



¹ Cluster for Global Health, Division for Health Services, Norwegian Institute of Public Health, Oslo, Norway

² Healthier Societies Programme, George Institute for Global Health, Imperial College London, London, UK

Correspondence to: U Gopinathan unni.gnathan@gmail.com

Cite this as: *BMJ* 2022;376:e066172

<http://dx.doi.org/10.1136/bmj-2021-066172>

Published: 08 February 2022

How can WHO transform its approach to social determinants of health?

WHO has a pivotal role in reducing health inequities but faces five fundamental constraints to progress, argue **Unni Gopinathan** and **Kent Buse**

Unni Gopinathan,¹ Kent Buse²

The social determinants of health are the circumstances in which people are born, grow, live, work, and age, and these are shaped by the inequitable distribution of power, money, and other resources in society.¹ Differences in income or unequal exposure to environmental risks contribute to unfair health outcomes within and between populations, something the covid-19 pandemic has brought into sharp focus.²

The World Health Organization was created as a multilateral United Nations agency to support and convene member states to tackle health issues through international collaboration and coordination. The importance of economic and social conditions for health was codified in WHO's founding constitution in 1948,³ and the link between socioeconomic factors and health was highlighted again in 2008 with the report of the WHO convened Commission on Social Determinants of Health.⁴ The report emphasised that health inequities are a consequence of poor social policies and unfair economic arrangements and called on governments, civil society, local communities, private sector, and international agencies to take action. Although the report motivated detailed national and regional assessments of the effect of social determinants on health inequities,^{4,5} its recommendations have not been widely translated to policy and practice⁶—a failure that arguably laid the grounds for the unequal effects of the covid-19 pandemic.^{2,7}

WHO has undertaken a range of actions on social determinants of health at global, regional, and national levels. Globally, it has drawn attention to social protection, housing, and the empowerment of women and girls through its work, for example, on tuberculosis and sexual and reproductive health and rights.^{8,9} In 2021, it launched a multiyear initiative to support countries in prioritising actions on social determinants on health¹⁰ and announced a new research agenda to inform action.¹¹ A further initiative is the Council on the Economics of Health for All, which is examining how health should be valued as a central public policy objective.¹² The Pan American Health Organization and WHO's Regional Office for the Eastern Mediterranean have issued regional assessments with recommendations spanning fiscal policy to environmental conservation and gender rights.^{13,14} Cooperation strategies between some WHO country offices and ministries of health have also prioritised work on social determinants of health.¹⁵

Although these activities are welcome and important, the continuing harm from social inequality shows WHO ought to do more.⁶ WHO faces general organisational constraints to effectively fulfilling its

role in supporting member states to act on social determinants of health. Chief among these is the lack of unconditional funding that the organisation can spend at its own discretion; this inhibits WHO's autonomy to pursue activities it thinks carry the greatest value.^{16,17} Beyond this and other general obstacles,¹⁸ there are constraints that are specific to the social determinants of health agenda. Informed by the literature at the intersection of public health policy and the fields of political science, policy studies, and public administration, we discuss these constraints and propose actions for tackling them.

Five fundamental constraints to progress

The first two constraints are tied to WHO's role as a specialised UN agency focused on health, which means that it primarily engages with and advises national ministries of health. Yet important policy changes that influence the social determinants and related health outcomes—for example, those pertaining to access to quality education, environmental protections, or decent working conditions—are designed and implemented outside the health sector. The health sector rarely has much influence over the formulation of such policies.^{19–21} WHO's first constraint is therefore that it has limited interaction with or influence over some of the key agencies and ministries that shape social determinants of health.

The second constraint is the apparent tension between WHO's health mandate and the need to support other sectors' leadership while stewarding the social determinants of health agenda. Intervening on the social determinants of health involves policies and interventions that affect health outcomes through complicated causal pathways that originate, for example, in laws that discriminate, tax systems that are regressive, or environmental degradation resulting from corporate activity that most affects people with the least resilience. However, the biomedical orientation that dominates within WHO²² and the health sector more generally^{21,23–25} diminishes the space for thinking about social determinants of health and fully appreciating their influence on health inequities. Those within the health sector might also be reluctant to acknowledge the influential role that policies in other sectors play in shaping health outcomes^{21,24–26} as it might be perceived as a call to divert resources and influence away from the health sector.

