Evidence based policy for illicit drugs
An ethical obligation for those working in the field of drug addiction

Systematic reviews have shown that methadone maintenance treatment significantly reduces heroin use compared with other treatments, and it also reduces HIV risk behaviour among injecting drug users. Not surprisingly, it is on the World Health Organization’s list of essential medicines. In the linked prospective cohort study Kimber and colleagues describe the effect of opioid substitution treatment on mortality and time to long term injection cessation.

The study, which is based on observational data from a single primary care facility in Edinburgh, found that longer duration on opioid substitution treatment (primarily methadone) was associated with reduced mortality, but that it was also associated with a lower likelihood of injection cessation. Although the association with improved survival might be expected on the basis of past research, the negative association between opioid substitution treatment and injection cessation is curious. Despite the limitations of the study, which Kimber and colleagues acknowledge, the study overall supports the already extensive evidence base for using methadone as a first line treatment for opioid addiction.

However, despite the wealth of evidence demonstrating the benefits of opioid substitution treatment, the availability of the drug is limited—often where it is needed most. For instance, in Russia, where most new cases of HIV are attributable to heroin injection, and where the United Nations Joint Programme on HIV/AIDS estimates that more than 1% of adults aged 15–49 are already infected with HIV, methadone remains illegal. Sadly, as discussed in the linked article by Rhodes and colleagues, the situation with methadone in Russia is only one example of a global pattern of effective interventions being severely limited and ideology trumping scientific evidence when it comes to policies on illicit drugs.

Doctors and scientists therefore have a crucial role in increasing the importance of scientific evidence when shaping drug policies. However, given that society continues to respond to drug addiction primarily as a law enforcement problem while effective interventions remain limited or even illegal, it could be argued that those who work in the field of addiction have long been shirking this obligation. This is because evidence clearly shows that drug law enforcement has failed to achieve its stated objectives and has instead caused serious harms.

For instance, under the current global drug control regimen, a massive illicit market has emerged which the UN estimates is worth $320bn (£218bn; €261bn) annually. In many settings, these illegal revenues drive corruption and violence, as has been seen recently in Mexico and Afghanistan. Other consequences include record levels of incarceration of non-violent drug offenders, and the spread of HIV among injection drug users including those in prison. Importantly, ever increasing expenditure on drug laws and expanding prison populations have not prevented the growth of this market; instead, an overall pattern of increasing drug purity and falling drug prices has occurred.

The ineffectiveness and unintended consequences of drug control efforts in the United States recently led to a unanimous resolution at the 2007 annual US Conference of Mayors, which concluded that the “war on drugs” had failed and a “new bottom line” in US drug policy was needed, with a focus on reducing the negative consequences associated with drug misuse. As a result of the harms of drug prohibition, as discussed in the linked article by Stephen Rolles, regulatory models for drug control are now creating international interest.

The limitations and harms of enforcement based drug strategies have been known for many years, but meaningful reform has been slow to come. In 1919 in the American Journal of Public Health, Professor Ernest Bishop wrote in frustration that drug addiction was being framed as a criminal justice matter rather than a health problem and stated that: “The worst evil of the narcotic situation in the past few years, and especially since the enforcement of restrictive legislation without provisions for education and adequate treatment, is the rapid increase and spread of criminal and underworld and illicit traffic in narcotic drugs. This exists because conditions have been created which make smuggling and street peddling and criminal and illicit traffic tremendously profitable, and it would not exist otherwise.” More than 90 years later, Bishop’s words still ring true.

Some doctors and scientists have spoken out about the need for evidence based approaches to tackle the illicit drug problem, but this has been far too rare in the field of addictions. Although there are social forces that seek to maintain the harmful status quo in the drug policy arena, these forces would be overwhelmed if the medical, public health, and scientific communities stood together and called for evidence based approaches to tackle drug related harms. In the face of the global public health emergency presented by both drug addiction and HIV, this is a clear moral and ethical obligation for those who work in the addictions field.
The durability of early career choices

A two point entry to specialty programmes could facilitate natural variation in career aspirations

In the linked longitudinal study, Goldacre and colleagues compare medical graduates’ early career choices with their eventual career specialty destinations. Previous studies have assessed factors that influence the choice of medical career, but few studies have focused on the durability of specialty interests. The current study, which looked at five cohorts of medical graduates in the United Kingdom, found that 10 years after graduation nearly half were in a considerably different specialty from their choice at the end of their first year of professional practice. About a quarter of doctors were also in a considerably different specialty group than they were in seven years ago, at the end of their third year of postgraduate training. This again raises the concern first highlighted by the Tooke report, that medical education and Modernising Medical Careers policy in the UK encourages foundation trainees to make career choices when many are not ready to make such commitments.

