> Some doctors said the burden of completing appraisal paperwork was a deciding factor in their retirement

NO HOLDS BARRED Margaret McCartney

We must look at revalidation harms

The UK Medical Revalidation Collaboration (Umbrella) has reported on the impact of introducing revalidation.

"Expecting appraisers to consistently evaluate doctors' fitness to practise, based on appraisal, is unlikely to be reliable," it says, adding that, "if the main impact is simply to document professional practice it might explain the significant concerns expressed about the time and resources required, with frequent statements in interviews and survey responses that it took doctors away from their patients."

Contrast this with Health Education England chair Keith Pearson's 2017 review of revalidation. He wrote that most doctors find revalidation "a valuable means of assuring the public that doctors are keeping themselves up to date and safe to practise."

No doctor should fail to accept the need to keep up to date and to consider the ability to practise. But we risk offering false reassurance to ourselves and to the public when we rely on such a fallible system.

The problem with appraisal is that it is two edged. It's the only route to revalidation and a licence to practise. Doctors should know this before embarking on it. Other appraisers see it as as "an opportunity for a doctor to talk about their stresses, one could help them with that, and, therefore, prevent their stress then causing harm to a patient later on." How sure are we that this is possible? It sounds like an overstated claim.

Appraisal is not an occupational health assessment, and nor is it a venue where the systemic stresses on doctors are collected, analysed, and dealt with. Appraisers are not qualified to make a judgment on whether their appraisees' health is affecting their ability to care for their patients. This is a role for the doctors' own doctor.

What is missing from implementing revalidation is any cost effectiveness judgment and a systematic examination of the harms. Hundreds of people are now employed in the appraisal process, doctors are paying private companies hundreds of pounds to generate their patient feedback, and we're all being asked to give anonymous feedback on colleagues. This means that other things in our personal or professional lives are not being done instead.

I wrote about the lack of evidence for appraisal a couple of years ago. The emails I received in response made me aware of the harms done by bullying "feedback," as well as doctors who said that the burden of completing appraisal paperwork was a deciding factor in their retirement.

We need our older doctors in practice—not just to do the most important work of seeing and treating patients but also to provide a ballast of experience, to know when we're about to repeat follies that have previously failed.

We need a far more flexible approach to revalidation, and the General Medical Council must consider the harms of defending a system that cannot provide the assurance it wants to see.

Margaret McCartney is a general practitioner, Glasgow
margaret@margaretmccartney.com Twitter: @mgtmccartney

Cite this as: *BMJ* 2018;361:k2323

PERSONAL VIEW Eugene Milne

The transfer of public health from the NHS offers hope that change can bring benefits

Five years after local authorities took over public health commissioning there is cause for optimism that structural alternatives can work

This spring marked five years since responsibility for public health was transferred from the NHS to local authorities in England. An Association of Directors of Public Health survey found 67% of respondents agreed that the move had weakened the relationship between public health and the NHS.

A recognised feature of the transfer, however, has been improved quality of commissioning. That many services are now delivered more cost effectively shows that reduced funding is not necessarily a service cut. For example, my own council (Newcastle upon Tyne) spends around half as much on stop smoking services as at transfer, but had an increased rate of supported quitters in 2016-17.

Perversely, the centrally imposed, counterintuitive, and ultimately counterproductive cuts to the public health grant have a been a driving force behind improved commissioning. Tighter specification of process and outcomes and more disciplined procurement have buffered us—but there is a limit to better commissioning. Many would argue it was passed some time ago.

At times, there is a palpable sense of outrage that councils should choose to do other than what was done before 2013

Moreover, for services with a long term, cumulative effect, the calculus of commissioning, with its emphasis on short term, institutionally specific returns, makes little sense. Standard NHS economics fails in this context.

Burden of austerity

Councils are not immune to these pressures, but have the enormous additional burden of austerity. It seems more forgivable to question the value of obesity services when the alternative is closing children's centres.

Ironically, the departure of public health has driven NHS England to attempt a kind of re-invention of the discipline. Having, encouragingly, talked up prevention in the *Five Year Forward View*, its approach has yet to reach first base. In establishing a diabetes prevention programme, for example, it opted for top down commissioning—often with no local presence—rather than building upon community assets and social value. NHS confusion over public health reached its apotheosis in its court case over pre-exposure prophylaxis (PrEP) for HIV. PrEP, it argued, was prevention and public health, and therefore not its business. The court said otherwise.

Part of the NHS reaction may be a backlash against clinical perceptions of budget raiding by local authorities. Despite the Health and Social Care Act clearly stating that local authorities should determine the best interests of their communities, the NHS seems surprised when they do so. At times, there is a palpable sense of outrage that councils should choose to do other than what was done before 2013.

At least 80% of 20th century mortality reduction resulted from factors other than healthcare. Yet society remains persuaded we are on

ACUTE PERSPECTIVE David Oliver

"Ghost wards" show the need for official safe staffing levels

In April the *Guardian* reported NHS England figures showing that hospitals were "mothballing" at least 82 wards containing 1400 empty beds. There simply weren't the staff to keep them viable, so they became "ghost wards."