The sheer size and heterogeneity of the social determinants of health agenda is a third constraint. Conceptually, the agenda emphasises that numerous factors—including education, income, tax justice, environment and climate change, labour rights,

gender inequality and discrimination and racism—act as determinants and reinforce each other in shaping health inequities. It has been hard for an overstretched WHO to mobilise global and national political attention to issues across this vast terrain of determinants,⁶ especially compared with solutions that revolve around the delivery of medical care, drugs, and vaccines.

A fourth constraint is a misalignment between the standard approaches WHO uses to produce evidence informed recommendations for clinical interventions and the approaches needed to construct an evidence base for policy choices to intervene on the complex causal pathways of social determinants of health.^{27 28} WHO has recognised limitations to its conventional approach to guidance development and proposed ways to adapt it.^{29–31}

Finally, perhaps the most important constraint for WHO is that policies affecting social determinants of health are politically charged, shaped by ideology and values and influenced by powerful economic and commercial interests.^{21 32–35} Climate change and environmental protection, gender equity, social housing, or a basic minimum wage and social protection are all areas where values and interests can diverge deeply across the political spectrum.

Each of these constraints is amenable to change. We suggest that these should motivate a strategic shift in how WHO approaches the social determinants of health and propose a five-point agenda for WHO to tackle the fundamental barriers to effective action on social determinants of health (table 1).

Table 1 | Five point agenda for WHO to address the fundamental constraints to effective action on the social determinants of health (SDH)

Fundamental constraint	What does it mean for WHO?	Proposed WHO action	Examples of actions
The value of SDH is championed by the health sector, but the main policy changes required are in other sectors	WHO is not the key authority that convenes actors about policies in other sectors that impact health inequities	Share its ownership of the health agenda and promote leadership from other UN and multilateral organisations with relevant mandates, expertise, and networks on the policy choices needed to promote health equity	Partnering with the UNDP on advocating legislative and regulatory measures that can help reduce risk factors for non-communicable diseases ³⁶
Tension between WHO's health mandate and the need to support other sectors' leadership on SDHs	WHO risks internal professional resistance to emphasising the role that policies in other sectors have in shaping outcomes across WHO's disease focused areas	Show that WHO considers SDH critical to achieving its mission and supporting countries to achieve SDG3	Building and strengthening staff capacity for dealing with SDH and generating greater internal appreciation of how a dominant biomedical orientation can divert critical attention away from social determinants and the influence of other sectors
SDH is a broad and multifaceted agenda—motivating and sustaining political attention on it can be overwhelming for the health sector	WHO is too overstretched to establish multisectoral partnerships and advance progress on every issue on the SDH agenda	Tailor its intersectoral approach to capitalise on synergies and mitigate harms and focus on areas where WHO's authority on developing norms and standards can generate the greatest value	Using the effect on specific disease burdens to promote equitable policies (eg, effect of social protection on tuberculosis burden), ³⁷ motivating involvement of other sectors by highlighting how their core sectoral policy goals reduce health inequities, and paying special attention to commercial determinants of health and how governments can mitigate these impacts ³⁸
Standard approaches to identifying, reviewing, and appraising evidence are insufficient for informing policy on SDH	WHO's approach to developing evidence informed recommendations is primarily tailored to inform interventions delivered by the healthcare system	Invest in methodological approaches for evaluating broader sources of knowledge and strengthen WHO's ability to produce recommendations on the complex causal pathways from social determinants to health inequities	Developing an ambitious research programme for SDH that involves different disciplines and community-based perspectives for generating evidence on sectoral policies needed to reduce health inequities ¹¹
Policies influencing SDH are politically charged, shaped by ideology and values, and influenced by commercial interests	WHO's biomedical orientation, member state driven agenda, and conventional response to ideologies and interests limits the secretariat in countering commercial and political drivers of health inequities	Exercise its authority on global health to draw critical attention to the ideologies and interests that run counter to the goal of health equity, mobilise civil society, and hold member states accountable by monitoring their actions	Challenging high income countries to support patent waivers, equitable sharing of vaccines, and labelling the hoarding of vaccines as morally indefensible ³⁹

