

Discussion paper – 9 September 2009

**Priorities for research on equity and health:  
Implications for global and national priority setting and the role  
of WHO to take the health equity research agenda forward**

*Piroska Östlin (Task Force coordinator and core author), Department of Public Health Sciences, Division of Global Health, Karolinska Institute, Sweden; [Piroska.Ostlin@ki.se](mailto:Piroska.Ostlin@ki.se)*

*Ted Schreckler (core author), Department of Epidemiology and Community Medicine and Institute of Population Health, University of Ottawa, Canada; [tschreck@uottawa.ca](mailto:tschreck@uottawa.ca)*

*Ritu Sadana (core author), Equity Analysis and Research Unit, Department of Ethics, Equity, Trade and Human Rights, Information, Evidence and Research Cluster, World Health Organization; [sadanar@who.int](mailto:sadanar@who.int)*

*Josiane Bonnefoy, Ministry of Health, Chile*

*Lucy Gilson, University of Cape Town, South Africa and London School of Hygiene and Tropical Medicine, United Kingdom*

*Clyde Hertzman, Human Early Learning Partnership (HELP), University of British Columbia, Canada*

*Michael P. Kelly, Centre for Public Health Excellence, National Institute for Health and Clinical Excellence, United Kingdom*

*Tord Kjellström, National Centre for Epidemiology and Population Health, Australian National University, Canberra, Australia*

*Ronald Labonté, Department of Epidemiology and Community Medicine and Institute of Population Health, University of Ottawa, Canada*

*Olle Lundberg, Centre for Health Equity Studies, Stockholm, Sweden*

*Carles Muntaner, Social Equity and Health Section, Centre for Addiction and Mental Health and Bloomberg Faculty of Nursing and Dalla Lana School of Public Health, University of Toronto, Canada*

*Jennie Popay, Division of Health Research, Lancaster University, United Kingdom*

*Gita Sen, Indian Institute of Management, Centre for Public Policy, Bangalore, India*

*Ziba Vaghri, Human Early Learning Partnership (HELP), University of British Columbia, Canada*

Commissioned by the World Health Organization



**World Health  
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## Introduction: Process and use

In 2004, the World Health Organization (WHO) established a Task Force on Research Priorities for Equity in Health to provide expert advice on research priorities to take forward the health equity policy agenda (1,2). Members were selected purposively from around the globe for their dual expertise in health equity research and in advising national and international policymakers on the implications of research for equity-oriented policy. The Task Force identified priorities by way of a consultation paper presented at the 2004 conference of the International Society for Equity in Health in Durban, South Africa. Subsequently, five main priority areas were identified, and task force members were asked to identify and prioritise key research questions in each area. The resultant Task Force Report (2005) contributed to the selection of themes for the Knowledge Networks set up by WHO to support the Commission on Social Determinants of Health (CSDH) and the terms of reference for each network. The CSDH issued its Final Report in 2008: one of its three overarching recommendations for reducing health inequities through action on social determinants of health is to "measure and understand the problem and assess the impact of action." During 2009 WHO and its governing bodies are discussing ways to ensure that health inequity is measured and reduced - within countries and globally - and to support health research that explicitly addresses this agenda.

The current issues paper was commissioned by the Equity Analysis and Research Unit of WHO, Geneva, to update the advice provided in 2005. It sets forth the broad parameters for a global research agenda on equity and health, taking stock of contemporary efforts, stakeholder discussions, relevance to Member States and expected innovations. Organised in three sections (Background, Research priorities, and Next steps), this paper aims to stimulate further thinking, debate and refinement of strategic approaches focussing WHO support and collaborations to advance global research on equity and health. It is not a comprehensive review of research in the area of equity and health, nor of approaches to support research policies and their implementation in this area. Key strategic issues on which this paper aims to stimulate discussion are highlighted in the box:

### **STRATEGIC ISSUES**

- 1. Based on recommendations and learning from the Commission on Social Determinants of Health, the Knowledge Networks set up to support the CSDH, and other contemporary efforts, what areas of research could WHO concentrate support on to best advance greater health equity?**
- 2. What aspects of research, including the development of concepts, methods, norms and standards, and synthesis approaches could best benefit from global collaboration?**
- 3. How can WHO support and guide collaborations to maximise the relevance of global research on equity and health to specific countries and sub-populations; and**
- 4. What core strategies and innovative opportunities could increase research collaborations and the uptake of research, involving a wider range of investigators, institutions and civil society organisations from low- and middle-income countries?**

The evolution of the ideas contained in this paper reflects considerable discussion at international fora since the preliminary report of the WHO Task Force on Research Priorities for Equity in Health was discussed at the Ministerial Summit on Health Research, Mexico City, Mexico, November 2004 and the final report was published in 2005.<sup>1</sup>

Agreement on main directions and cooperative approaches will guide WHO's response to the World Health Assembly's resolution on "Reducing health inequities through action on social determinants of health," passed on 22 May 2009. The resolution urges Member States to **"generate new or make use of existing methods and evidence, tailored to national contexts in order to address the social determinants and social gradients of health and health inequities,"** and requests the Director General of WHO to **"to advocate for this topic to be high on global development and research agendas,"** and **"support research on effective policies and interventions to improve health by addressing the social determinants of health that also serve to strengthen research capacities and collaborations."** Progress on implementing this resolution will be reported to the World Health Assembly in 2012. A new WHO strategy on health research is also currently under discussion, and includes core elements addressing equity and capacity strengthening, with an expected WHA resolution in May 2010.

## I. Background

**Why equity and health?** Equity has been a stated or implied goal of health policy in many countries and international health organisations for decades. At the WHO conference in Alma Ata in 1978, a global health strategy was launched by the World Health Assembly with the goal of Health for All by the Year 2000 (HFA) (3). HFA, which implicitly makes equity in health a priority, was taken forward actively in the World Health Organisation's HFA strategy for Europe (4). The European HFA strategy for the 21<sup>st</sup> century identifies promoting equity and improving health as guiding principles (5). During the recent 44<sup>th</sup> Directing Council meeting of the Pan American Health Organization (PAHO), held September 22-26, 2008, in Washington D.C, health ministers called for a renewed commitment to the goal of "health for all" and endorsed primary health care as a strategy for reducing the region's persisting inequities in health. The WHO in Geneva launched a global initiative on Equity in Health and Health Care from 1995-1998 (6). Equity concerns were also prominent in parts of the 2000 Millennium Declaration, which gave rise to the Millennium Development Goals (7). Most recently, in 2005, WHO established the Commission on Social Determinants of Health (CSDH), which produced its final report in 2008, including abundant evidence on the origins of inequities in the distribution of the underlying determinants of health (8). Moreover, the United Nations more broadly has identified equity in health as a marker of

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<sup>1</sup> These discussions included dedicated sessions at the Symposium on Social Determinants of Health, Rio de Janeiro, Brazil, September 2007, and at the Global Forum for Health Research, Beijing, October 2007 (Annex 1). Since the release of the final reports of the Commission on Social Determinants of Health and the Knowledge Networks during 2008, discussions were also held at the "learning & working together to improve the broader determinants of health" session (Annex 2), during the Bamako Ministerial Forum on Health Research, Mali, November 2008, during the "social forces and global health" session (Annex 3) of the World Social Science Forum, Bergen, Norway, May 2009; and at a workshop during the International Society for Equity in Health triennial conference (Annex 4), Crete, Greece, June 2009. This paper has also been informed by comments from a wide range of stakeholders; however, responsibility for the content rests exclusively with the authors.

overall development. The 2009 Report of the UN Secretary-General and the theme of the Annual Ministerial Review is "implementing the internationally agreed goals and commitments in regard to global public health" and includes a strong focus on equity and health (9).

CSDH defined **health equity** as **the absence of systematic differences in health, both between and within countries that are judged to be avoidable by reasonable action**, and that definition is used for the purposes of this report. Using health equity as the foundation of its approach, CSDH concluded that "[s]ocial injustice is killing people on a grand scale" and made three overarching recommendations: improve people's daily living conditions; tackle the inequitable distribution of power, money, and resources; and as noted, measure and understand the problem and assess the impact of action. It also emphasised that knowledge gaps must not be used as a reason for postponing action on the ample body of evidence that already exists concerning social determinants of health. Hence, there is a need for a research agenda that is clearly driven by questions about health equity, informing the priorities of international agencies (including WHO), regional entities, national governments and civil society organisations, while reflecting what is already known.

