Nanny, of course, knows best. But sometimes she just seems determined to kill all the joy in life with her finger-wagging. What people really seem to prefer is legislation – as long as it's backed up by strong evidence, says **Chris Smyth**

SALLY Davies is well cast as the nanny-in-chief. There is something about her no-nonsense demeanour. It is easy to imagine her refusing to allow seconds of ice-cream.

This is no doubt very unfair on poor Dame Sally. But the sight of the Chief Medical Officer (CMO) telling us to think about cancer every time we have a glass of wine encapsulates everything that people dislike about the nanny state: finger-wagging, killjoy and alarmist.

But it's only half the story. While very few are willing to defend the nanny state explicitly, voters are perfectly happy with the idea of rules to protect them from themselves. They need to be convinced, yes, but if strong evidence is there, they will back action. From compulsory seatbelts to the smoking ban, people recognise that reasoned long-term decision-making can impose restrictions on short-term impulses. And they are willing to vote for the politicians who introduce them.

The same instinct, perhaps, can be seen in public attitudes to the sugar tax. It is being introduced because the public are now in favour, and many of the PM's own voters back it. Look at the constituencies of the people who have signed the pro sugar-tax petition on the Downing Street website: lots of leafy suburbs and home-counties seats the Conservatives need to hold.

So, if people are willing to vote for such things, why does the concept of the nanny state make people so angry? Perhaps the key difference is between concrete measures and vague guidance. This might seem paradoxical: surely people should get more exercised about taxes and regulation than words they can shrug off.

Yet the tone in which much public health advice is given is corrosive. Dame Sally's advice to think about cancer every time we drink is simply the most flagrant example. Recent guidance from the National Institute for Health and Care Excellence telling us not to talk about a 'healthy tan' falls into the same category.

> **Such words do impose a cost: evenings ruined, parties ended and the pleasure of the sun on your face dimmed**

Such words do impose a cost: evenings ruined, parties ended and the pleasure of the sun on your face dimmed. Repeated millions of times, that's a real cost to off-set against health benefits.

And sometimes, this poisoning of everyday pleasures is explicitly the aim. Theresa Marteau wrote recently in the *British Medical Journal* that the recent alcohol guidelines may not directly reduce drinking but they chip away at the link between alcohol and fun. This is the sort of thing that gets the nanny state a bad name.

Public health leaders have a duty to present the evidence. But they ought to recognise that in asking us to forgo enjoyable things they are clashing with a legitimate interest, not presenting the case of the angels against the devils.

Beneath the dire warnings, the CMO's recent alcohol guidelines might offer a way forward here. Alongside the finger-wagging was a well-presented evidence review: it laid out the dangers in a way that allowed people to decide for themselves what level of risk they were willing to tolerate. Some will make decisions of which Dame Sally would not approve. But others will think they do not enjoy that extra glass enough to raise their chance of cancer.

So another paradox: the advance of the nanny state may be best served by encouraging people to decide for themselves.

Chris Smyth
Health Editor
The Times

Information

ISSN – 2043-6580

Editor in chief
Alan Maryon-Davis

Managing editor
Lindsey Stewart

Commissioning editor
Liz Skinner

Production editor
Richard Allen

Public Health Today **is distributed to over 3,200 public health specialists. To advertise please contact Richard Allen at richardallen@fph.org.uk**

Contact us:
Email: news@fph.org.uk
Health Policyand Advocacy:
0203 696 1452
Education: 0203 696 1451
Professional Standards: 0203 696 1453
Business & Corporate Services:
0203 696 1455

Address:
Faculty of Public Health
4 St Andrews Place
London NW1 4LB
www.fph.org.uk

Submissions
If you have an idea for an article please submit a 50-word proposal and suggested authors to news@fph.org.uk. The subjects of the remining special features for 2016 are: Sport and physical activity (Summer), Arts and humanities (Autumn), What has public health ever done for us? (Winter).

The magazine of the
UK Faculty of Public Health
www.fph.org.uk

Spring 2016

In this issue

Public Health Today

Getting the green light
The sustainability issue

Public Health Today
The magazine of the
UK Faculty of Public Health
www.fph.org.uk

Spring 2016

Contents

Cover photo:

Welcome

'MAN has lost the capacity to foresee and to forestall, he will end by destroying the Earth" – Albert Schweitzer.

The three pillars of public health practice underpinning the work of the Faculty of Public Health (FPH) are Health Protection, Health Improvement and Population Healthcare. These pillars both frame our curriculum for developing specialists and inform all of our work. In this new century they must each be understood within an ecological context of the dynamic of how the human species lives within its range of habitats – the succession of Russian dolls that collectively constitute our only planet Earth.

In this sense our understanding has moved on from our predecessors whose work was much more mechanistic, based as it was on the 'sanitary idea'. Separating food, water and habitation from human, animal and industrial waste was the imperative with little concern for what happened next, further downstream or up in the atmosphere beyond the smokestack. Victorian and Edwardian public health went on its way in ignorance of the Native Americans' profound insight that 'looking after the things that look after you' (reciprocal maintenance in modern jargon) was the key to wellbeing. All these things impact on the ideas behind 'sustainability', which features strongly in this edition of *Public Health Today*.

With topics such as climate change, flooding and greening, fracking, air pollution, sustainable transport (cycling) and biodiversity all given an airing, it is very timely for me to report on the recent United Nations (UN) Science and Technology Conference (UNISDR), which I attended recently in Geneva on behalf of FPH. This conference, ably chaired by Public Health England's (PHE's) champion of the matter, Virginia Murray, was a follow up to the landmark Sendai conference on disaster risk reduction held last year in Japan. That meeting considered a truly comprehensive agenda of topics focusing on understanding disaster risk, strengthening governance to manage it, investing in resilience and enhancing response, recovery, rehabilitation and reconstruction.

The resulting 'roadmap' is a model of its kind and one which all practising public health consultants should be familiar with. The Geneva meeting brought a very mixed group of people from different disciplines and agencies together from around the world to contemplate the next steps in implementing the roadmap. After this winter's weather both at home and abroad, together with the wide range of emergencies now commonplace as a result of human interactions with the global environment, nobody should be in any doubt as to the need to place this subject firmly on the agenda.

I returned from Geneva determined to have an early meeting with Virginia to explore how best FPH could ramp up its engagement with what is now one of the biggest threats to public health worldwide. Whether we are talking about global warming or many of the more downstream determinants of disasters, we must make sure we are fully engaged. As I prepare to demit office I want to make sure that, whether it be our Health Protection Committee or related Special Interest Groups or partnerships with key allies such as Virginia's team at PHE and the UN, we are in a full position to play our part. I invite you all to consider what that means for you!

John Ashton

Sugar duty shows we can influence policy

THE 'sugar levy' on soft drinks from 2018, which was announced in the Budget, was warmly welcomed by the Faculty of Public Health (FPH). The funds raised will be used to support school sport. This is a significant moment for health, since one third of children and two thirds of adults in the UK are obese or overweight. It sends a clear signal to industry that the public's health is a key part of economic recovery. Called for in our 2014 manifesto, this should encourage everyone who campaigns to improve health that it is possible to influence government policy.

> **We are concerned that the Government has further delayed its strategy to tackle childhood obesity**

Related to this, FPH is pleased to have joined the Steering Group of the Obesity Health Alliance (OHA), a leading coalition of 28 health charities, membership bodies and Medical Royal Colleges, which has come together to help tackle the complex issues of overweight and obesity in the UK. While welcoming the positive news of the sugar levy, we are concerned that the Government has further delayed its strategy to tackle childhood obesity. The OHA is urging the Government to take strong action on the 10 recommendations in its joint position, available at http://bit.ly/1QKowm3

U-turn over child poverty measures

ONE child in three in the UK is living in poverty, according to the latest figures (2013-14). This equates to a total of 3.7 million children. By comparison, Iceland has just one child in 10 living in poverty. The level of child poverty in the UK began rising in 2011-12 for the first time in nearly 20 years. Good early development is strongly associated with many positive outcomes in later life, including higher educational attainment and improved employment prospects in adulthood.

The All-Party Parliamentary Group on Health in All Policies, chaired by Debbie Abrahams MP, launched a comprehensive assessment of the impact of the Welfare Reform and Work Bill on child poverty and health (http://bit.ly/1TRYhcD). Researched by FPH's policy team, it made clear the causal link between increased child poverty and worsened child health and wellbeing. The report, used widely in Parliamentary debates on the reforms, helped to ensure that plans to scrap the measurement of child poverty were withdrawn.

Concerns about healthcare public health

THE FPH Health Services Committee has completed a report summarising the responses of around 110 directors of public health, training programme directors and specialty registrars who responded to survey and focus-group work exploring their views on the state of the healthcare public health function – particularly that delivered into the NHS.