It has been suggested that doctors fall into three distinct groups regarding the timing of their specialty choice: those who make early commitments to a specialty; those who delay, reflect, and commit later; and those who change specialty choice. Goldacre and colleagues have previously reported that doctors who choose hospital medical specialties are generally more uncertain than others about their choice of specialty in the first few years after graduation. Core medical training, to some extent, takes account of this. For instance, specialist trainees can complete two or three years of core medical training before facing open competition for higher training posts. However, “run through” specialty programmes do not offer these later specialty choices. A recent study found that most doctors who were recruited early to surgical specialties were either changing specialty or leaving surgery, and it therefore recommended the establishment of core surgical training to provide flexibility before trainees commit to a higher surgical specialty.

Goldacre and colleagues’ findings suggest that many junior doctors are likely to exit run through specialty programmes and be forced to enter a new specialty from the same entry point as those doctors who have just completed their foundation programme. As well as generating potential bottlenecks in some specialties, this leaves some doctors with years of specialist experience that are effectively left unrecognised. Goldacre and colleagues suggest that a two point entry to specialty training programmes would alleviate this problem. However, it would be difficult to establish a common two point entry model that would accommodate the individual needs of all specialties. For example, early choice of psychiatry can be a strong predictor of final career destination, but many specialist trainees will also eventually choose general practice. Far more doctors enter general practice than indicate this intention during medical school and the foundation programme. These mismatches between medical school ambitions and the actual number of specialists competing for posts have been reported extensively.

As Richards suggests it may now be an appropriate time to develop core surgical training that will delay the final choice about higher specialty training for another two or three years into professional practice. This would not only provide doctors with a firmer base of clinical experiences before formulating career intentions but would also allow them to make decisions later in their career, based on their socioeconomic and personal circumstances.

As well as those who exit specialty programmes, a hidden group of doctors, now hospital consultants, may have carried on with their training and acquired their Certificate of Completion of Specialist Training even though they were unsure that they had made the best career decisions. Previous research has reported that some newly appointed consultants, in their first year of practice, still had doubts about whether they had made the correct choice of specialty.

The career advice service provided by medical schools and deaneries has improved greatly, but current specialty programmes do not yet cater for all three groups described above. Specialty programmes need to identify ways of supporting those trainees who need time and experience in the postgraduate setting to make a firm commitment that will match their eventual career destination.

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Tooke’s recommendations in 2008 included the concept of two or three years of core training for all doctors after one foundation year. Goldacre and colleagues’ findings may strengthen the argument that the existing two year foundation programme followed by two or three years of core specialist training may provide the necessary flexibility to match and underpin the natural variation in career aspirations for many postgraduate doctors.


In the linked prospective cohort study, Sinclair and colleagues observed intracranial pressure in patients with idiopathic intracranial hypertension who follow a low energy diet. This condition is often chronic and is characterised by symptoms and signs of intracranial hypertension, with no cause found by adequate imaging studies, and normal cerebrospinal fluid. Visual loss from papilloedema is the most feared visual complication. Headaches (which are difficult to treat) and depression are common, and quality of life is often reduced.

Medical treatment of idiopathic intracranial hypertension consists of acetazolamide and other diuretics, which are thought to reduce the formation of cerebrospinal fluid. Because most affected people are obese, weight loss has been suggested. When visual loss occurs, surgical cerebrospinal fluid drainage procedures such as lumbar or ventriculo-peritoneal shunting or optic nerve sheath fenestration are performed. A recent systematic review found no randomised or controlled trials of treatment of the condition and called for such evidence.

The risk of this condition is at least eight times higher in overweight or obese people. In the 15-44 age group, the incidence increases from 3.5 per 100 000 in normal weight women to 13 per 100 000 in overweight women to almost 20 per 100 000 in obese women. Although the incidence is lower in normal weight men (0.3 per 100 000), obese men also have a higher incidence (1.5 per 100 000).

Weight loss improves the symptoms and signs of the condition. Retrospective case series studies have reported that weight loss reduces papilloedema and improves vision. An uncontrolled study reported that bariatric surgery was associated with profound weight loss, resolution of papilloedema, and normalisation of intracranial pressure.