**Importance of social determinants of health.** Although impressive overall gains were achieved in life expectancy and child survival during the second half of the 20<sup>th</sup> century, inequities in health status and in health systems between more and less privileged groups within and between countries have persisted, and in many regions and countries are widening (10). One important reason behind this development is that health systems in many countries have been unable to deliver adequately on or sustain improvements in health equity (11) for a variety of reasons. It is important to recognise, in turn, that health systems and the people who use them exist within a social context that powerfully determines people's chances to be healthy not only through access to health care, but more importantly through access to a range of other resources and opportunities: the social determinants of health. This point was made compellingly in a classic article on population health published in 1990, which rejected the "thermostat model" (in which societies can improve health simply by increasing the resources devoted to health care, much as one warms up a cold room by turning up the thermostat) in favour of a model in which health care is only one of the influences on population health outcomes, and sometimes not the most important one (12). Examples of subsequent research syntheses that underscore the value of this observation include reviews of research on HIV, tuberculosis and malaria infection (13,14); a retrospective examination of the first 25 years of Canada's experience of universal public medical care insurance (15); and the CSDH's final report itself, which drew on evidence from around the world.

By setting up the Commission on Social Determinants of Health, WHO sent a strong signal that social determinants do matter, and evidence on options to reduce health inequities must also incorporate approaches to improve conditions of life and distribution of resources. Some argue that this endeavour represents a risky project for an organisation with technical expertise primarily focused in large, condition-specific programs, and that issues of equity are political contentious for many Member States. Others argue that this endeavour represents a necessary vision for bold action, that acknowledges current approaches to improving population health and its fair distribution are not progressing, and

in some countries, previous positive trends are reversing (16). The CSDH report and its recommendations have garnered strong support – from the World Health Assembly, as noted, as well as from traditionally favourable observers such as civil society organisations and those usually more skeptical, such as *The Economist* (17).

**Why are new research priorities needed?** Biomedical research produces important knowledge about the mechanisms of disease aetiology; the clinical aspects of how people cope with disease and disabilities as individuals; and the biological and psychological mechanisms by which specific risk factors or risk conditions generate different diseases. Biomedical research remains foundational to the curative mandate of health systems, and can further enhance our understanding of the relations and interface between social influences and biological responses. For example, much of the evidence on the effects of environments on the developing brain has come from animal studies. Additional research involving human beings will contribute to understandings of how the environment affects young children’s brain structure and function. At the same time understanding the social aetiology of disease, i.e. the “upstream” influences on (ill) health (18) generally and almost unavoidably falls outside the biomedical frame of reference. But, the current focus of most non-biomedical health research is predominantly on individual risk factors; the social context that frames the distribution and modifies the effect of these risk factors is often neglected or is seen merely as contextualising individual risk, rather than as determining conditions in their own right. Another limitation of much existing health research is that when social context is studied as a determinant of health, it tends to be broken into discrete aspects (e.g. poverty, or discrimination by gender or ethnicity, or exposure to occupational hazards) rather than being seen in terms of interacting processes of social stratification, marginalisation and exclusion. Much current health research fails to take a multilevel perspective that links social system characteristics with individual health outcomes. Similarly, most research evaluating health interventions focuses on services delivered through the health care system or on the ways in which health systems are funded and clinical services delivered, failing to capture the importance of the social determinants of health (that is, the conditions in which people are born, live, work and age, and of the way in which they are linked to macro-level social processes and distributions of resources and power (19)).

**A third wave in global health research.** To summarise, the bulk of global health research has focused on biological disciplines, to develop medical solutions, to be provided through clinical, individual patient care. The past two decades have witnessed a rise in a new public health paradigm, enlarging disciplinary perspectives, stakeholder analysis, and recognition that health systems can be designed more effectively through new knowledge. This paradigm shift represents a second wave of global health research. With the 10/90 gap embraced by many organisations as an objective to be reversed (20) and the CSDH’s report widely distributed, among other contemporary efforts, this paper argues that we are on the cusp of a third wave in global health research, one that explicitly links broader social, political and economic determinants with improvements in equity in health, within and across countries.

**The current economic crisis underlines the urgency of implementing a broader agenda for research on equity in health.** The CSDH observed that “[i]mplementation of the

Commission's recommendations is critically dependent upon changes in the functioning of the global economy" (p. 76, and see generally chapters 3, 11 and 15). In this vein Margaret Chan, the Director General of the WHO, said at the United Nations in October 2008 that: "The policies governing the international systems that link us all so closely together ... need to look beyond financial gains, benefits for trade, and economic growth for its own sake. They need to be put to the true test. What impact do they have on poverty, misery, and ill health – in other words, the progress of a civilised world? Do they contribute to greater fairness in the distribution of benefits? Or are they leaving this world more and more out of balance, especially in matters of health?"(21) She has since elaborated that: "[E]quitable access to health care, and greater equity in health outcomes are fundamental to a well-functioning economy. I would further argue that equitable health outcomes should be the principal measure of how we, as a civilised society, are making progress" (22).

In keeping with this clear normative commitment, it is essential to broaden the health research focus with this "third wave," adopting research strategies and methodologies that:

- **go beyond the behavioral and other individual determinants of illness;**
- **examine the intersections among different social hierarchies (e.g. socioeconomic status and gender) (23) and their cumulative impacts on health status and health inequities;**
- **examine the connections between proximal and structural (distal) determinants of ill health, which are often poorly conceptualised and integrated into research;**
- **consider the dynamic (rather than static) nature of equity in different country contexts (this introduces a temporal dimension when investigating social structures and public policies);**
- **describe the institutions and processes that influence the allocation of resources related to health and its social determinants (24);**
- **focus on how the global context affects choices about resource allocation towards and within national and sub-national levels;**
- **pay special attention to the fact that certain kinds of evidence, such as results from randomised controlled trials, cannot be generated with respect to many interventions that address social determinants of health (25);**
- **involve affected populations, which is often essential to appropriate research designs and their execution.**

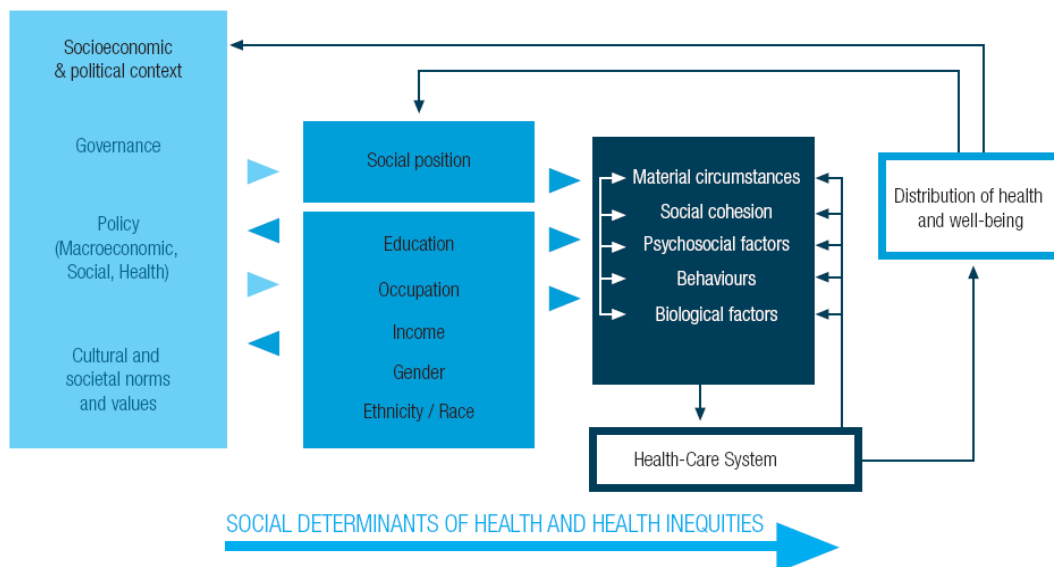
A considerable base of research evidence already meets these criteria. Since proposals to address health equity by way of social determinants of health invariably raise contentious policy questions, the evidence base must be continuously updated in order to maintain credibility, to offer evidence from balanced perspectives, and to reflect the effects of a macro environment that may be changing rapidly. In addition, addressing social determinants of health usually requires the involvement of actors outside the health care sector and the health system (26). Special research attention therefore needs to be directed to: the consequences for social determinants of health of a variety of economic, social and environmental policies - crucially including, in this last category, those affecting

the pace of climate change and the opportunities for adaptation (27); the factors that influence the success or failure of intersectoral initiatives to address social determinants of health, and the conditions under which governments are most likely to undertake them.

## II. Research Priorities

Priorities for future health equity research should be based upon identification of the most important gaps in current knowledge, keeping in mind the agenda set out in the report of the CSDH and its conceptual framework. In July 2005, the Commission considered a paper entitled *"Towards a conceptual framework for analysis and action on the social determinants of Health"* which presented a framework largely synthesising those first proposed by Diderichsen and colleagues (19;28;29). Based on subsequent consultations and inputs, the CSDH endorsed this framework and published it in its Final Report (see Figure 1). This framework illustrates the pathways by which social determinants of health affect health outcomes, makes explicit the linkages among different types of health determinants, and makes visible the ways social determinants contribute to health inequities among groups in society, given the increasing evidence of significant social stratification in health status.

