

Who, and what, causes health inequities? Reflections on emerging debates from an exploratory Latin American/North American workshop

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Rapidly rising interest - from national and international health organisations, governments, civil society, the private sector and myriad academic disciplines - in what has become known as the 'social determinants of health'^{1,2} is welcome to the many, in and outside of public health, who have long held that issues of social justice and the public's health are inextricably linked (box 1).^{2,3} As inevitably happens, however, when an issue gets 'mainstreamed', a multiplicity of disparate voices enter the discussion, informed by not only different disciplinary vantages, but also divergent values, priorities and politics.

In the spirit of provoking constructive debate, we share highlights of a small meeting, held in October 2009, on 'Frameworks, questions, & studies: a Latin American/North American exploratory workshop on investigating societal determinants of health inequities between & within countries'. Organised by Nancy Krieger and sponsored by the Harvard Center for Population and Development Studies, the workshop was attended by 17 participants from five countries (Brazil, Canada, Colombia, Mexico and the USA) and one international health agency (the Pan American Health Organization (PAHO)). Disciplinary backgrounds included: epidemiology, sociology, psychology, medicine, history, health systems, demography, social work, human rights and international law; participants'

institutional affiliations were with universities, hospitals, and government and international agencies. Common to all participants, each of whom contributed to the range of ideas expressed in this editorial, were: 1. a concern with how social injustice harms health, 2. recognition that social inequalities in health have long been documented and debated, 3. appreciation of the importance of theory in shaping analysis of health inequities, that is, group differences in health outcomes (within and between nations) due to injustice, and 4. awareness of the context of the discussion, including the gross and growing inequities in income and wealth that exist within and between countries (box 1).

The rationale for our emphasis on frameworks and our limited geographical focus was twofold. First, we prioritised theory because theoretical frameworks critically shape the questions asked (or not asked), the determinants and outcomes considered (or not considered), the data collected (or not collected), the methods used (or not used) and the approaches taken (or not taken) to interpreting the resulting data.³ Second, attention to theory in relation to conceptualising and analysing societal determinants of health inequities has typically been stronger, more politically forthright and more perceived as essential in the Latin American literature as compared to the more voluminous but largely empirical and often more methodologically oriented North American (and other regional) work on this topic, even as the latter has generated important theoretically informed analyses.³⁻⁸

However, several points raised in our exploratory discussion are, we believe, of global applicability. Below we offer them as a first step towards encouraging wider debate and discussion.

1. *Explicit theoretical frameworks are needed that engage, intellectually and epistemologically, with how societies produce and reproduce social inequity, political dominance, labour relations, modes of life and ecological context, thereby affecting both levels and distributions of health and health inequities. At issue is how people both shape and are shaped by - and hence biologically embody - their societal and biophysical context.*
2. The point is not 'grand theory' that deterministically purports to explain 'everything', but rather critical uses of theoretical frameworks that can coherently orient inquiry and analysis within and across relevant levels and

timeframes, situate different perspectives in relation to each other and make the invisible visible. Suggesting this is feasible was our review of several explicit theoretical frameworks for analysing health inequities, each with rich historical antecedents (see box 1). The selected frameworks were drawn from Latin American Social Medicine and Collective Health (including Laurell's labour process model; Breilh and Granda's social class model; Samaja, Testa and Possas' theory of mode of life and health; and Almeida-Filho's synthesis in an ethnoepidemiological model),⁷⁻⁸ and their North American/European counterparts (including the political economy of health framework developed by Doyal, Navarro and others;³⁻⁴ Walters and Simoni's indigenist stress-coping model;⁹ and Krieger's ecosocial theory of disease distribution⁵).

Common to all of these frameworks - and distinguishing them from more mainstream alternatives - is their politicised orientation to analysing and rectifying health inequities. The difference, broadly stated, is between:

- A. increasingly de-politicised approaches that view 'social determinants of health' as arising from a 'social environment,' structured by government policies and status hierarchies, with social inequalities in health resulting from diverse groups being differentially exposed to factors that influence health, whereby 'social determinants,' such as poverty, act as the 'causes of causes,'¹ versus
 - B. alternatives that posit 'societal determinants of health' as political-economic systems, whereby health inequities result from the promotion of the political and economic interests of those with power and privilege (within and across countries) against the rest, and whose wealth and better health is gained at the expense of those whom they subject to adverse living and working conditions; 'societal determinants' - such as political-economic systems that prioritise highly concentrated accumulation of private wealth over redistribution of power, property and privilege within and across countries - thereby constitute the 'causes of causes of causes'.²
- Hence, although the more politicised frameworks vary in the attention they accord to the biophysical processes involved in biologically

embodying societal context,³ they nevertheless acknowledge, rather than gloss over, the realities of societal conflict and the necessity of social movements and societal change for rectifying health inequities.