Use SDGs to foster leadership from other sectors

The sustainable development goals (SDGs) agreed by UN member states for 2030 highlight how actions in multiple sectors influence health. For example, SDG1 on poverty reduction, SDG5 on gender equality, and SDG8 on decent work are critical to achieving SDG3 on healthy lives and wellbeing. Other multilateral organisations such as the World Bank, the UN Development Programme (UNDP) on poverty reduction, Unicef on educational policy, or the International Labour Organization (ILO) on labour rights and social protection, hold greater responsibility for supporting countries and non-health sectors to achieve those goals. Ongoing, collaborative work on the SDGs is an opportunity for WHO to share ownership of the social determinants of health agenda and to advance work on social determinants with multilateral organisations with relevant sectoral mandates, expertise, and networks. In so doing, WHO can

foster the leadership of these organisations in tackling social determinants of health and drive collective prioritisation of health equity.

The Global Action Plan for Healthy Lives and Wellbeing, which commits WHO and 12 other multilateral agencies to work together on the health-related targets of the SDGs represents a positive step in this direction.⁴⁰ Together, these institutions can advocate for specific policies that countries should adopt, finance, and implement in each sector. For example, WHO and UNDP have come together to promote legislative and regulatory measures countries should consider to reduce risk factors for non-communicable diseases.³⁶ Similarly, the UN Environmental Programme (UNEP) used air quality guidance developed by WHO as a starting point for a global assessment of air quality laws.⁴¹ WHO can also build on the various cross sectoral responses to covid-19, such as gender

responsive social protection⁴² and interventions supporting early childhood development and educational services.⁴³ These highlight the important contributions different sectors make to achieving public health goals and further strengthen intersectoral actions forged between health and other sectors. WHO should support health ministries in keeping these lines of communication open to promote health equity.

Build knowledge and capacity within WHO

A balance has to be struck between encouraging institutions in other sectors to act on social determinants of health and giving social determinants higher internal priority within WHO. Building and strengthening staff capacity will be crucial to ensure the social determinants of health cut across WHO's work. Greater internal appreciation of the importance of social determinants of health can be generated through compelling examples of how health inequities have been reduced by working across sectors. For example, WHO has, through its work on health risks such as air pollution, engaged with other multilateral institutions and national policy makers on far reaching issues such as energy and transportation policy.⁴⁴ Such experience could be used to motivate other areas of the organisation to more explicitly address the social determinants in their work.

Focus on intersectoral synergies and mitigating harms

In responding to the broad and multifaceted nature of the social determinants of health, WHO can tailor its approach to be more strategic in approaching other sectors and partners to advance work. For example, WHO may be able to use its work on specific diseases as an entry point to promote policies in other sectors that improve health equity, such as expanding social protection to reduce the burden of tuberculosis.⁴⁵ However, reiterating the imperative to reduce health inequities alone is unlikely to compel other sectors to contribute to addressing social determinants of health, especially as they have their own core goals and outcomes.⁴⁶ Appeals for collective action on social determinants of health must therefore highlight, when relevant, the advancement of mutual goals across sectors. For example, sectoral goals such as free and high-quality education, expansion of access to affordable and sustainable public transport, or conservation of natural resources can be advanced through policy options that also benefit health.

At the same time, drawing on evidence of harms to health, WHO can be more prominent in calling on governments to mitigate harmful determinants strongly driven by commercial interests ("commercial determinants").⁴⁷ Commercial determinants include exposure to harmful products (eg, processed foods or sugar sweetened beverages) and practices of transnational corporations (eg, environmental degradation or infringements on labour rights and working conditions).⁴⁸ WHO has had some success advancing evidence informed policies and regulations that oppose powerful commercial interests that harm health, with a key example being its role in securing the Framework Convention on Tobacco Control. The recently established programme on commercial determinants is a timely and promising step in this direction.³⁸

Embrace a broad evidence base

Recommendations from WHO on the social determinants of health must rely on a broader evidence base than is typically considered when assessing the effectiveness of clinical interventions.²⁸ It should invest more in developing methodological approaches and a broader research programme to strengthen its guidance on social determinants. Crucially, different disciplinary and community based perspectives on evidence for action should be sought. Furthermore, the absence of strong evidence—as classified by the conventional

evidence hierarchy—should not dissuade WHO from advocating for ambitious reforms and policies that can promote health equity.⁴⁹

More fundamentally, WHO should accept that its legitimacy does not rest solely on its ability to synthesise scientific evidence but also in taking people's concerns and values into account, especially considering the public's willingness to support progressive policies in pursuit of health equity.^{50–53} Accordingly, evidence generation should also focus on what states should do to remove institutional and political constraints to addressing social determinants of health.

