International Journal for Equity in Health

BRIEF REPORT **Open Access**

Action on the social determinants for advancing health equity in the time of COVID-19: perspectives of actors engaged in a WHO Special Initiative

Orielle Solar[1†], Nicole Valentine[2*†], Antia Castedo[1], Gonzalo Soto Brandt[1,3], Jaitra Sathyandran[4], Zahra Ahmed[5], Paul Cheh[4], Emma Callon[4], Felicity Porritt[1], Isabel Espinosa[4], Kira Fortune[4], Shogo Kubota[6], Elizabeth Elliott[6], April Joy David[7], Maryam Bigdeli[8], Hafid Hachri[8], Patrick Bodenmann[9,10], Kevin Morisod[9,10], Molly Biehl[11], Devaki Nambiar[12,13], Carmel Williams[14,15], Jessica Allen[16], Peter Goldblatt[16], Erika Placella[17], Michael Marmot[16] and Kumanan Rasanathan[2]

Abstract

Since the 2008 publication of the reports of the Commission on Social Determinants of Health and its nine knowledge networks, substantial research has been undertaken to document and describe health inequities. The COVID-19 pandemic has underscored the need for a deeper understanding of, and broader action on, the social determinants of health. Building on this unique and critical opportunity, the World Health Organization is steering a multi-country Initiative to reduce health inequities through an action-learning process in 'Pathfinder' countries. The Initiative aims to develop replicable and reliable models and practices that can be adopted by WHO offices and UN staff to address the social determinants of health to advance health equity. This paper provides an overview of the Initiative by describing its broad theory of change and work undertaken in three regions and six Pathfinder countries in its first year-and-a-half. Participants engaged in the Initiative describe results of early country dialogues and promising entry points for implementation that involve model, network and capacity building. The insights communicated through this note from the field will be of interest for others aiming to advance health equity through taking action on the social determinants of health, in particular as regards structural determinants.

Keywords Social determinants of health, Health equity

[†]Orielle Solar and Nicole Valentine equal first authors.

*Correspondence:
Nicole Valentine
valentinen@who.int
Full list of author information is available at the end of the article

Introduction and background

In 2008, the World Health Organization's (WHO) Commission on Social Determinants of Health (the Commission) report synthesized evidence on the causes of health inequities, focussing on the non-medical factors that influence health outcomes (the 'social' determinants of health) [1]. The work of the Commission set in motion new knowledge generation and theorization around the social determinants of health. Since the Commission's time, there has been significant growth in the social determinants of health and health equity literature. A recent bibliometric analysis of publications from 1966 to 2018 found that output of health equity publications grew from 1000 papers per annum in 2004, prior to the Commission, to approximately 8000 per annum by 2019 [2]. Also during the COVID-19 pandemic, there has been a surge of new studies documenting inequities in COVID-19 infection, morbidity and mortality [3].

The growing body of publications focuses on describing and quantifying the association between health inequities and the social determinants of health [4, 5]. While there are still important knowledge gaps regarding the extent of health inequities, there are more important knowledge gaps in understanding and documenting the actual actions taken by countries [6–8]. The mixed or negative trends in health inequities suggest that actions have been absent or not yielded the desired results [4, 7]. WHO has regularly called for more implementation and evaluation research to address this gap, including in 2005 [9], 2007 [10] and 2010–11 [11–14], as has UNICEF [15].

Furthermore, actions on the aspect of social determinants referred to as "structural determinants of health equity" are less well documented [16]. Structural determinants can be characterised as the formal and informal rules of institutions, policies, culture and values, which include structural discrimination such as classism, racism, sexism, able-ism, xenophobia, and homophobia (see Table 1 and Fig. 1) [17–20]. Structural determinants impact social patterns of "intermediate determinants"—exposures, behaviours and health service access that are important for health. Health equity and health inequities are the outcomes—the unfair and avoidable, or remedial, differences or inequalities in health outcomes between groups in society. Evidence states that on balance addressing structural determinants (acting on institutions, policy, culture and values) yields greater, long lasting positive impacts on health equity, when compared with addressing intermediate determinants alone (i.e. acting on individuals) [1].

The ongoing COVID-19 pandemic has exemplified how structural (social) determinants of health equity (e.g., sick leave benefits) have real impacts—demonstrated by inequities in COVID-19 infection rates, access to treatment and increased mortality [3]. In light of this, the United Nations have called for a renewed social contract with health and well-being at the heart of all government policies [21]. Among key processes that can be used by governments to address structural determinants of health are Health in All Policies [22]. Health in All Policies approaches aim for all sectors to contribute to better public policies, by considering the health implications of decisions, seeking synergies, and avoiding harmful health impacts.

In summary, there are compelling arguments for more action on the social determinants of health. Even though national governments pledged their commitment

Table 1 Social determinants of health definitions and concepts

The concept of the social determinants of health adopted in this paper identifies two key components following the frameworks of Solar and Irwin [17] and the Commission on Social Determinants of Health [1]: "structural determinants" and "intermediate determinants" (see Fig. 1). These grouping emphasize the difference between social and physiological mechanisms resulting in patterns of health equity.

Structural determinants of health equity broadly refer to societal factors giving rise to social position and the association of social position (and access to the power, money and resources) with health impacts. Domains of structural determinants can be characterised as formal and informal rules of institutions (including commercial drivers), policies, culture and values including classism, racism, sexism, able-ism, xenophobia, and homophobia. They are influenced by historical context and operate over the life span [18, 19].

Intermediate determinants of health highlight the biological mechanisms operating through the conditions of daily life. Intermediate determinants impact the health of an individual through physical exposures, material and psychosocial pathways, biological vulnerability, behaviours, and access to health services. The EQuAL framework [20] identifies three domains (beyond "health systems") describing the conditions of daily life:

- Environment quality, public services and safe products;
  - housing conditions and amenities (e.g., water, energy, air, digital access); public services (e.g., transport mobility); working environment and conditions; community/public spaces (e.g., green/blue spaces), products' quality (food) and safety;
- Accountability, non-discrimination, social well-being and inclusion:
  - participation and involvement; non-discrimination; peace, trust and safety (inter-family, inter-community, inter-country); gender equality; social capital, social, cultural and family support (parenting, work-life balance);
- Livelihoods and learning:
  - income and food security and social protection); child and youth development and experiences (e.g., trauma); work-life balance and ageing; education and skills; employment relations.

