



Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.

Catalysing the response to NCDI Poverty at a time of COVID-19



Nelson Mandela wrote “Overcoming poverty is not a gesture of charity. It is an act of justice. It is the protection of a fundamental human right to dignity and decent life.”¹ In a world where there are increasing numbers of super-wealthy individuals, some with a personal wealth larger than the gross domestic product of entire countries, a catastrophic level of poverty affects the lives of about a billion people.² Over 90% of the poorest billion live in low-income and lower-middle-income countries (LLMICs) in sub-Saharan Africa and south Asia, and about 80% of them are younger than 40 years.³ What can be done about this injustice?

The *Lancet* NCDI Poverty Commission⁴ presents a novel approach, with a strong equity framing, to non-communicable diseases and injuries (NCDIs) of the global poor. The findings and recommendations of this Commission advance our knowledge and framing of these multifactorial conditions. This comprehensive report makes us listen to the voices of our poorest patients and brings into context data on what has been achieved and where the global health community and governments have failed in the past decade. The Commission’s new analyses highlight the importance of moving from individual responsibility to multisectoral responsibility to address NCDI Poverty. Led by Gene Bukhman and Ana Mocumbi, the Commissioners’ report proposes a fundamental shift from the prevailing global framing of NCDs, which focuses on five diseases and five risk factors,⁵ to a broader set of conditions and risk factors among younger populations. The Commission challenges the current narrow framing of NCDs based on an outdated concept of epidemiological transition,⁶ whereby these diseases only emerge with advancing age, increasing affluence, and urbanisation. As the global poor are mainly younger than age 40 years, many NCDs, such as rheumatic heart disease, congenital heart disease, and peripartum and other cardiomyopathies, lead to heart failure and premature death in young populations.⁷ The authors call for Sustainable Developmental Goal (SDG) targets 3.1 on maternal mortality and 3.2 on under-5 mortality to be separated by causes of death to identify the role of specific underlying NCDs. Furthermore, SDG 3.4, which tracks deaths from cardiovascular disease, cancer, diabetes, mental ill-health, and chronic respiratory

diseases only in individuals aged 30–70 years, needs to be expanded to encompass all ages, and other NCD causes.

The Commission highlights inadequate development assistance for NCDIs. An important role has been assumed by the UN system, with WHO alone responsible for 20% (\$164 million) of NCDI development financing in 2017, showing technical leadership in this field.⁸ A key message of the report is that “international development assistance for health should be augmented and targeted to ensure that the poorest families affected by NCDIs are included in progress towards universal health care”.⁴

The Commission’s recommendations are addressed to national governments, ministries of finance, national civil societies, and research institutions, among others. Some of the key recommendations are aimed at making NCDI Poverty a global priority in the SDG area through national governments adjusting priorities-based approaches to best available local data on NCDIs, and the specific needs of the poor. Structural reforms for quality and innovations in integrated service delivery, including prevention, medical management, surgery, and palliative care at primary, secondary, and tertiary levels, are identified as one of the key priority areas for cost-effective intervention.

Efforts to tackle NCDI Poverty also need to address the social determinants of health, such as improved housing, household energy, food security, education, and transportation. To facilitate these key recommendations,

Published Online
September 14, 2020
[https://doi.org/10.1016/S0140-6736\(20\)31911-5](https://doi.org/10.1016/S0140-6736(20)31911-5)

See [Comment](#) page 939

See [The Lancet Commissions](#) page 991



international development assistance for health should be substantially augmented with a focus on poor populations.

The Commission highlights some progress made in the past few years in delineating NCDI burden, catalysing financing, and developing partnerships, such as the Disease Control Priorities Project 3rd edition⁹ and the Commission launching an NCDI Poverty Network to focus on integrated delivery strategies for locally prioritised interventions.

