

this week

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MPs plan health ratings for government

MPs have set out their plans for an independent evaluation process designed to hold the government to account on its commitments in health and social care.

In a 5 August report the Health and Social Care Committee proposed to award the government ratings ranging from “outstanding” to “requires improvement” and “inadequate,” like those used by the Care Quality Commission for England.

The system will be piloted this autumn, with maternity services being evaluated by an independent expert panel, led by Jane Dacre, professor of medical education at University College London and former president of the Royal College of Physicians. She will be joined by a patients’ representative and a health and social care policy expert, who are yet to be appointed.

The panel will also recruit one or two service users, one or two clinicians, and one or two experts or campaigners in the area being evaluated. They will all declare relevant interests, which will be published.

At the start of the process the select committee will agree policy area commitments with England’s health and social care secretary, NHS England and Improvement, and other relevant bodies.

The panel will then produce a report with a rating against each commitment, using the CQC rating scale. It will also provide an overall rating of the government’s progress towards its commitments.

The MPs said the key to the success of the process was how the government followed up on the reports. “Where the panel reaches the judgment that the performance against commitments in a particular area is ‘inadequate’ or ‘requires improvement,’ we expect the publication of that judgment to galvanise the [health] department and its arm’s length bodies to action to ensure improvement,” it said.

The committee’s chair, the former health secretary Jeremy Hunt, said he hoped the process would focus attention on areas such as cancer, mental health, and patient safety where the government has made vital commitments.

Dacre told *The BMJ*, “This could be a helpful way of giving feedback to the government and encouraging it to improve things that could be improved. I’m aware from my work in assessment that if you feed back to people information about where they could improve then they usually do.”

Abi Rimmer, *The BMJ*
Cite this as: *BMJ* 2020;370:m3090

England’s maternity services will be the first discipline to be rated by an independent panel should the evaluation process be introduced

LATEST ONLINE

- NHS Test and Trace must improve if schools are to reopen safely, say researchers
- UK hospitals to get rapid covid-19 tests from September
- Coca-Cola’s work with academics was a “low point in history of public health”

The Coca-Cola logo, featuring the brand name in its signature script font.

SEVEN DAYS IN

Trust leaders express concern at levels of fatigue and anxiety among staff



The mental and physical health of staff will be a major concern for leaders of NHS trusts as they prepare for the next phase of the pandemic, a report has concluded.

The report from the NHS Confederation, the body that represents NHS organisations in England, is based on interviews with 13 chief executives conducted in May and June.

High levels of staff anxiety and fatigue were reported by all trust leaders but particularly by those with a high proportion of ethnic minority staff. Several chief executives said they had been discussing ways to tackle anxiety. For example, Steve Russell of Harrogate and District said the trust had deployed its psychologists to support colleagues.

Chief executives also said that many staff were working “on adrenaline” and that it would not be long until fatigue set in, which would cause further challenges. “As trusts move into the next phase of the covid-19 response, the leaders we spoke to felt it imperative to continue to support staff,” the report said.

Niall Dickson, chief executive of the NHS Confederation, said the report highlighted the many positive changes introduced during the pandemic “which need to be built upon as we step tentatively to a new normal.”

Abi Rimmer, *The BMJ* Cite this as: *BMJ* 2020;370:m3004

Covid-19

Pre-surgery shielding is lifted in England

Patients in England having elective surgery no longer need to self-isolate for 14 days before going to hospital, said new guidance from NICE and NHS England and Improvement, supported by the royal colleges. They should instead adopt strict social distancing and handwashing, have a covid-19 test in the three days before admission, and self-isolate from the day of the test until the day of admission. In all other planned procedures, including diagnostic tests and imaging, patients should follow comprehensive social distancing and hand hygiene measures for 14 days before having the planned care.

People with symptoms should isolate for 10 days

The UK's four chief medical officers recommended that people with covid-19 symptoms should self-isolate for 10 days, up from seven days in previous advice. They should arrange a test but should avoid going to GP surgeries, pharmacies, or hospitals. “Evidence, although still limited, has strengthened and shows that people with covid-19 who are mildly ill and

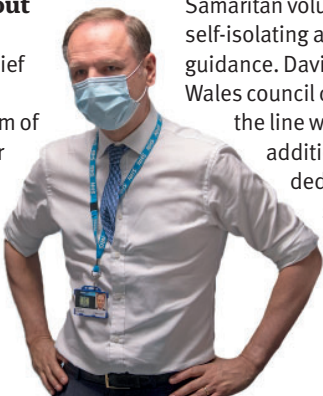
are recovering have a low but real possibility of infectiousness between seven and nine days after illness onset,” they said.

Experts ask to see £10bn track and trace contracts

More than 100 public figures, including public health experts, academics, journalists, and trade union leaders, wrote to Matt Hancock, England's health and social care secretary, demanding he publish details of the contracts given to private companies to run the national test and trace system. The open letter said that £10bn of public money had been allocated to the system in England but that over £9bn of funding was still unaccounted for and that “only £300m additional funding has been offered to local authorities across England to support the system.”

“Covid friendly” cancer care is rolled out

Simon Stevens, NHS England's chief executive (right), announced £160m of funding for cancer drugs that are gentler on the immune system or that offer other benefits



such as fewer hospital visits. The new options include targeted hormone therapies such as enzalutamide for prostate cancer; broadened use of lenalidomide in treating myeloma; venetoclax in acute myeloid leukaemia, as an oral alternative to more toxic standard chemotherapy; nivolumab for some bowel cancers; and atezolizumab as first line immunotherapy for bladder cancer, instead of chemotherapy.

Support lines for staff open in England and Wales

The Samaritans charity partnered with NHS England and the Welsh government to provide a wellbeing support line for NHS and social care workers and volunteers (England: 0800 069 6222; Wales: 0800 484 0555 (English), 0808 164 2777 (Welsh language)). The line is open from 7 am to 11 pm, seven days a week, and is run by trained Samaritan volunteers who are self-isolating after government guidance. David Bailey, BMA Wales council chair, said that the line would be a good addition to the BMA's dedicated wellbeing support service for all doctors, medical students, and their families.

Testing

Dementia carers demand access to regular tests

The Alzheimer's Society and One Dementia Voice have called for



family carers to be prioritised like key workers for regular covid-19 testing, so they can visit loved ones in care homes. Latest guidance for England says that local public health directors will decide the process for care home visits after assessing the risk. A survey of almost 2000 people affected by dementia found that 82% had noticed a deterioration in symptoms during isolation, such as memory loss, difficulty concentrating, speech, and the ability to perform daily tasks.

MSF calls for fairer test price in poor nations

Médecins Sans Frontières has called on Cepheid, a US diagnostics company, to cut the \$20 (£15.30) it charges for its covid-19 test to \$5 for the world's poorest countries. This would still allow a profit but benefit millions of people, the charity said.