In March the Faculty of Intensive Care Medicine had reported that most intensive care units are regularly forced to transfer patients to other facilities, partly because they can't safely provide the nurses needed to staff their full bed base and keep beds open. And the BBC reported in February that hospital corridors are increasingly used in effect as emergency wards. One in nine advertised NHS nursing vacancies is unfilled, and nurses often have to soldier on while several colleagues are missing from shifts.

The failure of national leadership around safe nursing levels has meant ducking the issue of formal guidance on nurse-patient ratios and skill mix. Decisions have been devolved back to local managers, and we've seen no consistency in developing well evidenced guidance on safe staffing.

I realise that the number of staff you need can flex a bit. But local

We can consider how many doctors we need at each grade to look after a particular number of patients

nursing directors do set local target nursing numbers for each shift and clinical area. When it comes to my fellow acute hospital doctors, working with now endemic rota gaps and unfilled posts, I don't see even these protections existing. The case of Hadiza Bawa-Garba and the GMC's response focuses the mind on the implications of having no such protections.

Gaps or not, general hospitals must keep on absorbing front door demand: they must keep looking after admitted patients, however many pile in. Numbers can reach

the threshold of a new era in which medicine drives that progress, while non-clinical factors continued to make most of the running.

Public parks

A senior NHS colleague told me parks are not an appropriate public health spend. The King's Fund disagrees, as does, one must assume, NHS England, unless its planned "Healthy New Towns" are to be parkless (replaced, perhaps, by diabetes prevention centres).

Local authority public health will get tougher with business rate retention and loss of the ring fenced grant. No one is clear how the former will operate, and the latter divides opinion. If some authorities take public health more seriously than others, avoiding inequalities will be a challenge. Yet we should not stifle the creativity that local accountability can bring.

The NHS reorganisation by stealth that has morphed from Sustainability and Transformation Plans to integrated care systems (ICS) needs to acquire the local support that it currently lacks. The NHS cannot claim local engagement without genuine local responsiveness. Local authorities are a natural vehicle for this, with a legitimacy that the NHS lacks. The pace of change in public service configuration rarely awaits evidence but, if we are to move towards an ICS system, the terms need to be subject to open discussion. Local authorities have a key role to play in this.

The experience of public health in local authorities forms a basis for some optimism. Where it works, it works well. At a time when it is increasingly recognised that if we do the same things as we have always done, we will get the same results we always got, the transfer of public health suggests alternatives are possible.

Eugene Milne is director of Public Health for Newcastle, Newcastle upon Tyne
eugene.milne@newcastle.gov.uk

Cite this as: *BMJ* 2018;361:k2330

a tipping point, the situation can become unmanageable, and serious corners can end up being cut.

Closing down bays or wards is rarely used to help doctors in these situations. Quite the reverse. The solution is often to burden them with more outlying patients or open more beds in extra clinical areas.

It's surely time to set down a formal marker of safe staffing levels. We need to do this for patient safety and because of the risk of doctors facing regulatory action, damaging their own health, undermining their own training, or disappearing from the workforce.

We can consider how many doctors we need at each grade to look after a particular number of patients with a certain level of acuity and dependency. We can set all the markers we like for a safe ratio of doctors to patients. These numbers may not be achieved, just as target nursing numbers are often not practicably filled.

But surely there's an urgent case for setting these numbers out clearly—and for regulators to make it clear what safe staffing numbers look like. It may just focus the mind.

David Oliver is a consultant in geriatrics and acute general medicine, Berkshire
davidoliver372@googlemail.com

Cite this as: *BMJ* 2018;361:k2322

BMJ OPINION Jeff Smith

Medical cannabis: the UK must not be left behind

Regardless of what you may have heard, politicians rely on experts. The evidence we hear from specialists informs and empowers us to make our case in parliament by persuading colleagues and holding the government to account.

The campaign for legal access to medical cannabis is no different. Stripping away the myths and the stigma associated with cannabis demands rigorous evidence from experts who work in the field every day. Changing the perception of cannabis from a recreational drug to a medicine, and its users from criminals to patients, is a key challenge we face as MPs. The evidence built by patients' groups, pharmaceutical companies, and others will be crucial in challenging the government's mantra that cannabis has "no medical benefit."

For too long, there has not been the parliamentary interest to drive this matter forward. Cannabis has struggled to make it to the top of MPs' priority lists and the fear of media backlash has kept many would-be advocates silent. However, I believe that is changing. Over the past two months, the UK has been moved by the case of Alfie Dingley. Alfie is a 6 year old boy who suffers regular, life threatening seizures. The fact that he cannot access a drug that his parents know works has shocked many here in parliament.

Alfie's case has brought to light the human cost of UK policy on medical cannabis. For those with little or no connection to wider drug policy debates, his case has transformed medical cannabis from a peripheral matter concerning a marginalised group of activists, to a mainstream issue faced by families across the country.

Stripping away the myths and the stigma demands rigorous evidence

As the campaign continues in the UK, the world moves around us. An increasing number of countries, 14 at last count, and 30 US states have responded to cases just like Alfie's by permitting the use of cannabis based drugs for patients with epilepsy, multiple sclerosis, and other conditions that have proved resistant to other drugs. Argentina, Denmark, Israel, and countless others have made the move. Even Utah, home to the headquarters of the Mormon Church and led by ultra-conservative senator Orrin Hatch, has allowed terminally ill patients to access medical cannabis and will vote on wider reforms later this year.