**Figure 1. Conceptual framework used by the Commission on Social Determinants of Health**



Together with the input from stakeholder discussions, this leads us to recommend an agenda for research in the following four distinct but interrelated areas:<sup>2</sup>

- (1) global factors and processes that affect health equity;

<sup>2</sup> Areas (1), (3) and (4) correspond to those identified by the 2004 task force, while (2) combines two categories from the earlier report.

- (2) structures and processes that differentially affect people's chances to be healthy within a given society;
- (3) health system factors that affect health equity; and
- (4) policy interventions to reduce health inequity, that is how to influence (1)-(3) effectively, for example by identifying policy and program interventions with the potential to reduce inequities in the determinants of health and health services and opportunities to transfer the findings of research to potential users with maximum effectiveness.

In each of these areas, much is already known, but much remains to be understood. The discussion that follows provides a brief overview of the research agenda and identifies several examples of priority research questions, in general terms. The lists of research questions are far from exhaustive, although we are confident that we have identified many of the most important ones. The reader should keep in mind that the document's focus is on priority *research* needs, which do not necessarily correspond to the most urgent policy responses based on what we already know. It is expected that in the shaping and implementation of research policies, the specific context (whether sub-national, national, regional or global) will place greater urgency on some themes. We therefore have not prioritised the research questions identified within each area – as noted, an exercise that would have limited value without a country or regional context. As priority-setting proceeds within these contexts, it will be helpful to incorporate procedural guidelines, such as those proposed by a 2008 WHO workshop on priority setting for health research (30), with the crucial provisions that an equity dimension must always be explicitly incorporated.

### ***(1) Global factors and processes that affect health equity***

**We live in an interconnected world.** The diffusion of new knowledge and technology through trade and investment should in theory improve disease surveillance, treatment, and prevention. Economic growth, necessary for sustaining public goods such as health care, should both improve the supply of, and access to, essential health promoting services, while also reducing poverty, both of which would lead to better health. These outcomes, however, had largely failed to materialise even before the economic crisis that began in 2008. Instead, considerable evidence now suggests that contemporary globalisation, characterised by trade and investment liberalisation, privatisation of state assets and global integration of financial markets, has not reduced social and economic inequalities or inequities in health (31-34). Indeed, globalisation may have slowed or reversed past improvements in health status in some regions of the world (32).

Global processes have created ever closer ties between individuals and population across different countries. In some cases, globalisation has contributed to the rapid spread of infectious diseases and accelerated the spread of risk factors and risk behaviours such as unhealthy diets, use of tobacco and excessive alcohol consumption. A range of influences with less direct, but arguably more pervasive consequences on social determinants of health was identified in the course of the Commission's work (33-35). These include: the global reorganisation of production and the emergence of a global labour market, often with especially adverse effects on women's health and their social protection (36) and increases

in child labour (37); an internationally binding regime of trade liberalisation, which has often resulted in large revenue losses for low- and middle-income countries; the increasing mobility of capital; and the persistence of debt crises in developing countries. Closely connected with globalisation is rapid urbanisation in the developing world: a turning point was reached early in this century, when for the first time a majority of the world's people lived in cities (38). Some of the formidable health challenges presented for low- and middle-income countries were addressed in the work of the Commission's Knowledge Network on urban settings (39), and influences on social determinants of health have been a long-standing concern of the UN Centre for Human Settlements (UN Habitat) (38, 40-41).

In response, a variety of international forums have addressed the challenges presented by globalisation for health and human development. The 2000 UN General Assembly session that resulted in the establishment of the Millennium Development Goals also saw the establishment of the UN Commission on Human Security. That Commission's report, issued in 2003, emphasised the security challenges presented by global infectious diseases, poverty-related threats to health, and violent conflicts (42) although other discussions have adopted a broader view of the links between health and security (43). Subsequent international forums with relevance to globalisation and health include: the International Labour Organization's Commission on the Social Dimension of Globalization (44); the International Forum for Social Development, hosted by the United Nations Department of Economic and Social Affairs, which emphasised the renewed importance of social justice in a world of widening inequalities (45); and the UN Millennium Project, established to assess the chances that the Millennium Development Goals would be achieved in 2015 (46). Most recently the report of the UN Commission of Experts on reform of the international financial system (47) identified, at least by implication, the consequences for health of failure to address the large-scale economic dislocations associated with the current financial crisis. The findings of these initiatives cannot be summarised here, and they are by no means in complete agreement about solutions. Nevertheless they, like CSDH's own work, collectively comprise a body of evidence and argument that demonstrates the indispensability of:

**A global frame of reference informed by a clear normative commitment to reducing the conditions of life and work that lead to health disparities.** Research aimed at advancing health equity by way of the social determinants of health must engage with and improve the evidence base about the manifold effects of globalisation. Such research cannot be confined to national and sub-national frames of reference, because the economic and political drivers of harm or benefit to health routinely include policies and trends that transcend national borders and are at least in part beyond the policy 'reach' of national governments acting in isolation (33). Research strategies and designs need to disaggregate findings on health outcomes using such stratifiers as class, caste, gender, ethnicity/religion/national origin/immigration status, and to understand the domestic policy dynamics underlying regional disparities within countries. But they need also to understand the transnational origins of these inequities and develop the appropriate responses to them.

A particular feature of the globally interconnected world is the increasing understanding of the health risks caused by global environmental change. These include health impacts of lack of safe drinking water sources, region-wide air pollution, global spread of persistent

organic pollutants, depletion of the stratospheric ozone layer and global climate change. Research on the health equity aspects on all of these health hazards is missing.

**PANEL 1. Examples of high-priority research questions for understanding global factors and processes that affect health equity**

- How are increased inequality of labour market incomes and insecurity of employment playing out in the context of continued global reorganisation of production and service provision? What are the most likely implications for health equity?
- How will the financial crisis that began in 2008 affect health equity in low-, middle- and high-income countries? The crisis presents an important opportunity both for longitudinal studies of health impacts and for assessing the health and social impacts of policy interventions, as noted in later Panels.
- What are the origins and long-term health equity implications of current trends in food prices and food (in)security, and of increased liberalisation of trade and investment in all aspects of food production, processing and sale? What policy responses will avoid negative impacts, and reduce food insecurity worldwide?
- How are WTO agreements and dispute resolution outcomes, as well as the proliferation of bilateral and regional trade agreements, affecting health and health services both directly (e.g. by way of access to essential medicines and expansion of the role played by private health insurance) and indirectly (e.g. by increasing employment insecurity or decreasing tariff revenues before other revenue streams are well developed)?
- What are the implications for women's health and social protection of the "feminisation" of work forces that has often accompanied the globalisation of labour markets?
- How is the changing nature of the international order leading to increased levels of intra- and inter-state violent conflict?
- What are the implications for social determinants of health of new patterns of migration that are associated with globalisation?
- Against the background of recent changes in donor policy such as the Paris Declaration and International Health Partnership +, how can official development assistance be made more effective in advancing health equity? How can the international human rights law framework be used more effectively and systematically in support of health equity?
- What research priorities are implied by the need to link health equity with global climate change concerns?

Many of the issues and questions listed in *Panel 1* require not only comparative cross-national studies, but also detailed national case studies that go from household levels to national policy sectors, in turn assessing carefully the impacts of specific aspects of globalisation. A special need also exists for research on how best to redesign institutions for global decision-making (often referred to as 'global governance') so that these can address not only economic crises but also such genuinely global issues as climate change that have important health consequences. This need was recognised even before the financial crisis that began in 2008 (48,49) but the crisis has now added urgency.

## ***(2) Structures and processes that differentially affect people's chances to be healthy***

**The social environment, or social context, in which we live generates unequal distributions of power, wealth, risks and vulnerabilities to illness.**(19) Dimensions of concern include how the interaction of labour market outcomes and public policies affects income and income security (50-52), gender norms (53), access to social services, health care (54,55), education, housing, environmental protection, water and sanitation, transportation and security.

It is important to recognise that these influences frequently interact. For example, policies that affect the balance between paid work and women's domestic responsibilities - the "childcare constraint"(36) - can affect levels of family income, women's relative position within the household and the associated levels of stress and lack of autonomy, and can have profound effects on early childhood development (56,57). Such influences also operate at less tangible levels: for example, social stratification may lead many young people to have (realistically) low expectations with respect to their economic future, leading to choices such as leaving school or premature single motherhood, that can reproduce unequal social circumstances across generations (58-60). Despite the difficulties many young people in such situations demonstrate extraordinary resilience so research must also investigate the assets people have as well as relevant contextual factors.

Systems and institutions for social provision vary widely in their comprehensiveness, in the stages of the life course that they emphasise (e.g. support for reducing child poverty vs. old-age pensions and social security), and therefore on how and for whom they affect social determinants of health. So far, research on this topic has been concentrated on the high-income countries, where as a rule, such systems are most highly developed (61,62). Even there, much remains to be learned about how variations in systems of social provision operate to influence health, and about how provision of public services (e.g. health care, education, housing and transport) that are not reflected in household incomes affects the overall distribution of the benefits of public expenditure. It is even more important to expand research efforts to include low- and middle-income countries, where systems (and resources) for social provision are quite different.