Structural determinants drive the distribution of intermediate determinants across social groups and have the largest influence on the patterns of health equity observed. For this reason they are sometimes referred to as the social determinants of health equity.

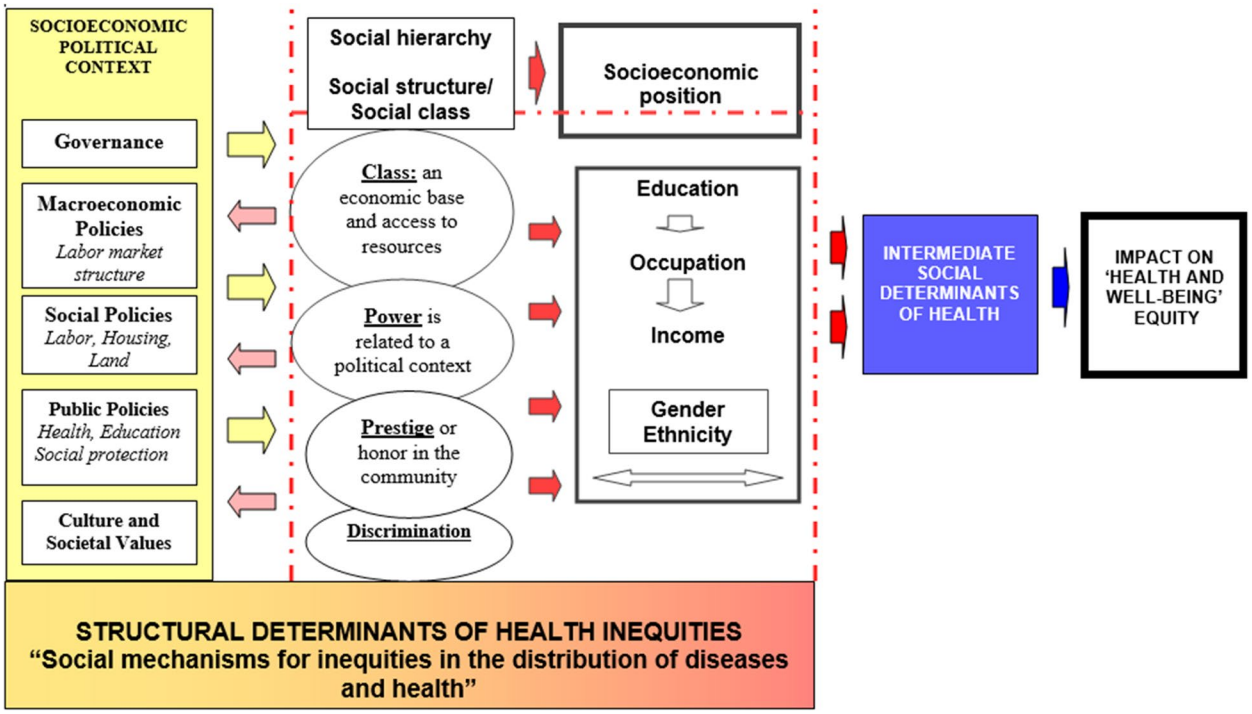

Fig. 1 Conceptual framework of the social determinants of health and health equity. Source: Adapted from Solar, Irwin, 2007, 2010 [17]

through the Rio Political Declaration on Social Determinants of Health in 2011, action has been slow [23]. Taking cognizance of this, the 74th World Health Assembly in 2021 adopted a new resolution on the social determinants of health [24]. These developments have informed the launch of an eight-year WHO Special Initiative for Action on the Social Determinants of Health for Advancing Health Equity ('the Initiative'), which is the focus of this note from the field [25]. The Initiative has the goal of ensuring that health equity is integrated into social and economic policies. The following sections describe the Initiative, report on regional and country-level activities that have been undertaken by the Initiative in the first year-and-a-half of its existence, and summarises lessons learnt.

The Initiative: key stakeholders, structure, and theory of change

The Initiative was formed between 2019 and 2020. It was launched by WHO in 2021. A partnership agreement was established between WHO (at headquarters, regional and country level), the Swiss Agency for Development and Cooperation (SDC) (a development agency), University College London, Institute of Health Equity (UCL/IHE) (an academic think-tank), and the University of Lausanne (UNISANTE (UNIL/UNISANTE) (a clinical leader working to integrate the social determinants of health into clinical teaching and health services practice). These partners form the Initiative "core team" at present. Elsewhere, we describe the innovations associated with the initial configuration of this partnership (see Additional file 1).

The Initiative applies a multi-level approach (global, regional, national, local) to knowledge sharing, capacity building, and advocacy with the aim of supporting action in countries and of learning about action on the social determinants of health. Geographically, the Initiative is working through WHO regional and country offices in countries with largely low- and middle-income status. Pathfinder countries and territories include Chile, Colombia, Costa Rica, El Salvador, Lao People's Democratic Republic (PDR), Morocco, Occupied Palestinian Territory (oPt), Peru and the Philippines. In most cases, the Initiative work in countries has begun through WHO outreach to public health agencies, but there has been increasing effective engagement of other key stakeholders beyond the health sector and it is anticipated that the final collaborations formed at country level will involve many other key stakeholders beyond the health sector.

Theory of change

One of the first activities of the Initiative's core team was to evolve a theory of change.