MEDICINE



Travel

Eight day quarantine is “as good as 14”

An eight day quarantine for people travelling to the UK from the US or the EU, with a polymerase chain reaction test on day 7, can reduce the number of infectious arrivals in the community by a median 94% when compared with no quarantine, London researchers said in a paper still awaiting peer review. The drop is similar to the 99% median reduction achieved by 14 days’ quarantine. Experts said adopting the shorter quarantine could help the devastated travel industry, with little added risk to public health.

Chronic primary pain

Commonly used drugs can be harmful

People with chronic primary pain should be offered group exercise programmes, psychological therapy, or acupuncture (below) rather than drugs that have little or no evidence, NICE said in a draft clinical guideline. Some antidepressants can be considered, it says, but paracetamol, non-steroidal anti-inflammatory drugs, benzodiazepines, opioids, ketamine, gabapentinoids, local anaesthetics, corticosteroids, and antipsychotics should not be offered, as they can cause harm. The draft guideline is open to consultation until 14 September.



Workforce

MPs seek evidence on NHS and social care burnout

MPs on the Health and Social Care Committee launched an inquiry into burnout in the NHS and social care. It will consider rising pressure from covid-19 and the resilience of services coping with high levels of staff stress. They will also focus on the government’s workforce planning strategy



A week and a day of self-isolation is as effective as 14 days, says study

and its ability to deliver the staff numbers required for future demands. Evidence should be submitted by Friday 4 September.

Anaesthesia

Advice on breastfeeding after an operation

Guidance from the Association of Anaesthetists, published in the journal *Anaesthesia*, says breastfeeding is safe after anaesthesia, as soon as the mother is alert and able to feed. But the authors said drugs such as opioids and benzodiazepines should be used with caution, especially after multiple doses and where babies are less than 6 weeks old. “In this situation, the infant should be observed for signs of abnormal drowsiness and respiratory depression, especially if the woman is also showing signs of sedation,” they said.

Diversity

Voluntary RCP roles “must reflect workforce”

The Royal College of Physicians must do more to fill voluntary roles with people from more diverse backgrounds, a review said. Ben Summerskill, who conducted the review, said “too many” members thought the roles were not open to a wide enough range of people. He also found no guidance on how non-elected vacancies should be advertised or how to recruit.

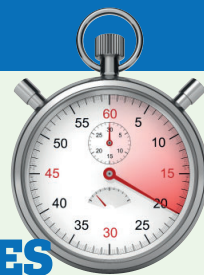
Cite this as: *BMJ* 2020;370:m3076

ANOSMIA

A survey of 262 healthcare staff at London’s Barts trust showed 168 (64%) said they had experienced a loss of sense of smell or taste between mid-February and mid-April

[*The Lancet Microbe*]

SIXTY SECONDS ON... WAVES



THE NO-TOUCH HANDSHAKE?

No. We’re talking about the “second wave of the pandemic” that Boris Johnson said shows signs of coming to Europe, which caused a tsunami of protest when he announced new restrictions on travellers from Spain.

BATTEN DOWN THE HATCHES!

There is no set definition of a wave in terms of infectious disease. Stephen Evans, professor of pharmacoepidemiology at the London School of Hygiene & Tropical Medicine, said, “Much of the thinking about second waves is derived from previous influenza epidemics and pandemics, and the patterns may not be the same for covid-19: SARS-Cov-2 is very different from the influenza viruses.”

CAN YOU SHORE UP THE FACTS?

It’s not plain sailing. When people talk about waves they often refer to the 1918 “Spanish flu” pandemic, which reportedly killed 20-50 million people and is talked about as having come in four waves, the second wave being the most deadly. However, experts from the University of Oxford’s Centre for Evidence Based Medicine have noted several problems with the evidence. “The true number of deaths is highly uncertain,” they said. “It is not clear, for instance, if they were actually caused by influenza, which was not a reportable disease at the time, and what role bacterial superinfection played. Estimates are, therefore, educated guesses.”

SURF’S UP?

Things do look choppy. Some areas—such as Leicester in England and Beijing in China—have seen spikes, but these are believed to be part of the same wave and a predictable outcome of easing lockdown.

SO, JOHNSON’S A LOOSE CANNON?

You’ll get me in deep water. But, while the PM seems certain a second wave is coming, WHO has said it’s actually “one big wave.” Margaret Harris, its spokesperson, said, “What we all need to get our heads around is that this is a new virus and this one is behaving differently . . . It’s going to be one big wave. It’s going to go up and down a bit. The best thing is to flatten it and turn it into just something lapping at your feet. First, second, third wave—these things don’t really make sense.”

Elisabeth Mahase, The BMJ

Cite this as: *BMJ* 2020;370:m3074

“Disappointing workforce plan fails to tackle staff shortages”



We back the plan's motivational narrative

Jeanette Dickson

Healthcare leaders have welcomed aims set out in an NHS workforce plan for England to improve staff wellbeing, but they expressed disappointment over a lack of commitment to new funding and more staff.

Despite having been promised by the end of 2019, the NHS People Plan was published on 30 July, after an interim plan was published in June 2019. A third workforce plan is also due after the government's spending review confirmed NHS education and training budgets.

Speaking at the Royal College of Physicians in London on 30 July, England's health secretary, Matt Hancock, said the pandemic had led to an improvement in staff facilities. “Good food. Decent rest facilities. Someone to talk to about the most difficult experiences that frontline colleagues faced,” he said. But he added it should not have taken a pandemic to bring about these changes. “All of this needs to become

the norm for the NHS and social care: that we listen to our people and we look after them, not just an emergency response to a crisis, but all the time.”

Among the plan's recommendations is that staff should have safe spaces where they can take sufficient rests and breaks from work. Employers should also ensure all staff can access psychological support. “NHS England and NHS Improvement will continue to provide and evaluate the national health and wellbeing programme developed throughout the covid-19 response,” the plan advised.

Risk assessments

The plan also recognises the need for all NHS organisations to complete risk assessments for vulnerable staff, including those from an ethnic minority background, as well as anyone who needs additional support, and take action where needed.

However, doctors and NHS leaders have expressed disappointment over the plan's lack of detail on the shape of the future workforce or funding.



Chaand Nagpaul, chair of the BMA council, said the UK was short of doctors, putting the existing workforce under increasing pressure. “We need greater clarity on the scale of plans to expand the workforce to ensure this goes far enough to address the historical levels of understaffing in the health service,” he said. “We also need to see more detail on how the government intends to retain staff.”

Andrew Goddard, president of the Royal College of Physicians, said the workforce plan needed to deliver more staff. “We have got to train more nurses and doctors to ensure that in the years ahead we reduce rota gaps and ensure that we can meet the needs of patients,” he said.

Jeanette Dickson, president of the Royal College of Radiologists, also called for more funding. “The continuation of coronavirus-generated

England had worst excess mortality in Europe in April

England had the longest period of excess mortality of any European country during the covid-19 pandemic and a peak in excess deaths second only to Spain's, new data show.

In the first analysis of its kind the Office for National Statistics compared excess mortality rates across Europe from all causes, to avoid different methods of recording covid-19 deaths.

