this week

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WHO backs rollout of AstraZeneca vaccine

Doctors have warned of the risks associated with pausing or delaying vaccination programmes against covid-19, as the number of European countries that have halted use of the Oxford University and AstraZeneca vaccine rose to 16.

Denmark, Norway, Bulgaria, Iceland, France, Germany, Italy, Spain, Portugal, Slovenia, and Cyprus have suspended all use of the vaccine. Five other countries (Austria, Estonia, Latvia, Lithuania, and Luxembourg) have paused the use of a batch of a million doses of the vaccine.

The moves came after reports of blood clotting disorders. The Norwegian Medicines Agency said last week it was looking into several cases of blood clots or reduced platelet counts, including at least one death from a brain haemorrhage. Danish authorities also launched a safety review after the death of a recipient, while Austrian officials said a person who had multiple thrombosis diagnosed after vaccination had died and another was recovering from pulmonary embolism.

The World Health Organization and the European Medicines Agency have said there does not seem to be an increased risk of blood clots with the vaccine and have advised that vaccinations should continue.

On 16 March WHO's chief scientist, Soumya Swaminathan, said, "We do not want people to panic, and we would, for the time being, recommend that countries continue vaccinating with AstraZeneca... So far, we do not find an association between these events and the vaccine."

The EMA said there had been 30 reports of thromboembolic events among nearly five million people given the AstraZeneca vaccine in the European Economic Area.

AstraZeneca has said 37 blood clots have been reported among more than 17 million people vaccinated in the EU and Britain. Five of the cases were deep vein thrombosis, and 22 were pulmonary embolisms. "This is much lower than would be expected to occur naturally in a general population of this size and is similar across other licensed covid-19 vaccines," it said in a statement.

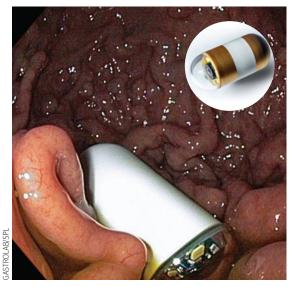
Phil Bryan, vaccines safety lead at the UK Medicines and Healthcare Products Regulatory Agency, said, "Blood clots can occur naturally and are not uncommon.

"More than 11 million doses of the AstraZeneca vaccine have been administered across the UK, and the number of blood clots reported after having the vaccine is not greater than the number (Continued on page 424) The World Health Organization has urged people not to panic amid reports of blood clotting disorders in patients receiving the vaccine

LATEST ONLINE

- NHS and social care need an extra £12bn to get back on track after pandemic, says think tank
- Covid-19:
 Underfunding of health workforce left many
 European nations vulnerable, says commission
- Italy reimposes widespread lockdown as transmission rate rises again

SEVEN DAYS IN



Capsule endoscopies will be trialled in England

Miniature cameras in a capsule for patients to swallow are set to be trialled in England to check for colorectal cancer and other bowel disorders such as Crohn's disease.

The imaging technology, known as colon capsule endoscopy, takes two pictures a second as it passes through the body over about 5-8 hours and transmits the images to a data recorder worn on the patient's waist. Patients can be treated at home with minimal disruption to their day, NHS England said.

A group of 11 000 patients in more than 40 areas will receive the cameras initially. Although traditional endoscopies are still being performed, the infection control measures required to make them covid secure mean that they take much longer to do, reducing the number of people who can have them. Ed Seward, a consultant gastroenterologist at University College London Hospital who has been using the technology, said the device is useful for people who don't want to leave home.

Alastair McKinlay, president of the British Society of Gastroenterology, said the cameras may offer a real advantage for patients. "We welcome the opportunity for a proper service evaluation so the limitations and advantages of this technique can be properly assessed," he said. "This information will put the UK at the forefront of the world in this important new area."

Zosia Kmietowicz, The BMJ Cite this as: BMJ 2021;372:n692

Covid-19

Vaccine is linked to lower household transmission

A study by Public Health Scotland and the University of Glasgow of 300 000 healthcare workers employed by the NHS in Scotland and their households showed that the rate of SARS-CoV-2 infection in people living with healthcare workers was at least 30% lower when the worker had been vaccinated after a single dose and at least 54% lower after the second vaccination. As household members can also be infected through other people, this 30% relative risk reduction is an underestimate of the true effect of vaccination on transmission.

Prioritise homeless people for vaccine, says JCVI

The Joint Committee on Vaccination and Immunisation advised the UK government to prioritise homeless people for the covid vaccine, including those sleeping rough. It said that local teams should consider offering vaccines to homeless adults alongside those in priority group 6 without the need for an NHS number or GP registration. Local decisions should be taken on

whether a shorter schedule may be offered if people are unlikely to return for the second dose at 12 weeks, it said.

EMA recommends J&J vaccine for authorisation

The European Medicines Agency recommended granting a conditional marketing authorisation for Johnson & Johnson's covid vaccine in over 18s. The single dose vaccine made by Janssen, the pharmaceutical arm of Johnson & Johnson, will be the fourth vaccine approved in the EU, after Pfizer-BioNTech, Moderna, and Oxford-AstraZeneca. "Authorities across the European Union will have another option to combat the pandemic and protect the lives and health of their citizens," said Emer Cooke, the EMA's executive director.

NHS texts vulnerable people for vaccination

The NHS sent text messages to millions of clinically vulnerable people this week to encourage them to get a covid vaccination as its national programme

continued to accelerate. GPs have already been inviting patients with underlying conditions such as diabetes and some forms of cancer. The NHS texts are part of a renewed effort to reach people who have not been vaccinated, giving them a link to arrange a jab at a vaccination centre or pharmacy led service.

Child health

Launch of "Beveridge report for children"

England's new children's commissioner, Rachel de Souza (below), announced a once-in-a-generation review of the future of childhood, with an ambitious call to rebuild childhood after the covid-19 pandemic. The Childhood Commission will be inspired

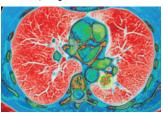
by the ambition of William
Beveridge's pioneering
1940s report, which
laid the foundations
of the postwar social
security system. The
commission

the barriers preventing children from

reaching their full potential and will offer solutions to improve children's lives and develop tough targets to hold the government and others to account.

Lung cancer

Screen over 50s who smoke, says US taskforce



The US Preventive Services Task Force updated its guidance on lung cancer screening to recommend that people over 50 with a smoking history of at least 20 pack years should be offered an annual scan using low dose computed tomography, increasing the number of people eligible for screening from nine million to 15 million. The new guidelines advise against screening people who stopped smoking at least 15 years ago or those who cannot benefit from early detection because they are unwilling or unable to have surgery.