Month after month, global momentum behind this issue grows. Paired with a growing grassroots movement for change at home, the UK finds itself at a crossroads. We must make sure we take the right path.

Jeff Smith is Labour MP for Manchester Withington and the co-chair of the All Party Parliamentary Group on Drug Policy Reform, a cross-party group advocating for evidence based drug policy

ANALYSIS

WHO financing: how tied contributions are holding it back

Conditions on donations make the agency's job harder, say **Charles Clift and John-Arne Røttingen** in the wake of last week's World Health Assembly in Geneva

If the World Health Organization is to become more effective it needs to have greater flexibility on how it spends its funding. This is the argument that the organisation's director-general, Tedros Adhanom Ghebreyesus (right), has made repeatedly since taking office in July last year. Speaking at the WHO executive board meeting in January 2018, he said: "If we continue to operate under the same funding restrictions, we will produce the same results. No organisation can succeed when its budget and priorities are not aligned."[1] In his opening speech at the 71st World Health Assembly he reiterated the call to reduce earmarking and avoid internal competition for donor funding.[2]

Currently around 80% of the funds WHO receives are earmarked for projects specified by the donor (box). The result is that many of its programmes are seriously underfunded, including those for non-communicable diseases and maternal and child health.[3] Tedros is not necessarily asking for more money, but he believes the current system hampers WHO in meeting its members' aims. The reliance on voluntary contributions means fundraising is essentially devolved to individual departments and offices within WHO, stopping the organisation from operating as a coherent whole. The individual departments inevitably become more accountable to their external donors, who provide most of their funding, than to the management and leadership at WHO.[4] As Tedros said last year: "By not working together we lose the synergy that is gained through joint working. But also, what one department does can actually undermine what another is trying to achieve."[4]

Rise of tied contributions

Total contributions to WHO have more than doubled since the turn of the century, largely as a result of the rapid rise in voluntary contributions by both member states and non-governmental organisations. However, assessed (unearmarked) contributions have risen by less than 14%, representing a fall in real terms. In the past decade, the proportion of unearmarked funding available to the WHO has fallen as a proportion of total contributions from 36.5% in 2008-09 to 21.4% in 2017.

Assessed contributions to WHO are based on the UNs scale of assessments, which is revised every three years. The assessments are predominantly based on total and per capita gross national income (GNI).[5] WHO implemented a new UN scale in 2017, which shifted the burden of financing slightly from high income to upper middle income countries (table). As a result, even with the 3% increase to be implemented in 2018, many high income countries will be paying much less in assessed contributions than they were in 2016. For example, the UK's assessed contribution was $24.1m (£18m) in 2016 but will be $21.4m in 2018. By contrast, Argentina's contribution increases from $2m in 2016 to $4.3m in 2018. Nevertheless, the system remains highly progressive in relation to per capita incomes. In 2017, low income countries share of contributions was just 20% of their share of global GNI compared with 119% for high income countries (table).

The position for voluntary contributions is rather different. Although the numbers are not large, low income countries counterintuitively contribute the most in voluntary contributions relative to their GNI (table). This is because donor funds are "passed through" WHO. Thus in 2015, the three countries hit by Ebola in west Africa together donated $36m. Among the lower middle income countries, Pakistan and Nigeria donated over $30m in 2017, which represented donor funding for polio eradication. Thus, for these countries, voluntary contributions are a misnomer.

KEY MESSAGES

- A shift to tied voluntary donations in recent years means WHO is unable to control how 80% of its budget is spent
- WHO thus cannot give required attention to global priorities such as non-communicable disease and universal health coverage
- Resistance to making non-earmarked contributions is high
- Contributions of middle income countries and many higher income countries are low as a proportion of their share of world income
- WHO must persuade countries to provide more flexible funding for neglected priorities

PETER KLAUNZER/SHUTTERSTOCK

WHO financing

WHO has always been funded by a mix of mandatory assessed contributions from member states and voluntary contributions from member states and other non-state organisations.

The proportion of WHO's income coming from assessed contributions, which have no conditions on spending, peaked in the 1960s at about two thirds as a result of rapidly rising assessed contributions, including from newly independent member states. Subsequently, leading UN contributors began to refuse to increase assessed contributions, although in the mid-1990s about 45% of WHO's income still came from that source.

Since 2000, WHO's income has more than doubled, almost entirely based on voluntary contributions. Over 95% of voluntary contributions in 2017 were earmarked for particular projects and programmes decided by the donor.

While member states in the WHA now agree a budget envelope covering 100% of WHO spending, the WHO secretariat can directly control the allocation of only the proportion that comes from assessed and unearmarked contributions (about 20%). A paper submitted to the 2018 WHA notes that 10 of WHO's programme areas receive 80% of all voluntary contributions while 14 programme areas receive less than 2%

In addition to these systemic problems, hanging over WHO is the impending eradication of polio. Nearly 20% of WHO staff (about 1300) have been funded by this programme, financed almost entirely by voluntary contributions, and a further 6000 people are on non-staff contracts. Polio's will leave a large hole in WHO's budget and its capabilities. Planning for this eventuality is occurring but it is not clear how this hole can be filled.