In comparison with 21 other countries, England had the highest levels of excess mortality from 3 April to 8 May, 7.5% more than in the previous five years. Spain had the second highest (6.7%) and

Scotland the third highest (5.1%). National data for Italy were unavailable.

Spain had the highest peak of excess mortality in the week ending 3 April, when deaths were 139% higher than expected. England was the second highest and

Scotland third. England's prolonged period of excess deaths led to it having the highest rate.

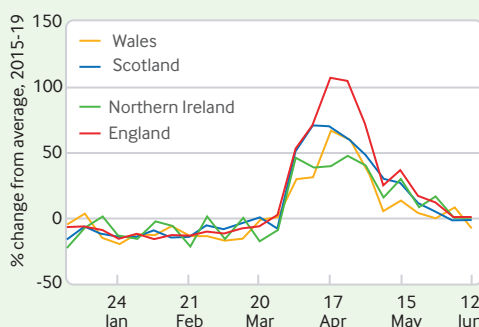
UK peaks

Of the UK nations, England's peak excess mortality was highest in the week ending 17 April, at 108% higher than normal and double its five year average. Scotland had the next highest rate, peaking at 72% during the week ending 10 April, followed by Wales, at 69% in the week ending 17 April. Northern Ireland had the lowest peak, at 48% during the week ending 24 April.

At the equivalent of local authority level, central Spain and northern Italy had the highest peaks of excess mortality (as high as 848% in Bergamo, Italy), exceeding any part of the UK. Brent, the second most ethnically diverse local authority area in England and Wales, had the UK's highest excess mortality peak at 358%.

Edward Morgan of the ONS said, “While none of the four UK nations had a peak mortality level as high as Spain or the worst hit local areas of Spain and Italy, excess mortality was geographically widespread throughout the UK during

Age standardised mortality, relative to average for 2015-19





CHRISTOPHER FURLONG/GETTY IMAGES

staff support is welcome, and we back the plan's motivational narrative and targets for innovation and cultural change," she said.

"Inadequate equipment"

"But without enhanced funding for care providers to update inadequate equipment and IT—and the considerable staff expansion needed to fully support the health service—we will not be able to deliver the modern care provision the public deserves."

Hancock also set out his ambition for all NHS consultations to be digital in the future, after the successful use of technology during the pandemic.

"So, from now on, all consultations should be teleconsultations unless there's a compelling clinical reason not to," he said.

Abi Rimmer, *The BMJ*

Cite this as: *BMJ* 2020;370:m3057

the pandemic, whereas it was more geographically localised in most of western Europe."

Health divide

Sheila Bird, former programme lead at the MRC Biostatistics Unit at Cambridge University, complimented the ONS on producing "a substantial and hugely informative report."

She added, "The analysis of cities' cumulative age and sex standardised excess mortality, reported as percentage of expected deaths to 12 June, is particularly poignant."

Examples were Madrid (26%), Barcelona (17%), London (15%), Birmingham (16%), Edinburgh and Glasgow (9%), Paris (7%), and Copenhagen (-4.1%).

Shaun Griffin, London

Cite this as: *BMJ* 2020;370:m3058

Frustrated council does its own tracing

A West Midlands council has set up its own covid-19 contact tracing system because of a surge of cases and frustration at the government's NHS Test and Trace scheme.

Lisa McNally, Sandwell council's director of public health, said four in 10 cases were going untraced and the virus's spread risked a local lockdown. "We won't be waiting to see which four people Test and Trace fails to reach—by then it is too late," she told BBC West Midlands on 30 July. "Effective contact tracing is the only way we can separate the infected from the non-infected people and break that chain of transmission—it's absolutely crucial."

Public Health England data show Sandwell to be among the top 10 coronavirus hotspots in England.

Many of its cases have been linked to workplaces, including a McDonald's that has been closed temporarily after workers tested positive.

McNally said feedback suggested Test and Trace did not work well in areas with diverse populations owing to a lack of translation services. Nor was it providing details such as occupations, so that workplace outbreaks could be spotted early, she said.

She told the BBC, "We were not getting data on personal information on positive cases for quite a while. We had to really lobby for that. We started getting that last week, and we immediately deployed lots of council staff from other departments into the public health team—those who could speak Punjabi, Arabic, and other languages spoken in Sandwell."



Effective contact tracing is crucial

Lisa McNally

The team aims to call all positive cases as soon as it has their details, will advise them to self-isolate, and will ask about contacts and activities. Settings with cases will be notified about any actions they need to take.

National NHS Test and Trace figures show that, of the people who tested positive in the week ending 22 July, 81% gave details of at least one contact, up from 79% the week before. Three quarters of contacts were reached, down from 78%. Experts say at least 80% of contacts need to be reached for controls to be effective.

Matthew Limb, London

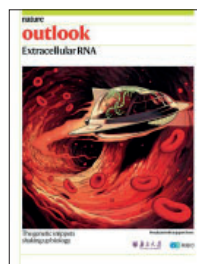
Cite this as: *BMJ* 2020;370:m3065

Infection rates in Sandwell rose to **32.4** in 100 000 people in the week to 26 July, up from **23.2** the previous week. New cases totalled **106** in the week to 26 July, up from **76** the week before

Author retracts article over sponsorship

The journal *Nature* has been forced to retract an article after its author claimed he was misled about its sponsorship by a Chinese university.

Kenneth Witwer, an associate professor at Johns Hopkins University in Baltimore, was invited to contribute a commentary on extracellular RNA to one of its sponsored "Outlook" sections. Chen-Yu Zhang, a researcher at Nanjing University, arranged his university's sponsorship of the



supplement and contributed an article.

Witwer said on the Retraction Watch website, "My piece was extensively and aggressively edited . . . and I was instructed specifically to avoid criticism of researchers from Nanjing University." Speaking to *The BMJ*,

Witwer described the edited article as essentially an advertorial for Zhang's "questionable research."

An editor at *Nature* said to Witwer in an email, "I am going to ask you to reframe [the article] so that it reads less like a direct critique of the research from the Nanjing . . . and more a discussion of how much uncertainty remains about the phenomenon of RNAs introduced through diet."

Nature's editorial policy states that "the supplement's editor must emphasise to all writers that their journalism should be unchanged by the fact that a third party is sponsoring the supplement. This is not advertorial."

David Payne, Springer Nature's managing editor of careers and supplements, said, "We are assessing our policies and processes on Outlooks."

Shaun Griffin, London

Cite this as: *BMJ* 2020;370:m3017

Should the UK be aiming for “zero covid”?

Nicola Sturgeon, Scotland's first minister, has proposed that the four UK nations align around a covid-19 elimination strategy similar to New Zealand's, but is it feasible? **Ingrid Torjesen** investigates

Scotland is urging England and Wales to join it and Northern Ireland in a four nation covid-19 elimination strategy.

The first minister, Nicola Sturgeon, told a press briefing on 28 July that she had suggested that all four UK nations align “around a strategy that is effectively about trying to eliminate the virus.”