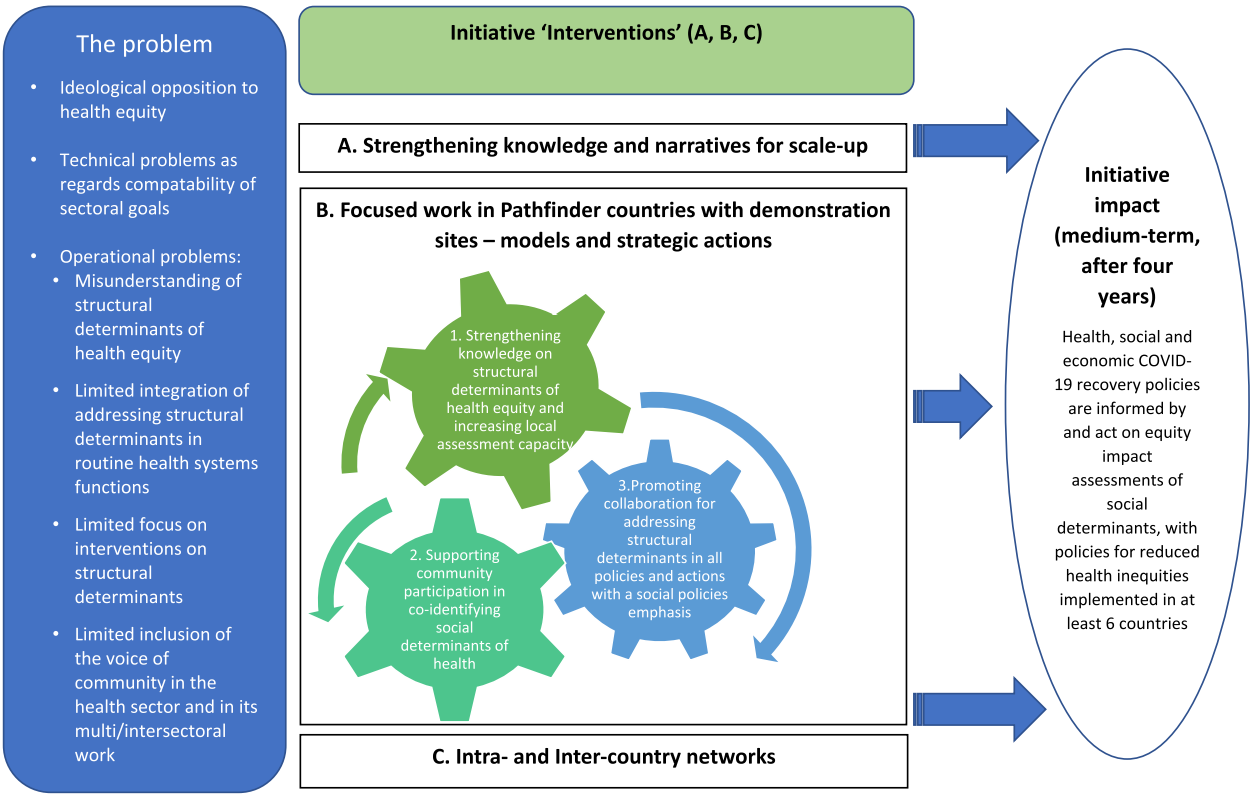

Fig. 2 The Initiative's theory of change

This began with a review and discussion of the literature and reflection on the lived experiences of public health officers working across WHO, shared through virtual meetings and correspondence, owing to COVID-19 travel restrictions.

These discussions acknowledged that the literature reflected that action was not yet wide-reaching [7], and generally, literature showed that addressing structural determinants was particularly difficult because it involved multisectoral action [17, 19, 26–28]. Experience and calls from Member States through WHO resolutions highlighted that a key difficulty is for the health sector to implement multisectoral action [23, 24]. Important themes that emerged from these discussions were: the importance of social mobilisation, the alignment of windows of opportunity, and equipping health policy-makers to be better advocates and partners for health, not solely for health care [27, 28]. As the Initiative's core team discussed the problem of action further, they noted several perceived obstacles to progress on this agenda in countries. These discussions generated two key points that are central to the Initiative's theory of change. First, the importance of theory was noted ("less rhetoric and more theory is needed"). Without theory it is not possible to improve the design and implementation of interventions and policies. It is also not possible to convince others of the validity of approach.

Second, the discussions showed that common ideological, technical and operational barriers to addressing the social determinants of health for advancing health equity operate across different countries (see Fig. 2, left). Ideological barriers to action relate to a perception of striving for health equity as being associated with a left-leaning agenda [29]. However, there are examples where this is not the case. For example, the UN Sustainable Development Goals (SDGs) are a non-partisan development platform for governments from different political persuasions and they promote the reduction of social inequalities. There are also technical barriers. For example, there is limited evidence available on the co-benefits across different policy goals such as: how do policies taxing fossil fuels affect other social determinants of health equity, while addressing climate change in a positive manner; or how do social protection floors reduce transmission of COVID-19, while reducing violence [29, 30]. Finally, operational barriers include: (i) a lack of understanding of what the social determinants of health equity are [31, 32]; (ii) limited integration of

the social determinants of health equity within the routine functions of health systems [33, 34]; (iii) limited focus on interventions that address the structural determinants of health inequities [7, 28, 35]; (iv) underrepresentation of community voices in the health sector and in its multi/intersectoral work [17, 36]; and (v) limited forums and incentives for policy integration and for multi/intersectoral collaboration across government authorities [30, 37, 38].

Based on these considerations, the Initiative theory of change sought to introduce 'interventions' associated with change, in three areas (see Fig. 2).

First, strengthening knowledge and narratives for scale-up related to health equity would be emphasized. Updated knowledge that resonates with the current world crises experienced in many countries, including COVID-19 and conflict, and healthy societies and the well-being economy, contextualises the information on the social determinants of health for different change agents desiring to advocate for action. Knowledge on co-benefits between health and other policy sectors enables better collaboration.

Second, focused work in Pathfinder countries with demonstration sites would promote action to address structural determinants of health equity and allow for the development and testing of models. Models provide useful tools for discussion between ministries of health and central government to promote action and for UN, WHO and donor technical and financial assistance to countries. Third, the Initiative would enhance intra and inter-country networks of policy champions (and change-agents), academics, health workers and communities. Networks provide sustenance to change agents that are addressing governance changes, for example, seeking to influence institutional processes.

