fund the industry.

We are estimating our baseline carbon emissions and agreeing actions to achieve net zero. One of these is to consider moving our print edition from weekly to fortnightly. This would allow us to continue producing a high quality print journal while reducing our carbon footprint and the information load on print readers. Our online version is updated daily, includes everything we publish, and remains the canonical version of *The BMJ* for the purposes of the scientific record. Please tell us what you think of our fortnightly print proposal on [bmj.com](http://bmj.com) or by email to Kamran Abbasi ([kabbasi@bmj.com](mailto:kabbasi@bmj.com)).

There is, of course, much more we can do, but we will tackle what is feasible first while we explore more complex reforms all organisations must embrace to reduce humanity's damage to planetary health. Climate commitments are important, but are meaningless without action.

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## HEAD TO HEAD

# Should doctors be suspended for breaking the law?

Sarah Benn, a former GP, was suspended by the MPTS after an arrest for her involvement in climate protests, raising the question of when and whether doctors in such cases should be sanctioned



Sarah Benn (left) is escorted away from the Department of Business, Energy and Industrial Strategy in 2019

## The justness of a law is the business of Parliament, not the regulator

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First, it's important to clarify that not all instances of a doctor breaking the law will result in referral to a tribunal by the General Medical Council (GMC).

However, if a doctor receives a custodial sentence following a criminal conviction, we must refer the case to the Medical Practitioners Tribunal Service for a hearing. This is required in law and is not something we at the GMC can exercise any discretion over.

There are other occasions when a doctor may have broken the law but we conclude that an investigation, or a referral to a tribunal, isn't necessary or in the public interest. The circumstances around each case are thoroughly considered

before a decision is made as to how to proceed. We have a legal duty not only to protect, promote, and maintain the health, safety, and wellbeing of the public but also to promote and maintain professional standards and public confidence in doctors.

The recent case of Sarah Benn has sparked debate, partly because of a perception that the GMC referred her to a tribunal for taking part in peaceful protests. In reality the referral was made because she repeatedly breached an injunction order, was found to be in contempt of court, and received an immediate custodial sentence. In addition, Benn made it clear to the court that she would continue to take similar action and therefore showed minimal evidence of remediation.

**Doctors aren't above the law—and even the most strongly held convictions can't elevate them to that position**

Benn was referred to a tribunal because of those facts and circumstances, not because of the cause she chose to protest about. All doctors have a right to their personal opinions, and nothing in the GMC's *Good Medical Practice* prevents doctors from exercising their rights to lobby the government, campaign on issues close to their hearts, or take part in public protests. But when protesting involves breaking the law, doctors—in common with people in many other regulated professions—should understand that consequences may follow.

### Risk to public confidence

It's been suggested that doctors who break the law in an act of civil disobedience should be exempt from sanction if the law is unjust. But consideration of the justness of a law is the business of parliament, not the regulator. It would be wholly inappropriate and a matter of grave concern if the GMC was claiming the moral authority to sit in judgment on this.

Some people believe strongly that an action carried out in personal time, away from work, shouldn't cross the regulator's desk. But the law that governs what the GMC does says that because of the privileged and trusted role doctors have they must hold themselves to a higher standard than members of the general public, in both their professional and private lives. That's why some incidents are found to pose a risk to public confidence while also being found to have no effect on a doctor's professional practice.



## The GMC must avoid conflating rule of law with rule by law

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The first question to ask is whether the law that has been broken is a just law. Recently the UK's medical regulator, the GMC, issued an apology for having suspended doctors convicted for homosexuality under homophobic laws, which have since been repealed and are now widely seen as unjust. The GMC admitted to having “compounded [the] harm” these doctors experienced by wrongly ending their careers.

By suspending Sarah Benn after she peacefully protested outside an oil terminal, the GMC seems to be compounding the harm once again. Benn had broken a High Court injunction imposed by Valero, a US based oil company. But the use of privatised civil law to quash necessary and peaceful actions that sound the alarm on the existential threat of climate devastation can't reasonably be argued to be a moral or just use of the law—especially when fossil fuel companies continue to profit obscenely, while knowingly destroying the planet and in turn the health of those who live on it.

Yet the GMC saw fit to suspend Benn—not because she engaged in climate activism but because she broke the law, which the regulator argued (without supporting evidence) erodes trust in the medical profession.

Civil disobedience is a core part of political activism: the philosopher John Rawls argues that it strengthens democracy, either by breaking unjust laws themselves or by breaking minor laws to disrupt and draw attention to greater injustices. Indeed, history tells us that positive social change frequently occurs on the back of actions deemed unlawful at the time. Public transport segregation was written into US law when Rosa Parks notoriously refused to give up her seat on a bus.