Articulate politically bold messages

Pursuing progressive approaches to reducing health inequities relies on developing evidence informed global norms, generating demands for policy makers to act, and implementing mechanisms for securing political accountability.^{21,26,35} Growing health inequities are the result of poor policies, which are at times driven by a politics influenced by commercial organisations. WHO should be more explicit about these political drivers and use its authority on health to counter proposals and actions that go against health equity.

By being more politically forceful WHO can bolster and mobilise civil society, especially those representing the most vulnerable and marginalised groups, and generate political support for policies that are resisted by ideological and commercial forces. WHO's principled stance on the waiver of intellectual property rights to accelerate technology transfer and access to covid-19 vaccines, which has given strength to the advocacy of civil society, is one example, although the policy is not yet adopted.⁵⁴ WHO regional and country offices could also have an important role in this mission⁵⁵—for example, by empowering health ministries to work across government.¹⁵

Crucial juncture in global health

The unequal distribution of vulnerabilities laid bare by the covid-19 pandemic is at the forefront of the public's attention and, with it, considerations of how to ensure health equity as societies build back fairer.² In the wake of the pandemic, WHO has the opportunity to pursue a more transformative agenda on social determinants of health, starting by tackling the five fundamental barriers to effective action discussed above.

It will also be important to hold countries to account for their progress. Systematic and continuous global monitoring is often lacking, and strengthening monitoring is one of the priority areas of the 2021 World Health Assembly resolution on social determinants of health.⁵⁶ An opportunity exists to establish a monitoring system for action on social determinants of health that also considers contributions from relevant multilateral agencies and corresponding national ministries, thereby also spurring sectors outside health to act. More effective WHO leadership on social determinants of health that more systematically fosters greater involvement of other sectors will be critical if countries are going to deliver on their promise of healthy lives and wellbeing for all by 2030.

Key messages

- The covid-19 pandemic highlighted unfair differences in health outcomes and the need to pay greater attention to the social determinants of health
- WHO should demonstrate that addressing social determinants of health is critical to achieving its mission and foster leadership from other sectors in pursuit of greater equity
- WHO should invest in a research programme to underpin its guidance on these determinants with a broad evidence base

• WHO should promote politically bold messages more forcibly and hold member states accountable through monitoring

Contributors and sources: UG led the writing of the article and is the guarantor. KB contributed to the conceptualisation and commented on successive drafts and approved the final version.

Competing interests: We have read and understood BMJ policy on declaration of interests. KB declares that he is a member of the WHO expert group on economic and commercial determinants of health and was commissioned by WHO in 2021 to draft messages on commercial determinants for its 2022 report on the social determinants of health.

Provenance and peer review: Not commissioned; externally peer reviewed.

