

For the Global Youth Coalition championing Vaccines For All website see www.vaccinescoalition.com
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and health, organised projects aiming for systems change. For example, a YGL led project in Siaya, Kenya, worked with 200 youth and 1359 community health workers to support handwashing, mask wearing, and COVID-19 case management using digital tools, and reached about 500 000 community members and achieved a radio listenership of more than 2 million. Communities reached by this project had fewer SARS-CoV-2 infections and fewer diarrhoeal and upper respiratory tract infections than neighbouring communities where the intervention did not take place; and the use of essential health services, including maternal health services, was maintained during the intervention.⁷ Future steps will aim to scale up similar but locally adapted interventions across sub-Saharan Africa with the ultimate goal of strengthening primary health-care systems.

Youth are also contributing to post-pandemic recovery plans. The World Economic Forum's Davos TaskForce produced a Youth Recovery Plan which summarised the insights and ideas from 2 million participants from more than 150 cities and 180 countries.⁸ Within the pillar of public health, youth are calling for more community-driven health solutions to rebuild trust in health systems.⁸ Furthermore, youth are calling on G7 nations and international organisations to prioritise COVID-19 vaccine equity.⁸ Given our commitment to vaccine equity, we formed the Global Youth Coalition championing Vaccines For All, and on International Youth Day 2021, we launched a global campaign to advocate for vaccines for all. The coalition is using a digital survey to assess current barriers to vaccine uptake among youth and others who are eligible to get the vaccine. Some respondents have been exposed to misinformation, and they expressed concerns about changes in their menstrual cycle and potential fertility. Such concerns will need to be addressed to maintain trust and the demand for COVID-19 vaccines among some younger citizens. The initial results of our survey highlight the complex nature of vaccine uptake

among young people which does not rely solely on vaccine supplies.

Contrary to what we have seen so far, we envision a world that is more unified, more equitable, and more committed to collectively achieving the Sustainable Development Goals by 2030, and restoring dignified livelihoods for all. We call on the global community, regardless of age and background, to join us in our efforts by following and resharing the hashtag #vaccinesforall and visiting the Global Youth Coalition championing Vaccines For All's website.

We are both members of the Global Youth Coalition championing Vaccines For All and a full list of coalition members can be found in the appendix. NK received a grant from the Wellcome Trust (grant number: 221407/Z/20/Z). DW is Founder and Managing Partner of Novamed that provides consulting and technical services for organisations covering health services, medical education, and knowledge resources, none of which are related to vaccines development. Novamed has current projects with Impact Consulting Partners, Windward, First Step, and Visionaries summit. DW has received travel support from the Government of Jamaica to attend and participate in the World Under 20 Athletics Championships held in Nairobi, Kenya. DW is the World Economic Forum Global Shapers Community Co-Chair of the COVID-19 Steering Committee.

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The Lancet Commission on cancer and health systems: harnessing synergies to achieve solutions

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Strong health systems require strong cancer systems and strong cancer systems strengthen health systems. This symbiotic relationship should be cultivated and

leveraged to substantively advance universal health coverage. Yet, it has been largely ignored in global health.^{1,2}

The rising cancer burden—the number of cases will increase from 19.3 million to 28.4 million by 2040³—and the availability of prevention and treatment options, demand a new vision. Meeting the challenge of cancer requires solutions that draw on innovation and seek out, build on, and promote synergies across systems. Cancer control and health-system strengthening have a shared future that is personalised and responsive to new knowledge, and nested in and integral to universal health coverage.

Cancer epitomises the injustices of health-care access. A decade ago the term cancer divide was used to describe the unacceptable difference in survival rates for preventable and treatable cancers across and within countries.^{4,5} Now, affordable, implementable solutions exist, yet survival gaps persist, exemplified by childhood cancer: in wealthy countries, 90% of children have the likelihood of cure, while in the poorest countries only 10% can hope to survive.^{4,6,7} This global health failure is perverse. For people with access to health services, science has changed many cancers into curable or liveable health conditions; where timely access to health services is lacking, survival is at best elusive.

Even in high-income countries, health systems fail to offer universal access to high-quality, affordable cancer care.⁸⁻¹⁰ Despite progress, inequity in access, overdiagnosis and overtreatment, and escalating costs without achieving better outcomes demonstrate that cancer control in wealthy regions is no panacea.