Bill Gates's foundation contributed more than 13% of WHO's budget in 2016-17

The voluntary contributions of upper middle income countries are surprisingly low. Although these countries create 27.5% of global GNI, they account for only 2.1% of voluntary contributions. They are the only country income group where voluntary contributions are lower than assessed contributions—in fact, less than one quarter of assessed contributions (annual average for 2015-17, $89m *v* $21m).

Pakistan and Nigeria donated over $30m in 2017, which represented donor funding for polio eradication

Challenges of voluntary contributions

The top 20 voluntary contributors to the WHO are responsible for about 80% of all voluntary contributions (table), with the remainder coming from about 210 contributors. This large number of contributors creates a huge administrative and management burden. Not only that, but each donor splits its earmarked contributions into different grant agreements. The top 10 member state contributors and the Bill and Melinda Gates Foundation have more than 1000 agreements. The remaining 200 or so contributors are responsible for a further 2000. Non-state organisations provide no unearmarked contributions— they only contribute to the WHO for specific purposes of their choosing.

Annual average member state assessed contributions ($m) and gross national income in 2015-16 and 2017

Country category	2015-16 contribution (% share)	2017 contribution (% share)	2016 gross national income (% share)	Assessed contribution/ gross national income	
				2015/16	2017
Low income	0.4 (0.1)	0.5 (0.1)	0.5	0.18	0.20
Lower middle income	9.3 (1.9)	11.3 (2.4)	8.2	0.24	0.29
Upper middle income	82.3 (17.2)	103.2 (21.6)	27.5	0.63	0.79
High income	387.2 (80.8)	363 (75.9)	63.9	1.26	1.19

Data from WHO financial reports (http://apps.who.int/gb/index.html) and World Bank[67]

Annual average member state voluntary contributions ($m) by income group

	2015-17 contribution (% share)	2016 gross national income (% share)	% share contribution/ gross national income
Low income	18.5 (1.9)	0.5	3.5
Lower middle income	72.4 (7.3)	8.2	0.9
Upper middle income	21.2 (2.1)	27.5	0.1
High income	881.6 (88.7)	63.9	1.4
Total	993.7 (100)	100	1

Data from WHO financial reports (http://apps.who.int/gb/index.html) and World Bank[67]

Member state voluntary contributions are not well correlated with their assessed contributions. Some member states, such as the UK and Norway, pay voluntary contributions that far exceed their shares of assessed contributions or global GNI, whereas others, such as Japan or Germany, fall well below in relation to these shares. Several large high income countries are missing from the list of major contributors in the table as their voluntary contributions fall well below their "fair" share. France, Italy, and Spain each contribute less than one third of their share in terms of GNI.

Main voluntary contributors to the WHO 2015-17

Country/ organisation	2015-17 voluntary contribution: Annual average in $m (% share)	2015-17 voluntary contribution: % share/ GNI share	2017 assessed contribution: % share	2017 assessed contribution: % share/ GNI share
United States	343.7 (18)	1.45	23.7	0.99
Bill & Melinda Gates Foundation	261.9 (13.7)	—	—	—
United Kingdom	164.4 (8.6)	4.57	4.3	1.20
Gavi Alliance	111.7 (5.9)	—	—	—
National Philanthropic Trust	63.6 (3.3)	—	—	—
European Commission	57.7 (3)	—	—	—
Rotary International	57.1 (3)	—	—	—
World Bank	50.0 (2.6)	—	—	—
Japan	48.5 (2.5)	0.78	9.4	1.50
Germany	45.7 (2.4)	0.97	6.2	1.32
Canada	40.1 (2.1)	1.95	2.8	1.38
UN CERF	38.2 (2)	—	—	—
Norway	38.0 (2)	6.81	0.8	1.47
Australia	32.8 (1.7)	1.93	2.3	1.33
Sweden	32.5 (1.7)	4.64	0.9	1.32
UN Development Programme	28.7 (1.5)	—	—	—
Pakistan	26.8 (1.4)	7.15	0.1	0.24
Nigeria	26.2 (1.4)	4.43	0.2	0.34
UN OCHA	22.0 (1.2)	—	—	—
Unitaid	21.0 (1.1)	—	—	—
Top 20 Total	1509.8 (79)	—	—	—
Total member state	993.7 (52)	1	100	1
Total organisations	916.1 (48)	—	—	—
Total voluntary contributions	1909.9 (100.0	—	—	—

GNI= gross national income, UN CERF=Central Emergency Response Fund, UN OCHA=Office for Coordination of Humanitarian Affairs
Data from WHO financial reports (http://apps.who.int/gb/index.html). Note: The US share of assessed contributions is capped at 22%, but actual contributions may differ owing to exchange rate assumptions and the workings of the Tax Equalization Fund.