- 1 Commission on Social Determinants of Health. Closing the gap in a generation: health equity through action on the social determinants of health: final report of the commission on social determinants of health. 2008. <https://www.who.int/publications/i/item/WHO-IER-CSDH-08.1>
- 2 Paremoer L, Nandi S, Serag H, Baum F. Covid-19 pandemic and the social determinants of health. *BMJ* 2021;372:n129. doi: 10.1136/bmj.n129 pmid: 33509801
- 3 WHO. Constitution of the World Health Organization. 1948. https://www.who.int/governance/eb/who_constitution_en.pdf
- 4 Gomes Temporão J. The Brazilian Commission on Social Determinants of Health: next steps. *Glob Health Promot* 2009;16(Suppl 1):4-7. doi: 10.1177/1757975909103750 pmid: 19477832
- 5 Marmot M, Al-Mandhari A, Ghaffar A, et al. Build back fairer: achieving health equity in the Eastern Mediterranean region of WHO. *Lancet* 2021;397:1527-8. doi: 10.1016/S0140-6736(21)00710-8 pmid: 33798501
- 6 Rasanathan K. 10 years after the Commission on Social Determinants of Health: social injustice is still killing on a grand scale. *Lancet* 2018;392:1176-7. doi: 10.1016/S0140-6736(18)32069-5 pmid: 30249506
- 7 Oxfam. The inequality virus: bringing together a world torn apart by coronavirus through a fair, just and sustainable economy. Oxfam, 2021. <https://policy-practice.oxfam.org/resources/the-inequality-virus-bringing-together-a-world-torn-apart-by-coronavirus-throug-621149/>
- 8 WHO. Multisectoral accountability framework to accelerate progress to end tuberculosis by 2030. 2019. https://www.who.int/tb/WHO_Multisectoral_Framework_web.pdf
- 9 WHO. Consolidated guideline on sexual and reproductive health and rights of women living with HIV. 2017. https://www.who.int/reproductivehealth/publications/gender_rights/srhr-women-hiv/en/
- 10 WHO. Launch of the multi-country WHO special initiative for action on social determinants of health for advancing equity. 2021. <https://www.who.int/news-room/events/detail/2021/05/12/default-calendar/webinar-launch-of-the-multi-country-who-special-initiative-for-action-on-social-determinants-of-health-for-advancing-equity>
- 11 Alliance for Health Policy and Systems Research, World Health Organization. Call for expressions of interest. Team of researchers to develop background material in support of a research agenda for action on the social determinants of health. World Health Organization, 2021. https://ahp-sr.who.int/docs/librariesprovider11/calls-for-proposals/year/2021/alliance-eoi-sdh-research-agenda.pdf?sfvrsn=175cb15c_5
- 12 WHO. WHO Council on the Economics of Health For All. <https://www.who.int/groups/who-council-on-the-economics-of-health-for-all>
- 13 WHO EMRO. Report of the Commission on Social Determinants of Health in the Eastern Mediterranean Region. 2021. <http://www.emro.who.int/media/news/report-of-the-commission-on-social-determinants-of-health-in-the-eastern-mediterranean-region.html>
- 14 PAHO. Just societies: health equity and dignified lives. Report of the Commission of the Pan American Health Organization on Equity and Health Inequalities in the Americas. 2019. https://iris.paho.org/bitstream/handle/10665.2/51571/9789275121269_eng.pdf?sequence=6&isAllowed=y
- 15 WHO. Cambodia-WHO Country Cooperation Strategy 2016–2020. 2016. https://apps.who.int/iris/bitstream/handle/10665/246102/WPRO_2016_DPM_004_eng.pdf?sequence=1&isAllowed=y
- 16 Gostin LO. Reforming the World Health Organization after Ebola. *JAMA* 2015;313:1407-8. doi: 10.1001/jama.2015.2334 pmid: 25871658
- 17 Reddy SK, Mazhar S, Lencucha R. The financial sustainability of the World Health Organization and the political economy of global health governance: a review of funding proposals. *Global Health* 2018;14:119. doi: 10.1186/s12992-018-0436-8 pmid: 30486890
- 18 Cassels A, Kickbusch I, Told M, Ghiga I. How should the World Health Organization reform? An analysis and review of the literature. Pathways to global health: case studies in global health diplomacy. Vol 2. World Scientific, 2016:39.
- 19 de Leeuw E. Engagement of sectors other than health in integrated health governance, policy, and action. *Annu Rev Public Health* 2017;38:329-49. doi: 10.1146/annurev-publhealth-031816-044309 pmid: 28125390
- 20 Crammond BR, Carey G. Policy change for the social determinants of health: the strange irrelevance of social epidemiology. *Evid Policy* 2017;13:365-74doi: 10.1332/174426416X14538920677201
- 21 Baker P, Friel S, Kay A, Baum F, Strazdins L, Mackean T. What enables and constrains the inclusion of the social determinants of health inequities in government policy agendas? A narrative review. *Int J Health Policy Manag* 2018;7:101-11. doi: 10.15171/ijhpm.2017.130 pmid: 29524934
- 22 Gopinathan U, Watts N, Hougendobler D, et al. Conceptual and institutional gaps: understanding how the WHO can become a more effective cross-sectoral collaborator. *Global Health* 2015;11:46. doi: 10.1186/s12992-015-0128-6 pmid: 26596963
- 23 Orton LC, Lloyd-Williams F, Taylor-Robinson DC, Moonan M, O'Flaherty M, Capewell S. Prioritising public health: a qualitative study of decision making to reduce health inequalities. *BMC Public Health* 2011;11:821. doi: 10.1186/1471-2458-11-821 pmid: 22014291