Responses from Scotland were positive, but the situation in England was mixed with some real challenges and concerns. Not only does this function underpin the achievement of effective preventive and value-based outcomes in the health sector but, as a core function, potentially puts aspects of the specialty at risk. The report urges action. Read the FPH Health Services Committee report, *Healthcare Public Health in England: Capacity and Capability Review*, at http://bit.ly/1QVeT3Y

Mark Weiss
Senior Policy Officer
Faculty of Public Health

News in brief

Ebola outbreak 'over'
Liberia's Ebola epidemic is over, said the World Health Organization, effectively putting an end to the world's worst outbreak of the disease. The "end of active transmission" was declared, after 42 days without a new case in Liberia.

Alcohol: 2.5 million people exceed weekly limit in a day
Around 2.5 million people in Great Britain – 9% of drinkers – consume more than the new weekly recommended limit for alcohol in a single day, latest figures from the Office for National Statistics showed.

Pharmacists in care homes could save the NHS £135 million per year
The NHS could save £135 million a year if every care home in Great Britain had a pharmacist, according to a report by the Royal Pharmaceutical Society (RPS). It said the move would improve safety and prevent hospital admissions.

'Toxic paint levels in playgrounds'
Paint on playground equipment has been found to contain high amounts of the toxin lead – up to 40 times recommended levels, research suggests. The study, published in the journal *Science of the Total Environment*, said the levels may pose a significant risk to young children. Scientists from Plymouth University tested the content of paints on play equipment at 50 parks in England.

UK is 'vulnerable' to epidemics
The UK is vulnerable to epidemics such as Ebola because of a gaping hole in the country's ability to manufacture vaccines, a group of MPs has warned. The Science and Technology Committee said the UK "lacks the capacity" to produce enough to protect people.

Women advised not to drink in case they are unknowingly pregnant
The US-based Centers for Disease Control and Prevention's latest advice on drinking during pregnancy was ridiculed online for broadening the warning out to millions of American women who are sexually active and not using contraception. This was in case they became pregnant accidentally. Critics suggested that the tone "shamed" women for drinking.

INTERVIEW

Sir Ian Gilmore is a professor of hepatology and past president of the Royal College of Physicians of London. He was made honorary professor at the University of Liverpool in 1999, is Chair of Liverpool Health Partners and is a member of the Climate and Health Council. He tells *Public Health Today* how he became an 'amateur' in public health

'Alcohol deaths driven by price'

But MUP now toxic phrase, warns Gilmore

What do you see as the main drivers behind the increase in liver disease?
I think it's relatively straightforward. Eighty per cent of liver deaths are from alcohol and all the available evidence suggests this is driven by price, marketing and availability, probably in that order. Certainly the evidence is the strongest for price. We know that if you double the price you will reduce consumption by about 40%. Affordability has changed out of all recognition over the past 30 or 40 years. Availability too, since 2004, when Tony Blair thought he would turn us all into a wine-sipping café culture by abolishing closing time. You can buy a bottle of whisky at two in the morning at a petrol station which wasn't the case a few years ago.

What have you learned about public health through your role as Chair of the Alcohol Health Alliance?
I got into alcohol because of George Alberti, the then President [of the Royal College of Physicians]. He was one of the first people to see the coming tsunami of alcohol-related harm at the turn of the millennium. He suggested I chair a working party to ask the rhetorical question: alcohol – can the NHS afford it? But I didn't really have any knowledge of the field of epidemiology and public health until a few years later. Michael Marmot chaired an Academy of Medical Sciences group, which I joined. The report it produced was called *Calling Time: the nation's drinking as a major health issue*. Richard Doll, at the age of about 90, was a member, as were Klim McPherson from Oxford and Robin Room from Sweden. That was a turning point. When I became President of the Royal College of Physicians, I used to say that I'd spent a lifetime with only my mother showing any interest in what I had to say, and now suddenly people were listening. This gave me the opportunity to set up AHA [the Alcohol Health Alliance] in 2008. I was aware that so many organisations were doing good work around alcohol and could quite unintentionally cut across each other or work in silos. The aim was to get everyone 'singing from the same hymn sheet', without constraining any members. I soon realised that if I went for core funding, I would be competing with organisations like Alcohol Concern and others struggling to keep going, and so it didn't make sense to turn the AHA into a bigger organisation. Just rubbing shoulders with all those organisations, including the Faculty of Public Health, is how I've almost had a second career. I wouldn't claim to be a professional in public health; I'm still an amateur.

What hopes and fears do you have for minimum unit pricing in the UK?
If you'd asked me in 2010, I would have said there was no short-term chance of it getting anywhere. But then, what changed things was when Sarah Wollaston MP, a GP herself, stood up at Prime Minister's Questions and asked him why none of his ministers and civil servants would see her about the terrible alcohol problem the country faces. Cameron had no choice but to say: come and see me. Cameron did seem to get behind the idea, and then Scotland took it to their Assembly, and there was momentum. Then Cameron, for understandable reasons, had to do a U-turn with his party, and the situation now is that minimum unit pricing as a phrase is almost toxic in Westminster. It's still a very active area of policy more widely, though, and in the short-term much will depend on the Scottish courts and how they interpret the advice from Brussels.

What was your contribution to the Marmot review of the social determinants of health?
I was one of the commissioners: I learned a lot through doing it. It was something that was on my radar and being part of [the review] gave me the confidence to make it an issue for my presidency. Health inequalities and climate change were two of the issues that I focused on, and I had a chance to raise their profile among physicians.

> **I'd spent a lifetime with only my mother showing any interest in what I had to say, and now suddenly people were listening**

How did you become interested in climate change?
I was influenced by Al Gore's book *An Inconvenient Truth*. The more I looked into it, the more I realised the evidence was very strong. I began to realise that this issue that looks balanced in the media wasn't balanced at all. Apart from a few individuals, often probably funded by the oil industry who specialise in sowing doubt in people's minds, the vast majority of scientists who know about these things agree that this is a man-made problem.

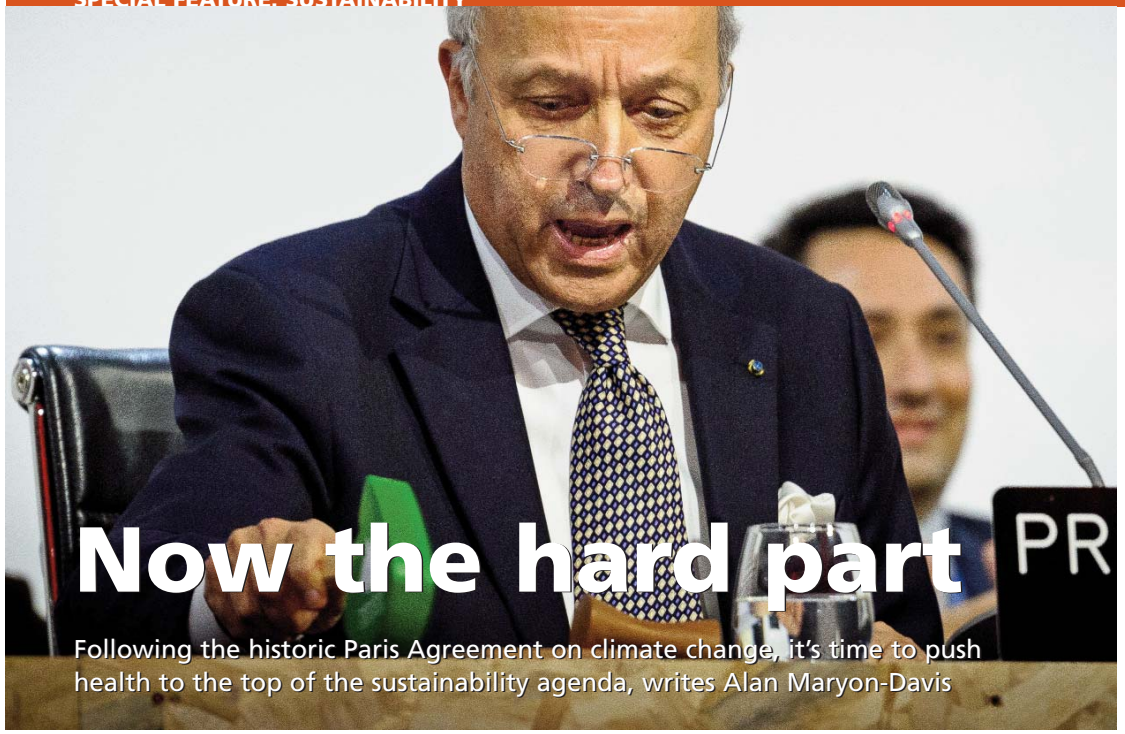
What have been the proudest moments so far in your career?
I was proud to be elected college president, because, in a way, that determined the rest of my life. I don't think I would have had the opportunities I have had since. It was a privilege to do it, and I enjoyed it, though maybe more in hindsight than at the time. Within a few weeks of starting the presidency, Modernising Medical Careers went awry and doctors marched in the streets. I was getting hundreds of emails a day from junior doctors. Years later, people thanked me for replying when no-one else did. I realised you don't have to have an answer, you can help people by just listening to their situation.