Medical history exudes examples where activism has led to profound change, including medical women imprisoned for suffrage activities—a cause we now all support. Arguably, patients' trust in doctors, based on their trust based moral relationships, is upheld and strengthened when doctors advocate for action on important causes, particularly when these relate to health.

Moreover, doctors peacefully whistleblowing on climate inaction are acting in the name of health and well established science, not personal opinion. Expecting these doctors to undergo remediation suggests a failure by the regulator to appreciate the consequences that climate risks pose to the patients it exists to protect.

### Context and motivations

Crucially, the GMC must avoid conflating the rule of law with rule by law—the latter being where those in power can arbitrarily agree and apply law as they choose, without accountability. Indeed, arrests for peaceful actions have become far more likely owing to recent draconian laws, attracting concern from the UN special rapporteur, Michel Forst.

He warns that professional sanctions against doctors engaging in environmental protection “can definitely be considered as a form of ‘penalization, persecution or harassment’ and would therefore fall within the scope of my mandate.” Such stern criticism suggests that regulators are straying beyond their scope, imposing sanctions on activities that don't impinge on professional practice at all.

That's not to say that doctors have carte blanche to break the law, but decisions regarding suspension must acknowledge the context and motivations in which such actions are taken. Civil disobedience may be justifiable if: the cause is just; the action is taken as a last resort when lawful actions have led to minimal progress; it is proportionate; it has a realistic chance of success; it receives support from a legitimate authority. This final point has recently been strengthened by the BMA voting to protect doctors from sanctions for activism.

Moreover, debating whether doctors should be suspended for breaking the law diverts attention from examining whether it's right for public money to be spent on prosecuting doctors for whistleblowing on climate inaction in the first place. In recent cases, juries have decided not to convict health professionals who were able to explain that their professional codes of conduct required them to raise the alarm about the health implications of the climate crisis. Shouldn't we instead demand that those responsible for climate devastation, and other social injustices, face legal consequences themselves?

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It's been argued that doctors involved in climate change protests are acting in the public's interest, rather than against it, and that they have a moral imperative to protect patients and the public from climate harm. Without question, climate change poses a significant threat to health and wellbeing, and this is something the GMC has been much more explicit about in our updated version of *Good Medical Practice*. But an erosion of the public's trust in doctors, and in the system that regulates them, could also have significant consequences for public health.

Doctors aren't above the law—and even the most strongly held convictions can't elevate them to that position. They must always consider how their actions may be perceived by the public and how they may affect wider confidence in the profession. Most of all, they should remember that if their conscience leads them to break the law it will be their conduct and its consequences—rather than their cause—that will be under scrutiny.



TIM GAINES/ALAMY

## WOMEN'S HEALTH

# Rising heatwaves are intensifying an anaemia crisis among India's women

More frequent and longer spells of very high temperatures are exacerbating the condition—already made worse by falling nutritional value in foods and diagnosis difficulties. **Rishabh Jain** reports

**R**adha Kumari fell unconscious while working in her field one day. The 36 year old farmer was rushed to hospital, where tests found that her haemoglobin count was 4.5 g/dL, well below what India's doctors consider the normal count of 11 g/dL.

"Doctors told me that I'm severely anaemic and if that's not taken care of urgently it might threaten my life," says Radha, who lives in Muzaffarnagar district of Uttar Pradesh province in northern India. It was a frightening situation for her whole family, as her farming work supports her two young children.

Radha is among around 560 million Indian women—two of every three women in the country—who are classified as having iron deficiency anaemia. Yet many ignore the symptoms. She says that she'd been continuously feeling tired since April, even after a normal six to seven hours of sleep. She also complained of severe headaches and swelling in her hands and legs, but she ignored the symptoms, assuming that they'd clear in a few days.

More and more women are being admitted to hospital, however. The World Health Organization says that 29.9% of the world's women aged 15-49 have anaemia, amounting to more than half a billion women in this age group. (Classifications vary globally, but WHO defines anaemia as a blood haemoglobin level below 12 g/dL in non-pregnant women.) Researchers have traced this trend to a combination of nutrition deficiency and the intense

### Iron, zinc, and protein in crops are severely affected when exposed to excessive carbon dioxide

heatwaves being experienced year on year in India and throughout South Asia. And the reason is climate change.

#### Toll on nutrients

Although anaemia has different causes and types, iron deficiency anaemia is the most common. Doctors generally prescribe iron folic tablets, which are available free of charge at government run primary health centres. They also advise adding foods rich in iron to the diet, such as millets, buttermilk, and seasonal fruits, and reducing reliance on foods such as wheat and rice, which studies have found to be decreasing in nutritional value in recent years.