The only previous prospective study was carried out in 1974, and a strict diet was associated with weight loss and reduced papilloedema. The study was uncontrolled and used no scans or lumbar punctures, and it did not grade papilloedema or visual outcome.

Sinclair and colleagues’ study is the first well designed prospective study of women with chronic idiopathic intracranial hypertension. It found that a strict diet produced weight loss and also reduced papilloedema grade, headache, and intracranial pressure. Each woman was used as her own control, with a three month period when she received her usual treatment—normally acetazolamide. In the first three months the patients’ baseline data were established. During the second three month period the women received a very low energy diet (1777 kJ/day; 425 kcal/day) that resulted in an average weight loss of 1.6 kg (or 15% of body weight). The final three months ascertained whether the women could maintain the progress made in the previous three months. Each woman underwent intracranial pressure measurements, visual function testing (visual acuity, automated perimeter, colour testing, and contrast sensitivity), three tests to ascertain papilloedema grade (visual inspection of fundus photographs, optical coherence tomography but not by Frisén grade), and a validated headache measure (HIT-5). Surprisingly, only two of the 25 subjects dropped out because of the restrictive diet. The authors found that visual acuity and contrast sensitivity significantly improved. Visual fields were stable. Papilloedema significantly improved as measured by ultrasound and optical coherence tomography but not by Frisén grade. Headaches, tinnitus, and diplopia significantly improved. Gains made in the treatment phase were maintained during the three month follow-up, except for headache.

Although almost all studies, including this one, have shown that weight loss is associated with reduced intracranial pressure, intracranial pressure does not always correlate with weight loss or symptoms. In the current study only four of 20 patients developed normal intracranial pressure (less than 250 mm cerebrospinal fluid) despite aggressive
weight loss. Thirteen of the 16 women who continued to have increased intracranial pressure experienced improvement in many of their symptoms, including visual changes and tinnitus. This is not surprising, because idiopathic intracranial hypertension is probably a chronic disorder and lumbar punctures done years after the diagnosis have shown raised intracranial pressures.2

What are the implications of these results for practising clinicians? The uncontrolled and now prospectively controlled evidence suggests that weight loss may be an effective treatment for patients with idiopathic intracranial hypertension. Clinicians could recommend the replacement liquid diet used by Sinclair and colleagues, or another low energy diet, and stress to patients that weight loss may improve symptoms and signs.

This study does not clarify the role of diuretics, especially acetazolamide, because the authors allowed patients to continue taking their usual drugs, and almost half were on a steady dose of acetazolamide. A randomised placebo controlled trial is now under way in the United States to try to answer this question. It is also unknown whether weight loss would also improve quality of life and reduce depression.


Corporate responsibility in public health
The government’s invitation to the food industry to fund social marketing on obesity is risky

The secretary of state for health in England, Andrew Lansley, is certainly getting attention. This week, his department is involved in mooted plans to dismember the Food Standards Agency (FSA).1 A fortnight ago, at the BMA conference Mr Lansley seemed to dismiss the efforts of celebrity chef Jamie Oliver to improve school food.2 Last week at the Faculty of Public Health conference, he raised eyebrows with proposals for the Change4Life social marketing campaign. “We will be progressively scaling back the amount of taxpayers’ money spent on Change4Life and asking others, including charities, the commercial sector, and local authorities, to fill the gap,” he said.3 With charities and local government seriously squeezed, this will hand the campaign over to the food industry.

Change4Life was set up by the recent Labour government to encourage the population to “eat well, move more, live longer” in an attempt to reduce rocketing rates of obesity.4 The Conservatives praised it when they were in opposition, but few expected them to hand it over to the food industry. Only, “in opposition, the Conservatives have shown raised intracranial pressures.”5 The sad thing is that Mr Lansley has now enmeshed obesity in ideology, with some arguing that it is overweight people’s “own fat fault”—as the current mayor of London Boris Johnson once put it—and others arguing that obesity is anywhere from genetically to culturally hard wired. Although strong evidence exists on the role of energy dense foods and drinks, their ubiquitiousness and grip on mass consciousness make their consumption difficult to reduce.6 Obesity has long suffered from policy cacophony, with many academic analyses each claiming that their solution is right.7 In the 2000s, authorities, companies, and the public gradually began to realise this, and unpicking the complexity has been slow. In 2001, the UK National Audit Office calculated the financial costs.8 In 2003, the chief medical officer called obesity a “health time bomb.”9 A parliamentary health committee inquiry in 2004 urged a new government framework to give policy coherence.10 The
Much more work is needed to ensure they can deliver improvements in care. The coalition government’s plans for the NHS in England herald fundamental changes to both the anatomy and physiology of the NHS. These changes take forward reforms set out by the Labour government led by Tony Blair in 2002 and developed further by Ara Darzi in 2008, but they are much more ambitious and risky.