In particular, social provision has been affected by **diminishing social protection**, in part as a consequence of promotion of market-oriented policy prescriptions at the international level, often with active involvement of international institutions such as the International Monetary Fund and the World Bank. Many governments have sold off state assets and also adopted commercial norms such as cost recovery in the provision of water and electrical service (63-65) and health care (discussed in the next section of the paper). The health equity impacts of privatisation must be assessed with respect not only to a narrow definition of privatisation as the sale of state assets, but also to a broader definition that involves a fundamental retreat from collective responsibility for social provision, with responsibility assigned instead to individuals and households – a pattern that has important, and largely negative, implications for gender equity (66).

**In a rapidly urbanising world**, in which it is estimated that 1.4 billion people will live in slums in 2020 in the absence of rapid and effective policy interventions (39,67), **problems of urban health demand special consideration**. The most immediate targets for policy attention include multiple forms of material deprivation, especially since these phenomena are often the result of choices about urban form and planning that are actually inimical to health equity. Many of the relevant policy areas, and their direct and indirect health impacts, are not only beyond the reach of health systems and the key decision-makers within those systems but also beyond the reach of local or metropolitan governments – as in the case of “stealth urban policies” (macro-level choices that have disproportionate impacts on large cities) that have been identified as major contributors to intra-metropolitan social and economic polarisation in the United States (68) and perhaps other countries. In many ways, globalisation is implicated in the deepening of such polarisation in countries rich and poor alike (69). Conversely, the emergence of metropolitan areas as global-scale economic actors in their own right offers, at least in theory, the opportunity for a new source of initiatives to reduce health inequities within those areas.

**The emphasis on research needs to shift from risk factors to root causes.** Numerous studies directed to understanding inequalities in health, mainly in high-income countries, have focused on exploring the individual attributes that differentiate health risks, such as smoking, alcohol consumption, eating patterns, and blood pressure. This emphasis raises two questions that are central to any future research strategy on health equity and social determinants of health.

First, the existing research focus on high-income countries tends to neglect many of the risk factors that are the most significant contributors to the global burden of disease such as malnutrition, unsafe drinking water, extreme indoor and outdoor air pollution, and occupational health and safety hazards (39). Second, the expanding literature on the social determinants of health emphasises that many risk factors are corollaries of, or strongly influenced by, an individual’s social position: income level and accumulated wealth as well as economic (in)security, place of residence, gender, caste, race, ethnicity, educational attainment, work environment, etc. The limitations of a focus on individualised risk factors have been critiqued with special force as “public health behaviourism”(70) in the literature on HIV/AIDS; however, the critique is applicable elsewhere – indeed, to much of the enterprise of ‘health promotion’ in its current form – and has been made strongly and for a long time by some within the public health practice and research communities (71).

One of the most important implications for research priorities and strategies of the social determinants of health perspective is that it is not enough to study the impact of any proximate risk factor in isolation from other demonstrated and potential risk factors. For example, emerging research in the gender and health equity field calls for a more systematic examination of how gender intersects with economic inequality, racial or ethnic hierarchy, caste domination, differences based on sexual orientation, and a number of other social markers in the social patterning of health. Recent studies on intersectionality confirm that socio-economic status measures cannot fully account for inequalities in health: for example, responses to unaffordable health care often vary by both the gender and class location of sick individuals and their households. They strongly suggest that class should not be

analysed by itself, and that apparent class differences can be misinterpreted without gender analysis (72).

The risk factor approach fails to uncover multi-causal mechanisms and root causes behind health disparities, and further is likely to neglect the accumulation of influences on health over the life course (73). The life-course perspective, in turn, requires fundamental rethinking of both research priorities and strategies of intervention design, to reflect what is already known about how both material deprivation and the stresses associated with subordinate or marginalised social status “cluster cross-sectionally and accumulate longitudinally” (74), and about the biological mechanisms at work (75,76). This is an example of the value of describing the multiple stages of causation that lead from the macro-social determinants of health to individual health outcomes, while not losing sight of the importance of acting on what is already known.

As the evidence base continues to evolve, multiple approaches are required to keep evidence current and in demand, relevant to diverse national contexts, and discussed with different stakeholders. This includes different types of research, primary studies (longitudinal, in-depth, multi-site) and secondary analysis of existing qualitative and quantitative data.

**Health impact assessment (HIA)** that specifically incorporates equity analysis potentially offers a useful framework for addressing many of these questions as they relate to specific policies, especially policies outside the health sector (77-79), including elements of public policy that involve the international economy and multilateral institutions. However, in order to incorporate an equity dimension, data and methods must be adequate to describe and anticipate not only a policy’s impact at an aggregate level (for instance, on state or national population health indicators), but on specific population groups, in particular those that are socially disadvantaged (80). Innovative efforts to address this issue exist, such as the International Group for Indigenous Health Measurement that aims to improve data and information useful to improve the health of indigenous populations - estimated at more than 370 million people across 65 countries - and develop an international network that enables meaningful exchange, learning and collaborative projects to inform national policy making; the group currently includes participants from Australia, Canada, New Zealand and the United States (81).

**PANEL 2. Examples of high-priority research questions for understanding how and why specific societal and political structures and relationships differentially affect people’s chances to be healthy:**

- How can we better understand the health equity impacts (positive and negative) of changes in tax policies, systems of social provision (e.g. income support, education, child care, pension systems and transport), labour market policies, housing policies, etc?
- How can researchers develop a more detailed understanding of the influence of various social determinants of health as they interact throughout the life course, in specific social contexts?

- How do different social bases of inequality such as economic status, ethnicity and gender intersect to shape health risks and outcomes, and how are these intersections affected by different social policies?
- At the small area level, especially in urban settings, what are the relations between compositional factors (e.g. the social and economic characteristics of populations who live in a given area) and contextual factors (e.g. place characteristics, physical environment qualities, social relationship dynamics, availability of services) on health inequities?
- At the metropolitan level, how are social determinants of health influenced and health equity enhanced or undermined by policy choices about urban settlement patterns, transportation, housing and the physical environment?
- How are environmental influences on health, such as exposure to pollution and (lack of) access to safe drinking water and sanitation, distributed across different population groups, and with what differential impacts on health outcomes? What are the underlying forms of social stratification) that shape these unequal distributions, and how can these be changed most effectively?
- How can the research collaborations that are necessary for comparative cross-jurisdictional studies best be supported? How can detailed case studies be designed for comparative analyses to supplement findings generated by cross-country comparisons requiring high levels of data aggregation?
- How will the health risks related to global environmental change, particularly climate change, differentially affect people in different social positions, as defined both within and among countries?
- What are the effects of privatisation, of both state assets and responsibility for social provision, on the relationships between citizen and state in health-related interventions? What are the impacts on service provision, access and health equity outcomes?
- How can research processes themselves strengthen the organisation and use the knowledge and experience of people who are not professional researchers, but who have uniquely valuable understandings of their own situations? How can the priorities of research institutions be reformed so that such engaged research is not denigrated or discouraged?

### ***(3) Health services and system factors that influence health equity***

**The health sector should provide an example for other sectors.** Although the antecedents of health inequities often need to be tackled within the broader social and economic arena, the role of health services - population based and clinical - in reducing ill health and suffering, redressing inequities, and preventing future inequities remains critical (82;83). In the short term, the health sector may be an especially promising point of entry for policies and interventions to tackle health disparities, to prevent impoverishment due to health care expenses (54,55) and to prevent the decline in social position of those with chronic diseases (84).

In the past two decades powerful trends in 'health sector reform' (HSR) around the world involved increased emphasis on market-based solutions – a direction that was actively promoted by international financial institutions (85) as sometimes was exacerbated by the

domestic austerity programmes that characterised the era of structural adjustment. In the words of one research team, “[t]he era of structural adjustment may be over, but the effects of earlier damage continue to cast a long shadow” (86). Some measures fundamentally reorganised the values and principles driving health systems, to include privatisation of service provision and financing and commodification of health care. Others were more process or management related, e.g. health sector administrative reforms (such as performance-based funding or private sector management contracts), formal mechanisms for priority setting and an expanded range of health care financing options. While the options adopted vary from country to country and region to region (87) these health system reforms, many of which continue to be promoted globally, can have fundamental consequences for many people’s day-to-day lives and well-being.