Which have been the most challenging times, and what did you learn from them?
When the whole training system for junior doctors went wrong, that was the most challenging time. Another time was more to do with 'internecine warfare' between colleagues during my early consultant years; it taught me that if you are pleasant and reasonable with people, you can get an awful lot done.

Is there anything that keeps you awake at night?
The thought that I turned a blind eye to behaviour and standards in colleagues that were not acceptable and wouldn't be accepted now. It was in the days before there was such a scrutiny of doctors' performance. As a profession, we contributed to the need for regulation because we didn't take control of poor performance and standards. It would have been much better if the culture had changed from within.

What do you do to relax?
Sunday morning at 8.36, if there's not a crisis at the hospital or in the media, I will be on the first tee at the golf course. You forget work problems because you have to concentrate on hitting the ball.

Interview by Liz Skinner



Now the hard part

Following the historic Paris Agreement on climate change, it's time to push health to the top of the sustainability agenda, writes Alan Maryon-Davis

ON 12 DECEMBER 2015, in front of delegates from every country in the world crammed into an exhibition hall on the outskirts of Paris, a man in a coal-grey suit rapped a symbolically green-painted, leaf-shaped gavel onto a block of mahogany and announced that, after decades of dissimulation, four years of planning and two weeks of arm-twisting, Planet Earth had finally and unanimously decided to save itself.

This was Laurent Fabius, French Foreign Minister and President of COP21 – the 21st Conference of the Parties to the UN Framework Convention on Climate Change. The hall erupted in whoops and cheers. "It is a small gavel but I think it can do a great job," said Fabius.

That job is to set the world on a firm path to limit global warming to "well below" 2°C (aiming for 1.5) and achieve zero net carbon (emissions balanced by absorption or capture) sometime in the second half of the century.

The Paris Agreement is far from perfect. No mandatory country-by-country targets – individual countries are merely 'invited' to pledge action which will be non-binding and non-enforceable. No mention of curbs on coal, oil or gas production. No compensation for developing countries hit by climate-related catastrophes.

> **The message to the entire world is clear: we must move away from fossil fuels – and do it FAST**

Nevertheless, the overall strategy will be legally binding. And the message to the entire world is clear: we must move away from fossil fuels – and do it FAST.

So, straight off the mark, in this issue of *Public Health Today* we hit the ground running. Sue Atkinson looks at what COP21 means for us all, personally and professionally. David Pencheon outlines progress in sustainable development in healthcare. Darryl Quantz and Stephen Morton describe how sustainability networks are helping trusts to develop their green management plans. Marcus Grant looks at healthy urban planning and the World Health Organization Healthy Cities programme. Caroline Watson ponders air pollution – deadlier than obesity and only now coming to the fore.

Also, Sakthi Karunanithi and Patrick Saunders tread the tightrope on fracking, David McCoy thumps the tub for fossil fuel divestment, Mark Young wades into flooding, and Clair Gough and Richard Denniss wrangle over the pros and cons of carbon capture and storage.

Finally, Helen Ross invites us to join the Faculty of Public Health's Sustainable Development Special Interest Group and Nick Watts tells us about the recently launched UK Health Alliance on Climate Change, which brings together a clutch of Royal Colleges, the British Medical Association, the *Lancet* and various others including our own faculty to get some real welly behind efforts to push health to the top of the sustainability agenda.

Lots to contemplate. Plenty to act upon. No time to lose.

Alan Maryon-Davis
Editor in Chief

Health issues will help spread understanding of climate change

PEOPLE are starting to recognise the importance of health, climate change and sustainability and accept that climate change could be the biggest global threat or "greatest global health opportunity of the 21st century" [the *Lancet* Commission on Health and Climate Change]. For several years, health summits have been a feature at sessions of the Conference of the Parties (COP) of the UN Framework Convention on Climate Change.

The aim of COP 21 was to make a deal to curb emissions and keep global warming less than 2°C above preindustrial levels. So, what did the talks achieve?

- Nearly 200 countries agreed on the need to act to reduce greenhouse gas emissions
- The binding agreement commits to limiting global warming to below 2°C with a serious aspiration to the more ambitious 1.5°C goal
- A commitment to a long-term goal to bring net carbon emissions down to zero
- A five-yearly review, starting in 2018, of national commitments to check progress
- Climate finance to help poorer countries to adapt and shift to renewable energy.

The accord is a solid stepping stone for future action, but there is a significant gap between the rhetoric and the pledges to deliver. Countries need to commit to doing more to reduce their carbon footprints. Unfortunately, the UK has recently gone backwards in many of its 'green' policies. We cannot take our eye off the ball.

Health is a good lever to make people understand the importance of climate change. Take the Zika virus: with increasing temperatures over wider geographies there is the risk of mosquito-spread diseases with disastrous consequences. The World Health Organization has recently identified Zika as a worldwide health emergency. Nearer to home, the floods and winds over Christmas had significant health impacts.

So what can you do? Take action, both personally and professionally. Personally, check your carbon footprint and find ways to reduce it. Turn your heating down, turn off lights and equipment, switch to a renewable energy supplier, maximise your recycling, reduce your air and car travel, walk and cycle more, eat less meat and more fruit, vegetables and local produce. It's good for your health and good for the environment.

> **Things that seem impossible in national policies may become achievable locally. Much is starting to happen at city level**

Professionally, think sustainability and link it into all the work you do. Sustainability is about travel, work, what you buy and what you throw away. Mobilise healthcare, public health, social care and local authorities to address climate change.

Find your local allies and make the links for your organisation about saving money, saving energy and reducing emissions. Join up the dots, through every policy, for other professionals, the public and politicians. There are many examples of the 'co-benefits' of health and climate change: winter deaths and cold homes, local air pollution hot-spot maps, increasing walking and cycling, and healthy local food. Procure locally and sustainably. Things that seem impossible in national policies may become achievable locally. Much is starting to happen at city level.

Finally, join the Faculty of Public Health (FPH) Sustainable Development Special Interest Group (see p14) and support FPH in its aspirations to reduce emissions and mobilise health workers. FPH is one of the founding partners of the new Health Alliance on Climate Change.

Sue Atkinson
Visiting Professor
Epidemiology and Public Health
Institute of Epidemiology and Health
Faculty of Population Health Sciences
University College London

Getting healthy could also save the planet

THE year 2015 was an important one for the world of climate change and sustainable development. It brought the creation of a new global agenda under the auspices of the UN Sustainable Development Goals and the signing of the international Paris Agreement – an ambitious framework to respond to climate change.

From a health perspective, the *Lancet* launched a Commission on Health and Climate Change which examined the policy responses and the opportunities for health protection and promotion that came with these interventions. Its conclusion, that "tackling climate change could be the greatest global health opportunity of the 21st century" resulted from the realisation that many of the policies to reduce greenhouse gases dovetail with sensible, cost-effective public health interventions that governments and health professionals should be considering anyway.

Last year was important for the world and an important step forward – but it was only one step. Just as they have led the fight against tobacco, cholera and HIV, British health professionals are coming together once again in a Health Alliance on Climate Change to meet the challenge head on and help the UK build momentum.

The alliance is formidable, with founding membership from the Faculty of Public Health, a host of Royal Colleges (nursing, emergency medicine, anaesthetics and many more), the *Lancet*, the British Medical Association, the *British Medical Journal* and the Royal Society of Medicine. It will work to engage the Government, the public and the health profession to respond to the threat that climate change brings to our wellbeing.

Launching in early March 2016, it will advocate for renewed action on four key entrypoints for health and climate change:

- Improving air quality by reducing dependence on polluting energy sources such as coal
- Encouraging healthier and more sustainable diets
- Working to improve quality of care in the NHS while reducing environmental impact
- Supporting a transition away from the car and towards physical activity and active transport.

Nick Watts
Director
UK Health Alliance on Climate Change

DEBATE: Is carbon capture and storage a vital tool in the fight against climate change? Clair Gough says it offers quick wins, while Richard Denniss argues it's an irrelevance

CCS is our best hope while we look for others

AT THE Paris climate negotiations in December 2015, 195 countries agreed to limit global average temperature rise to below 2°C, ideally 1.5°C. To be in with a chance of keeping carbon dioxide (CO2) within a 'carbon budget' compatible with the 2° target, we need to buck the current trend and set global emissions on a sharp trajectory of decline. Think of the infrastructure, equipment, technology and lifestyles, not to mention economic and social systems built around a dependence on instant, cheap, predictable fossil energy, and you start to see the scale of the problem. Demand reduction, energy efficiency, renewable energy and nuclear power all have a role to play; however, only carbon capture and storage (CCS) has the potential to significantly reduce current power generation emissions from fossil fuels, as well as those from heavy industry (for which there are no renewable alternatives waiting in the wings).

The concept of CCS is simple: it captures CO2 from pollution sources (such as coal-fired power plants), pressurises it, transports it and injects it deep into the earth's underground rock formations. The process prevents CO2 from entering the atmosphere. Although the technology is not yet commercially established, in the UK

YES

we have a strong base on which to build CCS capabilities – we have the skills, the resources and the all-important offshore storage capacity to lead the way in further developing this technology. Costs are high, although lower than offshore wind power, and will certainly fall with its deployment at scale.

