

by drawing on the strengths of NHS organisations, not-for-profit institutions, and the private sector.

The second consideration is stability for the NHS. Hard though it may be, the next UK Government needs to provide a period of stability for the NHS, without top-down reorganisation, while fostering local creativity and continuity in local NHS leadership. Creativity and innovation does not thrive in an environment of rigid regulation and risk aversion, however. The period of stability should be used to reduce the onerous regulation faced by NHS organisations, by rationalising the excessive number of regulatory agencies whose functions clearly overlap. The third is financing. The next UK Government should maintain per-person NHS funding in real terms, funding which takes into account population growth and ageing, both of which will increase demand on services. Increase in funding should be combined with up-front investments in primary care and community services to enable the creation of local solutions that draw on the social sector, as well as new technologies. A fourth consideration is empowerment of service users and local citizens by involving them in decisions on their care and the design of local health systems. The fifth, and undoubtedly the most important consideration, is the health workforce, which should be entrusted by the authorising environment to create local solutions and bring about change. Leadership development at all levels is an urgent priority.

The NHS has stood the test of time, but it faces major threats. In 2012, the health expenditure in the UK was 9.3% of GDP, the average for the OECD, but far less than Canada (10.9%), Germany (11.3%), France (11.6%), and the USA (16.9%).¹⁵ Its achievements make a strong case for any responsible government to nurture the NHS by continued investment to generate greater value for

money through improved efficiency, effectiveness, and responsiveness, and to create value for many by upholding equity. Not doing so would have untold consequences for the British public and the social cohesion the UK enjoys.

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Deaths and taxes: stronger global tobacco control by 2025

10 years ago the WHO Framework Convention on Tobacco Control (FCTC) entered into force, and more than 170 countries have now signed this treaty.¹ This anniversary marks an appropriate time to review progress on global tobacco control.

First, smoking cessation is now common among adults in high-income countries but remains uncommon among adults in many low-income and middle-income countries

(LMIC) where most smokers live.² Global annual cigarette sales rose from 5 trillion sticks in 1990 to about 6 trillion today.¹ Roughly 1 ton of tobacco produces about 1 million cigarettes and causes one death; thus, each trillion cigarettes consumed annually should eventually cause about a million deaths annually.³ In China, where 40% of the world's cigarettes are consumed, cigarette production rose by 30% since 2000.⁴ Meanwhile, in India small, locally

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For WHO Framework Convention on Tobacco Control see <http://www.who.int/fctc/about/en/>

produced, hand-rolled cigarettes known as bidis are being displaced by cheap manufactured cigarettes.^{3,5}

The 21st-century hazards among men and women who start smoking early in adult life and who don't quit have been documented only recently. These epidemiological studies show that regular smokers face a three-fold higher risk of death than otherwise similar non-smokers, leading to a loss of at least one decade of life.³ Smoking hazards accumulate slowly but cessation is effective quickly: quit by age 40 years and get back nearly the full decade of life lost from continued smoking; quit by age 50 years, get back 6 years; quit by age 60 years, get back 4 years.³

Once governments decide to control tobacco use, the solutions to reduce demand are obvious. As part of its global action plan on non-communicable diseases, WHO has called for a 30% reduction in prevalence of current tobacco use by 2025,¹ which would avoid about 200 million deaths by the end of this century.^{5,6} Tripling tobacco excise taxes in most LMICs is the most plausible way to achieve this reduction.^{3,5} Non-price interventions enable political support for increases in tobacco taxes, but on their own are unlikely to meet this WHO goal. Advertising bans and restrictions on smoking are one reason why young women in India and China have not yet taken up smoking in large numbers.² Australia has adopted plain packaging for cigarettes, and the UK is considering following suit.⁷ Local epidemiological studies on the effects of smoking are influential but are too few. For example, in South Africa smoking accounts for about 15% of deaths from tuberculosis among African men,⁸ and these data help convince politicians about the need to keep smoking prevalence in Africa at current low levels (eg, below 10% among Nigerian men).² The inclusion of simple questions on past tobacco use on death certificates or verbal autopsies enables low-cost monitoring of its effects in many populations.^{8,9}

