comment

"It is only one of many thousands, but I'd like to tell my pandemic story" **DAVID OLIVER** "At national level, GPs need to be able to say no with a united voice" **HELEN SALISBURY PLUS** Where's the covid plan for the NHS?

CRITICAL THINKING Matt Morgan

Life threatening problems, big and small

ach day spent working in intensive care entails managing life threatening problems—from sepsis to strokes, from ruptured aortas to rare tumours. The lives of patients tiptoe on the edge, where the land of life meets the sea of mortality. Working on these rocky shores, I sometimes fail to empathise when my family or friends have more benign problems. If they're conscious and breathing, then generally I think they'll be OK. But I now better appreciate that life threatening problems don't have to involve burst blood vessels, hearts, or lungs. My life threatening problem involved my Achilles tendon.

After decades of playing squash without injury, it was a simple stumble over a kerb that landed me in the emergency department. As I clutched my swollen calf, the classic "slap" of a ruptured Achilles echoed in my mind like a song on repeat. During an MRI scan that would dictate the future, my life flashed before my eyes. Even a fully ruptured Achilles is hardly life threatening when compared with the problems of patients I'd cared for earlier that day. Yet I now appreciate that "life threatening" doesn't have to involve death.

Having arrived just weeks before in a new job, in a distant country, I now realised that the inability to walk—and to work—could indeed have threatened my life here with my family. The prospect of no sick pay meant that financial calculations, the logistics of returning home, and the wellbeing of my family outweighed any personal concerns about my health. Even seemingly small medical problems can threaten the lives of patients and their families. Minor illness can lead to radical change, even when death is nowhere to be seen.

Thankfully, my rupture was the "best" type one could hope for. In my head, deportation and unemployment morphed into having to get a taxi to work rather than a plane home. But the experience made me reflect on how deeply the social care crisis runs. The best form of

analgesia for me was reassurance about my ability to pay the rent or stay in the country. The best crutch was someone to help me navigate the bureaucratic obstacle course of health and welfare forms.

If a health system is so stretched that we can't support critical discharge planning, then the woes of a middle aged, privileged professional are (rightly) not a priority. For me at that moment, however, the emergency department was as much a refuge from these existential worries as a place to fix my leg. Next time, even if my friends are conscious and breathing, I'll better empathise with their minor problems and the major effects they could still have on their life.



Even seemingly small medical problems can threaten the lives of patients



OPINION Layla McCay

Covid continues to disrupt: what is the plan to deal with it?

The virus will continue to create winter pressures in the summer

HS staff are starting to feel like it's Groundhog Day: healthcare is yet again being derailed by the march of covid-19. While fortunately this time round people are generally not becoming as ill as in previous waves, the current subvariants are proving adept at evading immune defences and spreading rapidly.

Right now, 1 in 19 people in England have covid—and that's the lowest rate across the UK. In Scotland it's 1 in 16 people, in Wales 1 in 17 people, and in Northern Ireland 1 in 17 people. So it should be no surprise that repercussions are being felt across the health system.

NHS leaders who have been, and continue to be, focused on elective recovery targets, are once again having to divert their attention to rising hospital admissions and the associated disruption caused by covid-19. From the need to find extra beds, to patients having to postpone their procedures, to health and social care staff being off sick with both acute and long covid, and to hospital wards being forced to bring back mandatory mask wearing, the virus continues to disregard our best laid plans. Which raises the question: what exactly is the plan?

Rules of engagement have changed

The NHS is no stranger to cyclical stresses on the system. Pre-covid, we operated the NHS near the top of its capacity in the name of efficiency and affordability, knowing that the extra infections and other demands each winter would put excessive pressure on the system that would hopefully be relieved in the



We need to have grown-up conversations now to face this challenge head-on, together

summer. We could anticipate this cycle, make winter plans, run annual vaccination clinics, in the knowledge that winter would come, but winter would also end, winter viruses and other pressures would recede, and we could use the summer months to get on with recovering, making good progress on waiting lists, and planning for next winter. Covid-19 has changed those historic rules of engagement.

We know that for the foreseeable future covid-19 will recur in waves that are not

ACUTE PERSPECTIVE David Oliver

My pandemic experience is just one of many

rarely write about my personal experiences, but the pandemic has given me the motivation. I'm just one of hundreds of thousands of clinical and care staff who have lived through it all, and my story is no more important than anyone else's. But I'd still like to tell it.

I came into the pandemic already tired from three decades as an NHS doctor working on big, busy hospital wards and the acute medical take, combining it all with many national roles. Ideally, I wanted a break from medicine. I'd seen the reports from China, northern Italy, and the US about the impact of covid. By February 2020—when the chief executive of NHS England, the health secretary, and the chief medical officer were fielding stories from the press—I could see the writing on the wall, despite politicians' desire to play down the scale of the threat and to spread reassurance.

By early March I'd looked after my first patient to die from the virus, at a time when covid tests were still hard to obtain. Over the next four months I was a consultant for an acute "hot" covid ward, where all 28 patients were infected. When on call I also covered "hot" areas in escalation wards, the emergency department, and the acute medical unit.

In those early days we had no vaccine, little evidence about effective treatments, and very variable personal protective equipment (PPE), with confusing and inconsistent advice about its specification. People I worked with were coming to work every day at personal risk and with varying levels of anxiety, not just for themselves but for their partners. I seemed almost blasé about personal risk at the time and enjoyed feeling more useful than at any time since I was a medical registrar—but my wife was worried, knowing I'd be more interested in trying to speak to patients at close hand than worrying about personal protection.

Daily impact

I lost close colleagues and friends to covid, watched many more become sick, and saw the daily impact of covid care on the professionals I worked alongside. Some of their anxiety was about personal risk, but much of it was due to the relentless distress we were dealing with.

Covid affected the training experiences of doctors starting their careers. In debriefings with them and other staff, it was clear that the wider covid restrictions in society and concerns about infecting friends and family left them with few release valves to help their wellbeing.