- 3. *Attention to processes, history and embodiment is critical: for analysing causal pathways and both planning and evaluating efforts to alter them, for understanding the quality of and gaps in health data, and for critiquing extant evidence and knowledge.*

Emphasising these points was our discussion of:

- A. Mounting evidence of context-dependent variations in the associations between societal determinants and health outcomes, whereby the magnitude, and even direction, of these associations can depend: i. on the outcome chosen and ii. on who is being studied, where and when. Well-known examples include the 20th century reversal of the socio-economic gradient in smoking in countries of the global North (from more prevalent among the affluent to more concentrated among the impoverished), and analogous complex shifts in the social patterning of obesity across time and space.⁴⁻⁵
- B. The instrumental use of human rights concepts and methods for revealing and influencing government-mediated processes linking social determinants to health outcomes, especially in relation to the principles of participation, non-discrimination, transparency and accountability as applied to both health systems and health indicators.
- C. Critical analysis of the historical generation of theories, methods, empirical research, evidence, institutions and social movements that have shaped, for good and for bad, levels and distributions of health, and data on them, within diverse societies.
- D. The expansive view of indigenous health frameworks, which engage with the social, cultural, spiritual and biological transgenerational and immediate health impacts of collective historical and current trauma.
- E. The importance of taking into account: i. lifecourse processes, considering the transgenerational health impact of diverse exposures

from parents' preconception health status to in utero on through childhood and adulthood, and ii. age-period-cohort effects, known to be important but often ignored in analyses, and referring to how population patterns of health can reflect: a population's age structure (given strong associations between age and disease occurrence, in part due to the time involved in the relevant pathogenic processes); exposures occurring at a particular time that affect all age groups (albeit in ways that might vary with age, eg, period effects of historically situated traumatic events such as famine or genocide); and life-long health implications of exposures affecting a cohort born at a particular time (eg, babies born during the economic depression of the early 1930s).

- F. The salience of integrated biological processes, as exemplified by the case of innate immunity and inflammatory responses, triggered by myriad contemporaneous socially patterned biophysical and social insults (potentially including exposures ranging from microbes to social trauma to obesity), and together forming a 'common soil' that gives rise to many chronic diseases; and
- G. The necessity of understanding health policy and health politics simultaneously as: i. aspects of broader social policies and societal politics and ii. determinants of health and health inequities. Corollaries include challenging technocratic approaches that: 1. promote vertical health interventions (ie, programming focused on only one disease, eg, HIV/AIDS, across all levels of the health system, from local to national) as opposed to integrated health systems and intersectoral strategies, 2. fail to consider the relevant timeframes for evaluating the impact either of new policies or of taking away positive health policies (whereas some policy changes might be expected to have temporally rapid effects, eg, affecting availability and access to vaccines, others would be likely to show effects after a longer duration of time, eg, the impact of poverty reduction on pathogenesis of chronic non-communicable diseases), and 3. act as if science had no values or obligations (including the responsibility to identify societal determinants of health).

Box 1 Political, historical, intellectual and economic context of a Latin American/North American discussion about societal determinants of between-country and within-country health inequities