- 24 Baum FE, Laris P, Fisher M, Newman L, Macdougall C. "Never mind the logic, give me the numbers": former Australian health ministers' perspectives on the social determinants of health. *Soc Sci Med* 2013;87:138-46. doi: 10.1016/j.socscimed.2013.03.033 pmid: 23631789
- 25 Smith K. Institutional filters: The translation and re-circulation of ideas about health inequalities within policy. *Policy Polit* 2013;41:81-100doi: 10.1332/030557312X655413
- 26 Farrer L, Marinetti C, Cavaco YK, Costongs C. Advocacy for health equity: a synthesis review. *Milbank Q* 2015;93:392-437. doi: 10.1111/1468-0009.12112 pmid: 26044634
- 27 Hilton Boon M, Thomson H, Shaw B, et al. GRADE Working Group. Challenges in applying the GRADE approach in public health guidelines and systematic reviews: a concept article from the GRADE Public Health Group. *J Clin Epidemiol* 2021;135:42-53. doi: 10.1016/j.jclinepi.2021.01.001 pmid: 33476768
- 28 Bonnefoy J, Morgan AP, Kelly M, Butt J, Bergman V. Constructing the evidence base on the social determinants of health: a guide. 2007. https://www.who.int/social_determinants/knowledge_networks/add_documents/mekn_final_guide_112007.pdf
- 29 Rehfuess EA, Stratil JM, Scheel IB, Portela A, Norris SL, Baltussen R. The WHO-INTEGRATE evidence to decision framework version 1.0: integrating WHO norms and values and a complexity perspective. *BMJ Glob Health* 2019;4(Suppl 1):e000844. doi: 10.1136/bmjgh-2018-000844 pmid: 30775012
- 30 Norris SL, Ford N. Improving the quality of WHO guidelines over the last decade: progress and challenges. *Lancet Glob Health* 2017;5:e855-6. doi: 10.1016/S2214-109X(17)30253-X pmid: 28807174
- 31 Langlois EV, Tunçalp Ö, Norris SL, Askew I, Ghaffar A. Qualitative evidence to improve guidelines and health decision-making. *Bull World Health Organ* 2018;96:79-79A. doi: 10.2471/BLT.17.206540 pmid: 29403107
- 32 Rushton S, Williams OD. Frames, paradigms and power: global health policy-making under neoliberalism. *Glob Soc* 2012;26:147-67doi: 10.1080/13600826.2012.656266
- 33 Exworthy M. Policy to tackle the social determinants of health: using conceptual models to understand the policy process. *Health Policy Plan* 2008;23:318-27. doi: 10.1093/heapol/czn022 pmid: 18701553
- 34 Navarro V, Shi L. The political context of social inequalities and health. *Soc Sci Med* 2001;52:481-91. doi: 10.1016/S0277-9536(00)00197-0 pmid: 11330781
- 35 Bamba C, Fox D, Scott-Samuel A. Towards a politics of health. *Health Promot Int* 2005;20:187-93. doi: 10.1093/heapro/dah608 pmid: 15722364
- 36 WHO, UNDP. What legislators need to know. 2018. <https://www.undp.org/content/dam/undp/library/HIV-AIDS/NCDs/Legislators%20English.pdf>
- 37 Lönnroth K, Glaziou P, Weil D, Floyd K, Uplekar M, Raviglione M. Beyond UHC: monitoring health and social protection coverage in the context of tuberculosis care and prevention. *PLoS Med* 2014;11:e1001693. doi: 10.1371/journal.pmed.1001693 pmid: 25243782
- 38 WHO. Commercial determinants of health. 2021. <https://www.who.int/news-room/fact-sheets/detail/commercial-determinants-of-health>
- 39 Ghebreyesus TA. Vaccine nationalism harms everyone and protects no one. *Foreign Policy* 2021. <https://foreignpolicy.com/2021/02/02/vaccine-nationalism-harms-everyone-and-protects-no-one/>
- 40 WHO. Global action plan for healthy lives and well-being for all. 2019. <https://www.who.int/sdg/global-action-plan>
- 41 UNEP. Regulating air quality: the first global assessment of air pollution legislation. 2021. <https://www.unep.org/resources/report/regulating-air-quality-first-global-assessment-air-pollution-legislation>
- 42 O'Donnell M, Holmes R, Abigail H, Bourgault S. Gender and social protection in the era of covid-19. Center for Global Development, 2021. <https://www.cgdev.org/blog/gender-and-social-protection-era-covid-19>.
- 43 Dhaliwal M, Small R, Webb D, et al. Covid-19 as a long multiwave event: implications for responses to safeguard younger generations. *BMJ* 2022;376:e068123. doi: 10.1136/bmj-2021-068123 pmid: 35086910
- 44 WHO. Compendium of WHO and other UN guidance on health and environment. 2021. <https://apps.who.int/iris/rest/bitstreams/1365634/retrieve>
- 45 Carter DJ, Glaziou P, Lönnroth K, et al. The impact of social protection and poverty elimination on global tuberculosis incidence: a statistical modelling analysis of Sustainable Development Goal 1. *Lancet Glob Health* 2018;6:e514-22. doi: 10.1016/S2214-109X(18)30195-5 pmid: 29580761
- 46 Alfvén T, Binagwaha A, Nilsson M. To achieve the SDG health goals we need to recognise the goals and outcomes of other sectors. *BMJ Opinion*, 7 Dec 2018. <https://blogs.bmj.com/bmj/2018/12/07/to-achieve-the-sdg-health-goals-we-need-to-recognise-the-goals-and-outcomes-of-other-sectors/>
- 47 Maani N, Collin J, Friel S, et al. Bringing the commercial determinants of health out of the shadows: a review of how the commercial determinants are represented in conceptual frameworks. *Eur J Public Health* 2020;30:660-4. doi: 10.1093/eurpub/ckz197 pmid: 31953933
- 48 Baum FE, Sanders DM, Fisher M, et al. Assessing the health impact of transnational corporations: its importance and a framework. *Global Health* 2016;12:27. doi: 10.1186/s12992-016-0164-x pmid: 27301248