Most inpatients with covid were not in intensive care but on general wards. With only flimsy PPE, we saw patients in their dozens with prolonged respiratory distress, high oxygen requirements, and other complications such as delirium or severe weakness. They were clinging to life or requiring palliative care. There are always some dying or deteriorating patients on general wards, but it's different when they're the majority.

Because of visiting and travel restrictions we had to spend hours on the phone having awful conversations with patients' distressed family members. One Saturday five of my patients died within 90 minutes, and we had to speak to all of their families by phone.

During the second major wave from December 2020 to April 2021, the peak number of inpatients was twice as high as in the first wave, rising exponentially and rapidly that January. Again I was a consultant for a 28 bed "all covid" ward, for five months. This time we at least had vaccines, a range of evidence based treatments, and a much better understanding of how to manage patients.

But the same pressures and personal risks affected a staff team who were already tired. And isolation rules meant patients were constantly being moved on and off the ward, depending on whether they'd just tested positive or gone 10 days beyond a positive

Department (A&E)



winter-bound and create winter-like pressures for the NHS in random months throughout the year. We know that some variants will tend to be fairly mild, others more severe, but all will mean more disruption and demand for NHS care. This also means health service staff can no longer rely on having time to catch their breath and catch up after a challenging winter.

It means in winter the additional impact of covid-19, without major actions like lockdowns to curb the spread, may lead to pressures that are worse than any seen in previous winters. The rhythms of the NHS will have to evolve accordingly. And if our

health service is to be sustainable in this new "Living with covid" world, the funding and capacity of the NHS and social care, and the new approaches to staff wellbeing and public prevention behaviours must also be maintained.

Politicians' responses

The current Conservative party leadership race will inevitably occupy political discourse this summer. In discussions about the NHS, politicians are likely to oscillate between expansively blaming covid-19 for all the problems faced by the health service and imagining a brave new world where the virus has magically disappeared.

Everyone wants a brilliant NHS. But to achieve that in this new context, we are going to need a serious dose of political honesty, and perhaps even bravery. Covid-19 has brought about a new paradigm, and with it the need for new solutions. There is no benefit in making empty promises about what targets will be delivered and then throwing around blame when they cannot be achieved. The fact of covid-19 needs to be acknowledged and plans

need to be realistic. Yet is society ready to accept an NHS that experiences a version of winter pressures in multiple waves throughout the year? Are politicians ready to accept that this covid-driven Groundhog Day is the reality we currently face? Is anyone willing to take further significant action to reduce the spread?

Our hopes now rest around system working, collaboration, and innovation. To give these processes a fighting chance, the government must prioritise getting NHS estates, equipment, capacity, flow, workforce, and social care capacity into a much stronger position. We know the current cost of living crisis conspires against this ambition. That's why we need politicians and health leaders to be honest with their public and courageous with their policy.

Politicians cannot continue to promise easy solutions, or cheerily proclaim that the pandemic is behind us, and the future is rosy. We need to have grown-up conversations now, face this challenge head-on, together. Anything else would be disingenuous, and not worthy of a vote.

Layla McCay, director of policy, NHS Confederation Cite this as: BMJ 2022;378:01780

test. It's hard to provide any continuity of care in those circumstances—and families were increasingly upset and sometimes hostile about the visiting restrictions.

In the spring 2022 wave I was once again the senior doctor on a designated covid ward. By this stage, anyone who tested positive was moved or admitted to my ward and then, if still an inpatient, moved off again within five days. This meant a frantic churn of patients.

Unsung heroes

Throughout the pandemic response operational and clinical managers have been unsung heroes, doing what they could to flex admission routes, bed bases, ward configurations, and staff roles. They did the best they could as decisions on patient moves and flow affected clinical staff coping with constant change. However, the repeated failings on PPE, staff testing, confused policies and communications, and suppression of staff's concerns are things I find hard to forgive.

After two years of dodging the bullet I then caught covid in March, and, while not sick enough to be admitted, I haven't been right since. Some of my symptoms have doubtless been covid related, but others were due to burnout, anxiety, and depression-eventually leading to my being signed off work sick in mid-May, unsure when I can return to clinical work.

Having been elected as president of the Royal College of Physicians in April, I reluctantly and with great sadness had to withdraw last week. If this has happened to me—a veteran, stress tempered NHS doctor, 33 years in the job, with no long term conditions and previously fairly robust—then few of us are likely to be exempt from the strains of the past couple of years.

The NHS is now battling such a major backlog of elective procedures and pressure on urgent care that this week every ambulance trust declared a major emergency. The service faces huge recruitment and retention issues, with social care pressures and health inequalities further adding to the strife. The timing—with so many staff tired, burnt out, demoralised, or unwell—could not be worse.

and the mood music created by intransigence on terms and conditions won't help. Without sufficient clinical and care staff, in sufficiently good health, and with sufficient support, energy, and morale, there will soon be no viable NHS or social care system.

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If this has happened to me a veteran, stress tempered NHS doctor, with no long term conditions and previously fairly robust—then few of us are likely to be exempt



PRIMARY COLOUR Helen Salisbury

Learning to say no

ost doctors enter their training with a desire to help people. When a patient asks us for assistance, and what is requested is within our power, we generally say yes. If what they want is not safe or evidence based—another home detox from alcohol, or a drug that is blacklisted in our formulary—we have good reasons for declining. When the main reason for saying no is that we are too busy, however, it is far harder. Where do we draw the line with private referrals for cosmetic procedures or letters for school about the need for swimming goggles?

Our ability to say no raises questions of equity and patient safety; as there are not enough GPs to cope with demands, we need to be careful how we spend our time. We should beware of exacerbating the inverse care law, as patients least able to ask are often the ones most in need.

I worry that articulate and demanding patients are more likely to get what they want, partly because it takes more time to argue with them than it does to acquiesce. I am wary of the damage to the patientdoctor relationship that refusal can incur, but prioritising according to clinical need inevitably means saying no sometimes however much we dislike doing it.