MEDICINE

Vaccination

Novavax vaccine is highly effective, results show

The covid-19 vaccine developed by the US company Novavax is 96% effective against the original variant of SARS-CoV-2 and 86% effective in protecting against the variant B1.1.7 discovered in Kent, the company disclosed. Phase III trial results from a UK based study showed overall effectiveness of 90%. Novavax said a smaller phase IIb trial in South Africa, where the more transmissible B1.351 variant is circulating, had found an efficacy of 55.4% among HIV negative trial participants.

Intensive care

Staff will feel covid impact for "years to come"



Seven in 10 intensive care professionals (70%) will need some form of psychological support because of the pandemic, said the Intensive Care Society. It warned that the psychological trauma of the pandemic "continues to be relentless" and staff must be given additional resources and wellbeing support. Staff had been spread "thinner than ever," had seen "more death in the past year than they would have in their entire career," and had had "little or no break since March 2020."

Smoking

Quitting may improve mental health, review finds

People who stop smoking are not likely to experience a long term worsening in mood and may see mental health improvements, such as reduced anxiety and depression, a Cochrane review found. The authors wrote, "There

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are biologically plausible reasons why smoking may worsen mental health through neuroadaptations arising from chronic smoking, leading to frequent nicotine withdrawal symptoms (e.g. anxiety, depression, irritability), in which case smoking cessation may help to improve rather than worsen mental health."

Elective care

More than 300000 wait over a year for treatment

The number of people in England waiting longer than a year for planned hospital treatment has risen to 304 044 during the pandemic, NHS statistics showed, and the overall reported waiting list is 4.59 million people. A year earlier, in January 2020, only 1643 people in England were waiting more than a year. Tim Mitchell, vice president of the Royal College of Surgeons of England, said, "Dealing with this daunting backlog will take time and sustained investment."

Assault

"Violence against women is public health problem"

Physical and sexual violence against women should be treated as a public health problem, said WHO. It called for healthcare workers to be trained in "responding to the needs of survivors holistically and empathetically." Figures show 30% of women experience violence in their lifetime.

NHS CARE

Out of 3200 NHS patients who said they increased their use of technology to access care during the first phase of the covid pandemic 3% rated their experience as positive, but the quality of care was worse [Health Foundation]



AM I SEEING DOUBLE?

Very probably. The chances of seeing twins are higher now than ever. Since the 1980s the twinning rate has risen from 9 to 12 per 1000 deliveries, says a global overview in *Human Reproduction*. About 1.6 million twins are born each year—one in every 42 newborns.

WHAT'S BEHIND THE BUMP?

A major reason is the growth in medically assisted reproduction. The various techniques started in wealthier countries in the 1970s and in Asia and Latin America in the 1980s and 90s, reaching more prosperous parts of South Asia and Africa after 2000. Another cause is the delay in childbearing, since the twinning rate rises with the mother's age.

IS IT IDENTICAL AROUND THE WORLD?

No, there are clear differences. Among 122 countries that had data from 1980-85 and 2010-15, the twinning rate increased by more than 10% in 83 countries and fell by more than 10% in seven. North America saw a bouncing 71% increase, while Europe saw a 58% rise and Asia 31%.

WHAT ABOUT AFRICA?

Good question. Africa has the highest twinning rate, with little change in three decades. It was 16.5 per 1000 births in the 1980s and 17.1 in the 2000s. The study author, Christiaan Monden of Oxford University, says the reason is "the high number of dizygotic twins [twins from two eggs] born there—most likely to be due to genetic differences between the African population and other populations."

HAVE WE REACHED PEAK TWINS?

It looks like it, especially in high income countries. Africa will be one of the main drivers of twins in coming decades, says Gilles Pison, study author at the French Museum of Natural History—although

the effect of lower fertility, older maternal age, and more medically assisted reproduction is uncertain. Pison says, "Advances in IVF make it more likely than not we will see fewer twin births as a result of IVF."

THAT'S GOOD NEWS, SURELY?

Twin births are now safer than ever, but infant mortality among twins

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is still high in some low and middle income countries, such as in sub-Saharan Africa, where up to 300 000 babies are thought to lose their twin in the first year of life.

Zosia Kmietowicz, *The BMJ*Cite this as: *BMJ* 2021;372:n709

The authors wrote, "There Cite this as: BMJ 2021;372:n713 Cite this as: BMJ 2021;372:n713

(Continued from page 421)

that would have occurred naturally in the vaccinated population.

"We are working closely with international counterparts in understanding the safety experience of covid vaccines and on the rapid sharing of safety data and reports. People should still get their covid-19 vaccine when asked to do so."

Belgium, Poland, Ukraine, and the Czech Republic have followed advice from the UK's regulators to keep vaccinations going.

Data review

WHO's Advisory Committee on Vaccine Safety and the EMA were both due to meet to review the available data on 16 March, as *The BMJ* went to press. The EMA said it hoped to advise on what action, if any, was recommended after its scientific evaluation committee reported on



Thursday 18 March. Stephen Griffin, associate professor at Leeds School of Medicine, said the response of many

countries was disproportionate.
"Since many European countries are experiencing another resurgence of infections and yet are lagging behind in terms of rollout, the importance of continuing the vaccination programmes cannot be overestimated.

"It should also be noted that gestures such as this are bound to fuel hesitancy, or more extreme antivaccine sentiment," he said.

Paul Hunter, professor in medicine at the University of East Anglia, said, "The infection mortality rate in men in their mid-40s from covid-19 is of the order 0.1% or about 1000 deaths per million infections, substantially greater than the risk of cerebral venous thrombosis. Clearly, this possible association needs to be investigated, but we do need to consider the real harm from delays in immunisation campaigns when the incidence of covid is still increasing in several European countries."

There has been no evidence of serious adverse effects from trials of the vaccine.

Elisabeth Mahase, *The BMJ* Cite this as: *BMJ* 2021;372:n728

Vaccine could be rolled out to children by the autumn

ome covid-19 vaccines could be rolled out to children in the UK later this year, as early, real world reports indicate few adverse events.

In Israel, where 106 vaccine doses have been administered for every 100 adults, the health ministry recently recommended vaccinating some older children with underlying conditions that make them vulnerable to the effects of the virus, such as cystic fibrosis. Some 600 children aged between 12 and 16 have been given the Pfizer vaccine, and early results have indicated no serious side effects.

The head of Israel's vaccine taskforce,

Boaz Lev, said, "We didn't see any major side effects, and even minor [ones] are quite rare. This is encouraging."

Trials in children

Clinical trials also are currently under way to test the Pfizer, Moderna, and Oxford-AstraZeneca vaccines in children. Pfizer has enrolled more than 2000 children aged 12-15 for a trial that was announced in October. It also expects to run a second trial in children aged 5-11 years. Pfizer's chief executive, Albert Bourla, told Reuters in March he expected younger teens to be eligible for vaccination in the autumn and primary school children by the end of the year.