Crucially, the Commissioners call for global solidarity to tackle NCDI Poverty and bridge a gap in universal health coverage, including access to surgery. There is increased awareness of the lack of access to cardiothoracic surgery in LLMICs. The formation of the Cardiac Surgery Intersociety Alliance, supported by global cardiothoracic societies, with the goal of consolidation of cardiac surgical efforts within LLMICs, is a promising move.^{10,11}

Multisectoral action against NCDs will be crucial, involving ministries of health, finance, energy, transportation, and social protection, as well as civil society groups, research institutions, and professional organisations. An example of the part that professional groups can play is the 2020 joint statement of the World Heart Federation and the World Stroke Organization that called on governments to deliver radical shifts in public health policy to deliver progress on cardiovascular disease and stroke prevention.¹² The two organisations urged governments to move away from the approach of individual clinical risk factor screening towards investment in primary prevention at the population level. By placing all our bets on identifying and treating diseases of the circulatory system, we are missing the opportunity to intervene on their shared causes much earlier in the prevention timeline where the costs are lowest.

In 2020, the global response to the COVID-19 pandemic could hold some lessons for tackling NCDs. Many LLMICs responded swiftly to the pandemic and implemented measures, such as lockdowns, physical distancing, and use of face masks, much faster than some high-income countries.¹³ The importance of community-appropriate advocacy to communicate public health measures became clear.¹⁴ One example of swift government action is how South Africa implemented novel approaches, including a ban on the

sale of tobacco and alcohol for some months followed by restricted access.¹⁵ Although these measures led to reductions in road traffic crashes and crime, allowing the reprogramming of hospital beds to accommodate COVID-19 patients, they impacted negatively on the economy and the broader COVID-19 response disrupted some routine health services.¹⁵

Importantly, the pandemic has exposed deep inequalities in our societies and the world's poorest are among those most severely impacted. As the Commission describes, projections of extreme poverty have increased because of the pandemic and about 71–100 million people, most in sub-Saharan Africa and Asia, are likely to be pushed into extreme poverty because of the COVID-19 pandemic. Action to address economic inequalities and improve the lives and wellbeing of the poorest billion must be at the heart of efforts to rebuild our societies. It is in all our interests to improve the world we share in terms of the prevention of disease and access to health care. The Commission's report provides a much-needed, comprehensive analysis of NCDI Poverty and the achievable key interventions to make a substantial change. It calls on all of us to build global solidarity. Overcoming NCDs linked to poverty is not a gesture of charity. It is an act of justice.

KS is World Heart Federation President (2019–2020). MY is the President and Founder of the non-profit Chain of Hope. We declare no other competing interests.

*Karen Sliwa, Magdi Yacoub
karen.sliwa-hahnle@uct.ac.za

Hatter Institute for Cardiovascular Research in Africa and Cape Heart Institute, Faculty of Health Sciences, University of Cape Town, Cape Town 7925, South Africa (KS); and Chain of Hope, Magdi Yacoub Heart Foundation, Aswan Heart Project, Aswan, Egypt (MY)

- 1 Mandela N. Long walk to freedom. London: Little Brown & Co, 1995.
- 2 Alvarado F, Chancel L, Piketty T, Saez E, Zucman G. World inequality report 2018. Cambridge, MA: World Inequality Lab, 2018.
- 3 World Bank. Poverty and shared prosperity 2018. Piecing together the poverty puzzle. Washington, DC: World Bank, 2018.
- 4 Bukhman G, Mocumbi AO, Atun R, et al. *The Lancet* NCDI Poverty Commission: bridging a gap in universal health coverage for the poorest billion. *Lancet* 2020; published online Sept 14. [https://doi.org/10.1016/S0140-6736\(20\)31907-3](https://doi.org/10.1016/S0140-6736(20)31907-3).
- 5 UN General Assembly. Political Declaration of the 3rd High-Level Meeting of the General Assembly on Prevention and Control of Non-communicable disease. A/RES/73.2. New York, NY: United Nations, 2018.
- 6 Yusuf S, Reddy S, Ounpuu S, Anand S. Global burden of cardiovascular diseases: part II: variations in cardiovascular disease by specific ethnic groups and geographic regions and prevention strategies. *Circulation* 2001; **104**: 2855–64.
- 7 Sliwa K. Heart failure can affect everyone: the ESC Geoffrey Rose lecture. *Eur Heart J* 2020; **41**: 1298–306.
- 8 WHO. Global Health Expenditure Database. 2018. <https://apps.who.int/nha/database/> (accessed Sept 7, 2020).
- 9 Jamison DT. Disease Control Priorities, 3rd edition: improving health and reducing poverty. *Lancet* 2018; **391**: e11–14.