Rupali Karajgir, a senior consultant dietitian and clinical nutritionist based in Delhi, says that the rise in heatwaves directly affects food's nutrient value. "It's important that during the summer, especially in the period of heatwaves, more and more focus is on eating seasonal fruits and less on [artificially produced soft] drinks," says Karajgir. "Women, especially pregnant women, should eat apples, sweet lime, and millets. Millets should be consumed once every day."

A 2018 study published in *Nature Climate Change* highlighted that rising carbon dioxide levels from human activities were making staple food grains such as rice and wheat less nutritious. The study, by

researchers from the Harvard School of Public Health, found that nutrients such as iron, zinc, and protein in crops such as wheat, corn, rice, and soy were severely affected when exposed to excessive carbon dioxide in the environment. It also suggested that the worsening deficiency of such nutrients would further pose a major disease burden in low and middle income countries.

This nutrient loss is causing many health problems, including anaemia, which disproportionately affect women.

#### Women at the receiving end

The prevalence of anaemia among adolescent women in India increased from 54.2% to 58.9% from 2015-16 to 2019-21, showed a report from India's National Centre for Biotechnology Information in 2023. Its authors found that 60% of non-pregnant women and over 55% of pregnant women aged 15-49 had anaemia.

Kamali Kumari (no relation to Radha), a 23 year old woman from Begusarai in the northern state of Bihar, was plagued by continuous exhaustion during her pregnancy. She says that her heartbeat would fluctuate and that she would sometimes sweat excessively. She initially thought that this was related to her pregnancy, but a medical examination found that her haemoglobin levels had dropped to 7 g/dL.

Shashi Yadav, a health and social worker for the government health service, says that when Kamali was taken to the doctor she was given

intravenous iron sucrose at regular intervals over a period of one month. But the medicine provided only temporary respite to Kamali, and her situation deteriorated when the injections were stopped.

Gunjan Sharma, a gynaecologist based in Delhi, says that high temperatures can adversely affect various stages of women's reproductive health, including menstruation, fertility, pregnancy, and menopause. Research shows that heat stress can disrupt hormonal balance, potentially leading to changes in the menstrual cycle. These changes can manifest as irregular or absent menstruation, increased menstrual pain, and heavier bleeding.

"While extreme heatwaves are causing early menopause, they are also giving rise to heavy bleeding during periods," says Sharma. "Both these situations are definitely going to cause anaemia, a condition that should be immediately taken care of, especially among lower class women who are forced to work in extreme temperatures."

And it could have further consequences for pregnant women. Sharma tells *The BMJ*, "The most common anaemia in India is caused by iron deficiency. With the rising heatwaves further impacting the nutrient value of crops, the chances of pregnant women becoming anaemic becomes exponentially high."

## Rising cases

Yadav has said that these cases are not unique, and similar cases have been reported from the same village in Bihar. Over the past three to four years she's come across several women with anaemia, especially in pregnancy. And



MAJORITY WORLD/IG/GETTY IMAGES

there's a building case that the situation is being further exacerbated by a diet usually low in iron.

A 2018 study published in *PLOS Medicine* noted that women experienced higher incidences of anaemia and malnutrition worldwide and were susceptible to climate related food insecurity because of their increased nutritional demands during menstruation and childbirth. The study highlighted that this vulnerability arises because climate change diminishes agricultural output, which in turn affects nutrition intake. Consequently, diets deficient in vital nutrients leave many pregnant women at risk of developing anaemia.

In 2018 the Government of India initiated the Anaemia Mukht Bharat (AMB) strategy, aimed at reducing anaemia among vulnerable groups such as women, children, and adolescents. This comprehensive approach

## A 2023 report found that 55% of pregnant women in India had anaemia

includes a "6x6x6" strategy encompassing six target groups, six types of interventions, and six institutional mechanisms, enabling various stakeholders to implement these measures. However, despite the AMB's launch six years ago, the number of Indians with anaemia has only risen.

More than a million community healthcare workers are involved in providing iron and folic acid supplements daily to pregnant women starting from the second trimester, continuing through the pregnancy, and for 180 days after childbirth. Additionally, there are proactive efforts to identify groups at higher risk of anaemia. Women in these groups are offered free blood tests at public healthcare centres during their first trimester to initiate timely treatment for anaemia and are also given intravenous iron sucrose.

But there are still challenges in diagnosing anaemia. There's no established method for routinely screening for the condition: detection often happens incidentally during examination for another health issue and requires a blood test to take a complete blood count. Results can take 1-72 hours, depending on the laboratory.