If we want to continue to look after our patients safely, we must also start learning to say no in other spheres, politely pushing back against the transfer of work from hospitals to

Helen Salisbury, GP, Oxford helen.salisbury@phc.ox.ac.uk Twitter @HelenRSalisbury Cite this as: BMJ 2022;378:o1781 I worry that articulate and demanding patients are more likely to get what they want

general practice. We need to reply with a reasoned refusal to outpatient letters that end with a request for us to kindly arrange blood tests and an electrocardiogram and then prescribe, titrate, and monitor some specialist drug we know little about.

It is easier to say no collectively than individually. At the practice level, having robust policies about what you will and will not do helps individual doctors prioritise their time. At the local level, we rely on our local medical committees to fight our corner against unsupported transfers of work. We used to have help from clinical commissioning groups too, but it is unclear how effective the new integrated care boards will be in this respect, or how well GPs will be represented.

At a national level, we need to be able to say no with a united voice: in the near future, we expect recommendations on pay from the Doctors and Dentist Review Body, and unless they start to redress the erosion of doctors' salaries (a 22% real terms loss for junior doctors since 2008), our ability to recruit and retain medical staff will fall further. The NHS is understaffed and on its knees and, for the sake of our patients, we must repair this injustice or face losing the brightest and best of the next generation to more promising careers elsewhere.

LATEST PODCAST



Living with diabetes in Ukraine

As the conflict drags on in Ukraine, the population's need for ongoing care for chronic conditions hasn't gone away. This podcast hears about how the situation has unfolded for people with diabetes, particularly those who depend on insulin. Iryna Vlasenko, a patient advocate for people with diabetes who also lives in Ukraine, describes what it was like trying to access medication in those first days after the invasion:

"I was afraid to go out. I run to my fridge and look at how much insulin I have. I'm good for three months so I don't panic. I check my test strips and I go to the pharmacy as I cannot be without them because I have bad hypoglycaemia. One pharmacy was closed, another had a big queue. Of course, many people with chronic conditions are afraid and trying to buy medicine. I'd say around 50% of pharmacies were closed. For around two weeks, there were big queues; people would stay in the queue for three to five hours."

Slim Slama, a unit head for noncommunicable disease management at the World Health Organization, discusses the difficulties of maintaining continuity of care for long term conditions:

"We often need to prioritise what can be managed at the patient level or with limited support through primary care compared with the more specialised types of care. Dialysis, for example, needs to happen in centres and requires a wide range of services. You cannot run a dialysis machine if you have no clean water or electricity. Sometimes there will be a decision about who has to be evacuated. Most of the children with cancer have been evacuated. but most of the adults with cancer are still in the country receiving care; the same is true for dialysis patients. So how do you anticipate those needs and build a system that can cope in the early phase, but also as the crisis continues?"



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

ANALYSIS

How to support people to reach dietary fibre recommendations

Nicola M McKeown and colleagues advocate for the importance of translating the health impact of high fibre diets to patients and clients, with emphasis placed on incorporating a variety of plant based foods to achieve dietary fibre recommendations

ike most other nutrients, fibre is much more complex than it first seems, and most people today fall short of meeting dietary recommendations for this nutrient. Modern day diets are very different to those of our ancestors, which contained substantially more fibre because they consumed a variety of plant based foods. Ancestral humans might have consumed as much as 100 g of fibre daily. Today, adults in North America consume an average of 17 g of dietary fibre daily; intakes are slightly higher in European countries (18 to 24 g a day).

The definition of dietary fibre has evolved from "remnants of plant cells that are resistant to digestion by human enzymes" in the 1970s to the more complex global definition outlined in 2009 by the Codex Alimentarius Commission. Although there have been considerable debates over the past few decades about the terminology and analytical methodology used to define dietary fibre, most definitions now include carbohydrates with three or more monomeric units. This includes some well known prebiotic fibres, such as fructans and inulins. Despite scientific advances in the field, consumer confusion persists, and current intakes of dietary fibre fall short in many populations worldwide.

Different isolated fibres deliver different health benefits based on their physicochemical properties

KEY MESSAGES

- Higher intake of dietary fibre is associated with lower risk of several non-communicable diseases
- Globally, dietary fibre intake is low, and there is a continued need for dietary advice to focus on incorporating a variety of fibre rich foods into one's diet
- Isolated and synthetic dietary fibres have different physiological health effects
- Different types of fibre influence the gut microbiota composition, and changes in composition potentially deliver a diverse array of health benefits



Not all dietary fibres are created equally

Daily recommended fibre intakes and food labels refer to dietary fibre without considering the source, type, quality, or physiological effects. Additional complexity relates to the fact that isolated or synthetic fibres can be added to foods and beverages as ingredients, and the same fibres might have multiple names. Importantly, there are several distinct classes of fibre that deliver different health benefits.⁵ One kev message for consumers and health professionals to understand is that, although all added fibres in foods contribute towards the recommended daily intake, different isolated fibres deliver different health benefits based on their physicochemical properties (solubility, viscosity) and physiological effects (fermentability).

Box 1 | Physiological health benefits attributed to isolated or synthetic fibres

- Lower blood glucose levels
- Reduce postprandial blood glucose or insulin levels, or both
- Lower total or LDL cholesterol levels, or both
- Lower blood pressure
- Improve laxation
- Decrease transit time
- Increase gastrointestinal mineral absorption
- Reduce energy intake via increased satiety
- Favourable modulation of gut microbiota

Soluble, viscous fibres such as oat β -glucan, for example, reduce serum cholesterol and improve glycaemic control, whereas insoluble fibres such as coarse wheat and rye brans have a faecal bulking effect and might promote regular laxation. Dietary fibres are fermentable to some extent, but the degree to which they are fermented varies from low (cellulose, hemicelluloses, wheat bran) to moderate (β -glucans, gums, pectins, resistant starch) and high (prebiotic fibres such as inulin and oligofructose). A common misconception is that all insoluble fibres are entirely non-fermentable, but evidence indicates that the majority of fibres will result in changes in the composition of the microbiota, owing to competitive interactions.