The core outcome of the Initiative, by 2024, is that: "health, social and economic COVID-19 recovery policies are informed by and act on equity impact assessments of social determinants, with policies for reduced inequities implemented in at least 6 countries".

Strategic actions

In pursuing the logic of this theory of change, *the Pathfinder countries follow a set of strategic actions* on the ground: (1) strengthening knowledge on structural determinants of health equity and increasing local assessment capacity; (2) supporting community participation in co-identifying social determinants of health; and (3) promoting collaboration for addressing structural determinants of health equity in all policies and actions, with a social policies emphasis. (Details of the sequences of changes associated with these actions is included in Additional file 2) In undertaking strategic actions, Pathfinder countries engage nationally and sub-nationally.

Strategic, 'initial' themes

Based on the WHO COVID-19 review of social determinants of health [3], as well as the concomitant social crisis reported by the UN [21] and discussed by the Initiative core team, an initial set of structural determinants of health themes were prioritised (while others may yet be identified). The themes were tested in discussions with prospective country Pathfinder policy-makers, and confirmed as offering promising entry-points for action, in particular as they aligned with broader social policy goals. These themes are:

- Reducing precariousness, in particular in informal economy employment;
- Improving income and food security;
- Ensuring adequate housing and social services;
- Guaranteeing employment (sick leave, business closures).

Cutting across these themes, there were additional health equity concerns for a number of population groups who experience compounded disadvantage for intersecting identities: workers in the informal economy who are also migrants; women and girls suffering from gender inequality and violence; and ethnic groups facing social stigmatisation or exclusion owing to racism [3]. For example, a large-scale investigation of SARS-CoV-2 infection rates covering 2 135 190 people in communities and 100 000 health-care workers in the United Kingdom and the USA between March and April 2020 found that health-care workers for people with COVID-19 had at least a three times greater risk of a positive COVID-19 test and predicted infection than the general community. Yet ethnic minority health-care workers were at especially high risk, with a risk of COVID-19 at least five times that of the non-minority general community [39].

Activities of the Initiative in its first year-and-a-half

This overview of the first year-and-a-half of the Initiative focuses on: (1) regional strengthening to create enabling environments for country action; and (2) a programme of work started in six Pathfinder countries. Related to both of these areas, the Initiative, through UNIL/UNISANTE, launched an annual global one-week virtual summer school that ran in 2021, to which country policy makers and WHO staff were invited and several attended.

Regional strengthening to create enabling environments for country action

Three WHO regional offices undertook activities to strengthen country action as part of the Initiative: the Americas (AMRO/Pan American Health Organization (PAHO)), the Eastern Mediterranean, and the Western Pacific regions. Alongside the various activities reported below, these regional offices also supported policy dialogues regarding opportunities and priorities for country Pathfinders.

The region of the Americas

Systematic reviews were completed to assess regional evidence on the state of the social determinants of health, and on interventions and policies to address them. Core review themes, based on relevance to the countries in the region were: informal work, unemployment and migration. Preliminary analysis, still underway, mapped health equity impacts of policies under thematic areas. For example, in the case of unemployment, the five main domains of health impact were: physical health; mental health; health systems; HIV and unemployment; or the impact of parents' unemployment status on children's health. The regional office also reviewed the extent of country policies, plans and programmes being used to address structural determinants of health equity in response to COVID-19 and beyond. They conducted perception studies of policymakers and health care services providers in Pathfinder countries. They developed "Voices for health equity" video case studies to raise awareness of the experiences of disadvantaged populations. They also created a partnership with the regional domestic workers association, CONLACTRAHO.

The Eastern Mediterranean region

The regional office convened a regional Commission on Social Determinants of Health, comprising academic experts as well as political and bureaucratic leaders who worked together on a report [40]. This report assembled regional evidence on the social determinants of health, including in the context of COVID-19, and set an agenda for regional action, research and advocacy. The regional office ran workshops to disseminate the recommendations of the Commission and commissioned work for a tool to assist country work across the region, including in Pathfinder countries.

The Western Pacific region

The regional office undertook a scoping review of population groups most affected during COVID-19. They produced a regional guidance-note on equity considerations for COVID-19 surveillance and a video series on the People of the Western Pacific. These videos help policy-makers to reflect on the predicament of different populations groups in the Western Pacific Region as regards health equity. Examples of topics covered include vaccination against measles in the Philippines, preve nting and responding to gender-based violence in Papua New Guinea, and providing tailored care to refugees in the COVID-19 response in Malaysia. The highlighting of vaccine inequity was also applied to the situation of COVID-19 and played an important role in supporting the Philippines work.

Country work and entry points: six Pathfinder countries

Six Pathfinder countries contributed actively to the Initiative in its first year-and-a-half: for the Americas, (1) Costa Rica, (2) Chile, (3) Colombia; for the Eastern Mediterranean, (4) Morocco; for the Western Pacific, (5) Lao PDR, (6) the Philippines. Country work reported below relates to: (i) the initial formation of teams; (ii) the identification of possible entry points and partners; (iii) the plan or vision put forward for taking action on structural determinants; and (iv) some early activities (facilitating stakeholder meetings to identify priorities and form partnerships/networks; measurement and surveillance; and training and advocacy).

Costa Rica has identified the opportunity for supporting action on the structural determinants of health equity through expansion of universal and targeted policies covering informal work, social protection and for migrants. There has also been a national drive to scale-up community participation at all local levels. Efforts underway are part of a "3Rs" plan for "Recovery, social reconstruction and resilience" of the central Americas region post-COVID-19, supported by the European Union. The 3Rs places emphasis on interventions for women, migrants, children, youth, border territories, Indigenous and Afro-descendant populations. A regional office project, "Community Participation for People-Centered Health in the Framework of the COVID-19 Pandemic", has facilitated spaces for dialogue in Costa Rica between institutions and communities in order to identify health problems and needs in response to the COVID-19 pandemic. People-centeredness in this instance is tied to Primary Health Care, where the actions of the health sector link up to those of other sectors, and are buttressed by community/social participation.