NHS will continue to offer vaccines to staff who refuse, says minister

The NHS will continue to contact and hold one-to-one meetings with doctors and other staff who haven't taken up the offer of a covid vaccine to tackle any hesitancy, the vaccines minister said this week.

Nadhim Zahawi (below) told MPs on the Women and Equalities House of Commons Committee on 10 March that, although uptake among health staff had been "incredibly high," with over 90% of those offered taking up the vaccine, the NHS was not resting on its laurels. "If you are looking after a vulnerable person it is your professional duty if offered the jab to take the jab," he

Zahawi
acknowledged that
uptake had been lower
among some
groups of the
general public,

such as ethnic minority communities, which he said the government was tackling through a range of measures, including a media campaign in many languages, community champions, and outreach with healthcare providers and faith leaders.

Misinformation

He added some hesitancy had also been driven by the spread of misinformation that the vaccines could affect fertility, which is "proving to be quite sadly quite potent," despite clinical experts saying there is no evidence for the claims. "We've got the NHS talking to their staff who haven't [taken up the offer] on a one-to-one basis," he said. "Some of the evidence suggests that those 10-15 minute conversations make a huge difference to staff."

Zahawi said that, as the vaccination programme

moves through the different priority groups, people who might have been hesitant initially would be approached again. "We keep the offer evergreen," he said.

"We'll constantly return to make sure we are nudging up those numbers to as high as possible. If we can get to where the [Office for National Statistics] suggests, which is 94% of the adult population vaccinated, that's a great place to be."

But Zahawi said the high uptake overall was evidence that the UK's messaging strategy had been successful. "This is the highest uptake, I think, in the history of vaccine deployment in the UK. We already have very high levels of vaccine positivity, I think very much because the strategy has been right."

Gareth lacobucci, *The BMJ*Cite this as: *BMJ* 2021;372:n702

If you are looking after a vulnerable person then it is your professional duty if offered the jab to take the jab Nadhim Zahawi



MODERNA
announced it would be testing its vaccine in 3000 young people aged 12-17

In December Moderna announced it would be testing its vaccine in 3000 young people aged 12-17.

Anthony Fauci, director of the US National Institute of Allergy and Infectious Diseases, has said that high school students should be able to get a vaccine in the autumn.

The Oxford research group is also testing its vaccine in children aged 6-17, in a trial funded by the National Institute for Health Research and AstraZeneca. Oxford's chief investigator, Andrew Pollard, a professor of paediatric infection and immunity, said, "While most children are relatively

unaffected by coronavirus and are unlikely to become unwell with the infection, it is important to establish the safety and immune response to the vaccine in children and young people as some children may benefit from vaccination."

Transmission

Beate Kampmann, director of the London School of Hygiene and Tropical Medicine's Vaccine Centre, told *The BMJ* that, while most children were not at risk of severe covid-19 illness, they may have an important role when it comes to transmission.

"The more adults we can protect with the vaccines the less the vaccination of children would matter. However, to achieve as much suppression of viral circulation and to get to community immunity which can then suppress transmission and evolution of new variants, [including children in the vaccination programme] could be justified," she said, adding it was unlikely children under 5 would be vaccinated.

Commenting on what evidence would be needed to extend authorisation to children, Kampmann, a professor of paediatric infection and immunity, said, "We need to exclude side effects in children, and we need to show that the vaccines induce a similar immune profile as we have seen in the already highly protected adults—then the vaccines could be approved on the ground of so called immunobridging."

Elisabeth Mahase, *The BMJ*Cite this as: *BMJ* 2021;372:n723

Check covid status before emergency bowel surgery

Clinicians are being advised to seriously consider a patient's covid-19 infection status when planning emergency bowel surgery, as a national audit has found that patients who tested positive for the virus had significantly higher mortality rates.

The research, carried out during the first wave of the pandemic, found that patients with covid were 26% more likely to die within 30 days of their surgery than would have been expected if they did not have covid-19. Even in non-pandemic times emergency laparotomy is one of the highest risk operations a patient can undergo, with a risk of death almost 10 times greater than from major elective gastrointestinal surgery.

Ravi Mahajan, president of the Royal College of Anaesthetists, which led the research, said, "We cannot ignore the serious impact a positive covid test has on the 30 day mortality rates for patients undergoing the surgery. We call on all clinicians to seriously consider covid infection status when planning care and discussing treatment options. It is vital everyone is fully informed before making a decision to undergo a surgery that may have devastating consequences."

Jacqui Wise, London
Cite this as: BMJ 2021;372:n695

"Government wilfully evaded scrutiny"

Ministers' failure to share the data behind their decisions during the pandemic is likely to have undermined the response and placed a "needless strain on public confidence," MPs have said in a damning report.

The Public Administration and Constitutional Affairs Committee emphasised the importance of publishing the data used to justify policy decisions and accused the government of wilfully evading scrutiny.

"Absolute clarity"

The committee said ministers must now provide "absolute clarity" on the data underpinning the easing of restrictions to "live up to the prime minister's commitment to 'data not dates."

They must also stop "moving the goalposts" when it comes to lockdown decisions and should outline the range of data and information they would use to lift current and future lockdowns, the MPs said.

The report criticised the government's engagement with the committee during the inquiry. It said that the minister for the Cabinet Office, Michael Gove, "declined to appear before the committee when called and ministers sent in his place were poorly briefed and unable to answer the questions put to them." Meanwhile, written responses to the committee's questions often "failed to provide the information requested."

"This is wilful evasion of parliamentary scrutiny," the report said. The committee reminded the government of its "obligation to hold itself open to scrutiny and expects each recommendation to be responded to in full."

"Held to account"

The committee said it "expects Gove to respond to this report, clearly outlining his understanding of his own responsibilities, and the ways in which he should be held to account by Parliament."



Michael Gove "declined to appear before the committee when called"

Committee chair William Wragg said, "Delays in sharing vital data, and a reluctance to share detailed data, almost certainly hampered the local response. This over-centralisation must not be repeated."

The committee's recommendations included that the Cabinet Office must clearly outline responsibilities for decision making before the Coronavirus Act is considered for renewal after 25 March.

This should include clear lines of accountability and state which minister is accountable for ensuring decisions are based on data.

Elisabeth Mahase, *The BMJ*Cite this as: *BMJ* 2021;372:n717

the**bmj** | 20 March 2021

Nearly all doctors face a complaint in their career

Nearly all GPs (97%) who responded to a survey from the Medical Defence Union said they had received a complaint against them during the course of their career, with slightly lower figures for consultants (88%) and trainees (71%).