Various authorities have recently evaluated the evidence linking isolated and synthesised fibre intake to physiological benefits for health (box 1). $^{7-9}$

Natural fibre containing foods such as fruits, vegetables, legumes, and whole grains have long been known to deliver health benefits that can be attributable to dietary fibre, the diverse array of nutrients and phytochemicals found in these foods, and synergistic interplay between the two. 10 11 Strong evidence from observational studies shows that populations with a large proportion of plant based, fibre rich diets (vegans, vegetarians) or those whose dietary patterns are characterised as being high in plant foods have greater protection against developing chronic disease. 12 13

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Current recommendations and dietary intakes

Recommendations around adequate intakes of dietary fibre differ around the world and by age group, but 25-30 g or more daily is widely recommended for adults. Recommended intakes were established as those required for maintaining normal laxation and cardiovascular health, although emerging evidence points to benefits extending well beyond these through modulation of the gut microbiota. In Europe and North America, grain based foods are the predominant contributors to dietary fibre, followed by vegetables, potatoes, and fruits, with little contribution from legumes, nuts, and seeds.

Strikingly, a comprehensive overview of dietary fibre recommendations versus actual intakes found that only a small proportion of the global population meets the recommendations for dietary fibre intake. ²¹⁶ Why is this? In most countries, dietary guidelines emphasise foods rather than nutrients, and most people are not meeting the food based recommendations for fruits, vegetables, legumes, and whole grains, thereby falling short of their dietary fibre intake. People are unlikely to understand the type or quantity of individual foods or food combinations needed to achieve recommended dietary fibre intakes. Coupled with this, some consumers do not recognise the contribution of whole grains to fibre intake, and others do not know how to identify wholegrain, compared with refined grain, products. ¹⁷¹⁸ Despite the purported health benefits of dietary fibre, many consumers are eating highly processed, refined grains and too few fruits and vegetables, and some consumers might

Box 2 | Reaching fibre recommendations: eat a variety of plant based foods

- Global recommendations are to increase fruit and vegetable intake, specifically:
 - World Health Organization: at least 400 g (five portions) of fruit and vegetables a day
 - USA: two cups of fruit and 2.5 cups of vegetables for adults on diets aiming for 2000 kcal a day
 - UK: five a day programmme (two fruit and three vegetables of 80 g each a day)



- Meal plans with a target of 2000 kcal daily²⁰ show that adults need to
 eat a variety of whole grains, legumes, nuts and seeds, and fruits and
 vegetables at meal and snack times to reach a target of 30 g or more
 fibre a day
- Refined grain products—now widely consumed but containing low fibre levels—should be replaced with high fibre wholegrain products
- Legumes (pulses) are recognised as a protein source but are often overlooked as a source of fibre, with half a cup of cooked legumes (85 g) containing, at a minimum, 4.5 g of dietary fibre
- Adding one tablespoon of flax or chia seeds to salads or oatmeal will provide an estimated extra 3 g or 5 g grams of fibre, respectively.
- Check nutrition labels to identify fortified high fibre cereals—some wheat or bran based products might have up to 11 g of dietary fibre per serving
- Isolated fibres might be added to food products, most often for technological reasons (such as adding pectin to jam to make it firmer)
- Foods with ≥3 g of fibre per 100 g, ≥1.5 g per 100 kcal, or ≥10% of daily reference value per serving can be named a "good source of fibre." If twice as much fibre is present, they can be called "high fibre."

actively avoid carbohydrate rich foods for the health benefits purportedly associated with low carbohydrate diets.

People in both situations are likely to fall short of meeting fibre recommendations. Examples of food sources of dietary fibre ¹⁹ can help health professionals guide patients on selecting nutritious, carbohydrate based foods with a diversity of dietary fibre types. Advice should emphasise consuming adequate amounts of dietary fibre from various plant foods that are naturally high in fibre (box 2).

Health benefits of fibre

Observational studies show that higher fibre intake has a strong protective association with risk of developing several chronic diseases, including cardiovascular disease, ²¹ stroke, ²² type 2 diabetes, ²³ ²⁴ colorectal cancer ²³ and diverticular disease. ²⁷ In addition, a higher intake of fibre is linked to lower rates of cardiovascular disease and disease specific and all cause mortality. ²³⁻²⁶ Consistent with this, based on two meta-analyses of data from prospective cohort studies, a 15-16% reduced risk of all cause mortality was found among people who consume high levels of fibre compared with those who consume lower levels. ²³ ²⁴ These analyses indicate that daily fibre intakes of 25-29 g are adequate, and intakes greater than 30 g a day would be even more beneficial. ²³

A growing number of people are following elimination diets that exclude fibre rich whole grains, such as "paleo," "keto," and gluten-free diets, and it is important to recognise that these people will lose the protective mechanisms linked to these foods, such as the cholesterol lowering and improved glycaemic control. Observational evidence indicates that higher intakes of fibre from cereal sources (that is, primarily whole grains) seem to provide a greater degree of protection against the development of type 2 diabetes. The observed protective associations are unlikely to be caused solely by the fibre subtypes, but rather arise from the interaction with the gut microbiota or the insulin sensitising nutrients found in whole grains.

Fibre and gut health

The relation between gut microbiota and health has been extensively researched over the past decade. Many aspects of diet have been correlated with changes in microbiota composition, ²⁸ but dietary fibres have been identified as a critical determinant of gut microbiota composition and function. ²⁹ Fermentable fibres have been shown to result in distinct differences in gut microbiome composition and the production of healthful metabolites. More recently, research has shown that differences in gut microbiota composition between people lead to variability in how different fibres are fermented. ^{30 31}

Short chain fatty acids (butyrate, propionate, and acetate) derived from fermentation are crucial to health. ²⁹ These metabolites can not only provide food for the colonic epithelium but can also be absorbed through the epithelium and potentially deliver a wide array of other physiological health benefits throughout the body. ²⁹

In terms of "gut health," short chain fatty acids support the immune system and help provide mucosal protection through enhancement of mucosal secretion and anti-microbial peptides. Decreased diversity in the gut microbiota, in the context of low fibre diets, not only leads to reduced short chain fatty acid production but also to an increase in the amount of mucin degrading bacteria. This might lead to inflammation and make the gut susceptible to pathogenic microbe exposure or proinflammatory and carcinogenic metabolites, potentially leading to an increased risk of colorectal cancer.³³