In Chile, action on the social determinants of health is connected to universalization of social policies, alongside setting-up a more integrated health and social care system as part of health reforms. New "care systems" are being conceived that address gender, income and class inequities, among others. The COVID-19 pandemic revealed the many weaknesses and disjunctions in the care system for those in informal settlements or work, for

migrants, as well as for other population groups already facing social exclusion. The country team identified intersectoral mechanisms to support the health and social development ministries to work together in the context of the Initiative.

Colombia has launched its observatory for equity in health which has been under development for some time [41]. Supported by the Initiative, the observatory will use evaluations of the health equity impacts of social policies to promote changes for immigrant policies. The observatory has already highlighted the plight of migrants during the COVID-19 pandemic, as Colombia is a migrant "receiving" country (see: Colombian congress live video; Minister of Health and Social Protection's news feature).

In Morocco, the Ministry of Health, supported by the Moroccan National Social Determinants of Health Commission, WHO and the regional Commission on Social Determinants of Health, undertook a national study on the social determinants of health and health inequities. The results of this study were discussed in a workshop in which a research network was established and key themes to explore further were also identified. The research network will develop a training programme on the social determinants of health and Health in All Policies. This programme will serve as a basis for building capacities of multisectoral actors to understand and act on the social determinants of health, but the exact focus of actions on structural determinants still needs definition.

Lao PDR saw heightened attention placed on community health during the COVID-19 pandemic, which it will use to leverage action on the social determinants of health under the Initiative. The Ministry of Home Affairs has developed a Memorandum of Understanding with the Ministry of Health to develop a Community Network Engagement for Essential Healthcare and COVID-19 responses through Trust (CONNECT). This intersectoral collaboration aims to strengthen local health governance under the nation's "three builds" decentralization policy. Shifting towards comprehensive Primary Health Care approaches, a three-layer intervention to strengthen local governance and community engagement for health equity has been developed, field tested and endorsed for nation-wide rollout. The most disadvantaged districts have been identified, baseline surveys are being conducted and methods to assess the impact of CONNECT on structural determinants of health are being designed.

In the Philippines, roll-out for the COVID-19 vaccine prioritized equity through reaching the most disadvantaged constituencies. Assessments of local data and evidence was key to identifying that individuals experiencing homelessness were disproportionately impacted by COVID-19. In response the WHO country office partnered with the national government, the United Nations Population Fund and local civil society to reach COVID-19 vaccines to populations experiencing homelessness (see news feature). This work has had the knock-on effect of loosening registration requirements (for both populations experiencing homelessness and survivors of gender-based violence), and increasing vaccination coverage in the whole capital, Manila. This work is serving as a launchpad for the Initiative. Expanding beyond vaccination programmes for these populations is the next step for this Pathfinder country.

Lessons and future directions

The Initiative has, during its first year-and-a-half, contributed to the evolving narrative on the social determinants of health in Pathfinder countries through forming core teams, involving the WHO country office and at least one or more civil servants that have progressed visions for change: facilitating stakeholder meetings; and advancing measurement, training and advocacy. Pathfinder countries have committed to an action-learning process around a common theory-of-change, and are working to identify structural determinants, several across the 'initial' themes and population groups identified but in other cases prioritisation and adaptation to national priorities is still underway. Not all countries have undertaken all strategic actions of the Initiative yet owing to changes in leadership, priorities in relation to the COVID-19 pandemic, and changes in WHO support staffing for the Initiative. Nonetheless, in all cases they are seeking for policy opportunities, and their activities in the first year-and-a-half have set the basis for progressing strategic actions. Joint reflection and writing in the course of meetings and monitoring processes revealed lessons on particular factors enabling action in the Initiative. These are presented below.

Developing models for action on structural determinants

The ability to work on structural determinants has varied across Pathfinder countries. Yet even in contexts unfamiliar with addressing social determinants of health, country teams are finding innovative ways to broaden concerns with equity in access to health care to question broader structural determinants of health equity. Approaching the work in the form of a model has been a useful heuristic device for learning and practice in a non-judgemental way. Emerging models have different granularity of details; and may be adapted in the coming year. For example, in Colombia, it seems feasible to use health impact evaluations to develop inputs to migration policies but exactly what this entails in terms of governance structure for multisectoral collaboration is not yet defined. In other cases, such as Costa Rica and Lao PDR improving governance through engagement with affected communities in social dialogue platforms, may evolve as another model aligned with Primary Health Care. The case of Costa

Rica, with social development mechanisms proposed by a 'non-health' ministry (the ministry of social development), most clearly presents immediate engagement with multisectoral stakeholders to support action on structural determinants of health equity. Exactly how each of these models will go on to influence formal and informal rules of institutions, policies, culture and values to improve the structural determinants of health is an area that needs greater focus and clarity going forward.

Leveraging and broadening networks, including with communities

Network-building for action on the structural determinants of health equity has been critical across all regions and Pathfinder countries. For example, the regional office for the Americas has engaged a regional association of domestic workers and this collaboration has raised the visibility of social policies for workers in the informal economy in several Pathfinder countries. In the Eastern Mediterranean, in Morocco, creating a network of academics has been a first step. The Philippines has worked with the UNFPA. Including partners in networks from beyond the health sector has started slowly but more needs to be done in the coming year. The fact that some countries are placing a specific emphasis on community participation mechanisms as entry points for change to structural determinants of health equity will be instructive. Developing a deeper understanding of the role of communities as participants in policy networks will be key to develop further [42].