- 10 Cardiac Surgery Intersociety Alliance. Call for proposals to be a pilot site for CSIA supported programs. *Asian Cardiovasc Thorac Ann* 2019; **27**: 339–40.
- 11 Zilla P, Bolman RM 3rd, Boateng P, Sliwa K. A glimpse of hope: cardiac surgery in low- and middle-income countries (LMICs). *Cardiovasc Diagn Ther* 2020; **10**: 336–49.
- 12 Brainin M, Sliwa K, on behalf of the World Stroke Organization and World Heart Federation. WSO and WHF joint position statement on population-wide prevention strategies. *Lancet* 2020; **396**: 533–34.
- 13 Madhi SA, Grey G, Ismail N, et al. COVID-19 lockdown in low-to-middle-income countries: success against COVID-19 at the price of greater costs. *S Afr Med J* 2020; **1110**: 724–26.
- 14 Thienemann F, Pinto F, Grobbee DE, et al. World Heart Federation briefing on prevention: coronavirus disease 2019 (COVID-19) in low-income countries. *Global Heart* 2020; **15**: 31.
- 15 Hofman K, Madhi S. The unanticipated costs of COVID-19 to South Africa's quadruple disease burden. *S Afr Med J* 2020; **110**: 698–99.

Leveraging the advances in HIV for COVID-19



The COVID-19 pandemic has led to accelerated research efforts globally and highlighted the importance of community engagement and leadership in the COVID-19 response. To achieve these objectives, partnerships between science, government, and affected communities are crucial, but building these rapidly presents major challenges. In the past months, we have also seen how advances in confronting the global HIV epidemic have had a positive impact on the COVID-19 response.

Accessible, rapid point-of-care diagnostics were developed to increase uptake of HIV testing and shift to a model of self-testing and community-led programmes. These technologies are allowing for rapid implementation of diagnostic capacity for severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) PCR testing in low-income and middle-income countries (LMICs).¹ Strategies used to isolate and manufacture broadly neutralising antibodies for HIV have been applied to SARS-CoV-2 and are entering clinical trials.² Although potential SARS-CoV-2 antivirals are still only in early stage research and development, eventually, combination antivirals might have a role for treatment and prevention of COVID-19, as pioneered for HIV.^{3,4} Novel vaccine platforms, including nucleic acid-based vaccines such as DNA and RNA and live vectors, again developed for HIV, are now in phase 2 and 3 clinical trials for COVID-19.^{5–7}

As with HIV, COVID-19 has had a major impact on women, with higher risks of infection for women in some settings, such as health care, and a disproportionate economic impact on women as a consequence of school closures and women being primary caregivers.⁸ Furthermore, given the high risk of infection and adverse outcomes from COVID-19 in Black and minority ethnic groups⁹ and other vulnerable populations, the lessons of community empowerment and advocacy from HIV could help inform the response to COVID-19. Lessons learnt from scaling up antiretroviral therapy to more

than 25 million people, including those with limited access to health care, and specifically to engage women will be applicable to rolling out any potential COVID-19 vaccines and treatments. If COVID-19 vaccines are eventually deployed, there are likely to be challenges with mass vaccination programmes but empowering marginalised groups and using a human rights approach will be central to success.

The accelerated agenda of COVID-19 research will benefit the future of HIV testing, treatment, and prevention. There will be a continued expansion of the research infrastructure needed to work with both viruses, specifically high containment laboratories and animal facilities. Diagnostic, antiviral, and vaccine companies are involved in COVID-19 research, including companies that have not previously engaged in viral infectious disease.¹⁰ Given the scale of testing needed in the COVID-19 pandemic, the introduction of testing capabilities in LMICs could also be used for HIV and tuberculosis.¹ These overlapping epidemics represent an opportunity to extend cross-disciplinary research into the integrated service delivery for HIV, tuberculosis, and COVID-19, and