If the choice becomes one of taking our chances on an imminent and rapid global shift away from fossil fuels and deploying a technology that can significantly reduce emissions from those fossil fuels, shouldn't we do something about today's emissions today, as we ramp up our efforts to shift to a genuinely decarbonised world, while we have the chance? Every year in which we delay controlling the amount of CO2 that goes into the atmosphere will have a knock-on effect on how low levels will have to go in the future. While it is vital that we don't take our eye off the ultimate goal of moving to a decarbonised future, CCS may be our best hope of attaining that goal without breaking the carbon budget on the way.

Responding to climate change is urgent; that we know. Whether you think CCS is key to our response depends on whether or not you think we can give up our global dependence on fossil fuels with sufficient urgency. The evidence suggests that we are not in a position to take that risk.

Clair Gough
Research Fellow
Tyndall Centre for Climate Change Research
University of Manchester

Cleaner energy is cheaper than CCS

CARBON capture and storage (CCS) is the sort of innovation you get when an industry replaces engineers with spin doctors. There is nothing vital about this tool; indeed, there is little 'tool' about it either. It's not hard to see why highly polluting industries need CCS to work. The question is, does the climate need it too?

The degree of carbon emitted by burning coal is staggering. The most optimistic estimates for CCS's effectiveness put the emissions reduction potential at 40%. According to the United States Energy Information Administration, reducing coal's emissions by 40% takes coal from top of the list of most polluting fossil fuels to… top of the list of most polluting fossil fuels. But no matter how dirty it is, the world is demanding cheap energy. If there's a trade-off between carbon emissions and energy access to be had, perhaps CCS will have a role to play.

But no trade-off exists. The cleaner alternatives are also the cheaper ones. According to the International Energy Agency's 2°C scenario, the cost of CCS abatement comes in at between USD$50-100 per tonne in 2020. The cheapest CCS is still more costly than the most expensive solar energy. CCS is also up to five times more costly than onshore wind energy.

But say we opt for coal over cleaner,

NO

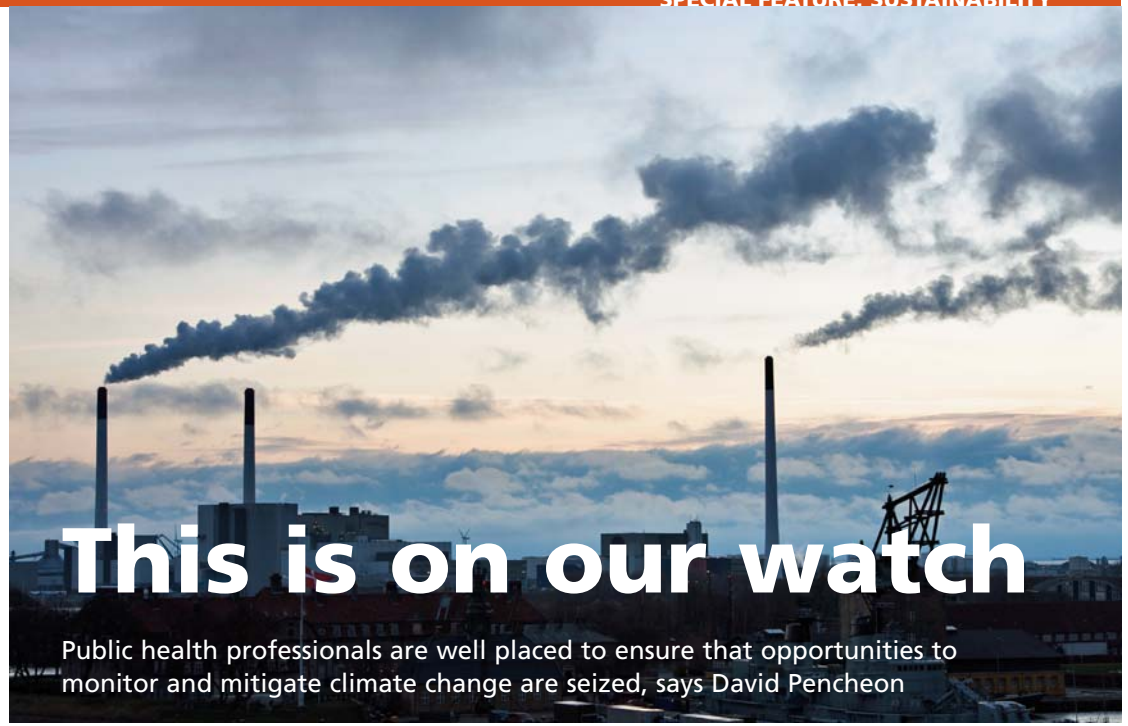
cheaper alternatives. If we're committing to coal, then CCS might be useful in the fight against climate change. We are, however, committing to do the opposite – to stop using coal. The 2015 Paris climate agreements commit the world to limiting global temperatures to 2°C above pre-industrial levels. The IEA says that goal "will require a level of decarbonisation of the energy sector that cannot be achieved even with the most efficient coal power plants".

After 14 years and $24 billion in governments' subsidies, there are only 13 operating examples of CCS in the world. Most of these pump the carbon into oil fields mainly to… produce more oil! This largely eliminates any carbon benefit.

There is only one CCS project in action on an actual coal-fired power station, anywhere in the world: Canada's Boundary Dam received hundreds of millions in assistance from Canada's government and still only works on part of the plant.

With the sole example of CCS operating on a commercial scale being a Canadian coal plant which is neither commercial, nor clean, nor at any significant scale, it's reasonable to start looking for other solutions. And when you do, it's hard to find any less impressive tool for fighting climate change than CCS.

Richard Denniss
Chief Economist
The Australia Institute



This is on our watch

Public health professionals are well placed to ensure that opportunities to monitor and mitigate climate change are seized, says David Pencheon

WE HAVE recently seen two significant milestones that will help us all shape a fair, healthy and sustainable world. The 21st Conference of Parties (COP21) meeting in Paris resulted in a significant pledge from over 190 countries to limit mean global warming. Very little is legally binding but don't underestimate the power of collective commitment – and the opportunity for us, as public health professionals (or as citizens), to hold national leaders to account. Secondly, 1 January 2016 saw the start of the UN's Sustainable Development Goals, replacing and updating the Millennium Development Goals. We should make use of this hugely inclusive collaborative effort to develop local frameworks for action.

The health and care system in England has been mirroring this ambition of collaboration and progress. In 2009 we set an ambition to reduce the carbon footprint of the NHS by 10% in five years on a 2007 baseline. The latest (2015) carbon footprint shows that the NHS has achieved an 11% reduction over that time period – particularly impressive considering that NHS activity has increased by18%. More details are available in the *Sustainable Development in Health and Care: Health Check 2016* report.

Clear action is needed if we are to address what the *Lancet* called in its 2009 report "the biggest global health threat of the 21st century". As important, are the conclusions of the follow-up 2015 report that "tackling climate change could be the greatest global health opportunity of the 21st century". Achieving our goals in sustainable and low-carbon ways is critical to turning the biggest strategic health threat we face into the greatest opportunity for collective action and health improvement.

This is why so many NHS organisations

> **Don't underestimate the opportunity for us, as public health professionals, to hold national leaders to account**

(providers and commissioners) and public health organisations (including Public Health England) have been clear about how they are and will be addressing the threats to health from climate change as well as developing all the co-benefits from taking clear action. Public health professionals and bodies such as the Faculty of Public Health are increasingly playing a very distinctive role, articulating a clear narrative and providing scientific expertise and leadership within national and local public health systems. The science is clear that inaction is not an option; the legal and implementation frameworks are now clear; the multiple benefits for health are significant; and time is running out.

The actions where real progress has been made include:

- Reducing risks within extreme events, improving air quality, reducing emissions
- Creating sustainable infrastructure and systems, eg. good housing, life-enhancing public spaces, meaningful and fulfilling employment, empowered communities
- Ensuring safe, sustainable, and resilient public health and care services, especially smarter ways of preventing the preventable.

Ensuring all such opportunities are exploited, and all progress monitored, depends on well-led and clear coordination. Directors of public health are well placed to deliver these roles efficiently through clear leadership and well-framed evidence and narratives. The opportunity is there to seize the day and assure the future. This is happening on our watch and will be our legacy.

David Pencheon
Director
NHS Sustainability Unit

UNORTHODOX: A woody debris dam near Pickering

Connect with nature to prevent flooding

THE Slowing the Flow project at Pickering in North Yorkshire is about working with nature to try to store more water in the landscape and slow its passage downstream. The aim is to reduce the frequency of floods and deliver a range of other benefits to the environment and community.

The project, which has captured the imagination of residents, combines more orthodox flood-defence structures with the use of 'woody debris dams', woodland planting and blocking of moorland channels. Alongside flood-risk reduction and environmental improvements, the level of engagement with the community at every stage of development and implementation has led to greatly enhanced understanding and ownership of the risks. This helps communities to prepare for, and recover from, flooding, and dramatically reduces the negative impact on health and wellbeing of such deeply distressing events.