The survey, conducted in December, was sent to 32 000 MDU members and received 741 responses (a 2.32% response rate), including 296 from GPs, 274 from consultants, and 59 from trainees. The main findings were:

- About half of complaints were made within the past five years
- The most common complaints (46%) about GPs were related to an alleged delayed or missed diagnosis
- The most common complaints (30%) about consultants were related to alleged treatment complications, while most complaints against trainees (43%) related to an alleged breakdown in communication
- \bullet Of the complaints against GPs, 40% were resolved locally within the individual's own clinical team. Among consultants 55% of complaints were resolved at senior management level, while 45% were resolved within the individual's own clinical team. Most complaints (66%) against trainees were resolved within the clinical team
- GPs were most likely to say that the complaint had an impact on their professional (70%) or personal lives (65%), although about half of all doctors said their lives were affected in some way.

Zosia Kmietowicz, The BMJ

Cite this as: BMJ 2021;372:n707

NHS staff's stress levels rose last year as pandemic took its toll

lmost half (44%) of NHS staff in England have reported feeling unwell because of work related stress, the highest rate recorded in the past five years, the latest NHS Staff Survey has shown. And around a third of staff said they were considering quitting their job, while a fifth indicated they may leave the health service completely.

The NHS Staff Survey 2020 received 595 270 responses (a 47% response rate) from staff at 280 organisations in England, between last September and December. The survey has been carried out annually since 2003.

Results showed that 44% of all staff (and 40% of doctors) reported being ill because of work related stress—a marked increase from previous years, such as in 2019 (40% of all staff) and 2016 (37%).

Around a third of staff (34%) had worked on a covid-19 specific ward or area at some time last year, and half of those (50%) reported feeling unwell as a result of work related stress.

Other worrying results included that only 69% of ethnic minority staff who reported that their organisation

provided equal opportunities, compared with 87% of white staff. Although only 13% of staff reported experiencing discrimination at work, ethnic background continued to be the most common reason given and was mentioned by 48% of staff who said they had experienced discrimination.

However, more positive results were that a third of staff (33%) said their trust took positive action on health and wellbeing, up from 29.3% in 2019, and 60% believed they had adequate materials, supplies, and equipment to do their work, up from 56% the previous year. Most staff (82%) were satisfied with the quality of care they gave patients, up slightly from 81% in 2019.

Considering quitting

Despite these findings, the proportion of staff who said they were considering leaving their organisation was 34%, although this has fallen slightly from 36% in 2019. Similarly, the proportion of staff considering leaving the NHS altogether was 18%, down slightly from 20% in the 2019 survey.

Rob Harwood, chair of the BMA's Consultants Committee, said the

Fast track research approval is "here to stay," says HRA

The UK research regulator has said it wants to sustain "in peacetime" the fast track methods it developed for reviewing studies during the covid-19 pandemic.

At the height of the pandemic the Health Research Authority cut around 90% off its approval timeline. Speaking last week, Juliet Tizzard, its director of policy and partnership, said that around 700 covid-19 studies were reviewed in total over the past year, half of these within 36 hours and some within 24 hours.

"We provided a fast track review service, prioritising the

urgent public health studies identified by the chief medical officer and delivered by the National Institute for Health Research within 24 hours of submission as well as fast review for other types of clinical trials—vaccines, therapeutics, diagnostics—within 36 hours at the height of pandemic research response," she said.



Tizzard said time was gained through virtual working, a rota of volunteers who sit on ethics committees, and unusual ways of working such as ad hoc committees and working out of hours. "And, of course, there was a sense of urgency and national focus on something we all wanted to address quickly," she added.

"We want to maintain speed of review for new research; we now know prioritisation and fast tracking works. But we need to find a way of sustaining this in peacetime. These are people centred activities. Ethics committees can't be done via algorithms; they need dialogue and conversation, so we need to find ways of supporting people and giving them a sense of community."

Ethics review

The HRA is piloting an ethics review process that reduces review time for clinical trials and phase I studies by about 50%. The pilot, looking at 25 studies, will be evaluated next month.

Martin Landray, professor of medicine and epidemiology at the University of Oxford and



findings underlined the intense pressure staff had been under in the past year. "As vast swathes of the country stayed at home, healthcare workers continued to go to work," he said. "Not only were many coming face to face with a deadly virus, often without adequate protection, but a large proportion were working in unfamiliar environments as they agreed to be redeployed to other roles.

"That 44% reported being ill because of work related stress is a stark yet unsurprising figure, given all that they have been through. They have dealt with death and illness on a scale the NHS was completely unprepared for, which tragically far too often included their own friends and colleagues."

Adrian O'Dowd, London
Cite this as: *BMJ* 2021;372:n703

The survey showed that 44% of all staff (and 40% of doctors) reported being ill because of work related stress—a marked increase from previous years, such as in 2019 (40% of all staff) and 2016 (37%)

joint chief investigator for the Recovery trial, backed the moves to maintain pace in the approvals process. He said the HRA, particularly its ethics review, had been "careful, considered, but rapid" over the past 12 months.

He said, "As we start to turn our attention to a somewhat more peaceful time, there are definite lessons to learn. Delay and excessive deliberation do not necessarily result in better decisions, but they certainly lead to slower decisions.
The past 12 months have shown just what can be possible. We do, though, need to systematise and professionalise (with a small and large 'p'). Much of what has happened over the past year has happened because a relatively small number of people have worked exceptionally hard—that's not sustainable for the individuals or the enterprise."

Rebecca Coombes, *The BMJ*Cite this as: *BMJ* 2021;372:n705

We've seen that delay and excessive deliberation do not necessarily result in better decisions Martin Landray

The 44% of staff who reported being ill because of work related stress is a stark yet unsurprising figure

Rob Harwood

Former British Cycling doctor ordered banned testosterone gel for athlete, tribunal finds

The former chief doctor for British Cycling and Team Sky, Richard Freeman, ordered banned testosterone "knowing or believing it was to be administered to an athlete to improve their athletic performance," a medical practitioners tribunal has concluded.

Freeman was charged with ordering 30 sachets of the testosterone gel Testogel for an unnamed athlete in 2011. The gel is on the World Anti-Doping Agency's list of banned substances and methods.

He admitted 18 of 22 charges against him, including destroying a laptop with a screwdriver or blunt instrument before giving it to forensic experts who were conducting a doping investigation, but he denied the main charge of buying testosterone to improve performance.