Integrating existing knowledge resources and developing new ones to build capacity

Literature on Health in All Policies efforts in countries discusses the importance of strengthening the capabilities of the health sector staff and allowing time for them to work with other sectors [42, 43]. In Pathfinder countries, a similar demand for strengthening capabilities of individual actors and capacities of institutions is being observed. Reviews of knowledge from the academic literature and developing human interest stories have been conducted in all regions. Strengthening knowledge on social policies to address them has been more gradual. In the case of the Americas, they recognised the need to assess capabilities and capacities for intersectoral action and community engagement. The theme of capacity building has become a central focus in Morocco as well. The one-week summer schools offered through the UNIL/UNISANTE partner goes some way to addressing the need for training but further work is needed to enhance capacity building more generally. Resources available to support capacity building need to be mapped. For example, in 2021, a WHO resource on community engagement approaches and experiences was launched [44]. Beyond WHO, resources such as *Making change visible: evaluation to advance social participation in health* [45], need to be reviewed. Training for data collection and multi/intersectoral action is needed, for which certain WHO resources currently exist [46, 47]. Within the data area, approaches for assessing the reach of the Initiative as regards its impact on the lives of beneficiaries is a measurement challenge requiring practical guidance. Next steps thus involve considering how to meet the training and capacity building needs more centrally in the Initiative – both with respect to internal WHO and UN processes, and for actors in government bureaucracies [48].

Conclusion

The Initiative has produced a common theory of change to support action on the social determinants of health for advancing health equity on the ground. WHO and core partners have reenforced evidence and assessments under the ongoing COVID-19 pandemic; promoted dialogue on the structural determinants of health equity; and supported country-level engagement for action. Steps taken by countries themselves during the first year-and-a-half of the Initiative have shown the feasibility and importance of building models, leveraging networks, and enhancing capacity building. Notwithstanding early successes, implementation challenges remain. Political change and financial uncertainy may limit general investments in the civil services and in the specific human resources needed to realise the policy commitments to address the social determinants of health.

Abbreviations

AMRO	WHO Regional Office for the Americas
COVID-19	Official name for the disease caused by the SARS-CoV-2 (2019-nCoV) coronavirus
EMRO	WHO Regional Office for the Eastern Mediterranean
Lao PDR	Lao People's Democratic Republic
oPt	Occupied Palestinian Territory
PAHO	Pan American Health Organization
WHO	World Health Organization
WPRO	WHO Regional Office for the Western Pacific

Supplementary Information

The online version contains supplementary material available at https://doi.org/10.1186/s12939-022-01798-y.

Additional file 1. Innovations in the design of the WHO Special Initiative for Action on the Social Determinants of Health for Advancing Health Equity.

Additional file 2. Figure A. Stages in the theory of change of the WHO Special Initiative for Action on the Social Determinants of Health for Advancing Health Equity.

Acknowledgements
The authors would like to acknowledge with thanks the information from Julia Berenson listing the social determinants of health research agenda papers submitted to WHO.

About this supplement
This article has been published as part of International Journal for Equity in Health Volume 21 Supplement 3, 2022: COVID-19 and inequality. The full contents of the supplement are available online at https://equityhealthj.biomedcentral.com/articles/supplements/volume-21-supplement-3.

Authors' contributions
OS*, NV*, AC, GB, FP, JS, ZA and DN proposed the structure of the paper. Data on the theory of change was developed by OS, NV, AC, GB, FP, JS, ZA, KF, IE, JA, MM, PB, KM and EP with specific inputs and insighted provided by SK, EE, AD, MB, PG. Information on the development of regional strengthening and country activities was contributed by OS, AC, GB, JS, ZA, SK, EE, ADJ, MB. OS, NV, AC, DN, ZA, JS, KR analysed the inputs and data regarding the region strengthening and country action. OS, NV, AC, GB made major contributions in writing the manuscript. All authors read and approved the final manuscript.

Funding
WHO gratefully acknowledges the financial support of the Swiss Agency for Development and Cooperation. The Swiss Agency for Development and Cooperation worked with WHO and other core partners to design the Initiative. They have contributed to the design of the study and collection, analysis, and interpretation of data and in writing the manuscript. Publication charges are funded by WHO.

Availability of data and materials
Not applicable.

Declarations

Ethics approval and consent to participate
Not applicable.

Consent for publication
WHO gives consent for production of figure A which is derived from a previous WHO publication [17].

Competing interests
The authors declare that they have no competing interests.

Author details
[1]Family, Health Promotion and Life Course, Regional Office for the Americas/Pan American Health Organization, Washington, DC, USA. [2]Social Determinants of Health, World Health Organization (WHO), Geneva, Switzerland. [3]Regional Ministries (SEREMI), Ministry of Public Health, Santiago de Chile, Chile. [4]WHO Regional Office for the Western Pacific, Manila, Philippines. [5]Health Protection and Promotion, WHO Regional Office for the Eastern Mediterranean, Cairo, Egypt. [6]Lao People's Democratic Republic WHO Country Office, Vientiane, Lao PDR. [7]Philippines WHO Country Office, Manila, Philippines. [8]Morocco WHO Country Office, Rabat, Morocco. [9]Department of Vulnerability and Social Medicine (Département Vulnérabilités Et Médecine Sociale), University Centre for General Medicine and Public Health (Unisanté |Centre universitaire de médecine générale et santé publique), Lausanne, Switzerland. [10]Faculty of Biology and Medicine (Faculté de Biologie Et de Médecine), University of Lausanne, Lausanne, Switzerland. [11]Delivery for Impact, WHO, Geneva, Switzerland. [12]Data and Analytics, WHO, Geneva, Switzerland. [13]George Institute for Global Health, New Delhi, India. [14]WHO Collaborating Centre On Advancing Health in All Policies Implementation, Adelaide, South Australia, Australia. [15]Centre for Health in All Policies Research Translation, Health Translation SA SAHMRI, and School of Public Health University of Adelaide, Adelaide, Australia. [16]Institute of Health Equity, University College London, London, UK. [17]Swiss Agency for Development and Cooperation, Bern, Switzerland.