The message appears to be clear: the better connected our communities are to their environments, the more resilient they are when difficulties arise. The National Flood Emergency Framework points out that often only the immediate deaths from flooding are recorded, and it is not always easy to identify the longer-term health effects. Displacement, destruction of homes, delayed recovery, power outages, water shortages and disruption of access to health services all have negative effects on wellbeing. These may persist for months or even years after a flood, with those at risk of repeated flooding particularly susceptible.

When communities are connected, a range of beneficial things start to happen. Neighbours set up forums from their own homes. Social media groups give help in the form of food, clothing and advice, and by passing on information from local agencies to those in the communities who did not or could not gain access. These things can all make a real difference at a time of crisis.

Indeed, the current Yorkshire Hydrocitizens research and activities are showing some common emergent themes and benefits for communities and organisations. Strengthened and developed social capacity, resilience when faced with crisis and psychological benefits are all coming to the fore. Through initiatives that increase connection with both the environment and one another, residents report decreases in social isolation and increased feelings of safety due to relationships fostered in their participation on the projects.

In addition to the benefits of community and individual resilience, those involved with projects such as Slowing the Flow also generate a sense of ownership, stewardship and wellbeing from living alongside waterways.

Capturing the scale and breadth of these health outcomes is a huge challenge, but one that engineering and public health professionals agree can make a hugely positive contribution to communities.

Mark Young
Flood Risk Manager
North Yorkshire County Council

Divesting the false cloak of respectability

THE growing movement to divest from fossil fuels (committing to sell shares in the top 200 fossil fuel companies) now stands at over $3 trillion globally.

Severe effects on health are already being felt and include the acute destruction caused by severe weather events and the chronic erosion of human security due to, for example, loss of freshwater and fertile soil because of sea level rise. About seven million deaths per year globally are also linked to the pollutants produced by burning fossil fuels. While fossil fuels have helped drive humanity's remarkable developments over the past 150 years, they now represent a potentially catastrophic threat.

The case for de-coupling our societies from fossil fuel is now largely accepted. Neither carbon capture and storage nor various geo-engineering proposals offer adequate or reliable solutions. A rapid and publicly-driven transition to a renewable energy system is critical (and possible).

But in spite of the bold targets set in the Paris Agreement to limit global warming, the oil and gas industry (with political and financial support from governments across the world) is still seeking to discover and exploit new fossil-fuel reserves and is expecting increased consumption of fossil fuels over the next couple of decades.

For years the fossil fuel industry has prevented timely action by undermining climate science and spending vast sums on political lobbying and public misinformation campaigns. But health organisations, philanthropic foundations and charities who invest in fossil fuel companies also help the industry continue down its destructive and anti-democratic path by cloaking it in respectability.

It can't be right to profit from a business that is so damaging and harmful, even (perhaps especially) if we then use those profits for charitable purposes. The struggles against slavery, apartheid and tobacco point to divestment being an important mechanism for leveraging large-scale progressive change.

David McCoy
Senior clinical lecturer and Global Health Teaching Director
Centre for Primary Care and Public Health
Queen Mary University

Sense and the city

Marcus Grant is told there is no evidence that design and layout improve the health of neighbourhoods. He and others, however, believe it cannot be otherwise

AN ABSURD notion keeps me absorbed at the boundary where city-planning meets public health. As an urban planner, I am acutely aware that the design and layout of neighbourhoods, where people 'live, love, work and play', is strongly associated with outcomes for health and health equity. But apparently there is no evidence for 'place' to support healthier lifestyles. However, I can't find any evidence saying that business-as-usual produces healthy places either.

I hear the constant call to reduce NHS and social care costs but am always told that there are more pressing public health issues than healthy city development. However, from the mid-1990s, the connection between place and urban health, evidence or no, was embedded in the World Health Organization (WHO) European Healthy Cities Network. With the UK government again gearing up for more house building, public health specialists would do well to draw on WHO's Healthy Cities experience.

It goes beyond just healthy urban planning; the Healthy Cities approach is about spreading governance of population-level health across a whole town or city. The top tier comprises about 100 cities, all displaying the highest political commitment to action on population health and health equity. Cities sign up to five-year phases.

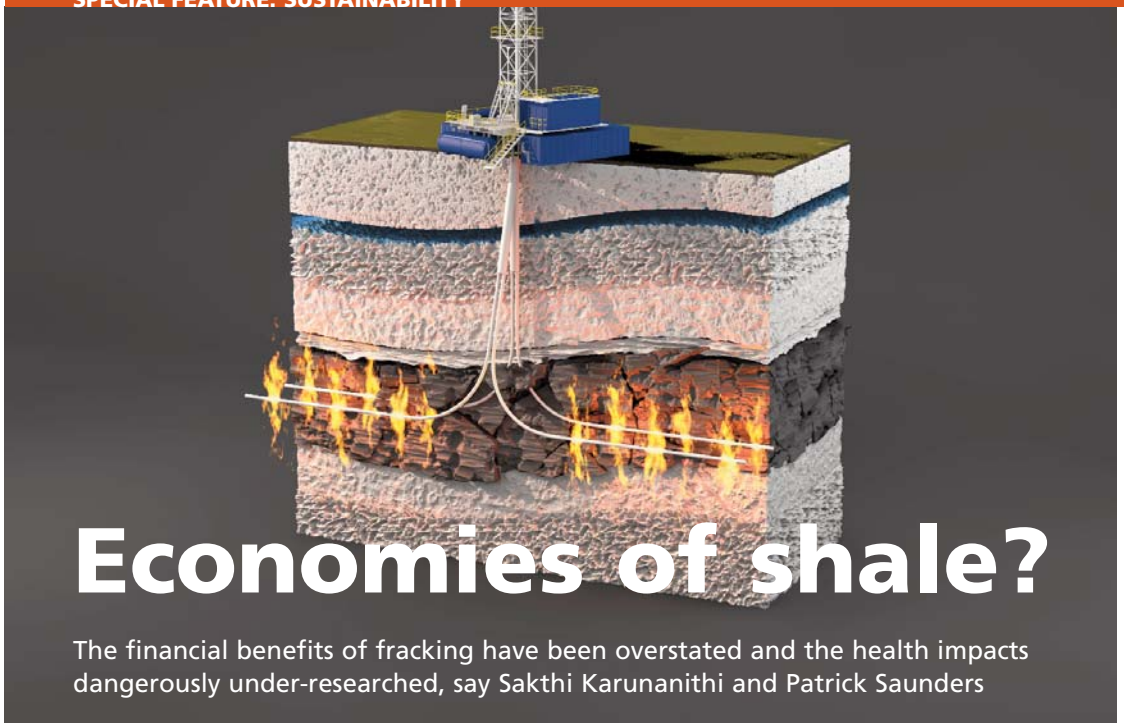
The focus of the current phase is leadership and governance for health in all policies. Cities benefit through the political spotlight thrown onto their five-year programme of activity and through access to expert and peer support. The next tier comprises about 1,000 cities which belong to their relevant WHO Healthy City National Network and benefit from national events, networking and access to WHO resources.

> **The Healthy Cities approach is about spreading governance of population-level health across a whole town or city**

Through analysis of healthy urban planning, cities can be placed in three catagories according to their approaches:

- Initially a city may undertake a few isolated projects, for example improving access to a park or providing better lighting in a housing estate. Public health evidence and advocacy help to win the investment; success is an emergent collaboration between public health and urban planners.
- The creation of a 'standing dialogue' between public health and city planning which allows more strategic projects to be tackled. Examples include a cross-city cycle highway connecting disadvantaged communities to the city centre or city-wide greening to promote increased activity and use outdoor spaces.
- The final step, and maturity, of the healthy urban planning approach is when the use of a 'health lens' starts to be embedded into the culture of how a city 'does' urban policy. A number of tools and policies emerge, backed up by strong relationships, with health influence extending into areas such as strategic planning, urban regeneration, climate mitigation or transport investment. This is a whole-systems approach. Marshalling the evidence-base and the arguments requires careful attention. Public health specialists wanting to create healthier cities need political backing and a network of peers. The WHO Healthy Cities network exists to provide that support. If, flying in the face of evidence, you believe in the absurdity of healthier cities, consider joining-up.

Marcus Grant
Expert Advisor
WHO European Healthy Cities Network
Director
SHINE



Economies of shale?

The financial benefits of fracking have been overstated and the health impacts dangerously under-researched, say Sakthi Karunanithi and Patrick Saunders

THE worldwide development and expansion of high-volume hydraulic fracturing (fracking) is arguably the most significant change in energy policy since the advent of the fossil-fuel economy. Yet public health and planning authorities in the UK are making decisions on extraordinarily limited evidence. While fracking unequivocally presents an exposure hazard, published data on population exposures is scarce. The research-base on potential health and wellbeing effects is, if anything, even more limited both in terms of quantity and quality. While there are certainly concerning signals, the literature is not mature enough to enable a definitive public health judgment.