**Available research on health system reform (HSR) suggests that many of the reforms have raised barriers to access to essential care for the less well off.** Crucially, out-of pocket expenditures for public and private health care services continue to drive many families into poverty in low- and middle-income countries (55,88) – the “medical poverty trap” (54). Evidence presented to the CSDH strongly suggest the mistaken direction of past HSR, and the importance of recognising and enhancing the redistributive nature of health care systems by emphasising five policy goals: universal coverage; public financing; absence or near-absence of user fees for public services; access to a comprehensive range of services; and a private-sector role that clearly and equitably complements the public sector (11). These recommendations are generalisable or transferable, in that they can be applied to health systems in rich and poor countries alike, and are fully in accord with the findings of other recent research syntheses (89,90). One of these syntheses (89) also emphasised the importance of investigating why some jurisdictions do far better in providing coverage than others that invest roughly the same amount in publicly financed health services. On this point, research needs to generate increased understanding of the value of “demand-side” interventions such as enhancing the accountability to users of health service providers (91), recognising that supply-side interventions have sometimes had limited success in improving health outcomes (92).

**Social determinants of health and Primary Health Care (PHC).** The evidence presented to the CSDH further indicated that health systems in low- and middle-income countries deliver better and more equitably distributed health outcomes when organised around PHC. PHC represents a model in which prevention and promotion are in balance with investment in curative interventions, and where the emphasis is on the primary level of care with adequate referral to higher levels of care (11). However, PHC is more than just a model for service delivery and more than a prescription only for low- and middle-income countries; a PHC-based health system is organised around families and communities, mechanisms to enable individual and collective participation in health, and intersectoral action, of relevance to all nations. For example, as part of a larger strategy of building on established child survival and health programs to enhance early childhood development, PHC can incorporate the provision of early childhood development services to children and families who would otherwise have no access to such services, often for relatively low marginal costs. With the 2008 *World Health Report’s* emphasis on the renewed relevance of PHC (93), it is important to develop and implement supportive research strategies, from small scale (94) to large scale efforts. Against this background, it is essential to understand that health inequities

between countries can never be addressed properly if health service financing must be limited to the funds available from domestic resources – the argument that expansions of coverage, notably in low- and middle-income countries, must be ‘sustainable’ (95,96). With much work on identifying resource needs already done, further research on this point could focus on innovative mechanisms for longer-term and predictable forms of global financing of health systems in low-income countries and, as noted earlier, how to ensure that such investments are used to increase equity, not only maximise effectiveness within recipient countries.

Research and policy need finally to focus on **the human component of health-systems development**, which has at least two dimensions. First, the quality, commitment and dedication of health care providers are critical to health, equitable health systems and development. Numerous recent assessments indicate that the ‘brain drain’ of providers from low-income countries, especially from those in southern Africa, threatens to precipitate a complete collapse of health systems already stretched to the breaking point by financial constraints and the impacts of HIV and AIDS (97,98). Throughout the world, the role of women in both formal and informal health care provision is drastically neglected and under-reported, and the gendered nature of human resources for health has not figured largely in health research or policy (99,100). Second, processes of management and decision-making within the health system itself are important avenues for reducing inequity and empowering the excluded and marginalised, especially when intersectoral action for health is undertaken as part of a strategy of revitalising PHC.

**PANEL 3. Examples of high-priority research questions for understanding health care system factors that influence health equity**

- What are the most effective measures at local, national and international levels for resisting and counteracting pressures to commercialise health services and commodify health care?
- How have some low-income countries achieved levels of coverage and health outcomes that are disproportionately high relative to their levels of expenditure? How can the applicability of their strategies in other contexts be increased? Among the issues to be addressed are the design of appropriate regulatory frameworks to ensure that private sector activities contribute to health equity, and the implementation of financing mechanisms that increase cross-subsidies in financing health care for entire national populations.
- What are the experiences of low- and middle-income countries attempting to (re)design health system financing and organisation in line with the recommendations of the CSDH and its health systems knowledge network?
- What are the experiences of countries at all income/development levels attempting to revitalise a comprehensive approach to PHC?
- How will the current financial crisis affect public financing for health systems, in particular (but not only) in low- and middle-income countries, and how can governments respond in ways that maintain and enhance health equity?
- What new methodologies (e.g. micro-simulation, long-range scenario planning) could contribute to research on health systems and equity?

- What are the most important policy entry points to reduce the health inequities arising from health worker migration patterns? Who are the critical policy actors?
- What are the most important 'demand-side' aspects of promoting equitable health service access, e.g. information constraints relating to understanding of ill-health and what health services have to offer, power imbalances between health professionals and the users of health services (101)?
- How can health systems contribute to actions on social and environmental determinants of health through, amongst others, inclusive approaches to health service priority-setting, planning and delivery; community development; partnership development; policy advocacy; strengthening working relationships with civil society?
- What organisational structures for health systems work best to sustain active community participation, inter-sectoral action on social determinants of health, and the abilities of community members to influence policies?
- Within the health system, what strategies are most effective for building the institutions (norms, values, etc.) that sustain equity-promoting action through leadership and management initiatives?
- Under what policy and implementation models does decentralisation lead to improved local decision-making, net health equity gains and community empowerment?
- How do different funding, delivery and management models of PHC affect comprehensiveness and equity in access to services?
- What mechanisms for mobilising additional financing for low- and middle-income country health systems are most consistent with the requirements of health equity? How can these mechanisms be implemented in ways that ensure funds will flow to PHC and other health system modalities that reduce inequities?

***(4) From “problem space” to “solution space”: effective policy interventions to reduce health inequity***

Given evidence discussed in the preceding sections and emerging research findings in each of these areas, this "third wave" research agenda must place great emphasis on the design of more effective interventions and their evaluation (102,103), keeping in mind that the term “intervention” will probably always be used in multiple ways, corresponding to various scales ranging from the nation (and indeed global) to the local community. In some cases typical public health interventions, if applied in the traditional (non-equity-focused) way, could actually increase inequalities since high-income groups may generally be better able to access and utilise services or knowledge from health system interventions (104;105). Likewise, programme designs outside the health sector, even when they are meant to address low income groups, may fail to reach the most disadvantaged groups (106). Furthermore, it makes a difference whether the primary concern is with improving the health of the most disadvantaged members of a population (reducing health gaps), or reducing the steepness of the socioeconomic gradient in health across an entire population (105). The importance of this distinction emerged with special clarity from the Whitehall studies of British civil servants, which demonstrated a pronounced socioeconomic gradient across the entire study population that could not be accounted for by material deprivation

in any absolute sense (107-109). It also makes a difference whether the unit of analysis is the household or individuals who are placed very differently by gender, age, disability etc. within the hierarchical structure of households (110).

**Shift to solutions.** Research oriented toward reducing health inequity has until recently been devoted more to explaining health inequities than to designing and evaluating policy interventions to address the inequities. In other words, it has focused on what might be called the “problem space”: knowing what social structures, indicators, and processes are causally related to health inequalities (111). A promising and expanding body of research evidence now addresses what might be called the “solution space”: the strategic drivers of reductions in health disparities, the differential health effects of policy interventions, and the impact of alternative options for enhancing equity. Further, many of the research questions noted in earlier sections identify information needs related to the “solution space”. The urgent task now is to build bridges between researchers who work primarily in one or the other of these spaces (*Panel 4*).

**Evaluation is critical.** Over the short term, it is essential to know not only ‘what works’ but also why, with a view to assessing the generalisability or transferability of interventions to other contexts and scales. There is still limited research evidence relating to the circumstances under which interventions tested in Setting A can be generalised to Setting B. Stated differently, the primary focus in evaluation has been on questions of simple causality. More emphasis is needed on evaluation methodologies that assess factors affecting the generalisability/transferability of the intervention, and that get inside the “black box” to understand not only how interventions work, but also why they work (112). What makes a best (or at least a ‘better’) practice portable? Answering this question requires attention *inter alia* to the heterogeneous influences on the success or failure of an intervention. In what settings (including managerial, organisational, etc.) are interventions most likely to work and for whom?

**Over the longer term, the importance of evaluation is demonstrated by the question: “How will we know in 20 years which interventions have worked?”** Answering this question requires not only improved baseline data on health outcomes and social conditions, and good study designs that enable attribution, but also research on how social determinants of health are affected by a variety of social, economic, political and cultural policy initiatives that are not organised primarily around changing health outcomes. Such research, in turn, must rely on a plurality of evaluation methodologies. For example, some conditional cash transfer programs, now widespread in Latin America and being promoted elsewhere, have been evaluated using randomised controlled trials (113). However the trials may not capture the full range of program impacts (depending on the length of longitudinal follow-up), and few evaluative studies have been designed so that the ‘added value’ of the conditionality (as opposed to the cash or service transferred) can be assessed. Randomisation will often not be possible, necessary or ethically appropriate. In such situations, it is important to be able to compare the health equity impacts of different levels and forms of social provision using other methods. Among the information needs for such comparisons are improved measures of the actual level of social provision – for instance, by imputing a monetary value to the provision of publicly financed services (114), since they represent an important, potentially redistributive transfer of resources that is not reflected

in statistical comparisons of household income. Health care services are only the most obvious illustration; existing data indicate that we would expect markedly different health outcomes in two societies with identical distributions of income after taxes and transfers if one provided publicly financed health insurance, while the other relied on private insurance and out-of-pocket payment.