“If we could all align around an approach that is very explicitly about driving this virus down to the lowest possible level and allow our policy decisions to flow from that, I think that would be a good step forward, as opposed to having an approach that allows the virus to hover around at a certain level and then hope it doesn't overwhelm you,” she said.

This elimination approach has been advocated by the non-official advisory committee Independent SAGE. “Northern Ireland and Scotland have explicitly adopted zero covid as a strategy, and the Republic of Ireland has basically been working to that way,” said Susan Michie, director of University College London's Centre for Behaviour Change, who sits on both iSAGE and the official Scientific Advisory Group for Emergencies, as well as the official SAGE's behavioural science subcommittee, SPI-B.

“There is no reason why as a joint couple of islands we can't get to covid zero if we all pull in the same direction,” Michie said, holding up New Zealand as “proof of principle.” She added, “An elimination strategy is much more feasible for us than a country on mainland Europe.”

In the short term this would require tougher measures to stop community transmission, she said. High risk places, such as pubs and indoor gyms, where people are likely to shout or breathe heavily and are touching each other and touching surfaces, would need to be shut down. But the economy could then reopen with fewer controls and more certainty.

The government's current “whack a mole” approach meant constant “yo-yoing” that “brings uncertainty, lack of adherence, lack of control, and it is really unsettling for people and terrible for business,” said Michie.

Inward transmission

Once community transmission was down to zero, a good test, trace, and isolate system would be needed “to jump on and suppress” localised outbreaks, with border checks and isolation to prevent inward transmission, she explained. This would need to be underpinned by reliable data and involvement of public health teams, as well as public health messaging to tackle ignorance concerning the key covid-19 symptoms and on where and how to get tested, a strategy to support people who have to isolate and who could be hit financially, and—crucially—trust in the government and the system designed to get people to isolate and hand over their contact information.

She said, “The [Westminster] government has lost a huge amount of trust over its mixed messaging, being so unclear about what it is that people need to do, and over the Dominic Cummings affair, obviously.



There is no reason why as a joint couple of islands we can't get to covid zero if we all pull in the same direction

Susan Michie

Michie said that the Westminster government could learn a lot from the direct, honest, and open communication style of the leaders of Scotland and New Zealand. “That is what engenders trust, and the trust is needed for adherence,” she said, recommending that more direct communication should be handed over to scientists, who commanded a high level of public trust.

Having one coherent UK strategy was not only likely to be more effective but would help create trust, “which is key in terms of people's behaviour, which is key in terms of getting out of the pandemic,” said Michie. The public was confused when leaders said their policies were based on science and then the UK countries took different approaches, she said.

Northern Ireland

A spokesperson for Northern Ireland's health department said “a very robust approach to tackling and maximally suppressing covid-19 among our population” was being taken and that cooperation with the Republic of Ireland through a formally agreed memorandum of understanding had been “central to controlling the virus on both sides of the border.”

Sweden has maintained an antithesis to a “covid zero” approach, with no mandatory lockdown and no plans to require public face coverings. Figures from the Office for National Statistics this week showed that it was not Sweden but the UK that had been hit much harder by the pandemic, as England had the highest levels of excess mortality in Europe during the first half of 2020 (see page 172).

Speaking exclusively to *The BMJ*, Anders Tegnell, Sweden's state epidemiologist, warned that an elimination strategy requiring stringent lockdown measures and border closures “could possibly cause a lot more

First ministers (left to right) of Northern Ireland, Wales, and Scotland: Arlene Foster, Mark Drakeford, and Nicola Sturgeon with Boris Johnson, the prime minister





Jacinda Ardern,
prime minister
of New Zealand

damage to public health.”

He said, “When this whole thing started out many of us looked on this coronavirus like SARS [severe acute respiratory syndrome] and MERS [Middle East respiratory syndrome], and I think that guided much of the thinking in the beginning, and probably much thinking in China—trying to really get rid of it.

“Now when we have the spread we have today, when we even see cases in closed places like North Korea, I don’t think we can seriously believe that we can get rid of this virus unless we get a very, very good vaccine.”

The world has been watching Sweden, as there are hopes its approach might produce herd immunity. So far, however, levels of exposure and immunity have been difficult to determine.

Uneven geographical spread

What is apparent from measures taken in different populations is the “very uneven spread” geographically, with exposure levels ranging from a few per cent up to around 30%, said Tegnell. “Any measurements we try to take by taking a random sample of population is very much easily skewed in some way or another,” he explained. “At least personally I don’t have good hopes of getting a very good number any time soon, unfortunately.”

As in the UK, the number of cases of covid-19 in Sweden has fallen rapidly. “Right now, admissions to [intensive care] are down to many days without even one case, then one or two cases,” said Tegnell. “Mortality is also down to a single digit per day.”

The expectation had been for a slight rise over the summer months, with more people travelling and

meeting new people and possibly creating new transmission chains. But Tegnell said, “It doesn’t seem to have happened to any great extent, so we figured at least immunity must play some part in it. How big a part we don’t know.”

He believes the decline in rates is probably due to a combination of immunity, the public heeding advice to socially distance, and people spending more time outside.

“The combination of these three factors sort of driving the same way seems to produce this result, and of course we are very happy about it,” he said. “I think this shows that the relation between lockdowns and rapid decline in cases is very difficult



We cannot seriously believe we can get rid of this virus unless we get a very, very good vaccine
Anders Tegnell

Europe that have been hovering around 10, 20, 100 cases a day. Maybe it is somewhere there that the virus will sort of settle down. That remains to be seen.”

The BMJ contacted the governments of England and Wales for comment on the Scottish proposals, but they did not respond before publication.

Ingrid Torjesen, London
Cite this as: *BMJ* 2020;370:m3071

FIVE MINUTES WITH ...

Naureen Bhatti

The east London GP explains why she wrote to her royal college to call for increased diversity in its

“Doctors from Africa and South Asia have supported NHS general practice since its inception, so I was shocked when I looked at the Royal College of General Practitioners and saw how unrepresentative it is at its highest levels. Admittedly I am going by photographs on the website, but there are no data.

“Covid-19 has disproportionately affected people from ethnic minorities, and Public Health England’s report on the impact on these groups highlighted racism, stigma, and distrust as underlying existing inequalities. Of the 12 GPs who have died, 11 have been from black and ethnic minority backgrounds.

“A lot of past work on inclusion and diversity has focused on mentoring and training and trying to ‘improve the pipeline.’ In 2020 that’s no longer appropriate; we must utilise the excellent black and Asian GPs and review barriers to gaining senior roles. Data from the 2019 Workforce Race Equality Standard shows that white applicants are 1.46 times as likely to be appointed from NHS shortlisting as black and ethnic minority applicants.

“In March Simon Stevens [chief executive of the NHS in England] set a target for ‘19% representation at every pay band by 2025.’ That’s an incredible, heartwarming target. It acknowledges that good intentions are not enough: we need outcome measures and timelines. If the NHS can do it, my college should be able to set targets too.