Challenging the status quo

Concern about the sustainability of WHO financing and its alignment with World Health Assembly (WHA) approved objectives initiated the process of WHO reform in 2010 under Tedros's predecessor, Margaret Chan (right).[9]

WHO has tried to secure greater funding that is independent of donor funding priorities by increasing member state assessed contributions. This has encountered sustained resistance from member states. A proposal for a 5% increase was turned down by member states in 2015.

In 2017, the WHA was supposed to consider a proposal for a 10% increase, but, in response to opposition from some member states, the proposed increase was reduced to 3%.

Its alternative approach is to increase the proportion of voluntary contributions that are unearmarked. Tedros intends to launch a financing campaign, including a focus on persuading emerging economies to increase their voluntary contributions, encouraging contributors to fund WHO priorities and increase the flexibility of their funding.

How can WHO increase unearmarked funding?

These data clearly show the challenge WHO faces in transforming the way it is financed. Despite attempts in recent years to encourage more unearmarked voluntary contributions, the trend has been in the opposite direction. As Tedros has acknowledged,[1] this is indicative of a "trust deficit" with member states.

We calculate, based on the above data, that if upper middle income countries were persuaded to make voluntary contributions more in line with their share in assessed contributions or GNI (table), annual contribution income could be increased by $160-$220m. If underperforming high income countries were to match their share in GNI or attain the current average share of GNI for the high income group (table) this could produce an extra $120-$220m annually. WHO's annual contribution income could thus possibly be increased by $280-$470m.

However, even assuming the political will existed to raise unearmarked voluntary contributions, the current funding system creates practical difficulties. Decisions about voluntary contributions are not made centrally by, say, the health ministry, but by multiple people in different agencies with specific mandates, who interact with their technical counterparts in WHO. In Germany, for example, eight different government bodies provide voluntary contributions to WHO. The overall contribution is determined by many decentralised funding decisions in these bodies and is necessarily earmarked in line with their mandates. Even if the main provider of voluntary contributions is a country's development agency, as is often the case, the contribution will be the outcome of a similar process of negotiation between technical units within the agency and their counterparts in WHO. Moving to unearmarked contributions would destroy those technical relationships between the donor and WHO, while obviously also weakening the donor control over how its money was spent.

Based on past experience, neither the US nor any of the WHO's non-state voluntary contributors, which together account for 70% of voluntary contributions, are ever likely to provide unearmarked contributions.

Despite attempts in recent years to encourage more unearmarked voluntary contributions, the trend has been in the opposite direction

The path that Tedros has embarked on is therefore challenging. WHO is not unusual among international agencies in its increasing dependence on earmarked contributions. An Organisation for Economic Cooperation and Development report argues that this system has occurred in response to donors' perceptions about inefficiencies in the multilateral aid system.[8] Earmarked funding allows donors to shape an agency's agenda in ways that accord better with their priorities, permits better monitoring of implementation and results, and provides visibility to the donor. The report also finds that smaller and "new" donors perceive earmarking as a way to reduce their own delivery constraints, learn from multilateral organisations and scale-up their own bilateral efforts.

The WHO's experience since 2000 bears this out. Tedros plans a "financing campaign" that will embody new approaches and engage with member state governments at the right level (box). He places emphasis on showing how WHO affects health outcomes,[10] although, given the multiplicity of organisations involved, isolating WHO's specific contribution will be difficult.

The key question is what kind of message to potential funders is likely to be successful. The OECD report suggests trying to increase financing from upper middle income and underperforming high income countries may have limited impact.

Member states need to support the director-general in efforts to achieve collective action in making WHO a more efficient organisation that delivers results for all. WHO cannot continue being a service provider for many individual donors.

Charles Clift senior consulting fellow, Centre on Global Health Security, Chatham House, London cclift@chathamhouse.org

John-Arne Røttingen chief executive, Research Council of Norway, Lysaker, Norway

Cite this as: *BMJ* 2018;361:k2218

VALPROATE AND PREGNANCY

Further guidance is needed for women without capacity

The central issue of the valproate debate in women of childbearing age is whether women are sufficiently informed to make their own decisions relating to their condition (Analysis, 21 April).

For epilepsy practitioners the biggest challenge will be identifying when a woman lacks capacity for this decision. Intellectual disability is closely correlated with epilepsy, and many patients will have valproate in their treatment regimen. The epilepsy is often severe, changes to treatment needing specialist knowledge and risk assessment. Further guidance is needed to support decision making in those without capacity.

Michael P Kerr, professor emeritus, Cardiff

Cite this as: *BMJ* 2018;361:k2333

SMOKING CESSATION

The UK is hopelessly smitten with e-cigarettes

The English smoking cessation community has framed cessation as needing pharmacological assistance. Yet most smokers eventually quit without it.

Aveyard and colleagues write, "E-cigarettes seem as effective as NRT [nicotine replacement therapy] in supporting cessation," (Head to Head, 28 April), arguing that they are even more effective with professional advice. A recent study found no evidence that varenicline, bupropion, or NRT increased ≥30 day smoking abstinence at one year. Arguing e-cigarettes are "as effective" as NRT is damning with faint praise.

A Cochrane review rated confidence in the conclusions of e-cigarette cessation trials as "'low' by GRADE standards." The authors cite NICE's advice but avoid mentioning the conspicuous absence of any reference to e-cigarettes.