Accepted: 25 November 2022
Published: 24 January 2023

References

1. WHO 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. Geneva: World Health Organization; 2008.
2. Yao Q, Li X, Luo F, et al. The historical roots and seminal research on health equity: a referenced publication year spectroscopy (RPYS) analysis. Int J Equity Health. 2019;18:152. https://doi.org/10.1186/s12939-019-1058-3.
3. COVID-19 and the social determinants of health and health equity: evidence brief. Geneva: World Health Organization; 2021. Licence: CC BY-NC-SA 3.0 IGO. Available from: https://www.who.int/publications/i/item/9789240038387. Accessed 14 Nov 2022.
4. State of inequality. reproductive, maternal, newborn and child health. Geneva: World Health Organization; 2015. https://apps.who.int/iris/handle/10665/164590. ISBN 9789241564908.
5. World Health Organization Regional Office for Europe. Healthy, prosperous lives for all: the European health equity status report. Copenhagen: World Health Organization Regional Office for Europe; 2019. https://apps.who.int/iris/handle/10665/326879. License: CC BY-NC-SA 3.0 IGO.
6. Collyer TA, Smith KE. An atlas of health inequalities and health disparities research: "How is this all getting done in silos, and why?" Soc Sci Med. 2020;264:113330. https://doi.org/10.1016/j.socscimed.2020.113330.
7. Donkin A, Goldblatt P, Allen J, Nathanson V, Marmot M. Global action on the social determinants of health. BMJ Glob Health. 2018;3(1–8):e0000113.
8. Vaccarella S, Lortet-Tieulent J, Saracci R, Conway DI, Straif K, Wild CP, editors. Reducing social inequalities in cancer: evidence and priorities for research. Lyon: International Agency for Research on Cancer; 2019.
9. WHO Task Force on Research Priorities for Equity in Health, WHO Equity Team. Priorities for research to take forward the health equity policy agenda. Bull World Health Organ. 2005;83:948–53.
10. Bonnefoy J, Morgan A, Kelly MP, Butt J, Bergman V et al. Constructing the evidence base on the social determinants of health: A guide. The Measurement and Evidence Knowledge Network (MEKN) of the WHO Commission on Social Determinants of Health. London: National Institute for Health and Clinical Excellence. 2007. Available from: https://cdn.who.int/media/docs/default-source/documents/social-determinants-of-health/measurement-and-evidence-knowledge-network-final-report-2007.pdf?sfvrsn=dd5fd658_3. Accessed 14 Nov 2022.
11. Intersectoral action to tackle the social determinants of health and the role of evaluation : report of the first meeting of the WHO policy maker resource group on social determinants of health, Viña del Mar, Chile, 27–29 January 2010. Geneva: World Health Organization; 2010. Available from: https://apps.who.int/iris/handle/10665/70579. Accessed 14 Nov 2022.
12. Muntaner C, Sridharan S, Chung H, Solar O, Quinlan M, Vergara M, Benach J, EMCONET Network. The Solution Space: Developing research and policy agendas to eliminate employment-related health inequalities. Int J Health Serv. 2010;40(2):309–14.
13. Östlin P, Schrecker T, Sadana R, Bonnefoy J, Gilson L, Hertzman C, Kelly MP, Kjellstrom T, Labonté R, Lundberg O, Muntaner C, Popay J, Sen G, Vaghri Z. Priorities for research on equity and health: towards an equity-focused health research agenda. PLoS Med. 2011;8(11):e1001115. https://doi.org/10.1371/journal.pmed.1001115.
14. Palmer RC, Ismond D, Rodriquez EJ, Kaufman JS. Social determinants of health: future directions for health disparities research. Am J Public Health. 2019;109:S70–1. https://doi.org/10.2105/AJPH.2019.304964.
15. Rasanathan K, Diaz T. Research on health equity in the SDG era: the urgent need for greater focus on implementation. Int J Equity Health. 2016;15(1):202. https://doi.org/10.1186/s12939-016-0493-7.
16. Bouchard L, Albertini M, Batista R, de Montigny J. Research on health inequalities: a bibliometric analysis (1966–2014). Soc Sci Med. 2015;141:100–8. https://doi.org/10.1016/j.socscimed.2015.07.022.
17. Solar O, Irwin A. A conceptual framework for action on the social determinants of health. Social Determinants of Health Discussion Paper 2. Geneva: World Health Organization; 2010.
18. National Academies of Sciences, Engineering, and Medicine; Health and Medicine Division; Board on Population Health and Public Health Practice; Committee on Community-Based Solutions to Promote Health Equity in the United States. In: Baciu A, Negussie Y, Geller A, editors.