Screening could effectively be done at the primary healthcare level if a quicker, non-invasive tool were available. As such, the Indian Council of Medical Research is developing a "non-invasive haemoglobinometer"—a simple and easy to use digital device that would replace the need for a blood test.

Still, all these initiatives don't deal with the bigger problem of the decreasing nutritional value of food. And in India nearly a billion people, around 74% of the population, can't afford to eat a healthy diet, says the UN Food and Agriculture Organisation.

For farmers such as Kamali and Radha, the immediate danger remains. Both have to work in extreme heat, where they're exposed to the sun for several hours during the day. Kamali says, "Last year I suddenly saw a change in my menstrual cycle where I would have irregular periods and excessive bleeding." The effect of this is not just physical but financial—and it has a direct impact on treatment for the condition.

"I earn 400 Indian rupees [£3.80] every day," says Radha. "However, I won't get this wage if I don't go to work. I feel exhausted the whole day. In such a situation, how will I be able to buy fruits and green leafy vegetables that the doctor asks me to eat?"

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LYNSEY ADDARIO/GETTY IMAGES

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**FEATURE**

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# Planetary health prescriptions: Finland's new physician role connects human and climate health

A Finnish neurologist is taking an innovative approach to health through a unique role and project. **Elisabeth Mahase** reports

**I**n 2021 Hanna Haveri (pictured) became Finland's first planetary health physician, a unique role created by her local wellbeing county. "I don't think there are such positions elsewhere in Finland and I haven't heard about such positions elsewhere in the world," Haveri says.

"They wanted to establish this role to show that the healthcare sector is truly committed to sustainable development, and to promote planetary health," she adds.

In Finland, there are 21 wellbeing services counties that are responsible for organising health, social, and emergency services. Planetary health is a relatively new introduction—one that refers to the idea that human health and the health of the planet are interconnected. Haveri has worked on several projects across the city of Lahti since taking the role. But one initiative stands out: planetary health prescriptions.

In collaboration with experts from local universities, the project set out to see how residents could lead healthier and more environmentally friendly lives through small adjustments. This took the form of "prescriptions" Haveri provided to five volunteers drawn from throughout the city.

Haveri focused on helping one participant—a busy 30 year old father with a hectic career who exercised regularly and participated in triathlons—deal with fatigue. "In his prescription, we concentrated on how to relax more, how he could be kinder to himself, and how to reconnect with nature," she says.

Instead of driving to and from a running track to exercise and then rushing home, Haveri advised him instead to exercise in a nearby forest and take time to stretch and cool down before walking home barefoot through nature. "It amazed him how relaxed he was after this," she says.

For another patient—an elderly woman who had become isolated and lonely because of an injury that had left her unable to leave her house during the project period—Haveri suggested that she start a bird watching competition with her grandchildren.

"She had a little competition, seeing how many birds she could see with binoculars from her balcony and she also tried to identify the sounds of the birds. She found it inspiring and it also gave her something to discuss with her grandchildren," Haveri explains.



STINA KOKONEN

"She found it soothing and felt more cheerful after these sessions."

"I was like a lifestyle counsellor who not only took into account health matters but also encouraged a lifestyle that could promote environmental wellbeing," Haveri says. "The participants were very enthusiastic about the prescriptions."

**It can be something very normal in a patient's daily life. Just little suggestions**

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## Keep it simple

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For Haveri, one of the most important messages was that creating a healthier lifestyle doesn't have to take a lot of time. "In our prescriptions, we wanted to concentrate on little steps and to try to emphasise that you can always try to fit it into those little moments," she says.

The project is part of Lahti's "bold green city" vision. Currently, it is working on becoming a carbon neutral city by 2025 and a zero waste circular economy city by 2050, and is encouraging residents to protect nature and use sustainable modes of transport—from buses to skiing. In 2021, Lahti was named the European green capital.

While a full report on the prescriptions project is still being written, Haveri says she has already started to see the impact it has had, not only in terms of how her patients feel, but in the way it has changed conversations.

She stresses the importance of keeping it simple. "It doesn't have to be a big deal when we give this advice. It can be something very normal in a patient's daily life. Just little suggestions. For example, for an older person it could just be that when they go to the shop, if they can, take the route through the park or through the forest, rather than on the busy street."

"The wonderful thing was that it really aroused the attention of the public and of Finland," Haveri says. "Many sectors are interested in what's been going on in Lahti city—what kind of things we've done for the environment and how to promote public health and so on."

Elisabeth Mahase, *The BMJ*

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