A tripling of the excise tax on tobacco in most LMICs would raise cigarette prices by about 100% and reduce tobacco consumption by about 40%.^{3,5,6} This reduction would be greater among young people and the poor who are more responsive to changes in price than other groups.¹⁰ Between 2008 to 2013, many more countries adopted public awareness campaigns or restrictions on smoking in public places, but little progress was seen on appropriately high taxes on tobacco.¹ Multinational and state-owned tobacco companies coordinate simple,



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regular, and professional tax briefings to governments, particularly to finance ministries, around the world and provide them with market intelligence on sales, revenue, and the illicit trade in tobacco.¹¹ The industry strategy is to keep any tax hikes below the rate of income growth so that cigarettes remain affordable, and to vary the tax on different cigarettes to enable smokers to switch down to cheaper brands or lengths.^{3,10,11} Thus, cigarette prices vary by more than ten-fold in China compared with only two-fold in the UK.³ Global tobacco industry profits of about \$50 billion or about \$10 000 per death^{3,12} enable industry access to governments, and pricing research and allow interference against tobacco control.¹²

Any serious reduction in smoking will need to directly counter key industry strategies that interfere with tobacco control measures. Accessible and independent sources of data on tobacco sales, revenue, and smuggling are needed. This year, the International Monetary Fund (IMF) is expected to issue a supportive paper on tobacco taxes. The IMF and World Bank could go further and counsel country finance officials to refuse any visits or advice from tobacco lobbyists, as WHO recommends for health officials. There have been successes in some countries: the Philippines, Mexico, and Uruguay adopted large hikes in taxes on tobacco despite fierce industry opposition by pairing expert taxation advice with local political champions.^{3,11} Indian Finance Minister Arun Jaitley increased taxes on the cheapest cigarettes in the government's February 2015 budget, finally tackling the industry strategy of pricing cheap cigarettes to displace bidis; the stock market price of the industry

fell in contrast to gains after most previous budgets.¹³ Regular, rigorous, and structured advice to governments, especially ministries of finance, given by credible experts could help to triple excise tax and raise the price of the cheapest cigarettes. Global efforts have successfully used peer interventions to change the behaviour of sex workers;¹⁴ similar peer interventions could change the behaviour of finance ministers.

Effective tobacco control over the next decade requires priority actions to increase excise taxes, while expanding coverage of plain packaging and bans on public smoking and on tobacco advertising, sponsorship, and promotion.^{1,3,5} Priority should also be given to strengthening research on tobacco use that is locally relevant—eg, by supporting the Richard Doll Centenary Classic Causes Consortium—since country-specific data can inform policy and generate vital political attention to tobacco control. Cancer Research UK will launch a global tobacco control research plan this year to generate new knowledge that can be used to support tobacco control measures. Focused actions could strengthen tobacco control worldwide and help to implement the FCTC more effectively. If so, we could bring forward the time when many tens of millions of adult smokers quit and smoking uptake among young people falls, preventing millions of premature deaths.

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For the Richard Doll Centenary see https://www.ox.ac.uk/media/global/www.ox.ac.uk/localsites/gazette/documents/Richard_Doll_Centenary_Meeting_programme.pdf



Out-of-hospital cardiac arrest: manual or mechanical CPR?

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The appropriate role for mechanical chest compression devices in pre-hospital care has been debated in recent years.¹ The quality of manual cardiopulmonary resuscitation (CPR) during out-of-hospital cardiac arrest is often less than optimum, and affects survival.² Mechanical compression devices are an attractive alternative: they never get tired, give consistent chest compressions, and allow CPR to continue during transfer of the patient. Results from two studies^{3,4} of implementation of mechanical CPR devices in the so-called real world showed higher rates of return of

spontaneous circulation and survival to discharge with mechanical CPR than with manual CPR. However, results from three randomised trials⁵⁻⁷ did not show significant survival benefit for mechanical CPR compared with manual CPR.

In *The Lancet*, Gavin Perkins and colleagues⁸ describe a pragmatic, cluster-randomised trial including adults with non-traumatic out-of-hospital cardiac arrest from four UK ambulance services. Ambulances were randomly assigned to either mechanical CPR (with the LUCAS-2 device, figure) or manual CPR. The investigators enrolled