**Identify innovative research designs.** An important set of research opportunities arises from 'natural policy experiments': situations in which the introduction of a specific policy provides the opportunity for a quasi-experimental design or a comparative analysis that can be used to identify the policy's impacts on different social groups. Comparing the health consequences of national responses to the financial crisis, as suggested earlier, is one obvious example. Others involve, for instance, health equity assessments of urban renewal initiatives or changes in systems of social security. In this vein, it must be recognised that the proximate manifestations of health risks may need to be addressed by policy interventions at a different governmental or administrative scale. For example, a large and expanding literature describes the negative health effects of social disadvantage at the small area or neighbourhood level in cities (115-117). The major influences on neighbourhood-level disadvantage, however, may require policy attention at the state/provincial or national level, being largely outside the control of local or metropolitan governments.

**Set research standards.** There is evidence that many kinds of public health interventions are most effective when target communities and groups are involved in all aspects of policy and programme development, implementation and evaluation (110,118). However, there is also some evidence that such involvement can damage people if it is not done well (119). For this reason, a need exists not only for participatory research on the experiences of people most severely affected by the social determinants of health inequities (which may appropriately involve participatory methods), but also for research on how most effectively to involve them in the design, implementation and evaluation of interventions.

**More attention must be paid to making research accessible and useful to policy-makers and other potential users, such as civil society organisations.** This means, first of all, that they must know who has done and is doing what. An international reporting system for information on ongoing and completed studies (using various methods) of interventions that address the social determinants of health needs to be encouraged. WHO could provide valuable infrastructure support for multidisciplinary information-sharing portals that would connect research users with researchers, and researchers with one another. WHO could also coordinate timely responses to policy makers' specific questions, with a balanced review of evidence based options. Although electronic information-sharing platforms are of obvious value, special care must be taken to ensure that they are also accessible to the low- and middle-income country users who can benefit most from this information, given limitations on bandwidth, language, and other resources. And while the usual mechanisms of academic dissemination remain essential, especially as an assurance of methodological rigour, processes of translation that ensure relevance to policy makers, programme designers and other potential actors are critical. Involving a wide range of stakeholders in developing research questions and the interpretation of findings, is part of this translation process.

**Accessing and synthesising global knowledge.** In the context of what is known about social determinants of health, making research useful further implies more attention to synthesis of relevant evidence generated outside the disciplines familiar to some mainstream health researchers, for example in development economics, international political economy and sociology, among others. Within the UN system, numerous agencies such as the Economic Commission for Latin America and the Caribbean, the World Institute for Development Economics Research (Helsinki) and the UN Development Programme already function as important repositories of expertise. The need here is to develop capacity for synthesising research from multiple disciplines and institutional loci into a coherent narrative that clearly identifies priorities for action on social determinants of health. Learning and further integrating equity analyses within existing efforts, such as the Campbell Collaboration which conducts research syntheses on a wide range of public policy topics (e.g. crime and justice, education, social welfare), should be supported by research policies.

**Integrating equity analysis within benefit analyses.** In this frame of reference, policy-makers often require information on the economics of interventions as well as their health benefits. The ethical issues associated with formal economic evaluations such as cost-benefit analysis or cost-effectiveness analysis 'league tables' (especially without an 'equity lens') cannot be explored here; their importance is reflected in the Commission's rationale for rejecting the effort to justify reductions in health inequity with reference to their economic benefit (25). Nevertheless, information at least about the costs of interventions, and (when applicable) about costs avoided by focusing on 'upstream' rather than downstream influences on health, will often aid in making the case for commitments to interventions and policy change. Generating such information including differential impacts and benefits across socio-economic groups, and ensuring its quality should therefore receive greater priority. The point is to integrate "equity effectiveness" within studies on the economics of interventions (120), reflecting the value placed on reducing inequities as well as aggregated economic benefit.

**PANEL 4. Examples of high-priority research questions and research infrastructure issues for understanding effective interventions to reduce health inequity**

- What is the state of current knowledge with respect to health impact assessment (HIA) methodologies and incorporation of equity analysis? How can they best be applied to interventions that address, e.g., housing, education, or international trade? What can be learned from experience with environmental impact assessments about the circumstances in which impact assessment is, and is not, effective? Organisationally, what are the most effective frameworks for HIA in order to facilitate action on the findings? What methodologies are most appropriate for evaluating and addressing interventions that seek to alter several variables simultaneously?
- How can evaluation be incorporated most effectively into the design of interventions, within the limits of resources that are likely to be available in low- and middle-income countries? How can funders and technical support agencies like WHO assist in this regard?
- For purposes of research on socioeconomic gradients in health status, how can indicators of social position and social stratification be improved and in particular made more globally relevant (i.e. for within and across country comparisons)?

- How best can multiple axes of inequality be systematically incorporated in monitoring and evaluation of policies and programs?
- How can national and, eventually, cross-national comparative data on the extent of redistribution through social provision in kind (e.g. of health care, social protection, education, housing) be developed most effectively?
- What are the most appropriate ways of involving targeted communities or populations in intervention development, implementation and evaluation?
- What resources and infrastructure are needed to enable researchers to take advantage of natural experiments more systematically?
- What are the most effective ways of actively involving other sectors than the health sector in action oriented research to address health inequalities related to a wide range of health hazards (environmental, occupational, infrastructure such as roads, etc.)?
- What are the economics (costs, benefits, opportunity costs) of ‘upstream’ interventions to influence social determinants of health? What are the equity implications of applying economic analysis, and what are the most appropriate economic evaluation methodologies from an equity perspective? How can economic considerations be incorporated into research designs in ways that equally privilege equity benefits?
- What factors affect the success or failure of intersectoral action to reduce health inequity through action on social determinants of health?
- What monitoring strategies and indicators will most effectively assist low- and middle-income countries, in particular, to assess and improve their compliance with health-related obligations under human rights instruments such as the Convention on the Rights of the Child and the International Covenant on Economic, Social and Cultural Rights? What are the most immediate needs for capacity-building?
- What are the most promising entry points for health equity-oriented foreign policies: that is, for policy interventions that address health equity outside a country’s own borders?
- What programs and strategies will be most useful in enabling low- and middle-income countries, in particular, to incorporate health considerations into their negotiating positions in such areas as trade and investment policy? What are the most immediate needs for capacity-building?

### III. Next steps

In keeping with the final report of the Commission on Social Determinants of Health, this report starts from the premise that health inequities originate in the economic, social, political and environmental determinants of health, in the policies that influence the distribution of these determinants and in the powerful interests that shape these policies. Research processes that seek to advance health equity must generate knowledge that confronts the root causes and provides evidence that promotes health equity in a way that preferentially benefits the most disadvantaged in society, that supports approaches to work together across different sectors and stakeholders, and that can also serve as a resource for advocacy in support of health equity. With contributions and collaborations from around the world, a third wave in global health research will represent a global public good.

**Implications for WHO.** The high-level priorities implied by this analysis are fully in keeping with the 2009 *Draft WHO Strategy on Research for Health* (121), which identified the need for WHO to increase the number of staff with the relevant skills and understandings of research; to provide incentives for them to improve their research-related competencies; to develop a dedicated budget for research; to build external partnerships more proactively; and to redesign its own organisational and financial arrangements to support that process.

Keeping in mind the **four strategic questions** identified at the start of the paper, it is possible to identify **generic directions** for policy, program development and resource allocation that will increase the ability of WHO's secretariat to generate innovative responses and better serve its Member States:

**(a) Building a critical mass of professional staff with backgrounds in social science and non-medical disciplines, and with experience in a plurality of methods, to complement the existing competencies of biomedical and biostatistical staff.** Doing so would enhance the quality of technical support and policy advice to Member States and enable WHO to function as a more effective advocate on the global stage.

**(b) Building networks for research support and advocacy and pursuing new research partnerships** focused on social determinants of health and health equity with academic research units, civil society organisations, and other multi-lateral entities with relevant expertise. Key UN system agencies include the UN Development Programme, the Department of Economic and Social Affairs, UNICEF (e.g. through the Innocenti Research Centre), the World Institute for Development Economics Research and the International Labour Organization. WHO would benefit greatly from drawing on their expertise and collective wisdom while avoiding duplication of existing research efforts. Consolidating, strengthening and extending networks of research partners in low and middle income countries would be particularly important, for example through WHO's Collaborating Centers and scientific or technical advisory groups, among other avenues.

**(c) Establishing and expanding a budget dedicated to supporting research and research policies related to social determinants of health and health equity.** This implies mobilising the resources necessary to support considerable increases in the budget allocation for Strategic Priority 7 (“To address the underlying social and economic determinants of health determinants through policies and programmes that enhance health equity and integrate pro-poor, gender-responsive, and human rights-based approaches”) in WHO’s 2008-13 medium-term strategic plan (122) as well as intensive internal efforts within the organisation to integrate social determinants of health into research agendas associated with other strategic priorities, such as tropical diseases and health systems and policy research. It may be valuable to engage outside experts to guide this organisational rethinking.