The anatomy of the NHS will be affected by the setting up of an independent commissioning board, the abolition of strategic health authorities and primary care trusts, and a new role for local authorities in promoting public health. Its physiology will be altered by the use of markets instead of targets to drive improvements in performance.

On the provider side of the market, NHS foundation trusts will have greater autonomy, and independent sector providers will be encouraged to compete for patients. On the commissioner side, groups of general practices will take responsibility for most of the NHS budget and use their clinical expertise to bring about improvements in care. The operation of the market will be overseen by a new economic regulator. Its role will be to promote
competition, regulate the prices paid to providers, and ensure continuity of service provision. The Care Quality Commission will work alongside the regulator to license providers and inspect services.

The government’s hope is that quality of care and responsiveness will be strengthened through patient choice and competition. Streamlining of the NHS structure and cutting management costs are intended to reduce bureaucratic controls on local action, thereby empowering frontline staff to deliver better patient outcomes. The reforms reflect a set of beliefs about public services centered on the argument that there should be a shift from big government to big society, with less reliance on state intervention and more emphasis on community engagement. Consistent with this argument, the government wants to encourage public providers to become social enterprises as the ownership of healthcare provision becomes increasingly mixed.

The impact of the reforms will depend crucially on answers to four questions. Firstly, how effective will general practitioners be in commissioning care, assuming they are willing to do so? Attempts to introduce market principles into the NHS in the past 20 years have foun-

dered on the weaknesses of commissioning, and much hinges on general practitioners being more successful this time round. Although evidence suggests that primary care led commissioning can bring benefits, it is a triumph of hope over experience to expect all general practitioners to take complete responsibility for commissioning.

Secondly, will the government follow through the logic of its reforms and allow unsuccessful providers to fail? The impact of competition hinges on the possibility of market exit being real, but politicians have been reluctant in the past to accept a reduction in the public’s access to services. How they respond when hospitals run into difficulty will provide an early test of their resolve.

Thirdly, can changes to the anatomy of the NHS be implemented without taking attention away from the need to find up to £20bn (£24bn; $30bn) from the NHS budget through increased efficiency? Despite the promise in the Coalition Agreement published in May not to embark on top-down structural changes, that is precisely what is happening, and the effects of major organisational upheaval will be felt for three years. This creates a real danger that experienced leaders will be distracted from work on identifying ways to improve productivity just at the time when a single minded focus on this work is needed.

Fourthly, will the government give priority to supporting collaboration and service integration as well as promoting competition? Collaboration is especially important in areas such as urgent care and the provision of high quality cancer and cardiac services, where better outcomes depend on services being planned and provided in networks. General practitioners must also work more closely with hospital based specialists in clinically integrated groups to improve care for people with long term conditions. Recent NHS reforms have neglected the need for organisations to collaborate across local systems of care, and the capacity to do so in the proposed arrangements must be strengthened.

The government’s changes owe a great deal to the secretary of state for health, Andrew Lansley, and the ideas he developed in opposition. Unlike many of his predecessors, Lansley came into office as a man with a plan and has moved rapidly to turn his plan into proposals for legislation. The support of the prime minister has been sufficient to overcome concerns in the Treasury about how general practitioner commissioners will be held to account. The proposed abolition of strategic health authorities and primary care trusts will leave a vacuum in the organisation of the NHS, and it is questionable whether local authorities can fill the void. On this matter, the government’s visceral dislike of managers has trumped thoughtful analysis of what is needed and may yet prove to be an Achilles’ heel in the plan.

If coalition governments create rainbow politics, then in health policy the dominant colour is a clear Conservative blue. Much hinges on the consultation that will now take place and the opportunity this offers to fill the gaps in the design of the reforms. It is hard to disagree with the laudable aspiration to put patients at the heart of the NHS and to focus on improving outcomes and quality. But it is much more difficult to ensure that the means are put in place to achieve these results. Backing general practitioners to provide these means is both radical and risky, not least because no other country places so much responsibility for service provision and now commissioning on primary care.