“Without more action to support disenfranchised GPs, their patients will not have strong, senior advocates in the RCGP, which is so vital to reduce the health inequalities highlighted by covid-19. We also need to look at its election processes and ensure the system is truly representative and fit for purpose.

“More than 1500 people signed my letter to the college in six days. It is important we acknowledge that strength of feeling. I look forward to the college’s continued engagement with the whole profession to address representation at all levels.”

Read the open letter to the RCGP at <https://bit.ly/3i6CSwm>.

Abi Rimmer, *The BMJ*
Cite this as: *BMJ* 2020;370:m3059



SIMON STEVENS'S 19% AMBITION FOR THE NHS IS AN INCREDIBLE, HEARTWARMING TARGET

THE BIG PICTURE

World's cameras focus on health

Agness, a Ugandan midwife, listens to the heartbeat of a fetus in a photograph taken by Sameer Satchu, one of 25 images shortlisted out of entries from 127 countries for this year's Wellcome Photography Prize.

Submitted to the Medicine in Focus category, *Tomorrow's Echo* honours the dedicated healthcare workers in low income settings who tirelessly do all they can, whatever their resources, for their communities.

The prestigious award also includes the categories Social Perspectives, Hidden Worlds, and two on the special theme of Mental Health. The theme was designed to support the need to transform the science associated with the sector and to change the public's perception of it.

Shortlisted for Social Perspectives is *Cards* (below), by the Dutch photographer Marijn Fidler. It portrays the gallery of cards from friends and relatives in the bedroom of Sanne, an 11 year old undergoing chemotherapy for a brain tumour. Fidler hopes to help families deal with the effects of caring for a child with cancer by providing photo albums—including positive and negative moments alike—in her project Naughty Cells.

The prize winners will be announced on 19 August.

Alison Shepherd, *The BMJ*

Cite this as: *BMJ* 2020;370:m3078





Critical interventions against coronavirus

Behaviour, environment, society, and systems should be top not bottom of the research agenda

Covid-19 has shown the vital importance of human behaviours such as social distancing in controlling pandemics.^{1,2}

The absence of a cure and an effective vaccine has meant that the world has thus far been reliant on changing behaviours to prevent virus transmission. Behaviour is also crucial to the success of public health measures such as test, trace, and isolate and to effective clinical management of cases. If an effective vaccine is developed, behaviour will be crucial to its success because low uptake could be a big problem.³

Behaviours are embedded in complex systems involving individuals, groups, and communities operating in diverse physical and social environments. Large scale behaviour change of the kind required to suppress pandemics requires behavioural, environmental, social, and systems interventions. When these have been applied in areas such as tobacco control, they have had considerable success, saving hundreds of thousands of lives each year across the globe.⁵

Scientific understanding

These interventions need to be informed by a scientific understanding of the complex processes that influence behaviour. Common sense understanding is not enough and can often lead to interventions that are at best wasteful and at worst counterproductive. For example, early in the pandemic the common sense idea of “behavioural fatigue” and concern that locking down too early may lead to widespread non-adherence later, was invoked in the UK to justify the catastrophic delay of strict social distancing measures.⁷ Behavioural fatigue was an ill-defined new term that had no basis in behavioural science.

Failure to recognise the importance of behavioural, environmental,



Interventions need to be informed by a scientific understanding of the complex processes that influence behaviour

social, and systems research in tackling global health problems is widespread. For non-communicable diseases such as cancer, behaviours contribute to more than 40% of the incidence⁸ but behavioural prevention accounts for less than 5% of the research budget.⁹ In the case of covid-19, the almost total dominance of clinical research over behavioural is illustrated by the fact that a recent search found 975 registered and 46 reported drug trials but only six registered and one reported behavioural, environmental, social, or systems intervention trial (www.bessi.net.au/).

The imbalance in resources devoted to clinical versus behavioural intervention research is further compounded by a huge geographical imbalance. Thus 90% of covid-19 research is being conducted in countries that have around 10% of the world's population, with most in high income countries.¹⁰

To get maximum benefit from large scale investment in behavioural research to tackle pandemics it is crucial to have a coordinated programme that can identify and address research gaps and priorities. This requires adoption of appropriate methods and frameworks that capture the hierarchy of actors in the

system from individual to community to population¹¹ and the full range of interventions that can be effective.¹² Advances in the application of artificial intelligence to behavioural science can help with this.^{13,14}

Inadequate evidence

We currently have little evidence on the effectiveness of behavioural, environmental, social, and systems interventions to tackle covid-19 in different geographical and social contexts or on their mechanisms of action (processes of change).¹⁵ For example, there is almost no relevant evidence on how to promote adherence to behaviours such as distancing from other people and households, hand cleansing, effective use of face coverings, and avoiding touching one's eyes, nose, or mouth with contaminated hands. Yet these behaviours are absolutely crucial in suppressing transmission, particularly when governments decide that “lockdowns” are not sustainable.

In summary, we urgently need a major coordinated programme of research to develop and evaluate behavioural, environmental, social, and systems interventions (see www.bessi.net.au/ for information about the emerging BESSI collaboration) that will be effective and viable in tackling the covid-19 and future pandemics.

Success in other areas of behaviour change shows that this kind of enterprise can be highly effective and cost effective. It will require research funders, government, and policy makers to recognise the importance of this work and allocate appropriate resources to it, and will require researchers to collaborate across a range of disciplines and countries with varying resources and to deliver their findings efficiently to policy makers.

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Long term respiratory complications of covid-19

Substantial population morbidity is likely

The extent and severity of the long term respiratory complications of covid-19 infection remain to be seen, but emerging data indicate that many patients experience persistent respiratory symptoms months after their initial illness.¹ Recent NHS guidance lays out the likely aftercare needs of recovering patients and identifies potential respiratory problems including chronic cough, fibrotic lung disease, bronchiectasis, and pulmonary vascular disease. The evidence for these possible sequelae is largely derived from acute manifestations of covid-19, along with extrapolations from the 2003 outbreak of severe acute respiratory syndrome (SARS) and data on acute respiratory distress syndrome (ARDS).²

It is reported that approximately 30% of people with SARS or Middle East respiratory syndrome had persisting lung abnormalities after their acute illness.² Two prospective studies followed up healthcare workers with nosocomial SARS infection from hospitals in Hong Kong and Beijing for two and 15 years, respectively, and both studies found that persisting impairments in lung function were common.^{3,4} For most patients, however, these deficits were mild and mostly comprised a modest reduction in gas transfer (to around 70-80% of the predicted value).