Fibre and inflammatory bowel disease

The implications of all sources and types of dietary fibre in the development of inflammatory bowel disease (comprising Crohn's disease and ulcerative colitis) remain largely unknown. There is limited evidence to indicate that low fibre diets or eliminating fibre rich foods is therapeutically beneficial for the prevention or management of inflammatory bowel disease. Despite this, people with inflammatory bowel disease reportedly eat less total fibre than the general population, ³⁴ and this might in part be attributed to medical advice to reduce fibre intake. A recent meta-analysis of data from six cohort studies found no protective association between dietary fibre and risk of ulcerative colitis, but greater fruit and vegetable intake led to a 41% reduced risk in developing Crohn's disease. ³⁵

Thus, in terms of prevention, consuming a high fibre diet that includes vegetables, fruits, whole grains, and beans is advisable.³⁶

Colorectal cancer

Based on the review of the scientific evidence, O'Keefe advocated that higher dietary fibre intake, defined as 50 g or more daily, is required to produce sufficient levels of the metabolites that support colonic health and eliminate cancer risk biomarkers in the colonic mucosa. Based on a recent meta-analysis of data from seven cohorts, a higher intake of whole grains, a rich source of cereal fibre, has been linked to a 13 % reduction in the relative risk of colorectal cancer. These findings are supported by a more recently published prospective cohort study with over 15 years of follow-up and >10 000 incident cases of colorectal cancer—only fibre from cereal foods (through a greater intake of whole grains) was inversely associated with colorectal cancer incidence.

Dietary fibre from other sources (fruits, vegetables, and beans) or classified by type (insoluble versus soluble), had similar protective trends in this study but did not reach significance. In this cohort, people with the highest intake of whole grains (1.3 servings (around 20 g) per 1000 kcal) had a 16% lower risk of colon cancer and 24% lower risk of rectal cancer than those with the lowest wholegrain intake (0.2 servings per 1000 kcal).³⁷ The World Cancer Research Fund recently reported that consuming whole grains and foods containing dietary fibre was associated with a lower risk of colorectal cancer.³⁸

Can fibre supplements help fill the fibre deficit gap?

With respect to disease prevention, the first line of defence is to encourage people to meet recommended intakes with an emphasis on foods rather than supplements. For the treatment of disease, there is a lack of evidence to support the use of most isolated fibre types. Recommending effective fibre supplements is complicated, and only a handful of common fibre supplements have clinically shown health benefits. ³⁹ It is important to recognise that some populations find it harder to reach fibre targets.

Older adults, for example, who have lower dietary energy requirements, might need to eat foods with added fibre or take a fibre supplement. Most people, however, should be able to reach dietary recommended fibre intakes through diet, which can provide a variety of fibre types with the properties and physiological health benefits described above, as well as many other important nutrients and phytochemicals that might work synergistically with fibre.

Production of wheat varieties high in fibre that retain the characteristics of white flour offer one strategy to increase fibre intake

Policy suggestions to fill the fibre gap

There is little research focused on strategies specifically designed to increase dietary fibre intake. Fibre is generally listed on processed foods, giving consumers that ability to choose foods rich in fibre. Closing the fibre gap will require consumers to choose recommended foods including fruits, vegetables, whole grains, and legumes. Many public health campaigns have promoted increasing these food groups with limited success. Continued research on strategies to increase intake of these fibre-rich food groups in ways that are appealing to consumers may result in increased fibre intake.

Another strategy is to also target an increase in legume intake, which remains low with typical intakes of less than one serving a day. ¹⁸ Recommendations to make half your grains whole and choose one pulse serving a day are more actionable for consumers. ⁴⁰ Policy changes that could improve fibre intake in the population include providing incentives to manufacturers to increase the availability of wholegrain and legume products, improving labelling (for example, on the front of packets), and increasing consumer outreach and education on the health benefits of fibre.

Recent data from the US indicate that consumers are still purchasing food products that contain substantially more refined grain than whole grain products, particularly those in lower income households or households with children. ⁴¹ Consumer preference towards refined grain products is largely sensory based; thus, production of wheat varieties high in fibre, such as high amylose wheat, that retain the characteristics of white flour offer one strategy to increase fibre intake. ⁴²

Conclusion

The evidence is strong that healthy diets, in which fibre content is aligned with dietary recommendations, are protective against the development of cardiovascular disease, diabetes, cancer, cancer mortality, and all cause mortality. 43

There is universal agreement among health professionals that fibre is an important component of the diet, and the health benefits of high dietary fibre containing diets have been recognised for some time. 44 Many potential mechanisms are recognised to mediate the effects of high dietary fibre on health, either independently or synergistically with phytochemicals and nutrients in the food matrices.

Continued research is needed to examine the mechanisms by which microbial diversity and changes in gut microbiota activity and bacterial enzymes influence health. In the future, experts might consider personalised dietary recommendations based on an individual's gut microbiota composition. ⁴⁵ Increasing intake of dietary fibre is a highly promising nutritional target that might reduce risk of noncommunicable diseases. But there is continued need for healthcare professionals and researchers to emphasise that fibre is a dietary component of public health concern, and there is an urgent need for policy efforts to target increasing dietary fibre intake in the population.

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LETTERS Selected from rapid responses on bmj.com

LETTER OF THE WEEK

Let's not rely on flawed surveys



Structural racism is undoubtedly a serious problem in the NHS, but the BMA's survey is of no value in exploring the issue. It was open to all doctors and medical students in the UK, over 120 000 people. There were 2030 responses, a response rate of less than 2%. The only thing that can be reliably deduced from this kind of response rate is that the responders are atypical of the population being surveyed. It is simply wrong to report this as "the report surveyed 2030 UK doctors" (This Week, 18 June) or "an in depth survey of more than 2000 doctors." It was a survey of 120 000 doctors (and medical students), of whom only 2030 responded.

There was almost certainly a substantial amount of response bias. Our many colleagues who have experienced discrimination are surely far more likely to have responded than those who have not.