The UK is internationally regarded as hopelessly smitten with e-cigarettes.

Simon Chapman, emeritus professor of public health, Sydney

Cite this as: *BMJ* 2018;361:k2279

Polarising the e-cigarette debate confuses people

We read with interest the article on whether the NHS should recommend e-cigarettes (Head to Head, 28 April). It struck a polarising tone, which may further confuse the public.

Sheffield Tobacco Control Board has published an updated consensus statement, as we aim to be a vape-friendly city. E-cigarettes seem to be significantly safer than tobacco. Data show that some people can't quit tobacco but can switch. We should help them make an informed choice.

There are some complicated areas. Dual use isn't really harm reduction; e-cigarettes in pregnancy are tricky—but consider the comparator of continuing smoking; and we share worries about children and a gateway to smoking. Surveillance is essential, and we've built this into our annual school survey.

Evidence suggests that switching is safer. Instead of polarising the debate, one option is to seek a middle space—which is what we're trying in Sheffield.

Sarah Hepworth, health improvement principal, Sheffield
Greg Fell, director of public health, Sheffield

Cite this as: *BMJ* 2018;361:k2282

LETTER OF THE WEEK

Pregnancy prescribing and pharmacovigilance flaws

Like other commendable articles in *The BMJ* on epilepsy and valproate in pregnancy, the most recent (Analysis, 21 April) missed that regulatory agencies should have acted earlier. Malformations were first reported in 1982. Action was taken only in 2015 after a mother whose two children had been damaged brought a legal case. She also created the Association of Parents of Children with Anticonvulsant Syndrome, which lobbied for improvements. In France in 2015 this led to restricting the prescription of valproate in women of childbearing age to specialists who must obtain signed consent. The association's call for pictograms on packaging was implemented in October 2017, and 5000 drugs now have packaging with danger or forbidden pictograms and messages.

Drug safety during pregnancy is a major problem. Data are lacking on the benefit to harm ratio and dosing. Available data are often overlooked. For example, antidepressants are linked to cardiac malformations and postpartum haemorrhage and are unduly promoted during pregnancy when first line treatment is cognitive behavioural therapy.

The long delay before restricting valproate means the opportunity was lost to investigate whether the system itself might be broken. Databases and artificial intelligence allow prescribers to minimise prescription errors by sending red flags. Professional organisations and authorities in charge of quality of care and continuous medical education remain half asleep at the wheel.

Alain Braillon, senior consultant, Amiens; Susan Bewley, professor, London

Cite this as: *BMJ* 2018;361:k2334

MULTIPLE ILLNESSES

Effective and cost effective care for individuals

Treatment for multiple serious illnesses is ineffective (This Week, 28 April). The King's Fund house of care model successfully manages long term conditions. In a new pain and rehabilitation service we found patients became engaged and informed by first addressing the needs of individual patients—for example, disability benefits, heating, housing, social isolation—and tackling them in the person's order of need. Patients become keen and capable of taking first themselves and then their condition in hand.

To do this we have needed to ensure adequate appointment lengths, continuity of care, and ease of access. But we are effective and cost effective in treating people who have high rates of medication, secondary referrals, and system dependence.

Ellen Wright, GP and specialist in pain medicine, London
David McGavin, GP with special interest in chronic pain management, London

Cite this as: *BMJ* 2018;361:k2335

FIVE NEW MEDICAL SCHOOLS

GMC standards will not decline with more schools

The GMC will not allow increasing numbers of students or medical schools to lead to any decline in standards (Letters, 5 May).

All new schools are subject to an intensive process of visits, including at least once a year before students start until the graduation of the first cohort. The school must show through a robust quality assurance process how it meets our standards. We then decide if it can be approved to award medical degrees. When this has not happened we have delayed start dates or not allowed the school to award a medical degree. None of this is box ticking.

Colin Melville, director of education and standards, GMC

Cite this as: *BMJ* 2018;361:k2331

OBITUARIES

Arthur Robertson Makey

Consultant general and cardiothoracic surgeon Charing Cross Hospital, London (b 1922; q Charing Cross Hospital 1945; FRCS Eng, MS Lond), died from Alzheimer's disease on 25 January 2018

Arthur Robertson Makey did national service with the Royal Air Force as a medical officer in Bombay from 1946 to 1948 and then continued his surgical training at the Charing Cross and Brompton hospitals. He was appointed to the consultant staff of the Charing Cross Hospital in 1955 and subsequently also held posts at Colindale and the RAF Hospital Midhurst. He was an examiner in surgery for the University of London in 1964-76, a member of the court of examiners for the Royal College of Surgeons of England in 1974-80, and chairman of the court in 1980. He leaves his wife, Patricia Mary Cummings, whom he had married in Bombay in 1947. He also leaves three children and six grandchildren.