The new *Lancet* Commission on cancer and health systems (panel) proposes a diagonal approach to harness linkages and forge a synergistic and mutually symbiotic relationship to improve outcomes. Diagonal approaches to health-system strengthening^{12,13} leverage horizontal systemic programmes and policies, linking them with vertical, risk factor, or disease-specific interventions. Diagonalising cancer control can drive universal health coverage,¹⁴⁻¹⁶ while harnessing systemic platforms facilitates the scale-up of cancer control.

We apply an economics of hope, which entails planning for a future that expects, embraces, and embodies scientific and systemic innovation. Hope-guided economics internalises the permeability of cost and price accounting for the fact that high now does not need to mean high later. Hope-based investment in health systems leverages past successes in combating diseases to define the future and assumes that scientific

breakthroughs can be equitably distributed to strengthen health systems and economies, benefiting entire populations. By contrast, banking on a dismal today empowers an unsuccessful, inequitable tomorrow. Mobile phone technology has revolutionised opportunities for mHealth innovation even in the poorest settings.^{17,18} Global, out-of-the-box thinking has helped make several vaccines affordable and available even in the poorest countries, without stifling innovation.¹⁹

The *Lancet* Commission on cancer and health systems is timely given this is a pandemic year. Health and health systems are still defined by COVID-19, but the challenges of cancer and strengthening health systems will outlive and outgrow the pandemic. COVID-19 deaths and excess mortality from cancer will be layered and concentrated in low-income and middle-income countries. Late diagnosis and impoverishment will leave families unable to afford health care, and weakened or devastated health systems will have less capacity to manage complex diseases such as cancer.²⁰ Our task is to identify pathways that improve access to technology

Panel: Why a Commission on cancer and health systems?

- 1 Cancer is a growing, costly, and enduring health-systems challenge.
- 2 The impact of cancer varies tremendously and is highly inequitable. Setting a high standard for cancer control everywhere and for everyone can be a catalyst for more equitable health systems.
- 3 Strengthening priority setting, system efficacy, and equity for cancer can provide pathways to alleviate health-related suffering²¹ overall.
- 4 Cancer is among the most complex of health problems and provides a prism for understanding and responding to other health-system challenges spanning prevention to palliative care. The search for solutions to cancer can reverberate diagonally and throughout health systems.
- 5 The entire health system is needed to address cancer, positioning cancer control as especially salient for building responsiveness, agility, and resilience into health systems.
- 6 Cancer control must be data as well as information driven and can provide a beacon and a vanguard for modern, digitally enabled health systems.
- 7 Integration-empowered cancer systems generate positive externalities beyond health systems.
- 8 Rapid progress in technologies for prevention, diagnostics, and treatment are potent stimuli for transformative systemic change and leap-frogging advancement, which is especially relevant in low-income and middle-income countries.
- 9 Cancer control can demonstrate how to eliminate the false dichotomies that plague health systems. Entwining research with education, linking prevention with treatment and supportive care, empowering patients to work with providers, and engaging private and public actors are emblematic of cancer control planning.
- 10 A person-centred approach is a bedrock of quality cancer control, positioning cancer as one of the few diseases with the power to mobilise patient voices and to evoke awareness and cross-cutting health-system change.

and innovations that support better and more equitable cancer control, spanning prevention to palliation, while strengthening health systems to be more prepared for other health challenges, including future pandemics.

COVID-19 presents opportunities to leap-frog by harnessing communication technology breakthroughs through telemedicine. The data science revolution makes it affordable to develop, digitalise, synthesise, analyse, store, and share vast quantities of information that anchor machine learning. Additionally, artificial intelligence could improve health-care quality and efficiency in all resource settings, alleviating workforce and equipment shortages, and facilitating clinical decision support tools and remote technical and quality assurance.^{6,21}

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The Commissioners (appendix) comprise disciplinary, thematic, experiential, and scientific expertise into intellectual bridges that aim to transcend the false dichotomies that characterise the worlds of cancer and health systems.²² Commissioners include cancer clinicians and scientists, health-system stewards, global health leaders, primary care providers, economists, and patient advocates in a gender-balanced group that spans world regions.

COVID-19 is a catalyst for disruptive innovation that cancer control must harness to absorb and radiate new energy for systemic change. We are confronted with both a challenge and an opportunity to raise the bar for cancer control for everyone, everywhere, and to shake health systems out of an equilibrium of apathy through which some have access to ever-improving treatment and prevention, while many—mostly the poor—do not have even pain relief and palliative care.¹¹ Our Commission takes up the gauntlet.

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