A more honest report might have read: "When asked about their experience of racism in the NHS, 1.5% (76% of the 2030 respondents, expressed as a proportion of the total asked) reported that they had experienced racism in their workplace in the past two years." Stating the results in this form shows how totally inadequate the survey was in terms of giving a clear picture of the extent of racism in the NHS. None of the eye catching headlines based on it can be justified.

Relying on survey results that do not stand up to scrutiny does the BMA, its members, and in particular our colleagues from ethnic minorities a great disservice. Let's acknowledge the racism that exists in the NHS, let's research it and publicise the results, and let's fight to get rid of it. But please, let's not rely on such terribly flawed surveys to do so. Jeremy Wight, retired public health physician,

Cite this as: BMJ 2022;378:01752

RESET FOR CAMPAIGN AGAINST TOO MUCH MEDICINE

More to Illich than overtreatment

Abbasi quotes Ivan Illich: "The medical establishment has become a major threat to health" (Editor's Choice, 18 June). The revival of interest in Illich's work is welcome, but there is a danger that only the parts endorsed by the medical world are discussed.

The genuine radicalism of Illich's work lay in his wider questions about the social and cultural damage that resulted from medical imperialism. Illich was critical of the way in which biomedicine promoted the idea that a good society was defined purely by the health of its people in terms defined largely by the medical profession. The result was a culture that was losing its capacity to deal with pain, suffering, and death.

We saw this in the ways that the collateral societal harms of the management of the covid-19 pandemic were dismissed as unworthy of consideration, and the cult of zero infection skewed debates over non-pharmaceutical interventions and childhood vaccination.

Robert Dingwall, consulting sociologist, Nottingham

Cite this as: BMI 2022:378:01716

Too much healthcare

"Too much medicine," is ambiguous. Medicine means "the science or practice of the diagnosis, treatment, and prevention of disease." But in that sense the word is sometimes used to differentiate medicine and surgery. And medicine can also mean a drug. But all forms of medical practice are potentially harmful as well as potentially beneficial.

We have too much of (almost) everything:

- Too many diagnostic tests (if used inappropriately)
- Too much technology (enabling too many tests)
- Too many guidelines (if used inappropriately)
- Too many "diseases" (inappropriate labels)
- Too many biomarkers (incomplete understanding of how to use them)
- Too much monitoring (if used inappropriately)
- Too much therapy (if used inappropriately)
- Too much cost (too little money)
- Too much enthusiastic hype (too little reproducibility)
- Too much poor science
- Too much licensing of medicinal products

Perhaps the term we want is "too much healthcare"?

Jeffrey K Aronson, consultant physician and clinical pharmacologist, Oxford Cite this as: BMI 2022:378:01736

Doctor-patient relationship is essential

The available antidotes to "too much medicine" struggle to keep pace with the commercial pressures driving overdiagnosis and overtreatment. How we regard patients is crucial. Medical language and unhelpful attitudes can cause patients to feel disengaged and disempowered. Positive, mutually respectful doctor-patient relationships foster the therapeutic alliance and sensible decision making.

Distortion of the evidence base by commercial bias is a barrier to doctors and patients accessing relevant, balanced information. Direct-to-consumer advertising compounds the problem, causing patients to request inappropriate investigations or treatments. Effective medical responses need to be individualised and rely on a trusted clinical relationship.

Developing flexible and respectful attitudes should be a fundamental goal of medical education, including the communication skills required to understand and effectively respond to patients' narratives. Doctors who have cultivated such skills will find it easier to foster informed choices in favour of high value interventions and away from those with unacceptable risks of overdiagnosis, overtreatment, and harm.

David B Menkes, academic psychiatrist, Hamilton; Nicholas R Hoeh, academic psychiatrist, Auckland Cite this as: *BMJ* 2022;378:01750

DIAGNOSING PROSTATE CANCER IN ASYMPTOMATIC PATIENTS

Expert wisdom is not evident

Bradley and colleagues discuss the uncertainties and resource implications around prostate cancer screening (Editorial, 4-11 June). They mention NHS England's ambition to "find" the 14 000 missing cases of prostate cancer but not that this has resulted in a requirement in the 2022-23 directed enhanced service contract for primary care in England.

The recommendation makes no sense and is so vague as to be near meaningless. Perhaps it is the result of a desire to reduce prostate cancer mortality without the clinical mechanism to do so. We are concerned about what this will mean in practice. Patients will be encouraged to seek out a screening test which is more likely to do them harm, and primary care resources will be wasted for uncertain benefit.

We call for a review of this contractual requirement. We need further national investment in local health system analytics to allow real time cancer surveillance.

Sharon Dixon, GP partner; Julian Treadwell, NIHR doctoral research fellow and GP; Patrick James McNally, GP; Brian D Nicholson, GP NIHR academic clinical lecturer, Oxford

Cite this as: BMJ 2022;378:01705

Asymptomatic patients need PSA tests

Bradley and colleagues reiterate outdated uncertainties around prostate specific antigen (PSA) based screening for prostate cancer and fail to mention advances in clinical practice.

The UK National Screening Committee advises a shared decision based on informed choice, but surveys indicate that most GPs have not been equipped to provide balanced counselling and many refuse to provide PSA tests.

PSA based screening studies, running for up to 20 years, show halved prostate cancer mortality, and national screening programmes have been recommended to the European Commission based on clear evidence that the benefits outweigh the harms.

UK charities estimate they will perform 40 000-50 000 programmed, risk based PSA tests this year and the statistics accrued will be used to show that screening is beneficial,



cost effective, and can be provided at scale in the UK. Meanwhile, diagnosing prostate cancer at an early, curable stage means providing PSA tests to asymptomatic patients.

Christopher M Booth, clinical director, CHAPS; Frank Chinegwundoh, consultant urologist, London; Stephen Allen, acting chair, Tackle Prostate Cancer; Hendrik Van Poppel, chairman, EAU Policy Office

Cite this as: BMJ 2022;378:01714

Authors' reply

We thank Booth and colleagues for their comments. We agree that MRI has been an important development, reducing the need for biopsy with its associated harms. We did not offer an opinion on whether a programme of prostate cancer screening should be instituted—the evidence we cited indicates that the prospect of such a programme resulting in overall benefit is questionable.