1. Political, historical, and intellectual context

- 1.1. Explicit efforts to develop theories articulating the causal connections between political economy, social injustice and health inequities can readily be traced back to the mid-19th century.^{2–8} Examples include the European writings of Rudolf Virchow (1821–1902) and Friedrich Engels (1820–1895) in the 1840s, as linked to societal upheavals spurred by the rise of industrial capitalism, along with their subsequent elaborations in the early 20th century by European, North American and Latin American analysts and politicians, such as Chilean president Salvador Allende (1908–1973), variously concerned with the health impact of political and economic systems, and political and economic injustice, both within and across nations and regions.^{2–6} More recent antecedents include: A. the rise of critical science frameworks during the 1960s and 1970s, including within the health fields, as spurred by post-World War II national liberation and anti-imperialist movements along with the emergence of worldwide social movements regarding racism, indigenous rights, gender, sexuality, human rights and the environment (ecology), and B. since the mid-1990s, a renewed round of theorising linked to efforts to: i. understand and address the adverse health impacts of neoliberal policy regimes instituted by national governments and global institutions (eg, the World Bank, the International Monetary Fund) commencing in the early 1980s, including privatisation of public resources, tax cuts for the wealthy and slashing of government social welfare programmes, and ii. conversely, elucidate the potentially positive health effects of diverse welfare state strategies to reduce social inequality and health inequities as well as improve population health.^{2–6}

1. Economic context

- 1.1. According to the 2005 United Nations Human Development Report,⁹ the 'champagne glass of income distribution' (first described in their 1992 report) has grown even more elongated, such that '(the) annual flow of income of the richest 500 people (in the world) exceeds that of the poorest 416 million' and that '(the) cost of ending extreme poverty—\$300 billion—is less than 2% of the income of the richest 10% of the world's population'.
- 1.2. For Latin America: within a global context of growing income inequalities, income inequality in most Latin American countries (as measured by the Gini coefficient) remains higher than that of all regions other than sub-Saharan Africa, as driven by the countries that implemented neoliberal reforms.⁹
- 1.3. For the USA: making clear that the availability of resources to address health inequities and the social determinants of health is a matter of political priorities, not inadequate funds: A. between 1948 and 1973, the income gains in the USA of the bottom 90% were nearly twice as large as those of the top 1%, whereas in the current 'Gilded Age,' from 1982 to 2007, the gains of the top 1% were 16 times, and those of the top 0.1% 31 times, those of the bottom 90%;¹⁰ B. the cost of the past 10 years of tax cuts to the richest 1% of Americans is estimated to exceed \$1.7 trillion¹¹; and C. during the past 7 years the USA has spent over \$712 billion on one war alone.¹²

4. Hence: *Understanding and changing determinants of health inequities requires explicit attention to societies' political, economic, cultural and ecological priorities in historical context and how they become embodied; de-politicising and de-historicising health inequities will compromise evidence, knowledge and action.*

Would anyone like to argue otherwise?

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REFERENCES

1. **World Health Organization, CSDH.** *Closing the gap in a generation: health equity through action on the social determinants of health. Final report of the commission on social determinants of health.* Geneva: World Health Organization, 2008.
2. **Birn A-E.** Making it politic(al): closing the gap in a generation: health equity through action on the social determinants of health. *Soc Med* 2009;**5**:166–82.
3. **Krieger N.** Theories for social epidemiology in the 21st century: an ecosocial perspective. *Int J Epidemiol* 2001;**30**:668–77.

4. **Kunitz S.** *The health of populations: general theories and particular realities.* Oxford: Oxford University Press, 2006.
5. **Graham H.** *Unequal lives: health and socio-economic inequalities.* Maidenhead, United Kingdom: Open University Press, 2007.
6. **Franco S, Nunes E, Breilh J, et al.** *Debates en medicina social. Organización Panamericana de la Salud-Alames.* Quito, Ecuador: Non Plus Ultra, 1991.
7. **Almeida-Filho N.** *La ciencia tímida: ensayos de deconstrucción de la epidemiología.* Buenos Aires, Argentina: Lugar Editorial S.A, 2000.
8. **Walters KL, Simoni JM.** Reconceptualizing native women's health: an "indigenist" stress-coping model. *Am J Public Health* 2002;**92**:520–4.
9. **United Nations Development Program.** United Nations Human Development Report 2005: International Cooperation at a Crossroads: Aid, Trade, and Security in an Unequal World. <http://hdr.undp.org/en/reports/global/hdr2005/> (accessed 1 Nov 2009).
10. **Henwood D.** *Miscellany.* Left Business Observer, #120, August 25, 2009:**8**.
11. **Editorial.** President Obama's health choices. *New York Times*, 2009:7.
12. **National Priorities Project.** Cost of War. <http://www.costofwar.com/> (accessed 12 Mar 2010).