**(d) Ensuring that norms and standards for the monitoring and assessment of health inequalities and health inequities are updated and used within WHO core statistics.** This is to echo a recommendation within the Commission's report, and is another area to engage outside experts to provide technical advice on measurement approaches, indicators, tools

to support analysis, as well as develop in collaboration with WHO specialised reports that draw on WHO statistical databases and integrate equity analysis.

The preceding **directions** constitute essential steps in the construction of the research and knowledge-sharing infrastructure that is necessary for creative response to more specific research needs. For many themes discussed, WHO need not duplicate existing bodies of expertise, but could build internal capacity sufficient to assess its relevance for social determinants of health, identify where to leverage on-going processes towards health, and must pursue partnerships with the agencies and institutions outside the health sector where that expertise resides. With respect to how to influence policy, WHO could be crucial to supporting development of research policies, capacity building, technical support and mobilising or brokering additional resources for monitoring, surveillance and evaluation of complex multisectoral interventions that address social determinants of health. As noted, it could also take a leadership role in norms and standards, knowledge transfer and international cooperation.

**Preliminary discussions within the WHO Secretariat.** As noted at the start of this document, a wide range of stakeholders were invited to comment on the strategic directions appropriate for WHO. In August 2009, the advice of external stakeholders was presented and discussed by WHO staff (see Annex 5 for details). A couple of key roles for WHO were identified to move this research agenda forward, include developing (a) in the short term a clear set of strategies to support uptake of this agenda at global, regional and national levels and (2) in the medium term, proposing standards and norms for good research practices in this area, such as in the measurement of equity, research designs for evaluation of interventions in multiple settings, etc., as discussed in this document. For the former, a short document on approaches to influence research policies is proposed, with examples from a few diverse countries, non-governmental sector, regional entities, other bilateral or multi-lateral agencies, and partnerships among these different groups. It is assumed that good experiences exist, in the area of dedicated, theme specific calls on broader determinants and equity; in the integration of these themes in other calls; and the improvement of research capacities and collaboration mechanisms. For the latter, a new scientific resource group on equity and health analysis and research will contribute to advancing work in this area, in conjunction with a new network of WHO Collaborating Centers addressing equity. Proposed workplans for each of these entities will be available for public consultation before year end. Other avenues will also be discussed.

## **CONCLUSION**

The report of the CSDH has placed health equity on the agenda of the international community in an unprecedented way, and the initial response of the research community has been heartening. The time to advance this third wave in global health research is now.

## **Acknowledgements**

We are grateful for extensive constructive comments on this paper and reflections on WHO's strategic role in this area by partners and collaborators in diverse institutions and organisations, including Jim Ball, Judith Bosse, Maggie Davis, Hazel Dean, Marie DesMeules, Geneviève Dubois-Flynn, Heather Fraser, Sharon Friel, Nancy Edwards, Joanne Hamilton, Kirsten Havemann, David McQueen, Pekka Puska, Mojgan Sami, Amit Sengupta, and Ludger Viehoff.

At various venues, many other individuals have made presentations and supported discussions on priorities and research policies that helped develop the ideas contained in this paper. Special thanks must be given to Francis Baum, Ruth Bell, Ana Cortez, Ania Grobicki, Mohammed Hassar, Hiroshi Kawamura, Sir Michael Marmot, Mike Murphy, Sam Notzon, Peter Piot, Shilpa Phadke, Hernan Sandoval, Peter Tugwell, Erin Ueffing, Vivian Welch, Ashok Yesudian, and Yan Guo.

The contributions of supportive colleagues across WHO at various stages and venues have been crucial to this discussion. We are particularly grateful to Anjana Bhushan, Erik Blas, Chris Brown, Tim Evans, Nick Drager, Luiz Galvao, Susan Holck, Ahmad Hosseinpoor, Jostacio Laptian, Jennifer Lee, Abdi Momin, Sofialeticia Morales, Davison Munodawafa, Benjamin Nganda, Cristina Torres Parodi, Amit Prasad, Kumanan Rasanathan, Sarah Simpson, Johannes Sommerfeld, Sameen Siddiqi, Robert Terry, Eugenio Villar and Susan Watts.

We are also grateful to many others, known and unknown, who have discussed these ideas and provided suggestions during conferences, workshops, emails and seminars over the past year.

**The content of this paper reflects the views of the named authors, and not of the institutions with which they may be affiliated or of those identified in the acknowledgements.**

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**Annex 1: Main recommendations related to evidence gaps and research priorities from the Symposium on Social Determinants of Health, Rio de Janeiro, Brazil, September 2007, and at the Global Forum for Health Research, Beijing, October 2007**

**1. Main evidence gaps identified across knowledge networks:**

- Many themes lacked data and primary studies
- Experiments and experiences are under-reported in network members' views
- There is an inadequate contextualization of experience
- Limited successful policy interventions where impact on health equity is documented, i.e. across social gradient or specific disadvantaged and marginalized groups
- Limited to no synthesis, particularly incorporating low and middle income country experiences and community-level innovations

**2. Further develop theoretical frameworks, some examples:**

- Linking across causal chain, social determinants and outcomes, such as showing the links and pathways that create employment dimensions leading to poor health outcomes
- Accounting for a standardized range of explanatory factors
- Understanding the intersection of the two axis of the health gradient e.g. health inequities and degree of social inequality in each society or stratification

**3. Address frontier issues, such as biological and social interface, some examples:**

- The extent and nature of sex-specific needs in health conditions that affect women and men
- Understanding of effects of environments on biological embedding and early childhood development

**4. Support decision making on alternative interventions, including costs and effectiveness of interventions incorporating an equity perspective, some examples:**

- Early childhood development programs in low income countries; participatory and community based interventions to address social determinates in urban settings

**5. Need for norms and standards on doing primary research in this area, and better or more rigorous research syntheses, some examples:**

- Of available country experiences of processes to bring about and sustain policy changes, particularly equity-oriented changes
- Ways to design and synthesize case studies to enable drawing out of lessons for other contexts

**6. Implications for working together, including:**

- Facilitate greater desegregation by "equity-stratifiers" (place of residence, gender, wealth, race/ethnicity, etc.).
- Strengthen health professionals' capacities to understand social determinants and use of equity-stratified information
- Intensify collaboration, integration and leadership of scientists & institutions from low and middle income countries. Although not new, this message deserves to be and must be repeated.
- Improve norms and standards to advance the agenda together:
- Recognize that more complex and long study designs need to be added to more short-term policy oriented research or synthesis activities

**Annex 2. Main recommendations from the "learning & working together to improve the broader determinants of health" session held during the Bamako Ministerial Forum on Health Research, Mali, November 2008**

**1. New research and research synthesis design and topics**

- Invest in generating and sharing new evidence on ways in which social determinants influence population health and health equity and on the effectiveness of measures to reduce health inequities, particularly in low- and middle- income countries.
- Continue to improve knowledge in areas for action (as identified by the Commission and its knowledge networks and civil society work streams).
- Increase evaluative research and include participatory action research involving the people targeted by action.

**2. Strengthening specific national and regional capacities, including those of existing institutions and individuals**

- Create and strengthen monitoring systems for health equity, such as via National Public Health Institutes (NPHI) that are found in many countries.
- Build on existing networks and extend their reach and interest in taking on social determinants and health equity themes, such as the Global Development Network, the Pasteur Institutes, Equidad, Cochrane and Campbell Collaborations, etc.
- Link existing institutions and individuals around the theme of social/economic/political determinants of health and health equity.

**3. Extending the reach and shaping the agenda of academic and action-oriented international networks**

- The use of Knowledge Networks (KN) as a model for global research should be fostered.

**4. Recognizing communities' contribution to research and further institutionalizing community participation in research processes.**

- The peer review process should engage non-traditional actors (e.g., indigenous groups).
- Identify avenues for more equal forms of partnerships with civil society organizations.

**5. Approaches to engage political commitment to advance research agenda**

- Integrate equity effectiveness into policy analysis and synthesis by looking at whether policies in multiple sectors (e.g., transportation, justice, education, health) can improve health equity across the entire population, including the most vulnerable and socially excluded.
- WHO including regional and country levels, with partners, to support advancing this research agenda on broader determinants of health and improving health equity among other contemporary efforts; partners include bilaterals, scientific institutions and networks, and civil society organizations.

### **Annex 3. Main recommendations from "social forces and global health" session, World Social Science Forum, Bergen, Norway, May 2009**

#### **1. Confirmation of recommendations from the Mali conference**

Public health challenges reflect complex challenges, and solutions demand multi-disciplinary perspectives to build up concepts, methods and tools to enable comprehensive research, evaluation and relevance to policies and programs.