Other studies have investigated the long term effects of ARDS, which is characterised by widespread airspace opacification of the lung. This non-specific manifestation of acute lung injury can be precipitated by a range of injurious stimuli, including severe covid-19.⁵ Although early studies found that survivors often developed substantial lung fibrosis, this was later linked to barotrauma secondary to high pressure ventilation,⁶ and more recent studies (including patients treated with extracorporeal membrane oxygenation) report relatively minor abnormalities.^{7,8}



Optimal management is unclear. An integrated multidisciplinary approach is likely to be needed

Different demographics

These findings seem reassuring, but the demographics of patients with severe covid-19 differ from those enrolled in previous longitudinal studies in which few participants were over 45 years and few had comorbidities. Long term outcomes might not be comparable, as many patients admitted to hospital with covid-19 have pre-existing disease and degrees of frailty. Risk factors for moderate or severe covid-19 are similar to those of idiopathic pulmonary fibrosis: male gender and older age.⁹

In addition, coronavirus targets alveolar epithelial cells, and evidence implicates other viruses, such as herpes viruses, in the pathogenesis of pulmonary fibrosis.¹⁰ Cellular changes occurring with ageing such as genomic instability, mitochondrial dysfunction, and epigenetic modification might reduce these cells' ability to respond effectively to viral encounter, triggering pathways that promote both dysregulated repair and fibrosis.¹¹

As inflammation can lead to fibrosis, treatment often targets inflammation.¹² High dose steroids were given routinely to many patients with SARS, and this might partly explain the limited incidence of fibrosis observed.^{3,4} The benefit of dexamethasone in severe covid-19 has recently been established, but treatment did not improve acute outcomes among

patients with milder disease.¹³ The longer term implications of steroids in the management of covid-19 have not yet been evaluated but widespread use cannot be recommended due to the associated substantial morbidity.

Guidelines published by the British Thoracic Society recommend chest radiography three months after discharge for all patients admitted to hospital with covid-19. Those with a history of moderate or severe disease, with persisting symptoms or with radiological abnormalities, require clinical review and further investigation.¹⁴ The recently launched post-hospitalisation covid-19 study aims to recruit 10000 patients in the UK to identify the medical, psychological, and rehabilitation needs of patients and to provide a comprehensive picture of the longer term effects of infection.¹⁵

Most covid-19 patients, however, are managed in the community, and treating their persisting symptoms is less straightforward. Chest radiography might be helpful, and patients can be referred for investigation of persisting lung abnormalities and thromboembolic disease. There seems to be a poor correlation between symptoms and objective measures of disease (author's observation). Fatigue, exercise intolerance, and poor concentration can be particularly problematic. Unfortunately, optimal management is unclear. An integrated multidisciplinary approach is likely to be needed, but many UK centres have yet to establish these services.

A pragmatic approach to primary care management might include first line investigations such as chest radiography and oxygen saturation measurements, with referral to secondary care where lung pathology needs investigation. Integrated support from a broader primary care team should be considered for patients with more complex symptoms.

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WORKFORCE

“A world in which a doctor can refuse to speak to another doctor shouldn’t exist”

Hierarchy in medicine is alive and kicking—but good communication between juniors and seniors is possible and essential, reports **Jacqui Thornton**

When Chris Turner was a house officer near Edinburgh, he had to go to a “particularly terrifying surgeon” to ask for a referral. “A number of people said to me, ‘He’s gonna bite your head off,’” he remembers. “By the time I went to see him I was so anxious I could barely speak.”

Thirty years on, Turner, now an emergency medicine consultant, says that this behaviour—where senior colleagues see referrals as a “game” to taunt juniors—does occasionally still happen. But what happens more regularly, he says,

GROUP MEETINGS SOFTEN RULES—AND ATTITUDES

Four years ago Shewli Rahman, a consultant in emergency medicine at Heartlands Hospital in Birmingham, ran a junior doctor forum for FY1s.

One of their biggest issues was the on-call radiology registrars not taking referrals from the FY1s when attempting to order CT scans. “The juniors were finding this massively frustrating because they had a list of tasks to do and couldn’t get them done,” she tells *The BMJ*.

So, she organised a group meeting with the radiology lead and the juniors, and as a result the rules were softened, allowing referrals in certain circumstances. She says, “The juniors came away saying, ‘It’s much more complex than someone just not wanting to talk to me or being difficult.’”

“They realised the radiologists were trying to control their long work list, too, and had to assess the clinical urgency and need for scans. Juniors did not realise [the radiologists] were looking at 50 to 60 scans and covered three hospitals overnight.

“It was a really useful learning point for both sides.”

is that doctors refuse to speak to someone lower in the hierarchy.

This issue has come to the fore on several lively Twitter debates. In one, a foundation year 2 trainee (FY2) with hopes of becoming a paediatrician posted his frustrations about how haematologists at his hospital would speak only to the registrar or someone above. He wrote, “I can honestly say I don’t understand why. Surely part of your job is to teach and train juniors to be better? How can you do this if you flat out refuse to talk to us?”

On the resulting thread and others about these “annoying policies” on referrals, many juniors echoed similar experiences, describing the practice as “bonkers” and “almost amounting to bullying.” Not just medical trainees are affected: physician associates, advanced clinical practitioners, and intensive care nurses have all complained of similar treatment.

However, some junior doctors came to the defence of senior colleagues, and many consultants insisted that they talk to whoever the responsible clinician is, including nurses. One haematologist said, “All I care about is that the person calling has seen the patient and has blood results handy.”

Flattening the hierarchy

Simon Fleming, an orthopaedic registrar, says that there’s a discussion to be had about how such referrals can be improved, both by the junior doctor making the call and by the senior doctor receiving it. “If [the

referral request] is not respectful, well informed, and patient-centric then it’s the responsibility of the receiving doctor to feed that back—in a respectful way,” he says. “And it’s the junior’s responsibility to have the right information to be prepared for the inevitable questions.”

The real answer, however, is to improve the culture in medicine and focus on training. “This reliance on hierarchy actually holds us back,” says Fleming. “There shouldn’t be a world in which any doctor refuses to speak to any other doctor.”

Susan Crossland, a consultant in acute internal medicine and president of the Society for Acute Medicine, believes that internal and emergency medicine have led the way on this. “The days of ‘Ask the SHO, then ask the reg, then ask the consultant’ are gone in most places,” she explains. “I don’t see that as a dumbing down—I see it as working with colleagues, where everyone has something to contribute.”

There’s agreement that consultant-to-consultant discussions sometimes remain necessary, such as when conflict surrounds a referral, an ICU admission, or questions around lifesaving treatment. And, while consultants are happy to talk to their own foundation doctors, many may not want to speak to doctors of that level from other specialties.

David Oliver, consultant in geriatrics and acute general medicine and a *BMJ* columnist, says that, if



MALCOLM WILLET

a senior doctor wants an opinion urgently from another specialty, it may be considered rude for that specialty to offer a succession of less junior doctors who are not authorised to make the quick decisions needed.

Rules of practice

The specialties that impose restrictions on referrals seem to be the more advisory specialties of haematology, microbiology, and radiology. While some trusts have formal policies stating that doctors should have first discussed a referral with a senior colleague in the specialty they work in, others follow informal rules made by each specialty or by individual consultants.