We think that policy and practice in this area are best set by bodies such as the UK National Screening Committee and NICE. We are concerned that efforts to increase uptake of PSA testing in asymptomatic patients seem inconsistent with existing guidelines and policy and that this presents challenges for GPs and patients. We are unconvinced that the resource implications of such a strategy are justified, as such additional workload limits the capacity to deliver care with established benefit for patients, such as prompt diagnosis of symptomatic cancers and facilitation of approved screening programmes.

Stephen H Bradley, clinical research fellow and GP, Leeds; Garth Funston, NIHR academic clinical fellow, Manchester; Daniel Jones, NIHR academic clinical lecturer, Leeds; Jessica Watson, NIHR academic clinical lecturer, Bristol Cite this as: BMJ 2022;378:01719

INHALED ANAESTHESIA AND CLIMATE CHANGE

Withdrawing anaesthetic comes at a cost

Sherman and Chesebro provide strategies for reducing inhaled anaesthetic pollution (Editorial, 18 June). For many, anaesthesia is little more than the flick of a switch for consciousness. But this is to misunderstand the way that anaesthetists exploit the pharmacological and physical characteristics of different anaesthetics and attempt to match them to the needs of patients. Many anaesthetists have already stopped using desflurane and nitrous oxide, but this has come at a cost, albeit modest, to some patients, and has effectively been without their sanction, knowledge, or bidding.

Withdrawal of all volatile anaesthetic agents, and a move to the exclusive use of propofol, would seriously limit the options available to patients, particularly women and children. Further restrictions should be made only with the fully informed consent of society.

There is little more important than saving the planet for mothers and children of tomorrow—other than providing high quality care for the children and mothers of today.

Mark W Davies, consultant anaesthetist, Liverpool Cite this as: *BMJ* 2022;378:o1722

Take drug shortages into account

Sherman and Chesebro highlight the need for regulation and accountability around decarbonising healthcare. Many hospitals, including my own, have withdrawn desflurane from circulation because of its contribution to greenhouse gases, resulting in a change in practice. Volatile gas consumption can further be reduced by using total intravenous anaesthesia, in which a combination of infused drugs, rather than inhaled gases, maintains anaesthesia. Currently, however, there is a national disruption to the supply of remifentanil, one of the main drugs needed for this technique. Trusts have been told to "preserve supplies of remifentanil use for priority indications," to be agreed locally.

Local contingency plans, to be actioned in the absence of remifentanil, propose the use of volatile anaesthesia. Patients rightly expect high quality anaesthesia and analgesia, and any regulatory framework must take the shortage of drugs required to continue to deliver anaesthesia into consideration.

Jacquelyn K Lewin, consultant anaesthetist, Wolverhampton Cite this as: *BMJ* 2022;378:01749

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OBITUARIES

Charles Keith Anderson

Consultant histopathologist Leeds General Infirmary (b 1925; q St Andrews, 1948; FRCPath), died from frailty of old age on 7 June 2022 Charles Keith Anderson ("Keith") was a major



figure in local cancer medicine in Leeds and Yorkshire. Following junior hospital appointments he joined the department of histology at Leeds General Infirmary. After national service where he acted as a major in charge of the army serology, he entered the department of pathology at the University of Leeds and the General Infirmary and was promoted to senior lecturer and consultant in 1963. He spent over two years as acting head of the department and after retiring in 1990 and the death of his wife, Diana Jane Haiste (former medical officer, Pontefract), he spent 18 years as a guide and explainer at the National Railway Museum, York. He leaves four children, 11 grandchildren, and one great grandchild. **John Anderson**

Cite this as: BMJ 2022;377:o1524

Ian Norman McCulloch

GP Dumbarton (b 1929; q Glasgow, 1952; MRCGP), died from pneumonia and Parkinson's disease on 11 February 2022 lan Norman McCulloch's parents, Joseph and Marjorie (née Harris),



were both doctors. Having been evacuated to Ayr for part of the second world war, on leaving school in Glasgow Ian had to choose between music and medicine. He served in Germany with the Royal Army Medical Corps in 1953-55, before joining his father's practice in Dumbarton, where he served until retirement. He married Vera, a South African nurse and midwife, in 1962; they moved to Cardross in 1968. Ian is remembered for his love of his family, his generosity, his enthusiasm for hillwalking in Scotland, his enjoyment of music, his interest in history and literature, and his quiet Christian faith. Ian leaves Vera; three children (a PICU nurse, a church minister, and a police officer); and nine grandchildren.

Alen McCulloch, Kirsteen McCulloch Malcolm McCulloch Cite this as: *BMJ* 2022;377:01539

James Irvine Currie

GP (b 1925; q Leeds 1950), died with vascular dementia on 5 December 2021 James Irvine Currie ("Jim") underperformed at school so needed to take first MB. This was



fortunate as it led to his being in the same year group as his future wife, Peggy. He met her in November 1944 and they married in April 1951. Jim was a partner with the Tinshill and Croft (now Ireland Wood and New Croft) practice in Leeds for 30 years and then senior partner until his retirement in 1990. The practice states that he will be remembered by longer standing patients as a caring and charismatic old style GP who served the community of Cookridge devotedly through his career. Predeceased by Peggy in 1999, Jim leaves two daughters, one son, four grandchildren, and four great grandchildren.

D C Currie

Cite this as: *BMJ* 2022;377:o1522

Ernest Theodore Roberts

GP Portsmouth (b 1925, q Cambridge/London, 1947; MA), died from a metastatic adenocarcinoma of the small bowel on 21 January 2022



Ernest Theodore Roberts ("Theo") studied medical sciences at St John's College, Cambridge, and clinical medicine at St Thomas' Hospital, London. After qualifying he took up a house physician's post at St Thomas' before doing national service in the Royal Air Force in Germany. On returning to England he went into general practice as a locum in Dudley, in the Black Country, before a general practice partnership came up in Copnor, Portsmouth. His career there spanned the first 40 years of the NHS. Outside medicine, he enjoyed sharing his enthusiasm for nature and conservation. He was a great host and held a strong Christian belief. He celebrated his diamond wedding anniversary in 2020. He died at home, leaving his wife, four children, and nine grandchildren.