David Toase

Cite this as: *BMJ* 2018;361:k1824

Stephen Somerset Short

Royal Army Medical Corps doctor and Bible teacher (b 1920; q Bristol 1943), died from frailty of old age on 16 January 2018

Stephen Somerset Short served in India with the Royal Army Medical Corps from January 1944 but was invalided home with amoebic dysentery in mid-1945. In thankfulness for his recovery he devoted the rest of his life to preaching and gained a BD at London Bible College in 1951. He continued preaching until he was 85, when a stroke rendered him aphasic. He remained a keen walker into late old age. He viewed marriage as a wonderful institution, but was grateful that he had been spared it. Nevertheless, he was keenly interested in his nephews and nieces, and he generously supported Christian charities through his charitable trust. Cared for latterly by his niece, Ruth, he died peacefully. His gravestone is engraved with the same epitaph as those of his older brothers, also doctors: "A sinner saved by grace."

Michael E Jones

Cite this as: *BMJ* 2018;361:k1830

Rachel G Evans

Consultant paediatrician University Hospital Lewisham (b 1933; q University of London 1956), died from multiple organ failure, aspiration pneumonia, and hiatus hernia

Rachel G Evans was born in London on 1 September 1933 to Viola and Frankis Evans. Her father was a well known anaesthetist, and Rachel followed him into medicine, joining St Bartholomew's Hospital as a medical student in 1951. She graduated from the University of London in 1956 and, with the exception of one brief foray out of the capital in the 1960s, practised in London all her working life. Her last role was as consultant paediatrician at the University Hospital Lewisham. She retired in 2012 and remained in Blackheath, enjoying London life, music, learning French, her dogs, and horse riding. Rachel died after an emergency admission to University Hospital Lewisham. She will be sadly missed by her family, friends, community, and colleagues.

William Evans

Cite this as: *BMJ* 2018;361:k1822

Alastair John Bellingham

Professor of haematological medicine King's College London (b 1938; q University College London 1962; CBE, FRCP, PRCPath), died from pneumonia on 4 December 2017

Alastair John Bellingham was appointed chair of haematology in Liverpool in 1974 but returned to King's College London in 1984. His drive transformed a small department at King's, which, during his tenure, grew to one of the largest departments in the UK. His research focused on red cell disorders, and the department became a referral centre. He fought for the local population with sickle cell disease, chaired the UK haemoglobinopathy forum, and created strong links with Africa and the Caribbean. As president of the British Society of Haematology and the Royal College of Pathologists, he fought to retain the laboratory strength of the discipline and was awarded his CBE in 1997. He leaves his wife, Julia; three sons; and three grandchildren.

Tony Pagliuca

Cite this as: *BMJ* 2018;361:k1825

Louise Byrd

Consultant in obstetrics (b 1966; q Manchester University 1992, DRCOG), died from complications of congenital hepatic fibrosis on 9 April 2018

Louise Byrd was a dedicated obstetrician. She grew up in Blackpool, attended Manchester University Medical School, and carried out her training in obstetrics and gynaecology in hospitals throughout the north west. Diagnosed with a congenital disorder, she overcame huge difficulties with her own health to complete her training, and she was appointed as a permanent consultant at St Mary's Hospital in Manchester in 2006. Louise was a gifted and inspirational teacher, and many trainees, now consultants, benefited from her drive and enthusiasm. She led the obstetric haematology service at St Mary's and was also associate clinical tutor. She retired because of ill health in March 2017. She died at Manchester Royal Infirmary and leaves a sister, a brother, two nieces, and a nephew.

Clare Tower, Phil Bullen

Cite this as: *BMJ* 2018;361:k1831

Harvey Burton Ross

Consultant general surgeon Royal Berkshire Hospital, Reading (b 1928; q St Bartholomew's Hospital 1952; MS, FRCS), died from the complications of Lewy body disease on 18 February 2018

After qualifying, Harvey Burton Ross did his national service in the Royal Naval Volunteer Reserve. He continued in the Royal Naval Reserve and was awarded the reserve decoration, retiring as a surgeon lieutenant commander. After research posts in Oxford and in Oregon, Harvey was appointed a consultant at Barts to perform vascular shunts in patients with advanced liver cirrhosis. A general surgeon at heart, he moved to the Royal Berkshire Hospital in Reading in 1972, where he became one of the top breast cancer surgeons in the country. An accomplished cricketer, keen fly fisherman, and enthusiastic horticulturist, he leaves his wife, Anne; three children by his first wife, Nancy; and six grandchildren.

Campbell Mackenzie, Edward Ross

Cite this as: *BMJ* 2018;361:k1828

Emmanuel Cauchy

Mountain rescue doctor and pioneer in altitude medicine

Emmanuel Cauchy (b 1960; q Rouen 1986), died from a head injury on 2 April 2018

The eminent French mountain rescue doctor, Emmanuel ("Manu") Cauchy, nicknamed "Docteur Vertical," was passionate about climbing and mountain medicine: "I am drawn by a spirit of adventure and discovery in the savage arena of the mountains."

In 1991 Cauchy, a fully qualified mountain guide, climbed Everest without oxygen as part of his study of altitude sickness. He was involved in many rescue expeditions in the Mont Blanc massif and became close friends with some of his mountaineering patients. In 2001, for example, he climbed the Aiguille du Midi in the Mont Blanc massif with a former patient, the Scottish mountaineer and quadruple amputee Jamie Andrew. The feat was televised as *Le Défi du Jamie* (Jamie's challenge).