Freeman, a former GP, insisted in an interview with UK Anti-Doping in 2017 that the Testogel had been ordered for a non-athlete, later confirming that it was for the head coach, Shane Sutton. He gave evidence at the tribunal that he had obtained it for Sutton for erectile dysfunction, claiming that he had been bullied by Sutton, but Sutton denied that he had needed or received it.

was charged with ordering 30 sachets of the testosterone gel Testogel for an unnamed athlete in 2011

The tribunal found Sutton's behaviour while giving evidence "intemperate" but decided that he was a "credible and consistent witness." Freeman's evidence, on the other hand, was "implausible" and his story an "elaborate falsehood," said the tribunal chair, Neil Dalton.

Dalton outlined several points in Freeman's evidence where the tribunal considered that he had lied. The chair added, "The tribunal found that Dr Freeman's account of having ordered the Testogel for Mr Sutton required it to believe too many implausible, unsupported assertions, as well as having to overlook further falsehoods, on the back of those Dr Freeman had already admitted."

Freeman had already admitted a number of allegations regarding treating staff members without access to their medical records instead of referring them to their GPs, failing to inform GPs of medication prescribed, and failing to maintain an adequate record management system.

Fitness to practise

The case will go back to the tribunal on 17 March for a decision on whether Freeman's fitness to practise is impaired. The tribunal will sit again in May to decide the sanction to be imposed.

John Etherington, president of the Faculty of Sport and Exercise Medicine, said it would review Freeman's fellowship at the next opportunity. He added, "The evidence presented has revealed a working culture within the sport that is not in keeping with good medical practice. The environment described at the tribunal does not reflect the high professional standards that we as sport and exercise physicians adhere to.

"There are lessons to be learnt from this incident. The 'win at all costs' mentality revealed can and must be challenged. Many sporting bodies have already made the changes needed to safeguard both medical professionals and the athletes they support."

Clare Dyer, *The BMJ*Cite this as: *BMJ* 2021;372:n711



THE BIG PICTURE

Chile joins top five in the world's vaccination league

Since the beginning of the year Santiago airport in Chile has been busy distributing millions of covid-19 vaccines as the country has joined some of the world's richest nations at the top of the vaccination table.

To date the country has ordered over 88 million doses of vaccine,

To date the country has ordered over 88 million doses of vaccine, enough to fully vaccinate more than double its 19 million people. The government's ambitious goal is to vaccinate 80% of its population by June. This week around 25% had received at least one dose, putting Chile just behind Israel, the UAE, and the UK in terms of jabs delivered.

The strategy was developed last summer, when the government, realising that an effective programme could win back support from voters angry at its pandemic response, held early price negotiations with companies developing vaccines. It also invited AstraZeneca, Johnson & Johnson, Sinovac, and CanSino to hold phase III trials in the country.

Its biggest order is for 66 million doses from Sinovac, one of which was given to President Sebastián Piñera in February (right), just days after the start of a drive to vaccinate all care home residents (top) in Santiago. The city has been hit by more than a third of Chile's 812 344 infections. More than 20000 Chileans have died from covid-19.

Alison Shepherd, The BMJ Cite this as: BMJ 2021;372:n718







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EDITORIAL

Alcohol deaths rise sharply in England and Wales

A spike is concerning but we mustn't lose sight of longer term trends across the UK

rovisional data for England and Wales from the Office for National Statistics (ONS) show a sharp increase in deaths from alcohol specific causes between April and September 2020. ¹ The figures add to concerns that the wider health and wellbeing consequences of the covid-19 pandemic include an increase in alcohol related harm, although the reasons behind this rise are unclear.

News media have highlighted large increases in alcohol sales in the UK during the pandemic, but these typically relate only to shop bought alcohol and do not account for similarly large reductions in drinking in pubs and restaurants.² Analyses that include all alcohol sales suggest smaller changes.³

Small changes in consumption at the population level may, however, mask large increases in higher risk groups. Surveys consistently find that 15-30% of drinkers report consuming more during the pandemic than previously, with many studies also finding that a similar proportion report drinking less.4-8 Moreover, people at higher risk of alcohol related harmsuch as those already drinking heavily, in lower socioeconomic groups, or with worse mental health⁴⁻⁷—were over-represented among those who had increased their drinking, bolstering arguments that rises in consumption explain the spike in alcohol specific deaths.

This is not, however, an open and shut case. Many of these surveys rely on self-selecting samples, use weak measurements, or changed their survey methods during the pandemic. Furthermore, despite evidence of similar changes in consumption across Great Britain, provisional data from Scotland do not replicate the increase in alcohol deaths seen in England. These inconsistencies suggest a need to consider other explanations for any increase in deaths.



Changes in both drinking and service provision may have affected alcohol deaths One plausible explanation is that people's desire or ability to access specialist alcohol treatment services or healthcare more generally may have been affected by the pandemic, leading to worse outcomes for at-risk groups. Overall, changes in both drinking and service provision may have affected alcohol deaths.

Shifting patterns

Alongside provisional data for 2020, the ONS released its annual update on alcohol specific deaths, including final data for 2019. Two details merit discussion.

First, the recent steep decline in youth drinking in the UK and other high income countries is now translating into reduced adult mortality, 11 with a 22% drop in the alcohol specific death rate among 30-34 year olds between 2001 and 2019. In contrast, the rate increased by between 23% and 49% for the age groups from 55 to 84 years. The sharp decline in youth drinking is good news that may yield major public health benefits in decades to come, but the ongoing failure to tackle heavier drinking in older generations means that overall levels of alcohol related mortality and morbidity may get worse before they get better.

Second, the remarkable decline in Scotland's alcohol specific death rate continues. In 2005, the age standardised rate in Scotland was more than double that of the other three UK nations, but it has since fallen by 35%. The Scottish government and its partners have

received international praise for consistently implementing, evaluating, and updating evidence based alcohol policies within a clear public health framework. ¹² Public debate has focused on minimum unit pricing, but major policy changes around alcohol licensing, early intervention, treatment provision, drink-driving, and retail practices in Scotland amount to a systemic change of the kind argued to be necessary to achieve lasting health gains.

The Welsh government has sought to follow the Scottish model, despite its more limited powers, and introduced minimum unit pricing in 2020. In contrast, proposed changes to alcohol policy in Northern Ireland stalled when the power sharing government collapsed in 2017 and have not been revived. This is despite the alcohol specific death rate in Northern Ireland rising by 54% since 2013, surpassing that of Scotland for the first time in 2019.

It is the UK government, though, that attracts greatest scrutiny. Its flagship green paper Advancing our Health: Prevention in the 2020s includes only one specific alcohol policy for England: to increase the availability of low alcohol and no alcohol drinks. 13 Another important policy process has attracted less attention. The government recently consulted on options for reforming the alcohol taxation system, which is riddled with inconsistencies and inequities that benefit neither public health nor the exchequer. 14 Leaving the European Union affords greater freedom to reform alcohol tax rules, and the damage to public finances by the pandemic creates an incentive to do so. The next public health debate around alcohol in the UK may therefore focus on tax reforms rather than the pandemic's effects on alcohol harms or the government's green paper.