Proponents of fracking highlight its economic benefits, and there would clearly be increased tax revenues for the Exchequer if the process were established in the UK. However, the major reductions in energy costs seen in the US would not be realised here given domestic factors including the nature of the UK gas economy and infrastructure. The US experience also suggests that local economic benefits have at the very least been overstated and may not be real.

Inevitably, in any case, local communities, social networks and environment will be impacted by a significant and new industry. Communities will be understandably anxious about the effects of such a 24-hour operation on property values and the additional burden on local physical and social services. In the UK these communities will be predominantly rural or semi-rural and will have real concerns about the compatibility of an industrial process with traditional local economic enterprises such as agriculture and tourism. These anxieties cannot be dismissed as 'nimbyism' given the plausibility of impacts, documented experiences of many communities and developing literature from the US.

The Director of Public Health (DPH) for Lancashire County Council (LCC) conducted a health impact assessment of two proposed shale gas exploration sites in Lancashire and concluded that key risks to the health and wellbeing of local residents included:

- Lack of public trust and confidence, stress and anxiety from uncertainty that could lead to poor mental wellbeing
- Noise-related health effects due to continuous drilling
- Issues related to capacity for flowback waste water treatment and disposal.

The DPH advised that these risks could be mitigated with effective management and regulation but also made a series of recommendations about environmental and health monitoring, emergency preparedness, the implications of further shale development and the importance of active community involvement. The latter is especially relevant now as, following LCC's refusal of planning permission, the Government has announced its intention to rule on industry appeals against these decisions at a ministerial level.

Fracking also has significant distal as well as local effects. Claims that shale gas will make a major contribution to reducing greenhouse gas (GHG) emissions and act as a bridge to a low carbon-energy future are questionable and dependent on some largely unsubstantiated assumptions. Indeed, there seems to be an emerging academic consensus that shale gas may lower the cost of achieving GHG reduction goals but it will not shorten the time to do so.

It is reassuring that both the UK regulators and industry appear to have learned from some of the negative aspects of the US experience, but it is still uncertain whether the controls proposed could fully address the real concerns about the environmental, health, economic, democratic and social impacts of fracking, especially if the industry scales up.

Sakthi Karunanithi
Director of Public Health
Lancashire County Council
Patrick Saunders
Visiting Professor of Public Health
University of Staffordshire

Risks of invisible killer need urgent airing

WITH air pollution costing the nation £54bn per year and linked to 45,000 premature deaths per year, it is surprising that it isn't on everyone's mind as the most pressing health issue. These figures outstrip obesity which kills 30,000 people per year yet tops the headlines on a regular basis.

The reason is clear – literally. Air pollution is an invisible menace which impacts us all, yet awareness of it and what actions can be taken to protect ourselves from its effects is generally low. This ignorance is leaving people exposed to dangerous levels of air pollutants, particularly in inner-city areas where traffic, the main contributor, is heaviest.

Putney High Street in London exceeded its annual air pollution limit after just eight days. Birmingham, Manchester and Leeds are also on the list of UK cities that the Department for Environment, Food & Rural Affairs has identified as air pollution hotspots. It is crucial that we improve people's understanding of the actions that they can take to reduce their exposure to pollution.

This is particularly the case for the most vulnerable: those with cardio and lung conditions, maternity patients and young children. The particulates in air pollution exacerbate conditions such as asthma, are linked to stunted foetal development and can reduce the lung capacity of the young by up to 10%. As an environmental behaviour-change charity, we believe that embedding new behaviours at change-of-life moments helps to secure more positive long-term health outcomes. At these moments of transition, people are more receptive to incorporating new habits into their behaviour. Global Action Plan collaborated with Barts Health NHS Trust to create a number of interventions at such points for residents across east London.

Through our Protecting Patients programme we are working with the maternity team at the Royal London Hospital, training clinicians to give advice to pregnant women about walking along low-pollution quiet routes away from busy roads to improve the health of their child. In Walthamstow, pharmacists distributed 1,000 air-pollution maps to patients collecting their prescriptions, helping them to identify low-pollution travel routes.

Given the long-term health impact on the young, building their resilience is key. School workshops have been a great way to educate these young minds. They completely take on board the messages and help influence their parents to make cleaner air choices about their school run. However, pester power has its limits. We would like to see Clean Air Zones around schools and more advice for children and parents that will help them to make low-polluting travel choices.

Awareness of air pollution is rising, but this has not been matched by an understanding of the actions that people can take to protect themselves. With 33% of patients more likely to change their behaviour if advised to do so by a trusted health professional, the NHS is ideally placed to distribute these messages and help patients breathe cleaner, healthier air.

Caroline Watson
Senior Partner
Global Action Plan

Climate, health and transport must all join up

THE health impacts of active travel are difficult to overestimate. Multiple benefits include physical activity and the associated impacts on heart disease, cancer, diabetes and mental ill health, but also access to employment, education, health services, food and social support networks. Travelling actively and leaving the car at home also reduces air pollution, climate change, noise and vibration, severance of communities by motor traffic, traffic danger, injuries and many more.

The Good Transport Plan for Bristol, developed last year, provides great ideas for a transport system that is good for us and good for the city. This connection is also well understood within the health world.

Leading authorities from Public Health England, the Association of Directors of Public Health and the National Institute for Health and Care Excellence are clear on the benefits of active and sustainable travel and the need to invest in walking and cycling.

And yet there is still a long way to go for this to be reflected in practice in transport at a national and local level. A vital part of the change needed is greater partnership-working at both the local and national levels and a greater understanding of the health impact of transport.

Transport, health and planning all need to be working together to create places and systems that deliver real health benefits. Nationally, the Government can lead this by ensuring that the upcoming Childhood Obesity Strategy integrates with the upcoming Cycling and Walking Investment Strategy and current reforms to national planning policy.

Chris Bennett
Head of Community and Volunteer Engagement
Sustrans

The biggest strategic health threat we face

OUR future depends on us living within environmental limits. Achieving our goals in sustainable and low-carbon ways is critical to turning the biggest strategic health threat we face into the greatest opportunity for collective action and health improvement. The 2015 Conference of Parties (COP) 21 Paris Agreement showed that health professionals and health systems have an unprecedented opportunity and mandate to build climate-change action into the core business plans of their organisations. The agreement highlights the many potential benefits (including health benefits) from early action on greenhouse gases, as well as emphasising the urgency and seriousness of the challenge.

One of these opportunities is ensuring that our health and social care services are delivered in an environmentally sustainable way. In England, local action is built on the Public Health England (PHE)/NHS England Sustainable Development Strategy for the Health and Social Care System 2014-2020.

Implementation of the strategy is supported by the Sustainable Development Unit (SDU) which helps health and social care organisations embed and promote sustainable development in order to reduce emissions, save money and improve health. SDU director David Pencheon says that the strategy represents a leadership opportunity for public health: "It gives a mandate to public health teams working in various organisations to take joint ownership of the multitude of challenges and opportunities around climate change."

> **Health professionals have an unprecedented opportunity and mandate to build climate-change action into their core business plans**

To implement the strategy, sustainability networks on a range of footprints are being developed across England (North, South, London, and Midlands and East regions). The networks bring together sustainability leaders from a variety of professional backgrounds (public health, clinical health, commissioning, management, procurement, estates) from NHS organisations, PHE, local authorities and the third sector to collaborate on local action. This also allows the health and social care system to act collectively.

In the north, the network is looking at opportunities to address inequalities while creating a more sustainable health and social care system. For example, the network hopes to build on recommendations from the *Due North* report on health equity. There is an opportunity for the network to promote the inclusion of sustainability issues in the North Equity Plan to support local members in actions that promote a sustainable and health-promoting local economy.

Networks are also supporting NHS organisations to ensure that they have a Sustainable Development Management Plan (SDMP) – widely viewed as an initial indicator of success. Currently, 52% of NHS organisations in England have an SDMP in place, and there are opportunities for networks to increase this through organisational mentorship and sharing of best practice. Ian Stenton, a member of the Northern Sustainability and Health Network, thinks it provides a key linkage for NHS organisations to enhance their sustainability efforts: "It's important to have examples or templates of documents, but also to have contacts and people who can come out and speak to your board or senior leadership about sustainability."

From a training perspective, the emerging networks also provide an exciting placement or project opportunity for public health registrars to gain experience and expertise in sustainability. This matches well with new sustainability learning outcomes in the public health curriculum.

Darryl Quantz
Specialty Registrar
Public Health England
Stephen Morton
Programme Director
Sustainability for Public Health Benefits
Public Health England

Translating the science into action plans

"THE changes to the environment we are dealing with are caused by our own behaviour, and we have the ability and the responsibility to turn them around"
– Eric Chivian.

Evidence from the Lancet Commission on Health and Climate Change and the Intergovernmental Panel on Climate Change confirms that our current unsustainable approach to the future is one of the biggest threats to public health. The task facing the Faculty of Public Health (FPH) Sustainable Development Special Interest Group (SIG) is to translate the technical science of climate change into public health terms, strategies and actions that people can relate to in order to tackle climate change effectively. Required changes will transform the way organisations (including the health sector) carry out their business and individuals live their day-to-day lives. However, by taking ambitious action now, the multiple immediate and future benefits for population health will be profound.