Communities in action: pathways to health equity. Washington, DC: National Academies Press (US); 2017.
19. 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. Washington, DC: Pan American Health Organization and Institute of Health Equity; 2019.
20. Valentine NB, Koller TS, Hosseinpoor AR. Monitoring health determinants with an equity focus: a key role in addressing social determinants, universal health coverage, and advancing the 2030 sustainable development agenda. Glob Health Action. 2016;9:34247. https://doi.org/10.3402/gha.v9.34247.
21. COVID-19 and human development: assessing the crisis, envisioning the recovery. New York City: United Nations Development Programme; 2020. https://hdr.undp.org/system/files/documents/covid-19andhumandevelopmentpdf_1.pdf.
22. Second Adelaide Statement on health in all policies. Implementing the Sustainable Development Agenda through good governance for health and wellbeing: building on the experience of health in all policies. Adelaide: Government of South Australia; 2017. https://www.who.int/publications/i/item/adelaide-statement-ii-on-health-in-allpolicies. Accessed 14 Nov 2022.
23. Rio Political Declaration on Social Determinants of Health. World Conference on Social Determinants of Health, Rio de Janeiro, 19–21 October 2011. Geneva: World Health Organization; 2011. Available from: https://www.who.int/publications/i/item/rio-political-declaration-on-social-determinants-of-health. Accessed 14 Nov 2022.
24. World Health Organization. Social Determinants of Health [World Health Assembly resolution 74.16]. Geneva: World Health Organization; 2021.
25. World Health Organization. It's time to build a fairer world for everyone everywhere by acting on the social determinants of health to advance equity [brochure]. Geneva: WHO; 2021. Available from: https://cdn.who.int/media/docs/default-source/documents/social-determinants-of-health/210512_bls21162-whowhd-phase-2---brochure.v06.pdf?sfvrsn=4a0065aa_5. Accessed 14 Nov 2022.
26. 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(2):101–11. https://doi.org/10.15171/ijhpm.2017.130.
27. Kingdon J. Agendas, Alternatives and Public Policies. New York: Longman; 2003.
28. Shankardass K, Solar O, Murphy K, Greaves L, O'Campo P. A scoping review of intersectoral action for health equity involving governments. Int J Public Health. 2012;57(1):25–33. https://doi.org/10.1007/s00038-011-0302-4. Epub 2011 Sep 20.
29. Farrer L, Marinetti C, Cavaco YK, Costongs C. Advocacy for health equity: a synthesis review. Milbank Q. 2015;93(2):392–437. https://doi.org/10.1111/1468-0009.12112.
30. Holt DH. Rethinking the theory of change for health in all policies: Comment on "Health promotion at local level in Norway: the use of public health coordinators and health overviews to promote fair distribution among social groups." Int J Health Policy Manag. 2018;7(12):1161–4. https://doi.org/10.15171/ijhpm.2018.96.
31. Lee J, Schram A, Riley E, et al. Addressing health equity through action on the social determinants of health: a global review of policy outcome evaluation methods. Int J Health Policy Manag. 2018;7(7):581–92. https://doi.org/10.15171/ijhpm.2018.04.
32. Andermann A; CLEAR Collaboration. Taking action on the social determinants of health in clinical practice: a framework for health professionals. CMAJ. 2016;188(17–18):E474–83. https://doi.org/10.1503/cmaj.160177. Epub 2016 Aug 8.
33. Mangold KA, Bartell TR, Doobay-Persaud AA, Adler MD, Sheehan KM. Expert consensus on inclusion of the social determinants of health in undergraduate medical education curricula. Acad Med J Assoc Am Med Coll. 2019;94(9):1355–60.
34. Committee on Educating Health Professionals to Address the Social Determinants of Health; Board on Global Health; Institute of Medicine; National Academies of Sciences, Engineering, and Medicine. A framework for educating health professionals to address the social determinants of health. Washington, DC: National Academies Press; 2016. https://www.nap.edu/catalog/21923. Accessed 30 Nov 2022.
35. Newman L, Baum F, Javanparast S, O'Rourke K, Carlon L. Addressing social determinants of health inequities through settings: a rapid review. Health Promot Int. 2015;30 Suppl 2:ii126–43. https://doi.org/10.1093/heapro/dav054.
36. Blas E, Roebbel N, Rajan S, Valentine N. Intersectoral planning for health and health equity. In: Schmets G, Rajan D, Kadandale S, editors. Strategizing national health in the 21st century: a handbook: World Health Organisation; 2016. https://apps.who.int/iris/handle/10665/250221. Accessed 12 Sept 2021.
37. Freeman T, Gesesew HA, Bambra C, Giugliani ERJ, Popay J, Sanders D, et al. Why do some countries do better or worse in life expectancy relative to income? An analysis of Brazil, Ethiopia, and the United States of America. Int J Equity Health. 2020;19(1):202. https://doi.org/10.1186/s12939-020-01315-z.
38. Agonnoudé TM, Houéto SD, Béhanzin L, Padonou G. Why multi-sectoral approaches are rarely applied in community health interventions in some countries in Sub-Saharan Africa? Open J Epidemiol. 2022;12:75–85. https://doi.org/10.4236/ojepi.2022.122007.
39. Nguyen LH, Drew DA, Graham MS, Joshi AD, Guo CG, Ma W, et al. Risk of COVID-19 among front-line health-care workers and the general community: a prospective cohort study. Lancet Public Health. 2020;5(9):e475–83.
40. Commission on Social Determinants of Health in the Eastern Mediterranean Region. Build back fairer: achieving health equity in the Eastern Mediterranean Region: report of the Commission on Social Determinants of Health in the Eastern Mediterranean Region – executive summary. Cairo: WHO Regional Office for the Eastern Mediterranean; 2021.
41. Rivillas JC, Colonia FD. Reducing causes of inequity: policies focused on social determinants of health during generational transitions in Colombia. Glob Health Action. 2017;10(1):1349238. https://doi.org/10.1080/16549716.2017.1349238.
42. de Brún T, O'Reilly-de Brún M, Van Weel-Baumgarten E, et al. Using participatory learning and action (PLA) research techniques for inter-stakeholder dialogue in primary healthcare: an analysis of stakeholders' experiences. Res Involv Engagem. 2017;3:28. https://doi.org/10.1186/s40900-017-0077-8.
43. Valentine NB, Solar O, Irwin A, Nolen A, Prasad A. Commission on social determinants of health. Social determinants of health equity implementation discussion paper series. Discussion paper number 3. Health equity at the country level: building capacities and momentum for action. A report on the country stream of work in the Commission on Social Determinants of Health. Geneva: World Health Organization; 2008. Available from: https://www.who.int/publications/m/item/health-equity-atthe-country-level-building-capacities-and-momentum-for-action. Accessed 14 Nov 2022.
44. Omoleke SA, Bayugo YV, Oyene UE, Abrahams J, Gobat N, Good S, et al. WHO community engagement package: a reinforcement of an inclusive approach to global public health. Int J Epidemiol Health Sci. 2021;2(7):e16. https://doi.org/10.51757/IJEHS.2.7.2021.244835.
45. Loewenson R, Simpson S, Dudding R, Obando F, Beznec P. Making change visible: evaluation to advance social participation in health, an implementer's resources: Training and Research Support Centre (TARSC); 2021. Available from: https://www.shapinghealth.org/reports-and-papers. Accessed 14 Nov 2022.
46. Hosseinpoor AR, Schlotheuber A, Nambiar D, Ross Z. Health equity assessment toolkit Plus (HEAT Plus): software for exploring and comparing health inequalities using uploaded datasets. Glob Health Action. 2018;11(Supp. 1):20–30.
47. Health in all policies: training manual. Geneva: World Health Organization; 2015.
48. Gopinathan U, Buse K. How can WHO transform its approach to social determinants of health? BMJ. 2022;376:e066172. https://doi.org/10.1136/bmj-2021-066172.

Publisher's Note