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EDITORIAL

The deteriorating mental health of children

Pandemic effects are clearest among families already struggling

any peer reviewed and non-peer reviewed studies report fluctuating mental health and suicide risk during the pandemic, but few focus on children and young people under the age of 18.1 Interpretation of those that do is difficult because of differences in methodology and underlying trends in the prevalence of mental health conditions.23

The mental health of the UK's children and young people was deteriorating before the pandemic. Between 2004 and 2017 anxiety, depression, and self-harm increased, particularly among teenage girls.7 Self-harm is an important risk factor for suicide, so it is not surprising that rates of suicide among the UK's children and young people also increased,⁸ though numbers remain low-fewer than 100 people aged under 18 died by suicide each year in England between 2014 and 2016.9

Studies carried out during the pandemic suggest that, although some families are coping well, others are facing financial adversity, struggling to home school, and risk experiencing vicious cycles of increasing distress. 1-11 Probable mental health conditions increased from 10.8% in 2017 to 16% in July 2020 across all age, sex, and ethnic groups according to England's Mental Health of Children and Young People Survey (MHCYP).12

A probability based sample of 2673 parents reported deteriorating mental health and increased behavioural problems among children aged 4 to 11 years between March and May 2020 (during lockdown) but reduced emotional symptoms among 11-16 year olds.11

The more socioeconomically deprived respondents had consistently worse mental health in both surveys— a stark warning given that economic recession is expected

to increase the numbers of families under financial strain. 110

Deteriorating mental health is by no means uniform. A sizeable proportion of 19000 8-18 year olds from 237 English schools surveyed during early summer 2020 reported feeling happier. 13 Similarly, a quarter of young people in the MHCYP survey reported that lockdown had made their life better.1

Suicide and self harm

Early data from England's National Child Mortality Database for 23 March to 17 May 2020 raised concerns about suicides among young people aged under 18 years during the first lockdown, 16 although numbers were too small (25 deaths) to be definitive.

A more reassuring picture emerged from Japan, where suicide rates in children under 20 years seemed unchanged up to May 2020.¹⁷ Although the English database shows the incidence of child suicide has returned to pre-pandemic levels (www.ncmd.info/, personal communication), more recent data from Japan flag a concerning rise in children and adolescents during the second wave and resulting school closures.18

The incidence of self-harm recorded in primary care was substantially lower than expected for 10-17 year olds in April 2020 but returned to pre-pandemic levels by September 2020.19 Similar patterns were detected for all mental health referrals in England, 20 with reductions in urgent psychiatric presentations reported across Europe,²¹ suggesting possible unmet need.

The national referral statistics for eating disorders in England show a doubling in the number of urgent referrals during 2020 and a smaller increase in non-urgent referrals.22 Known triggers for self-harm and poor mental health are aggravated

Known triggers for self-harm and poor mental health are aggravated by pandemic restrictions

by pandemic restrictions, including separation from friends, arguments with parents, unresolvable arguments on social media, strained finances, academic stress, and feelings of isolation. School closures are particularly difficult for families facing other adversities. 12-25

The evolving consequences of the pandemic are set against longstanding concerns about deteriorating mental health among children and young people, and the inadequacy of service provision. Although children are at lowest risk of death from covid-19, concerning signals remain about the pandemic's effects on their mental health, which are unevenly experienced across different age groups and socioeconomic circumstances. 24 25

The long term effects also remain uncertain. What we do know is that education has been disrupted and many young people now face an uncertain future.²⁴²⁵ Policy makers must recognise the importance of education to social and mental health outcomes alongside an appropriate focus on employment and economic prospects. As "children are the living message we send to a time we will not see," $^{\rm 26}$ we urgently need to improve our efforts to meet their needs.

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BRIEFING

What we know about mass lateral flow testing in schools

Ingrid Torjesen reports on the questions and concerns over a key plank of the strategy to keep pupils and staff in their classrooms

How is testing being implemented in secondary schools?

Pupils across England, who began to return to school on 8 March, must wear face coverings in class and get to grips with selftesting for covid-19 using rapid lateral flow (LFT) devices.

LFTs are not as sensitive as polymerase chain reaction (PCR) but they are relatively cheap, provide results in less than 30 minutes, and are capable of identifying those with the highest viral loads, and therefore considered to be the most infectious. School testing uses the Innova test, although the Department of Health and Social Care says that other brands might be used in the future.

Execution of the programme is mixed. Some schools asked pupils to attend for testing the week before they reopened, so pupils could go straight into their classrooms. Others staggered the return of pupils over the week.

Pupils taking their first tests were supervised in schools to familiarise themselves with the swabbing process, and then, like staff, will receive two kits a week to self-test at home. All self-test results must be reported to NHS Test and Trace, either online or by telephone, and shared with the school to help with contact tracing.

Testing is voluntary but strongly encouraged. Children who did not give consent were still supposed to return to face-to-face learning, but there have been reports of schools banning them from face-to face lessons, effectively "blackmailing" parents to consent.

How frequently are pupils tested?

Most pupils will take three tests at school before beginning home testing, but some schools might choose to do two or four, a Department for Education (DfE) spokesperson told *The BMJ*. "It is about [schools] putting the time into making sure the students have confidence in how testing works before they start to do it at home."

After that they will be tested every three to five days. Twice weekly self-testing is probably the maximum frequency needed for "active management," says Tim Peto, professor of medicine at the University of Oxford, who has led assessments of the tests for the government.

"Once a week is better than once a fortnight, and twice a week better than once a week," he says, adding that there is little benefit to doing it any more frequently. "The more often you do it after twice a week you get really a very small pick-up rate and it's probably not worth it."

What happens if a result is positive?

Anyone who tests positive must follow the government coronavirus infection guidelines and immediately isolate for 10 days with other members of their household, as must anyone deemed to be a close contact according to government definitions. This potentially includes a pupil's classmates, but not the entire year group. The DfE says the school should determine who is a close contact, based on its environment and social distancing arrangements.

Other members of contacts' households do not have to self-isolate, so siblings can still attend school.

Should a positive LFT result be confirmed by a PCR test?

This depends on where the test was taken. The DfE says that when an LFT has been taken under supervision, at tests sites or at school, "the chance of it being incorrect is minimal so there is no need for a further test to confirm the result." But there is a "slightly higher chance" of a positive result being wrong if the test was taken at home, so those should be confirmed by a PCR.

Confirmatory PCR is important not only for identifying false positives and tracking

their rates, but also because samples can be

their rates, but also because samples can be sequenced to pick up and track variants. The World Health Organization recommends the practice in low prevalence settings because the "rate of false positives compared to true positive results will be high."