A career in mountain medicine

Cauchy was born on 21 February 1960 in Petit-Quevilly, Normandy, an area of France that's barely above sea level. Initially, his favourite sport was sailing, but when his parents took the family skiing in the Alps, his lifelong fascination with mountains began.

Cauchy trained at the University of Rouen Medical School. In 1987 he moved south to Chamonix, becoming a medical intern and then an emergency medicine specialist at Les Hopitaux du Pays du Mont Blanc.

Every year some 30 000 people attempt to scale Mont Blanc. The hospital, which sits in its shadow, has one of the highest number of severe frostbite cases in the world. In 1996 Cauchy and his colleagues set up a department of mountain medicine. He developed a new way to classify frostbite, using technetium-99m scintigraphy. By looking at the extent to which isotopes were taken up within bones, Cauchy and his colleagues could better assess whether a patient was likely to do well or if they might lose damaged digits. He also developed a protocol for giving patients with severe frostbite iloprost and thrombolytic drugs within 24 hours, to avoid amputations. Cauchy said their research had wide applications: helping to treat homeless people, for example.

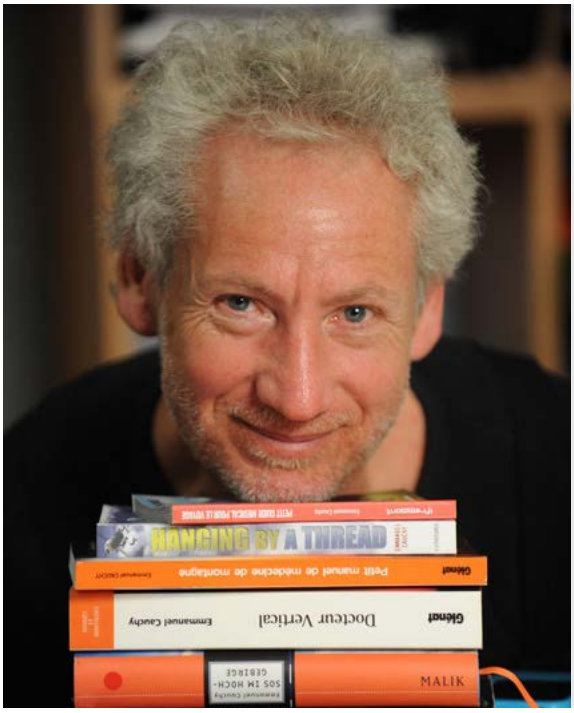
Speed is vital when treating frostbite and other injuries, and Cauchy and his colleagues were in the vanguard, sending medical teams in helicopters to give assistance to injured climbers. Cauchy went out with the Peloton de Gendarmerie de Haute Montagne (mountain police) in more than 1000 rescues, some of which he described in thrilling detail in his 2009 book *Hanging by a Thread—My Toughest Missions as a Helicopter Doctor*. He also used his experiences in a series of thinly veiled fiction titles: *Les Chroniques du Docteur Vertical*.

In 2004 Cauchy founded L'Institut de Formation et de Recherche en Médecine de Montagne in Chamonix. As well as training courses and research it offers the SOS MAM telemedicine service. Mountaineers and trekkers anywhere in the world can access advice from French and Swiss specialists in hypothermia and cold injuries. It was through this service that Cauchy treated the French climber Elizabeth Revol in January 2018, when she survived a severe storm in the Himalayas that killed her climbing partner.

This March Cauchy saw the launch of another project dear to his heart: the Sport Altitude Center in Onex, Switzerland. It has two normobaric hypoxic chambers that simulate the effects of altitude. Cauchy spent a month in a similar chamber in 1997, when eight people simulated reaching the top of Everest in 31 days. He hoped the centre would help those researching vascular rehabilitation and obesity as well as altitude disorders.

Explorer, consultant, and writer

Cauchy travelled widely, joining sailing and mountaineering expeditions in Africa, the Antarctic, Bolivia, and Nepal, and conducting workshops in altitude medicine. It was in Nepal that he met his second wife, Sandra, whom he married in September 2017. Both he and Sandra each had two children from previous marriages, and he also adopted a girl whom he had come to know in Nepal.



Voluble, amusing, and energetic, Cauchy was informal and generous

Voluble, amusing, and energetic, Cauchy was informal and generous, described by a colleague as the "kind of person you'd invite to a dinner party to give the evening a boost." His wide ranging interests included playing the trumpet and the guitar, making pizza, and getting up early to bake bread. He was a medical consultant for several films, including the thriller *The Crimson River* and the James Bond film *Tomorrow Never Dies*. A gifted communicator, he wrote regularly for the climbing magazine *Vertical*, as well as two books on mountain medicine, and more than 30 research papers.

On Easter Monday, 2 April 2018, Cauchy was guiding some skiiers when an avalanche in the Aiguilles Rouges massif overwhelmed the party. Sadly, he took a fatal blow to the head. Elizabeth Revol spoke for many when she said mountaineering had "lost its most brilliant doctor."

Manu Cauchy leaves his wife, Sandra Leal, and their five children.

Penny Warren, London
penny.warren@btinternet.com
Cite this as: *BMJ* 2018;361:k2003