The Royal College of Radiologists doesn't recommend that imaging referrals are limited to doctors of a certain grade, but it says that trusts and departments are free to impose their own policies and processes to streamline and vet referrals, such as departmental triage or consultant-to-consultant referral for some specialist or on-call requests.

Caroline Rubin, vice president for clinical radiology at the college, says, "Referrals can be made by junior doctors, consultants, GPs, advanced nurse practitioners, and allied health professionals, such as physiotherapists—but they must be clinically appropriate, informed, and in accordance with local referral guidelines."

Protecting people's time

Rules restricting referrals are likely to have been imposed because of workload pressures. They may have been put in place after inappropriate, longwinded calls where junior doctors ask questions that could have been answered by a registrar or consultant in the same specialty as the junior doctor.

Radiology is particularly short staffed, with work involving high levels of concentration where staff don't want to be interrupted. A radiologist on call might report 300 scans in a weekend.

Alice Hartley, a urology registrar who chairs the Royal College of Surgeons of Edinburgh's anti-bullying campaign, thinks that such rules are

designed to protect people's time. "I don't think it's necessarily a rule that is set up to antagonise or intimidate anyone," she says. "I think it's a practical issue with people potentially not understanding others' work. They can only help so many people."

But the existence of these rules shows an assumption that referrals from junior colleagues won't be as good, which does them a disservice. The best person to refer is the one who knows the patient well—regardless of grade. And with all of the concern about retention, morale, and wellbeing among doctors, rules that make juniors feel demoralised or infantilised are not helpful for the service as a whole.

Impact on training and patients

Crossland, who is director for medical education at Calderdale Royal Hospital and Huddersfield NHS Foundation Trust, says that it's difficult for trainees to learn if they're not allowed to talk to certain people. In an acute situation the ability to speak up is really important: "If my FY1 phones me for advice, I will give it without hesitation," says Crossland.

Turner, who cofounded the Civility Saves Lives campaign, believes that this is a patient safety issue. He says, "Every time a professional refers a patient to another, what they're actually doing is asking for help for a human being. It's not safe to refuse to speak to professionals who are asking for help."

He adds that all consultants have a responsibility to teach but that they need the space and time to do so, something that's particularly lacking in certain specialties. Staff shortages and workload pressures can prevent staff from dedicating the time to upskill junior colleagues. But many do go the extra mile, using phone calls with juniors as an opportunity to teach—even at 2 am—which makes juniors more self-sufficient and actually prevents endless phone calls for the same problem.

Rachel Brown, a consultant haematologist, prefers to deal with calls overnight immediately, for the patient's sake. She explains, "We speak to all grades and try to teach during the conversation: it's a

great way to inspire them to become haematologists."

If these rules are hampering trainees' ability to learn they should speak to their educational supervisor, says Sarah Hallett, a paediatric specialist trainee year 3 (ST3) and current chair of the BMA's Junior Doctors Committee. If the educational supervisor is the person imposing the rules, trainees should contact the area foundation programme lead. "These behaviours need to be challenged," she says.

Ways around the rules

So, what are the solutions—bar FY1s lying about their grade or, as a respondent to one Twitter thread suggested, having a registrar "temporarily promote" them? Having the senior doctor standing next to the junior making the call can help. Or the senior can initiate the call and then add, "I'm just going to pass the phone to another member of the team who knows the patient far better than me."

The SBAR communication tool (situation, background, assessment, recommendation), developed by the US Navy, has been successfully used in healthcare settings and is recommended by NHS Improvement. And Buku Haematology, an app developed by a haematology registrar, Alex Langridge, and supported by Health Education England North East, answers common questions that junior doctors would otherwise ask the on-call haematologist, "to save time for clinicians."

It's much easier to be hostile down the phone, so face-to-face referrals or video calls may help to remind consultants that they're talking to a person, says Hartley. Multi-specialty induction may also help, just as getting different specialty groups together to encourage understanding of their working patterns, tasks, and pressures can improve interactions (see box, p 180).

Fleming concludes, "If we can make 'How can I help?' a more common response than 'I can't help you,' we know that it will improve patient care. And surely that's what it's all about."

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It's the junior's responsibility to have the right information

Simon Fleming



Consultants can only help so many people

Alice Hartley



These behaviours need to be challenged

Sarah Hallett



It's not safe to refuse to speak to professionals

Chris Turner

Leicester lockdown: could better data have prevented it?

Incomplete statistics and confused communication frustrated and angered the city's officials. As more areas are put under restrictions, this does not bode well for future covid surges. **Jacqui Wise** reports

Leicester was the first place in the UK to be singled out for a local lockdown in response to a spike in covid-19 cases—and some people have questioned whether it was necessary. Others certainly think it could have been handled better.

Leicester's mayor, Peter Soulsby, accused the government of using a sledgehammer to crack a nut and says he is "incredibly frustrated" by the inability of Public Health England (PHE) to provide timely and detailed testing data that critics say could have helped the city avoid lockdown.

As this article went to press, the government had just announced further restrictions in Greater Manchester, Lancashire, and West Yorkshire in response to a rising number of infections. The move attracted criticism for the late evening announcement and clarity of the communication, raising questions about future local lockdowns.

Incomplete data

England's health and social care secretary, Matt Hancock, first mentioned a new covid-19 "outbreak" in Leicester on 18 June during the government's daily briefing (box). Soulsby says this took him by surprise; he knew cases were increasing but said this was the first time anyone had used the word outbreak.

The problem was that at that time local authorities were only getting data from pillar 1 of the national testing strategy: testing of people with a clinical need, and health and care workers. These showed that Leicester

was below the average rate of new infections so did not trigger concerns.

In the first half of June Leicester's director of public health, Ivan Browne, was given access to pillar 2 community testing data, but only for people with positive test results. He asked for more complete data, but it was not until 25 June that Leicester City Council was given access to postcode data after signing a data security agreement. However, it was given only positive results and not the total number of tests undertaken in each ward.

On 28 June the home secretary, Priti Patel, briefed that Leicester was to be subjected to a lockdown. Soulsby says this was before PHE had finished its rapid investigation report. He says that on the evening of 28 June the city council was sent a summary of the report, which instead of recommending a lockdown called for a delay in the relaxation measures planned for the rest of the country on 4 July. This recommendation was omitted from the published version of the report, released on 29 June. Soulsby believes the decision was political. "The timing suggests it was about sending a warning to other areas," he tells *The BMJ*.

On 29 June Hancock announced a local lockdown in Leicester, with schools and non-essential shops closed and residents advised to stay home. He said the seven day infection rate in Leicester was 135 cases in every 100 000 people, three times the rate in the next highest city, Bradford. At that time Leicester accounted for around 10% of all positive test results in the country over the past week, he said.