After the launch at FPH's conference in 2015, our second SIG meeting in Nottingham examined return on investment with Dr Stephen Morton (Public Health England) [see lead article on this page], local authority insights with councillors Alex Norris and Rory Palmer (chairs of Nottingham and Leicester health and wellbeing boards) and an international perspective with Fernando Antezana-Aranibar, former Deputy Director General of the World Health Organization. Join us at the SIG's next meeting on 26 April 2016 at FPH's offices to help make progress. More information at http://bit.ly/1W6nChG

Helen Ross
Chair
FPH Sustainable Development and Health Special Interest Group

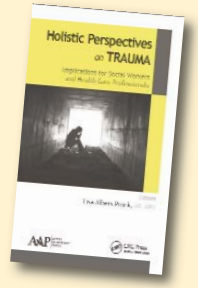
From childhood trauma to adult ill health

"RESEARCH has shown that adverse childhood events are linked to multiple adverse health outcomes... substance abuse, depression, cardiovascular disease, cancer, diabetes, risky sexual behaviour, smoking, suicidality and premature mortality in adulthood..."

This is an important book for public health strategists, because, while we already know those things in principle, it presents some of the neurological means by which they are mediated. Key parts of what may be a causal chain are presented. The book draws on abundant research to illustrate how childhood neglect, cruelty and violence affect brain growth before puberty and limit emotional and behavioural capacities, impair ability to deal with stress and adversity, and increase risk of later chronic physical, behavioural and psychiatric problems. The strength of the evidence cited varies, but there are numerous findings from neurological research highly relevant to public health. Extracting the key findings, there's no doubt that national policy on chronic disease still needs a massive shift towards intervention in the earliest years.

This material could significantly add to the scientific base for the Marmot-style life-course approach to preventing chronic illness. And it could help those of us arguing that national investment in prevention of childhood abuse and neglect is vital. The explorations improve our knowledge of how exactly childhood emotional trauma damages the brain. They also show the periods of greatest vulnerability. So we could extract the strongest evidence and use it to strengthen our planning, targeting and timing of early-years interventions.

Since the book incorporates many references from neuro-development and later illness, we might also extract information from that wider field for use in national public health planning. Two chapters illustrate this: first, the grey matter in children witnessing domestic violence may develop differently from that in other children. So what are the implications for treatment? And will this research help us persuade audiences about prevention? Second, chronic parental neglect appears to have severe and persistent adverse effects on brain development, impacting the person's later ability to relate to others. So what are the implications for the early prevention of social exclusion and behavioural disorder... and social cohesion? Not a book for generalists perhaps, but definitely important to policy-makers.



Andy Beckingham

Holistic perspectives on trauma: implications for social workers and health care professionals
Lisa Albers Prock (editor)

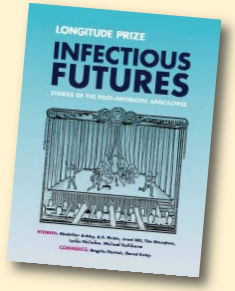
Published by Apple Academic Press
ISBN 9781771881265
RRP: £95

Invasion of the post-antibiotic body snatchers

LIVING in a world where antibiotics are failing is the undercurrent to these six stories commissioned by innovation charity Nesta to complement the Longitude Prize to tackle antimicrobial resistance (AMR). Whilst AMR is a recognised global threat, like many public health problems, it is often perceived as abstract and unconnected to the immediate realities of individual members of the public, patients or medical practitioners. GPs are faced with the dilemma of whether or not to prescribe antibiotics for their patients every day. We still live in a time, as described in *Night Shifts*, when, as doctors, we can "promise patients that their wellbeing [is] the only concern", and it seems hard to imagine a world so changed that "our primary duty is to those who aren't our patients".

These stories are powerful, however, because they bring to life the potentially devastating consequences of AMR, illustrating the far-reaching implications, not only for our health, but for every aspect of our society. The first story, *Ayanda*, uses a familiar female problem and explores the impacts of what was previously an easily treatable condition, when the drugs simply do not work anymore. Her journey takes us through her physical and emotional pain and the effects on her relationship with her partner and with her doctors who are unable to help her. In *Transmission*, Mia depicts a world of high security with restrictions on people's movements, where public health responses are just about "pretty, precious, pointless infection-spread models" and inequalities are amplified when only the wealthy are able to protect themselves. Yuki, in *They Want to Live Too*, inhabits a world with minimal human contact, where having children is high risk, where children are schooled and interact with friends only through computers, and where riding a bike is potentially lethal and an act of rebellion. Isolation and inequalities are also themes of *Causes*, with extensive quarantine procedures at the palace and isolation wards in hospitals, as well as the targeting of 'foreigners' as scapegoats. The latter subject is explored again in *Night Shifts* where they are accused of "bringing their filthy foreign diseases". Finally, in *Sting* we face Gregor's dehumanising experience of being cared for by robots.

Winning hearts and minds is essential in the battle to preserve the effectiveness of the antibiotic treatments we have, and these stories will hit the mark, especially with non-scientific audiences.



Shirin Izadi
Thara Raj

Infectious Futures: Stories of the post-antibiotic apocalypse
Madeline Ashby, AS Fields, Jenni Hill, Tim Maughan, Lydia Nicholas, Michael Rathbone

Published by Nesta
Free download at
http://www.nesta.org.uk/publications/longitude-prize-infectious-futures

From the CEO

IN SEPTEMBER I completed my involvement in the Commonwealth Study Conference Smart Cities programme with a field visit to Singapore, using the opportunity to meet Faculty of Public Health (FPH) members, the National Environment Agency, the Health Promotion Board, the College of Public Health and Occupational Physicians and others. I was struck by Singapore's long-term approach to sustainability. The dramatic growth in the population (doubling to 5.5 million in the past 25 years), combined with the daily visiting workforce from Malaysia, has significantly increased demand on limited resources – but they saw this coming and planned accordingly.

The management of the water supply perhaps represents one of the most significant achievements. Dependent on pipeline supply from Malaysia, Singapore is committed to becoming self-sustaining through its Four National Taps strategy before renegotiation of the agreement in 2061. A massive land reclamation project enabled the city to expand and create an enormous reservoir, fed by two rivers, to which was added a marine barrage. Water capture, desalination, recycling with separate rain and sewage systems and a cultural commitment to save water have led to success.

The sustainability approach has also been applied to other aspects of the economy. The Mass Rapid Transit (MRT) train system is quick, efficient, cheap, accessible and clean. It provides excellent links to the public housing estates outside the city. High road taxes disincentivise private car ownership.

Other examples include recycling waste vegetative matter from parks and gardens to produce clean fuel, using waste grease and cooking oil as biofuel to power construction cranes, and using sensors in the water system to calculate input as well as output.

Sustainable food supplies are in development at the polytechnic including soup in a dissolvable (and edible) container and (very tasty) crisps made from unwanted fish skins!

Urban planning laws require buildings to use their footplate for green space, resulting in an impressive display of roof gardens and trailing vegetation – and more trees now than in 1960!

It is arguable whether any of these innovations would have happened without the vision and leadership of Lee Kuan Yew, Singapore's first prime minister, who said: "Every other policy had to bend at the knees for water survival." A lesson indeed for the importance of sustainability.

David Allen

FPH elections

We are very pleased to announce the results of the following elections:

- President – Professor John Middleton
- Registrar – Dr Peter Sheridan*
- Assistant Registrar – Professor Zafar Iqbal*
- Treasurer – Dr Ellis Friedman
- Academic Registrar – Dr Brendan Mason
- Assistant Academic Registrar – Dr Suzanna Mathew
- Local Board Member for the North West – Dr Dympna Edwards
- Local Board Member for the East Midlands – Mrs Alison Challenger
- Local Board Member for the West Midlands – Dr Patrick Saunders

* re-elected for a second term of two years

All those elected will take up office immediately following the close of the FPH annual general meeting on 15 June 2016.

A full membership ballot is currently ongoing for the election of three General Board Members. The deadline for voting is midday on Monday 25 April 2016. If you have not received your voting papers, please contact Caroline Wren at carolinewren@fph.org.uk, tel. 020 3696 1464.

Nominations are also currently open for the election of Faculty Advisers, Deputy Faculty Advisers and Continuing Professional Development Advisers for a number of English regions and Wales. Full details of the vacancies are available on the FPH online members' area or from Caroline Wren. The closing date for nominations is Friday 15 April 2016.

The Journal of Public Health

IN THE March 2016 issue of the *Journal of Public Health*:

- Why Brexit threatens public health
- Violence in northern Mexico
- English hospital admissions for carbon monoxide poisoning
- Teen waterpipe smokers in Lebanon
- Community organising and community health in south London.