Up until 27 January, confirmatory PCR testing was available for positive LFTs taken under supervision at sites in England. The DHSC says this was suspended because of the "high prevalence of coronavirus infections" and advice from Public Health England (PHE) that "the performance of lateral flow devices and PCRs are broadly comparable for infectivity and expected to be indistinguishable when used at test sites."

What happens if the confirmatory PCR test is negative?

Again, it depends on where the test was done. If it was taken at home, the PCR result "overrides the lateral flow test" and pupils can return to school, says the DfE. But if the test was taken at school, the LFT result stands and the child, their family, and their classmates must self-isolate. The department says that this is because there is "minimal" chance of an incorrect LFT result if the test is done under supervision.

This rule has sparked an angry reaction from parents. Rachel Clarke, a palliative care doctor in Oxford, reported that, at her son's school, 30 pupils were told to self-isolate for 10 days after one LFT came back positive but a subsequent PCR test was negative. Clarke described the policy as "unscientific madness." "Just because an LFT was taken at school, not home, it doesn't mean it's

There have been reports of schools banning from face-to face lessons pupils who have not given consent to be tested





From the 1.5 million asymptomatic secondary pupils who were screened in their first week back, more than 600 positive results are expected

more reliable than PCR," she tweeted at the education secretary, Gavin Williamson.

Furthermore, a March analysis of the Innova LFT concluded a confirmatory PCR test was not needed. Jon Deeks, who leads the biostatistics, evidence synthesis, and test evaluation research group at the University of Birmingham's Institute of Applied Health Research, called this conclusion "bizarre." A confirmatory PCR would add little cost and most likely reduce false positives to one in a million, he says, while providing much needed evidence on the performance of LFTs in children, for which there are currently no data at all.

What proportion of positive LFT results are likely to be false?

In short, this is not known. A 2020 analysis by PHE and Oxford University, led by Peto, estimated the specificity of the Innova LFT at 99.68%. A more recent analysis, published in March and using data from the test in active use by NHS Test and Trace, estimated a specificity of 99.97%. This is based on data collected when prevalence of infection was high (8.7%). Deeks says that at a lower prevalence (0.5%), around half of positive tests would be false positives, "which would indicate that half of the children, teachers, families, and their bubbles being asked to isolate this week are doing so unnecessarily."

Over 1.5 million asymptomatic secondary pupils will have been screened in their first week back and more than 600 positive results are expected. Sheila Bird, former programme leader at the MRC Biostatistics Unit at Cambridge University, estimates around 300 of these would be negative on PCR. The reality could be worse, says Deeks, as LFT positivity rates in schools (as reported by Test and Trace) have never been above 0.37%, —about a quarter of the rates seen in adults. Most recently they have been only 0.05%. This indicates that performance of LFTs "may be compromised in teenagers," and "far more false positives than true positives" would be expected among teenagers in schools, he says. Deeks points out that knowing the false positive rate alone cannot answer the question of how many of the test positives are false—this depends on how rare true positives are as well.

Why is there a lower rate of positive LFT results from schools?

The "implausibly low positivity rates" might be caused by poor technique or "people hiding or not reporting results they don't want to report," speculates Mike Gill, former regional director of public health for the South East of England. He thinks the reasons for low rates should have been investigated before the programme was rolled out to the entire school population.

He fears being told to self-isolate for a false positive risks putting parents off consenting to the tests altogether.

Are any pupils exempt from testing?

Asked to clarify the situation, the DHSC says that people testing positive by PCR are exempt from routine re-testing with either PCR or lateral flow device tests for 90 days unless they develop new covid-19 symptoms.

When will testing in schools stop?

The DHSC says: "The use of [lateral flow] testing remains under constant review, and any changes in approach will be guided by the science."

What happens to the data?

Testing data are updated daily on the UK Coronavirus Dashboard, and a breakdown of rapid asymptomatic tests (including in education settings) is published in the weekly NHS Test and Trace statistics reports. These data will be analysed by PHE and discussed at the cross government weekly programme board, which includes representatives from the DHSC, NHS Test and Trace, and the DfE.

How much has the programme cost?

We know the government is spending £100bn on mass testing through its
Operation Moonshot programme, but how
much of this will go on school testing is
unclear. Schools have flexibility when using
the extra funding they have received to cover
the cost of the tests: some have brought in
private sector providers, whereas others have
paid bonuses to staff to run the programme,
for example.

Is the programme value for money?

If each test costs around £10-20 to deliver, and only one in 1500 comes back positive, that would amount to £15000-£30000 to detect one case, which might then be a false positive.

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PUBLIC HEALTH

Covid has made the obesity epidemic worse, so why has it not provoked more action?

The evidence is clear that a BMI of over 30 is a risk factor for severe disease and death from covid-19, but, as **Meera Senthilingam** reports, little is being to done to mitigate this other public health emergency

Before the pandemic, around 2.8 million people worldwide died each year from conditions that stem from being overweight

tudies in the US have shown that having a BMI over 30—the threshold that defines obesity—increases the risk of being admitted to hospital with covid-19 by 113%, of being admitted to intensive care by 74%, and of dying by 48%. Public Health England reported similar numbers for mortality, with the risk of death from covid-19 increasing by 90% in people with a BMI over 40.

This is irrespective of age, as being overweight or obese is associated with worse outcomes in younger populations as well. People under 60 years old with a BMI between 30 and 34 are twice as likely to be admitted to intensive care with covid-19 than those with a lower BMI.

A report from the World Obesity Federation published on 4 March showed further trends, emphasising that death rates from covid-19 have been 10 times higher in countries where more than half of the



PACIFIC ISLANDS have the world's highest obesity rates —over 55% of the population of Samoa is obese according to the World Obesity Federation

population is obese. And, as the world becomes optimistic about vaccines helping us return to some form of normality, a preprint published in February reports that obesity might correlate with a lower immune response to the Pfizer/BioNtech covid-19 vaccine, although the study was small and is yet to be peer reviewed. These worrying developments have brought much needed attention to the world's obesity epidemic.

"The fact it's chronic is the issue," says Steve Gortmaker, professor of the practice of health sociology at the Harvard TH Chan School of Public Health. "Nowadays health services are just asking people to maintain their weight, not even lose it." Gortmaker first published about the US obesity burden in 1987. More than two decades of government programmes have had some impact, but far from enough.

Before the pandemic, around 2.8 million people worldwide died each year from conditions that stem from being overweight, including heart disease, stroke, and diabetes. Now covid-19 is added to the list. But are countries doing more to tackle this burden? Many experts say no—or at least not as much as one might expect.