"I don't think anyone had enough



LEICESTER LOCKDOWN TIMELINE

15 June—PHE East Midlands first confirms an increase in cases in the city

18 June—England's health secretary Matt Hancock announces a fresh outbreak in Leicester

19 June—Leicester City Council gets access to NHS digital dashboard giving more local testing data

25 June—The council is given postcode data after signing data security agreement

28 June—Home secretary Priti Patel says localised lockdowns could be used to control local flare ups

29 June—PHE publishes report on Leicester from rapid investigation team

29 June—Hancock announces the lockdown

4 July—Restaurants, pubs, and other parts of the hospitality sector are allowed to open everywhere else in the country

16 July—Hancock announces lockdown measures to stay in place for another two weeks in Leicester city and Oadby and Wigston but to be lifted in other parts of the county from 24 July

30 July—Hancock announces local lockdowns in Greater Manchester, Lancashire, and West Yorkshire

1 August—Lockdown lifted in Oadby and Wigston



Members of the public test themselves at a centre in Spinney Hill Park, Leicester, on 30 June

data to know if a lockdown was justified,” Soulsby says. “The data we are getting is still hopelessly inadequate. We are still not getting data in a timely fashion with an address to show who has tested positive.”

The Independent Scientific Advisory Group for Emergencies (iSAGE) says the lockdown “constitutes a foreseeable crisis of the government’s own making.” It says that the situation arose out of a failure to respond to the increase in infections at an early stage before they reached crisis levels. Kamlesh Khunti, professor of primary care diabetes and vascular medicine at the University of Leicester and a member of iSAGE, tells *The BMJ*, “We could have stopped lockdown happening if we had got the data 10 days earlier, if we had the data coming in in real time.”

A PHE spokesperson said that the agency had been sharing all the data it had available with local authorities.

Was increase an artefact?

Some people believe the increase in cases could be an artefact, with even PHE saying in its report, “Evidence for the scale of the outbreak is limited and may, in part, be artefactually related to growth in availability of testing.” Khunti says, “The number of cases has gone up, but this has been mainly due to the increase in testing in densely packed inner city areas.”

Mike Gill, a former regional director of public health, tells *The BMJ*, “We know nationally there has been a huge conflation of people tested with the number of tests carried out, caused by many people having more than one. This may lead to an inflated numerator. There is much doubt about the quality of the data, and it is possible the government did over-react. We don’t really know the true situation.”

There is no doubt that Leicester now has a very high level of testing, with 70 000 tests carried out since 20 June. These include tests done by mobile testing units run by the army, and 500 people going door to door offering kits. However, when cases were rising in early June, Soulsby says, there was just one testing site, and he was calling for more testing to be carried out.



Leicester’s high rate of positivity does not seem to be explained by a high level of testing
Sheila Bird



We could have stopped the lockdown if we’d had data 10 days earlier
Kamlesh Khunti



The data we are getting is still hopelessly inadequate
Peter Soulsby

Sheila Bird, former programme leader at the MRC Biostatistics Unit at Cambridge University, doesn't believe that high levels of testing explain the increase in cases. After examining the PHE report she estimates that around 3500 pillar 1 and 2 tests were carried out in Leicester between 11 and 24 June, with 944 positive results (27%). Leicester's population of 355 000 means that around 3920 people would have been expected to have been tested within pillars 1 and 2, she says.

"There does seem to have been an issue in Leicester," she tells *The BMJ*. "There was a high positive rate per 100 000 population, and that high rate of positivity does not seem to be explained by a high level of testing."

In the two weeks to 4 July a total of 10 475 tests were completed, with 888 positive results, giving an 8.5% positive rate. In some inner city areas the proportion of positive tests was as high as 20%. PHE's report said, "The proportion of positive PCR [polymerase chain reaction] tests as a proportion of all tests is rising and this is suggestive of a genuine increase in numbers of new infections."

Leicester City Council says that since testing has been ramped up the rate of positive results has fallen from 13.1% at the end of June to 1.9% in the week to 20 July. Soulsby acknowledges that this could be a result of more people without symptoms now being tested. "The only way you can properly understand what is happening is if you do random sampling," he says.

Much of the recent rise in cases has been in children and people of working age, and even though many live in multigenerational households there has been no associated increase in admissions to hospital. According to University Hospitals of Leicester NHS Trust, the number of weekly admissions for covid-19 rose to a peak of 100 in early to mid-April, falling to between 22 and 29 in late May and early June before rising to 42 in the week ending 19 June. Since then the number has generally fallen, to 18 on 17 July.

Khunti says, "The number of hospital admissions is stable in Leicester, and the numbers are not huge. Seventy per cent of these positive



In Leicester 70 000 tests have been carried out since 20 June, including at mobile testing units run by the army

cases in pillar 2 testing are young, who are less likely to be symptomatic and more likely to have mild disease."

Should the lockdown area have been smaller?

Much of the early media coverage of Leicester's lockdown focused on conditions in clothing factories. However, the PHE report says there is no evidence that these were the source of outbreaks. Part of the problem is that the "occupation" field on testing forms is not compulsory, and only around half of tests have completed ethnicity data. Soulsby says, "Without place of work or ethnicity the data give no clue as to whether the speculation about workplace, schools, or ethnicity may have any part in the prevalence of the virus. It has been convenient to blame these factors, but the truth is that none of us know, because we haven't got the data."

More detailed postcode data provided in mid-July shows that the areas most affected were those in the inner city with high levels of deprivation, says Soulsby, who argued that continuing lockdown in the remaining 90% of the greater Leicester area was no longer justified.

Data obtained by the *Guardian* showed that only 65% of close contacts of infected people in Leicester were contacted by the national track and trace system. The city council has now set up its own tracing system to contact people who the national programme has been unable to reach.

Khunti says, "The centralised system doesn't seem to be working well in Leicester. If a middle aged, south Asian woman gets a text, it is likely she won't respond. You need to involve local faith groups, pharmacists, GPs, and others who have local knowledge of their populations, can speak different languages, and are culturally aware."

"Constant cycle of lockdowns"

In the week to 17 July the number of cases in Leicester fell to 72.6 per 100 000 population, and the city was overtaken by Blackburn as the most affected area. Some restrictions in Leicester were lifted on 24 July, by which time the number of cases had fallen to 58.6 per 100 000, and there was further easing of the lockdown on 1 August.

ISAGE and the BMA have called on the government to publish clear thresholds for when a lockdown or other measures (national or local) will be imposed or released. A spokesperson for the Department of Health and Social Care for England responded, "The decision on the Leicester lockdown was made using a range of health and non-health indicators. This is a complex judgment, which cannot be reduced to a simple number. We must consider the infection rate and the test positivity rate, but also admission rates, compliance with lockdown, and the plans in place at the local level to drive down infection rates."

ISAGE says that the imposition of local restrictions should be considered only as part of an overall package of support and should be a temporary last resort. In Manchester, GP Siema Iqbal tells *The BMJ* that the government's announcement was "ill-timed and lacked clarity." She says, "If anything, it created more confusion."

Gill says, "With the level of circulating virus, and in the absence of a properly functioning find, test, trace, isolate, support system, we are at great risk of a constant cycle of local lockdowns. We need to have a clear strategy for the future."

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