Mark Roberts

Cite this as: *BMJ* 2022;377:o1540

Duncan Alexander Maclean

Surgeon (b 1939; q Edinburgh, 1964; FRCS Edin), died from adenocarcinoma of the lung on 14 April 2022 Duncan Alexander Maclean was appointed as resident consultant



surgeon at the Lewis Hospital in Stornoway in 1978. He was singlehanded for 20 years and while on the island was always on call. In order for him to be able to leave the islands, locums were often deployed from the senior registrars at the department of surgery at Glasgow Royal Infirmary and found the experience invaluable. With the opening of the new Western Isles Hospital in 1992, he gradually gained consultant colleagues. Duncan also took his practice across the Outer Hebrides. Charitable and missionary work were of enduring importance throughout Duncan's life. Duncan leaves his wife, Annabelle; three children; and six grandchildren.

Andrew Maurice

Cite this as: *BMJ* 2022;377:o1537

Benjamin Jon Tinsley

Surgical trainee (b 1980; q Barts and the London School of Medicine and Dentistry, 2010; MRCS), died in a single vehicle road traffic collision on 21 March 2022 Benjamin Jon Tinsley



("Ben") embarked on general surgery training in 2018. He was a senior surgical registrar at Morriston Hospital, Swansea. His career included general, vascular, colorectal, and transplant surgery. He had an exceptionally friendly personality, giving him the ability to talk to, and put at ease, just about anybody. His warmth and compassion were reflected in his calm, friendly, and reassuring bedside manner; putting patients at ease during times of immense stress and anxiety. Ben was passionate about sport: supporting Wales in anything. He possessed infectious humour, family commitment in abundance, and huge surgical talent, all of which will be missed. He leaves his long term partner, Katie; two daughters; his two younger brothers, and his parents.

Tim Stride, Alistair Snape, Katie Seymour Cite this as: *BMJ* 2022;377:01541

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OBITUARIES

James Malone-Lee

Innovator in the research and treatment of urinary tract infection

James Gerard Malone-Lee (b 1951; q St Thomas' Hospital, London, 1975; MRCS Lond, MRCP (UK), MD Lond, FRCP Lond), died from metastatic cancer on 20 February 2022

James Malone-Lee pioneered research and treatment into chronic urinary tract infection (UTI) and was seen as the "last chance" for thousands of patients in pain who were failed by standard diagnosis and care.

Before they met him, many had been told they could not be treated or that their symptoms were caused by stress or were imaginary, says Carolyn Andrew, director of the Chronic Urinary Tract Infection Campaign (CUTIC). Malone-Lee inspired the founding of CUTIC and enabled patients to feel they were being heard and taken seriously, she says. "He advanced global understanding

of this neglected, debilitating condition, proving that it can be treated. He gave patients their lives back."

Experimental approach

But his experimental work was challenged in some quarters, with concerns raised over long term antibiotic prescriptions for patients with chronic UTI. That was "very controversial," says Rajvinder Khasriya, a consultant urogynaecologist and close research colleague of Malone-Lee, who is continuing his work with others including Malone-Lee's son, Matthew, a GP.

"It was not the done thing, traditionally, in UTI, but there's been a sea change in this field. What we proposed 10 years ago—that we are not detecting urine infection quickly enough and therefore missing it—is now almost becoming mainstream."

Malone-Lee, who was emeritus professor of medicine at University College London, studied the pharmacology, biomechanics, and physiology of urinary incontinence. He established NHS and private clinics for lower urinary tract symptoms (LUTS) from the 1980s at Whittington Hospital and later in Harley Street after he retired from the NHS in 2018. He published nearly 200 peer reviewed research and clinical studies, and a book, Cystitis Unmasked, in 2021.

Many of his patients described terrible symptoms having had chronic UTI for years.

Malone-Lee maintained that urine dipsticks are not good at picking up infection that can occur when bacteria become embedded in the bladder lining while urine culture is also flawed. Instead of relying on culture tests, his laboratory developed a treatment regimen informed by the patient's symptoms and the presence of white blood cells in their urine, which are normally indicative of an infection.

"He treated patients with antibiotics because they had a urine infection from their history and detected on the micography. When he stopped the infection would come back, and we'd start again," says Khasriya. "He was able to collect all of these data because of the way he had programmed his own database. From that we would understand that we needed to treat people with a full dose of antibiotics for over a year for a chronic infection."

A 10 year patient research study carried out on 624 women at the LUTS clinic at the Whittington Hospital was published in 2018. Most women reported their symptoms got better after being prescribed antibiotics—such as cefalexin, nitrofurantoin, or trimethoprim—along with the urinary antiseptic methenamine.

But there was one serious side effect that led to the clinic's temporary closure by Whittington Hospital NHS Trust in 2015. But it was reopened after a High Court campaign by patients, to the relief of Malone-Lee and his team.

Wide support

Malone-Lee qualified from St Thomas' Hospital, London, in 1975 and served with the Royal Army Medical Corps until 1981, including in Northern Ireland.

He grew up with a love of magic tricks—later joining the Supreme Magicians Club of Great Britain—and performed an annual Christmas magic show for patients in his first NHS posting at St Pancras Hospital.

Malone-Lee, or the "Prof" as he was known to many, was deeply committed to teaching and clinical skills, and known for his integrity in calling out injustices and supporting trainees, say colleagues.

In 2014 he supported an obstetric surgeon who was acquitted of performing female genital mutilation and gave evidence in court against the "shameful" prosecution (www.bmj.com/content/350/bmj. h703/rr-6).

At the request of patients and friends a charitable donation site has been set up. An annual James Malone-Lee Memorial Lecture has been established.

Malone-Lee leaves his widow, Jenny, and two children.

Matt Limb, Croydon limb@btinternet.com Cite this as: BMJ 2022;377:0937