Two decades of slow progress

Countries with the greatest obesity burdens, such as the US, Mexico, and most of the Pacific Islands, have been trying to tackle the problem for decades. Programmes focused on improving school meals, healthy eating and active lifestyle campaigns,



and the taxation of products such as sugary drinks have had some effect: in Mexico there was a 6.8% decrease in the chances of people consuming medium to high volumes of sugary drinks just three years after a sugar tax was implemented in 2014. Yet obesity rates remain high with one in three adults and one in 10 children being obese in 2018.

Pacific Island governments implemented the "Healthy Island" vision over 20 years ago to tackle many aspects of health, including obesity, by targeting school meals and education around healthy eating, as well as improving trade deals to increase the quality and variety of food entering the islands. But the region continues to have the highest obesity rates in the world—over 55% of the population of Samoa is obese according to the World Obesity Federation.

Now Mexico has recorded one of the highest case counts of covid-19 in the world. The US, where obesity rates are also notably high, has the highest number of covid infections and deaths in the world, and the UK, which has the highest obesity rates in Europe,



has a disproportionate covid death rate compared with other countries.

This should be a wake-up call to tackle the obesity burden, and some countries were motivated to act in 2020. The Department of Health and Social Care for England announced a new strategy in July, emphasising the increased risks associated with covid-19. "Excess weight is one of the few modifiable factors for covid-19 and so supporting people to achieve a healthier weight will be crucial to keeping people fit and well as we move forward," the strategy states.

It outlines seven measures to target obesity, including the expansion of weight management services available through the NHS, legislation requiring food businesses to add calorie labelling to their foods, and a ban on the advertising of foods high in fat, salt, or sugar on television before 9 pm. In December, the strategy added restrictions on promoting unhealthy foods at checkouts, entrances, and the ends of aisles in supermarkets and other food stores, stating that "location promotions often lead to 'pester power' from children."

Mexico has introduced front of

package labelling regulations on unhealthy foods to help people improve their diets. Some of its states have also banned sales of junk food to children, and others have removed salt shakers from tables in restaurants in a bid to reduce salt being added to meals. India's Food Safety and Standards Authority has banned the sale and marketing of unhealthy foods (high in fat or sugar) in school canteens or other educational institutions, as well as the sale of such foods within 50 metres of school gates.

But some experts think the efforts don't get to the core of the problem. Christina Marriott, chief executive of the Royal Society of Public Health, said of the UK strategy, "It does not outline how the root causes of obesity will be addressed. Without this, it is difficult to see how we can disrupt our current trajectory."

Where the power lies

That root cause, Marriot says, is poverty and inequity, which have also magnified the effects of covid in some populations. "Children Pacific Island governments have launched healthy eating campaigns

Children in the most deprived areas are more than twice as likely to be obese than those in the least deprived areas, and the gap is widening

Christina Marriott

in the most deprived areas are now more than twice as likely to be obese than those in the least deprived areas, and the gap is widening," says Marriott. "When the government asks individuals to change their behaviour we see some benefit for the better off, while the worse off—whose environment and circumstances can make lifestyle change far harder to achieve—are typically left ever further behind."

This trend can be seen in low and middle income countries in recent years, where obesity rates have risen as unhealthy foods have become more available and affordable.

"You can spend a few dollars and eat a few hundred calories in a few minutes," says Gortmaker. "And food



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marketing encourages us to eat every moment of the day."

Truly tackling obesity also means reducing the power of the food and beverage industry in opposing legislation that affects them. Gortmaker says that such changes remain politically difficult owing to the power of the industry, with measures such as taxation or bans on advertising mostly introduced at the state level in the US as a result.

The industry's grip has only tightened during the pandemic. A report from the NCD Alliance (a civil society network aiming to control and prevent non-communicable diseases) published in September listed hundreds of ways the food and drink industry has used the pandemic to promote its products and capitalise on the situation—particularly alcohol, sugary drinks, and ultra processed food. This includes food packs and contributions that contain unhealthy products and promote brands, such as Heineken Russia, which donated meals to health workers alongside its energy drink, and FEMSA, which distributed unhealthy snacks and sugary drinks in deprived neighbourhoods in Mexico. Many fast food chains also offered free meals or products to health workers, the report states. The BMI contacted Heineken and FEMSA for comment, but neither company responded.

"There are so many powerful economic interests at stake," says Lucy Westerman, policy and campaign manager for NCD Alliance. "The way the industries are supported and encouraged is worrying . . . there needs to be a significant rethink about where the power lies."

Marriott says that efforts to tackle obesity "must be supported by a government unafraid to robustly stand up to industry" to implement effective interventions, such as taxes. The sugar tax introduced on soft drinks in the UK in 2016 led to a 28.8% fall in the sugar content of drinks from its announcement to implementation, yet the new strategy has omitted such measures on other unhealthy foods. It also missed the opportunity to focus on making healthy foods more affordable, Marriot says.

A window for change

Yet Westerman thinks that the pandemic has opened a window for new policies. "Covid-19 has been the wrecking ball, revealing how interconnected health conditions and the determinants of them are," she says. She thinks that authorities are now realising that if they continue to neglect chronic disease prevention, they risk undermining the health security of their populations in the future.

"There hasn't been a better opportunity in history to increase our efforts to ensure good nutrition and assume environmental health as an indivisible determinant of human health," said Jorge Alcocer Varela,

Covid lockdowns have led to people cooking at home more, resulting in healthier meals

Dyxon Hansell

There was a 6.8% fall in the chances of people in **Mexico consuming** high volumes of sugary drinks after a sugar tax was introduced in 2014, but obesity rates remain high

Mexican secretary of health, at the World Health Assembly in May.

In the Pacific Islands, experts say the pandemic response has helped make the population healthier. Dyxon Hansell, health adviser for the World Health Organization's Samoa office, told The BMJ that lockdowns have led to people cooking at home more, resulting in healthier meals. Some island governments are also offering free online training on how to provide healthy food and drink in schools; healthy diets and recipes for home preparation; and online ordering of healthy food for delivery. With people being at home more, they are also being encouraged to grow more of their own food.

These are steps in the right direction, but they are far from being a quick fix. Experts think that truly tackling obesity requires a multifactorial approach across governments, including agriculture and transport departments as well as health. Ultimately, Gortmaker thinks that obesity needs attention from the top, not just state or local health departments. "So far, it's just not received that kind of attention," he says, and when it does "somebody comes in, starts up a programme and then leaves."

But this has long been the case, and if a global pandemic that has killed hundreds of thousands of people with obesity-and led to hospital admissions for many more-doesn't galvanise enough action, what will?

"We just can't miss this moment," says Westerman. "It's an opportunity for governments to make something slightly better out of a really horrible situation."

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