And coming up in June:

- How healthcare practitioners deal with fuel poverty
- Impact of the bedroom tax
- How English directors of public health make the case for investment
- Lung cancer and urbanisation in southern Europe
- Lifestyle behaviours in deprived neighbourhoods in London
- Deprivation and breast cancer screening uptake
- Why charging migrants for healthcare is a bad idea.

In memoriam

Aubrey Sheiham
1936 – 2015

AUBREY Sheiham graduated from the University of Witwatersrand in 1957. He joined the London Hospital Medical College and moved in 1984 to a chair in dental public health at University College London. There, he pursued his main research interests, the benefits of reducing sugar consumption, the risk of over-treatment by dentists and the social determinants of dental health, against a background of an incisive appreciation of the policy implications of the epidemiology of dental caries.

The 1950s saw the end of sugar rationing and, as a result, a marked deterioration in child dental health. The new NHS dental service responded with six-monthly check-ups for children, and extractions and dentures for adults. The widespread introduction of fluoride toothpastes in the early 1970s saw an astonishing reduction in dental caries, particularly in the highest socioeconomic status (SES) groups. Aubrey argued that, with what was now a slowly progressing disease, false negative diagnoses had little consequence, whereas false positive diagnoses led to irreversible decisions to restore the tooth and, about every 10 years, replacement with an ever larger restoration and eventual failure. Aubrey's views caused outrage in the dental profession but were endorsed by the then National Institute for Clinical Excellence which recommended an annual check up for most children, and once every two years for most adults.

With his colleague Richard Watt, Aubrey argued for an upstream approach for dealing with the growing SES differences in dental health. Their arguments were persuasive and widely accepted although, with the exception of water fluoridation, there is as yet limited evidence of effectiveness. Aubrey was an inveterate campaigner with an exceptional ability to use the media; he had an international network including 52 PhD graduates from 20 countries.

On a personal level, he was a gentle and kind man who will be sorely missed.

Michael Lennon

Frank Murphy FFPH
1930 – 2016

FRANK Murphy was born in Altrincham and in wartime Manchester attended the grammar school, university and medical school of that city qualifying in 1953. He spent the next 10 years as a clinician in West Africa. Initially a national serviceman, he was commissioned as a medical officer with the British Army and spent four years in the Royal West Africa Frontier Force.

He returned to England to enhance his clinical skills at Cromer and to receive training in Tropical Medicine before returning to Africa. The Colonial Medical Service appointed him District Medical Officer in Northern Nigeria where he ran a large missionary hospital, more or less single handed, often without electricity and a reliable water supply.

The family returned to England in the bitter winter of 1963. Frank, influenced by his work in Africa, determined on a new career in public health. After post-graduate

studies in London, he became a deputy medical officer of health (MoH) in Havering and subsequently MoH in Redbridge. He was to work in Essex and east London for the rest of his professional life with his great friend and colleague Spence Galbraith. It was a memorable partnership.

Frank made the challenging transition, from MoH to district community physician in 1974, when he was appointed in Newham. He was able to supplement the management skills of the MoH with the new disciplines of epidemiology, statistics, economics and sociology applied to the NHS. It was a difficult transition for many, but Frank made it effortlessly and thrived in the new environment. He was a founder member of the new Faculty of Community Medicine and an inspiration to the new cohort of doctors actively seeking careers in a new discipline and with the new faculty.

After Newham in 1976, he was Area Medical Officer for the City and East London; he was the first to highlight the problem of the 'blocked bed' (where discharge from an acute bed was impossible because social provision was limited). He was also a key player in establishing the Department of Community Medicine at the Royal London Medical School.

Frank led preventive initiatives at North East Thames Region and taught at the London School of Hygiene and Tropical Medicine before returning to front-line public health as Director of Public Health for Harlow until retirement in 1994.

His abilities, ideas, teaching and enthusiasm made a difference to many people in public health and, more importantly, to the better health of the people of east London.

He was predeceased by his wife Tina soon after retiring and in 1997 married Rosemary. They delighted in their retirement on the edge of Exmoor. Rosemary, his stepson from his first marriage and four stepdaughters from his second, survive him.

Peter Sims

Duncan Conacher OBE FFCM
1922 – 2015

QUALIFYING at Edinburgh in 1944, Duncan Conacher joined the Royal Army Medical Corps and was attached to one of the West African infantry brigades serving in Burma. Subsequently he devoted most of his career to tropical medicine in many parts of the world, from Tanganyika (now Tanzania) to the New Hebrides (now Vanuatu) and from Ethiopia to Malawi. Between these postings he worked as a community physician in Tayside, Scotland, and lastly served a spell as a medical missionary in Pakistan. He was awarded the OBE in 1979.

Throughout his life Duncan published on subjects ranging from smallpox to child mental health, and he also wrote extensively about his great private passion, ornithology.

Deceased members

The following members have also passed away:

Elizabeth Harris FFPH
Slobodan Lang FFPH
Basil Nicholson MFPH

Welcome to new FPH members

We would like to congratulate and welcome the following new members who were admitted to FPH between November 2015 and February 2016

Fellows
Iain Pretty

Members
Elspeth Anwar
Christina Atchison
Suzanne Bartington
Ruchi Baxi
Mattea Clarke
Dhanika Dabrera
Roberto DeBono
Thomas Frost
Rachael Hornigold
Nicholas Leigh-Hunt
Janice Lo
Orsolina Martino
Ankush Mittal
Kathryn Porter
Giles Ratcliffe
Lynne Rush
Victoria Spencer-Hughes
Helen Tapson
Ian Walker
Sarah Weld

Diplomate Members
Nalini Iyanger
Joanna MacIver
Aparnareddy Mummadi
Victoria Peacey

Specialty Registrar Members
Jennifer Barker
Jonathan Pearson-Stuttard
Peter Roderick
Beatrix von Wissmann

Enrolled Practitioners
Andrew Attfield
Tafadzwa Chirowodza
Kate Eveleigh
Renuka Godawatta
Angela Hands
Jonathan Herbert
Joseph Jobber
Christine Locke
Lioudmila Mameva
Christian Robinson
Nerissa Santimano

New public health specialists

Congratulations to the following on achieving public health specialty registration:

UK PUBLIC HEALTH REGISTER

Training and examination route
Mohammed Azhar
David Edwards
Heather Lewis
Iain Little
Kirsty Little
Penelope Marno
David Pearce
Rachel Sokal
Miranda Sutters
Angeline Walker
Sarah Weld
Rachel Wigglesworth

Defined specialist portfolio route
Natalia Clifford
Tracy Daskiewicz
Gareth Hughes
Cherry Jones
Kelly O'Neill
Kathyrn Porter
Karen Wright

GENERAL MEDICAL COUNCIL REGISTER

Tara Shivaji

FPH briefs

Date of FPH Annual General Meeting: 15 June 2016
The 44th Annual General Meeting (AGM) of the Faculty of Public Health will be held on Wednesday 15 June 2016 at 9.15am at the Brighton Centre, Kings Road, Brighton, East Sussex. The AGM will note the admittance of new Members and Fellows to distinction and honorary grades of membership, prize and award winners, election results and the composition of the FPH Board for 2016-17. It will receive the FPH annual report and accounts for 2015 and reports from the officers on the first half of 2016.

Health Protection Committee is reborn
FPH will soon be reconvening its Health Protection Committee and will be putting out a call for a new chair to lead its development. FPH's Health Protection Committee is a sub-committee of the Health Policy and Advocacy Committee (HPAC). HPAC is chaired by the Vice President for Policy and supports FPH's Board in setting the strategic direction on matters relating to public health policy as well as act as a decision-making body for the policy and communications function of FPH.

For further information and to express your interest in either chairing or joining the Health Protection Committee once it is reconvened, please email policy@fph.org.uk

Have you started thinking about your annual CPD return yet?
Continuing professional development (CPD) returns for 2015/16 are due to reach FPH no later than **30 April 2016**.

If you have been using the online CPD diary (https://cpd.fph.org.uk/), please log into your account and click the 'submit mandatory annual return' tab and follow the instructions on screen.

Otherwise, you can complete the Portfolio Section 4 form available on the FPH website (http://bit.ly/1U5dubB) and send it by email to cpd@fph.org.uk or by post to CPD Administrator, 4 St Andrews Place, London, NW1 4LB. This is the last year in which you will be able to send your CPD return by post or email. From 2016/17, all CPD returns will need to be sent to FPH via the online CPD diary.

To claim exemption from the FPH CPD scheme, you can also use the Portfolio Section 4 form and send it, along with your supporting evidence, to cpd@fph.org.uk

If you submit your annual return later than 30 April 2016, you will automatically be included in next year's audit.

FPH appointments
We are pleased to announce that Dr Toks Sangowawa and Dr Judith Bell have been appointed as FPH Continuing Professional Development (CPD) Director and Chair of the Part B MFPH Examiners respectively. Their appointments will begin at the Annual General Meeting in June 2016, when the present holders, Dr Lorraine Lighton and Professor Chris Packham, end their terms of office.

FPH would like to extend sincere gratitude to both Lorraine and Chris for their years in office and their significant contributions to ensuring the continued reliability of the FPH CPD scheme and the Part B Examination.