#### **2. Support country specific analysis of opportunities to act on social determinants and reduce health inequities, and increase access to an evidence base for other researchers and policy makers to use.**

- UK's current efforts (e.g. Marmot Review) illustrates why social scientists are critical in this endeavor that needs to reflect global knowledge that is applicable in very different contexts.
- A new initiative in India, to establish a mechanism that can offer access to information (primary data, research outputs including case studies and synthesis, etc.) in one place for decision makers and researchers, offer insights on how to connect evidence based options with political windows to put working together on policy agendas
  - As in many LMIC, such as evidence base would have to reflect the diversity across India: as health is a state subject in the constitution of India, each state (29 states and 6 union territories) has its own health system, different vulnerable groups, and different policies (historical and more contemporary) to address social determinants of health.

#### **3. Several approaches are needed to reduce the dominance of the biomedical model of health and increase relevance of research produced.**

- Increase in schools of public health and health services that incorporate teaching of social science constructs, theories and research methods
- Increasing the capacities of existing researchers, and bringing together researchers and policy makers, can enhance the identification of policy relevant questions, development of appropriate methods, and increase the likelihood that evidence will be used.

#### **4. Social scientists and the wide range of social science disciplines can contribute to public health**

- Training of students in different schools, including schools of public health or other health professionals
- Developing more inclusive models, including Incorporate 'wisdom of experience' of people living in very disadvantaged circumstances.
- Shift from description to understanding how to evaluate what can work in different contexts

#### **5. How can social science associations contribute to this agenda?** Further build global capacity for research and knowledge exchange addressing social forces and health -

- Build on international collaboration (in addition to Cochrane and Campbell) that focuses on more diverse questions for policy and practice and more diverse social science evidence sources
- Further develop social science methods to make them 'fit' for the purpose of public involvement in research

- Increase democratic model for research capacity development involving partnerships of researchers from around the world supporting two way intellectual exchange – from poor to rich and vice versa
- Develop ‘Communities of practice’ in action – they included doers and users of research - policy makers, practitioners and civil society activists and provided opportunities for exchange and dialogue about problems and potential solutions.

#### **Annex 4. Main recommendations from International Society for Equity in Health workshop addressing the four strategic questions, Crete, June 2009**

1. More clarity is needed about definitions and terminology. For example, “equity” without a specified definition may not mean the same to all readers. It would be useful to incorporate into the document a piece about the relevant “conversations” in other disciplines.
2. It is important to be very explicit about the new skills and expertise that will be required for research on social determinants of health, and the implications for training and curriculum.
3. More attention is needed to issues of inclusion and exclusion. For example, information systems limitations in low- and middle-income countries may limit the ability of investigators based in those countries to do research and participate in international collaborations. The issue of expertise also raises the question of the social construction of knowledge: what determines who is regarded as an expert, and who has the opportunity to participate fully in the construction of knowledge? Systematic barriers exist to the participation of certain individuals, groups, and countries (exemplified, at a mundane level, by the cost barrier to participating in the ISEqH workshop).
4. Although low- and middle-income countries may not have optimal research capacity, many are nevertheless actively engaging in policy reforms that affect social determinants of health, thereby creating an important opportunity for research on the effects of these reforms.
5. More attention is needed to disaggregating data in ways that permit better measurement of inequities. (This is a question not only for academic researchers but also for administrative agencies that may be the primary data-gatherers in some instances.) A crucial requirement for the discussion of “solution space” is having a benchmark and being able to understand if we have made a shift in inequity. It is crucial to be able to answer the question of how we will know in 20 years which interventions have made a difference. By implication, this question places measurement in the context of evaluating the health equity effects of actions taken, avoiding the tendency to treat improved measurement as a substitute for action.
6. Much work is needed on identifying the implications for health of evidence generated outside health research by disciplines such as development economics and sociology, and by UN system agencies like the Economic Commission for Latin America and the Caribbean. Following from this point, a need exists to identify as a research priority the synthesis of research from multiple disciplines into a “syncretic” whole, and to do so in a way that is valuable to policy-makers. At the same time, caution is in order about paying too much attention in setting priorities to the stated needs of ‘research users,’ for whom health equity is not necessarily a priority.
7. More attention in the document is needed on translational research, assessing what kinds of translational strategies are most effective and how research can be made more accessible to various audiences. This issue could be addressed in part by the creation of multidisciplinary electronic research portals which would, at the very least, make it easier for researchers to find out what is being done in other disciplines or subfields with which they might not normally have contact.
8. The issue of young researchers versus senior and established researchers needs to be highlighted. Creating capacity and taking responsibility for mentorship programs for junior researchers should become a research priority itself.

9. Next steps: the research priorities report in draft form has already inspired the priorities of a health equity research network funded by the province of Ontario (Canada). However, an urgent need exists to advocate for this set of priorities with funding agencies internationally, especially those that already support globally oriented research.

**Annex 5. Summary of consultation responses on the four strategic issues concerning WHO's role to advance this research agenda, reflecting advice from external partners and collaborators**

**1. Based on recommendations and learning from the Commission on Social Determinants of Health, the Knowledge Networks set up to support the CSDH, and other contemporary efforts, what areas of research could WHO concentrate support on to best advance greater health equity?**

- More clarity about definitions, terminology, measurement approaches
- Policy implementation research; including barriers to intersectoral action; address political dimension
- Research focusing on health professional education, recruitment and retention globally, as brain drain greatly influencing health equity.
- Positive and negative aspects of global political economy and the impact of such forces as trade rules and the arms trade on health
- Encourage a plurality of approaches, methods and concepts emanating from a range of disciplinary traditions (e.g. complexity sciences, health sciences, sociology, anthropology, political sciences, economics, etc)
- More direct links between health equity and the human security framework
- More direct role for the power of emerging global cities
- More work to delineate pathways to health equity
- Research on how to measure governance and communicate equity
- Agree that solution space, and action research models, should be focus on priorities and WHO's commitments. Would also be important to involve non-traditional knowledge producers as well.

**2. What aspects of research, including the development of concepts, methods, norms and standards, and synthesis approaches could best benefit from global collaboration?**

- Having more balanced information, sheds light on all angles, not only one ideology
- Identify key issues within tools, guidelines and consensus statements
- Transfer of methods and experiences, including disaggregation of data, combined impact assessment methodologies, policy tools and frameworks.
- Processes such as participatory action research and greater interdisciplinary teams
- Trans-disciplinary research that effectively brings together in close partnerships political scientists, global economists, philosophers, social scientists health professionals and others
- Health in all policies approach needs to be conceptually refined and practically applicability studied
- Economic evaluations of upstream interventions
- Assess gaps in data and how to put in sustainable data collection and develop standards for analysis
- Realist reviews to capture real-world evidence for decision-making.
- WHO should focus on promoting monitoring and evaluation, such as indicators, that others can also use to evaluate effectiveness of programs or policies once implemented

### **3. How can WHO support and guide collaborations to maximize the relevance of global research on equity and health to specific countries and sub-populations; and**

- WHO providing support to national MoHs to contextualise such global research; do not ignore political dimensions
- Catalogue resources on equity and health across the UN and Bretton Woods institutions
- Create a `portal of knowledge` through which to share and disseminate research work and findings
- Through case study examples of how to and who documentation, capacity development
- Counteract current drivers of research that are not a search for new knowledge that enhances the value of public goods, but a search for means to appropriate research for private gains: bring the “public” back into the exercise for priority setting for research.
- Series of international and national research, expert and actor conferences and meetings planned and organized to further disseminate work of CSDH, KNs and develop national research agendas
- Strategically support research and evidence that incorporates a policy development perspective
- Investigate public and private partnerships using appropriate methods
- Include transferability within all case studies, what is generalizable, what is unique, what are pre-conditions
- Support integration of this research agenda within other WHO research collaborations, including TDR and Health Systems and Health Policy through practical tools, existing and new reference groups
- Collectively support increasing capacity to do this type of research and use methods that involve practitioners in LMICs
- Support action research as research that involving people who are core decision makers, makes a big difference in the translation and uptake of research

### **4. What core strategies and innovative opportunities could increase research collaborations and the uptake of research, involving a wider range of investigators, institutions and civil society organizations from low- and middle-income countries?**

- Make link to WHA resolutions more explicit: WHO has 193 member states; focus on agenda and priority setting, and supporting countries and institutions to integrate these priorities
- In addition to specifying big areas of priorities or particular questions, support MoH, NGOs and research agencies to respond quickly to debates in this area that suddenly pop up
- Obtain and disseminate evidence that helps WHO better advise countries
- Support education of professionals to include equity in health; facilitate research exchanges
- Setting priorities and guidelines for funding research, convene experts & develop in-house expertise
- WHO Collaborating Centres are an underutilized resource in capacity building. Ensuring twinning and networking of CCs with partner centres in LMIC is an area in which WHO could significantly improve
- Encourage, document research and evaluation of non-traditional researchers, such as in NGOs and CSOs.

- Linking up with already existing networks, funders and civil society -- The Global Alliance for Chronic diseases; Health Metrics Network to generate disaggregated data that clearly show social gap and gradients of health.
- Support regional initiatives; monthly dialogues using new technologies