Prevention, treatment, and profit: an unsustainable alliance

World Cancer Day, on Feb 4, 2019, had at its core a message of early detection and screening. These goals are integral to cancer research and treatment; furthermore, they underscore the potential scale of benefit that better prevention strategies could offer. A focus on screening has obvious advantages, but how best to integrate prevention into health services, and the risk of overtreatment, are sources of debate.

Several strategies have aimed to bring screening to the public more directly, rather than relying on attendance at designated appointments. In England, in light of the failure to meet 2018 targets for breast, bowel, and cervical cancer screening, the National Health Service (NHS) has pledged to increase early diagnosis of cancers by 75% over the next 10 years. To this end, the NHS has just announced plans to send out mobile screening trucks to areas of England with high incidence of deaths from lung cancer. In Canada, the Screen for Life Mobile Life Coach also provides tests for breast, cervical, and colon cancer for individuals near their places of work, with the aim of improving general uptake of these services. Although any population-based screening increases the chance of overdiagnosis and can be compromised by complex lifestyle and societal factors, precision prevention in high-risk individuals is a useful approach to tackle the cancer burden, while providing a good trade-off between the benefits and harms. Early diagnosis not only improves outcomes and reduces mortality, it also lessens the reliance on cancer drugs, some with highly debatable clinical benefit, that drain billions of dollars from health-care systems each year.

A recent WHO report shows that even in high-income countries, there are huge disparities in access to, and most notably the pricing of, cancer medicines. The findings, although not surprising, are stark: prices of cancer drugs have continued to increase year on year, sometimes even doubling within 5 years, and with the increasing use of more and more complex immunotherapies, prices are likely to rise further. It is sobering to see, in the WHO report, not only a breakdown of costs incurred by pharmaceutical companies and the apparent disconnect between cost and profit, but also the huge variation in drug pricing strategies between countries. The WHO-endorsed essential medicines list for cancer drugs is still unaffordable in many places; in low-income countries, 57% of drugs on the list are available only if patients pay for the full cost of treatment themselves. Even within countries, inconsistencies exist in access to certain cancer drugs. Prices for new drugs are often so prohibitive that negotiations between pharmaceutical companies and individual health-care systems are commonplace. For drug companies, who can reduce their original asking price by as much as 70%, what does this say about the elasticity of their prices? With an average return of US$14·50 on every $1 invested in research and development, there is no doubt room for manoeuvre. Increased transparency would help to ensure accountability, but there seems to be little impetus for manufacturers to disclose the rationale for their pricing strategies. In 2011, *The Lancet Oncology* published a Commission on the delivery of affordable cancer care in high-income countries. 8 years later, the findings of the WHO report reiterate that the problem is now even more rampant, and drastic measures are needed to tackle what seems to be gross profiteering by the pharmaceutical industry.

Regulatory agencies and health-care systems are integral to easing cancer burden. In the UK, the National Institute for Health and Care Excellence has a firm grip on the introduction of drugs into the NHS and is essential to maintaining cost-effectiveness, but even with this regulation, the NHS still continues to face chronic funding problems. In countries with market-based health care, such as the USA, the situation is much worse, with considerable growth in prices far above inflation. With such diverse health systems worldwide, the appropriate balance between prevention, early diagnosis, and treatment must be achieved to minimise disparity. After all, the burden of cancer is not solely a consequence of increasing numbers of diagnoses, but also the cost of treatment. This burden will only be reduced by addressing prevention and profit in parallel—and, if profit margins continue to remain out of reach, one of the most effective ways will be to reduce the reliance on these medicines altogether. Governments worldwide are failing to manage health-care costs—it is time we focus on precision prevention to regain some semblance of control. ■ *The Lancet Oncology*

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For more on **screening targets not being met** see https://www.bbc.co.uk/news/health-47074657

For more on the **NHS long-term plan** see https://www.longtermplan.nhs.uk/areas-of-work/cancer/

For more on the **NHS lung cancer screening trucks** see https://www.theguardian.com/society/2019/feb/08/nhs-to-screen-for-lung-cancer-in-trucks-in-supermarket-car-parks

For more on the **Canadian cancer screening bus** see https://www.thespec.com/news-story/7065903-cancer-screening-at-work-new-mobile-centre-brings-tests-to-patients/

For more on **precision prevention** see https://www.thelancet.com/journals/lanonc/article/S1470-2045(17)30331-5/fulltext

For more on the **WHO technical report** see https://www.who.int/medicines/areas/access/Improving-affordability-effectiveness-of-cancer-medicines/en/

For more on the **Lancet Oncology Commission** see https://www.thelancet.com/commissions/delivering-affordable-cancer-care-in-high-income-countries