- 49 Parkhurst JO, Abeysinghe S. What constitutes “good” evidence for public health and social policy-making? From hierarchies to appropriateness. *Soc Epistemology* 2016;30:665-79doi: 10.1080/02691728.2016.1172365
- 50 Loewenson R, Villar E, Baru R, Marten R. Engaging globally with how to achieve healthy societies: insights from India, Latin America and East and Southern Africa. *BMJ Glob Health* 2021;6:e005257. doi: 10.1136/bmjgh-2021-005257 pmid: 33883188
- 51 Anaf J, Baum F, Fisher M. A citizens’ jury on regulation of McDonald’s products and operations in Australia in response to a corporate health impact assessment. *Aust N Z J Public Health* 2018;42:133-9. doi: 10.1111/1753-6405.12769 pmid: 29384238
- 52 O’Grady C. Power to the people. Nations are turning to citizen assemblies to weigh up climate policies. *Science* 2020 Oct 29. <https://www.science.org/content/article/jury-duty-global-warming-citizen-groups-help-solve-puzzle-climate-action>
- 53 Smith KE, Macintyre AK, Weakley S, Hill SE, Escobar O, Fergie G. Public understandings of potential policy responses to health inequalities: Evidence from a UK national survey and citizens’ juries in three UK cities. *Soc Sci Med* 2021;291:114458. doi: 10.1016/j.socscimed.2021.114458 pmid: 34655938
- 54 Third World Network. Covid-19: global “moral failure” in distribution of vaccines, says WHO DG. 2021. https://www.twn.my/title2/intellectual_property/info.service/2021/ip210107.htm
- 55 WHO. WHO establishes commission on social determinants of health for the Eastern Mediterranean Region. 2019. <http://www.emro.who.int/media/news/commission-on-social-determinants-of-health-for-the-eastern-mediterranean-region.html>
- 56 WHO. WHO resolution WHA74.16, Social determinants of health. 2021. https://apps.who.int/gb/ebwha/pdf_files/WHA74/A74_R16-en.pdf