



Ethics and governance of global health inequalities

J P Ruger

J. Epidemiol. Community Health 2006;60;998-1002
doi:10.1136/jech.2005.041947

Updated information and services can be found at:
<http://jech.bmj.com/cgi/content/full/60/11/998>

These include:

References

This article cites 10 articles, 4 of which can be accessed free at:
<http://jech.bmj.com/cgi/content/full/60/11/998#BIBL>

Rapid responses

You can respond to this article at:
<http://jech.bmj.com/cgi/eletter-submit/60/11/998>

Email alerting service

Receive free email alerts when new articles cite this article - sign up in the box at the top right corner of the article

Notes

To order reprints of this article go to:
<http://www.bmjjournals.com/cgi/reprintform>

To subscribe to *Journal of Epidemiology and Community Health* go to:
<http://www.bmjjournals.com/subscriptions/>

THEORY AND METHODS

Ethics and governance of global health inequalities

J P Ruger

J Epidemiol Community Health 2006;**60**:998–1003. doi: 10.1136/jech.2005.041947

Background: A world divided by health inequalities poses ethical challenges for global health. International and national responses to health disparities must be rooted in ethical values about health and its distribution; this is because ethical claims have the power to motivate, delineate principles, duties and responsibilities, and hold global and national actors morally responsible for achieving common goals. Theories of justice are necessary to define duties and obligations of institutions and actors in reducing inequalities. The problem is the lack of a moral framework for solving problems of global health justice.

Aim: To study why global health inequalities are morally troubling, why efforts to reduce them are morally justified, how they should be measured and evaluated; how much priority disadvantaged groups should receive; and to delineate roles and responsibilities of national and international actors and institutions.

Discussion and conclusions: Duties and obligations of international and state actors in reducing global health inequalities are outlined. The ethical principles endorsed include the intrinsic value of health to well-being and equal respect for all human life, the importance of health for individual and collective agency, the concept of a shortfall from the health status of a reference group, and the need for a disproportionate effort to help disadvantaged groups. This approach does not seek to find ways in which global and national actors address global health inequalities by virtue of their self-interest, national interest, collective security or humanitarian assistance. It endorses the more robust concept of “human flourishing” and the desire to live in a world where all people have the capability to be healthy. Unlike cosmopolitan theory, this approach places the role of the nation-state in the forefront with primary, though not sole, moral responsibility. Rather shared health governance is essential for delivering health equity on a global scale.

Correspondence to:
J P Ruger, Department of
Epidemiology and Public
Health, Yale University
School of Medicine
Graduate School of Arts
and Sciences, School of
Law, 60 College Street, PO
Box 208034, New Haven,
CT 06520-8034, USA;
jennifer.ruger@yale.edu

Accepted 1 May 2006

Global health inequalities are wide and growing: a child born today in Afghanistan is 75 times as likely to die by age 5 years as a child born in Singapore.¹ A girl born in Sierra Leone can expect to live 50 fewer years, on average, than her Japanese counterpart.² The number of African children at risk of dying is 35% higher today than it was 10 years ago.² Although the average global life expectancy has increased by 20 years over the past five decades, the poorest countries have been left behind.

Such inequalities pose ethical challenges for the global health community, but we lack a moral framework for dealing with them. International and national responses must be rooted in ethical values about health; ethical claims have the power to motivate, to delineate principles, duties and responsibilities, and to hold global and national actors morally responsible for achieving common goals. Moreover, efforts to deal with inequalities require obligations to redistribute societal benefits and burdens more fairly and to treat all people equally. Theories of justice are needed to define duties and obligations of institutions and actors. This study examines why global health inequalities are morally troubling, why efforts to reduce them are morally justified, how health inequalities should be measured and evaluated, and how much priority disadvantaged groups should receive. It concludes with a sketch of the duties and obligations of international and state actors and institutions. The ethical principles it endorses include the intrinsic value of health to well-being and the assertion of equal respect for all human life; the importance of health for individual and collective agency; the concept of a shortfall from the health status of a reference group; and the need for a disproportionate effort to help disadvantaged groups. Unlike utilitarian, contractarian or neo-liberal schools of thought, this approach does not seek to find ways in which global and national actors deal with global health inequalities by virtue of their effect on self-interest, national interest, aggregate welfare, collective

security or humanitarian assistance. It endorses the more robust concept of “human flourishing” and the desire to live in a world where all people have the capability to be healthy. Unlike cosmopolitan theory, this approach does not attenuate attachments of duties and obligations to the nation-state, fellow citizens and local communities: rather, it places the nation-state in the forefront with primary, though not sole, moral responsibility.

CRITICAL ETHICAL ISSUES RAISED BY GLOBAL HEALTH INEQUALITIES

The challenge of constructing a moral vision for dealing with global health inequalities poses these questions:

- Why are global health inequalities so morally troubling?
- Why are efforts to reduce global health inequalities morally justified?
- How should global health inequalities be measured?
- How much priority should be given to disadvantaged groups?
- What does reducing global health disparities require?
- What duties and responsibilities ascribe to global and state actors and institutions, proportionally.²

An ethical analysis of global health inequalities advances our understanding of these questions.

Why are global health inequalities so morally troubling?

Surprisingly, few systematic efforts have been made to deal with the moral foundations of global health inequalities.^{3–6}

Some views from the newly emerging field of global justice provide background, however. One view, the Hobbesian tradition, states that collective security and national-interest and self-interest are the primary aim of justice. From this

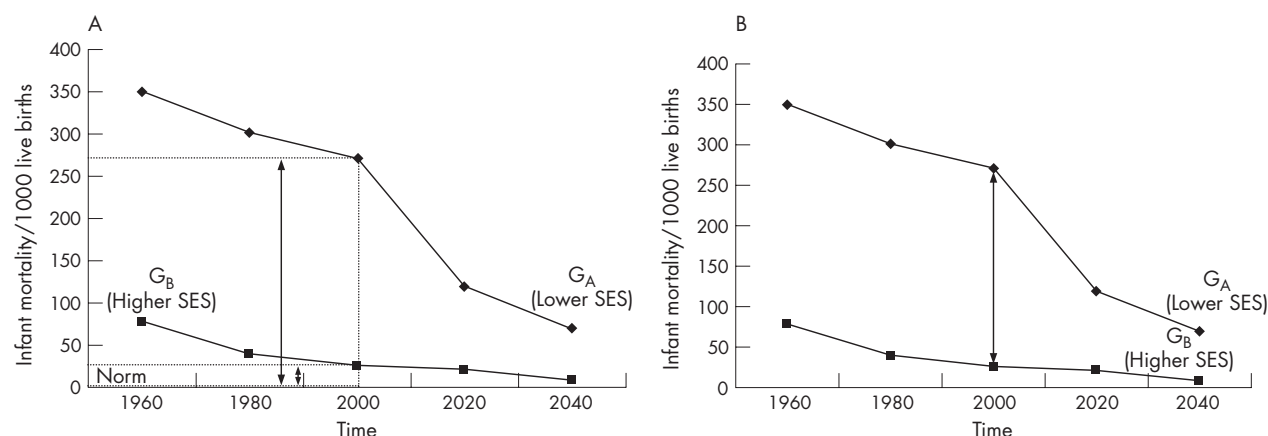


Figure 1 Differences in policy implications: shortfall (A) versus intergroup (B) inequality comparison. Norm, optimal average (maximal potential of individual groups). Source: IMR of Sweden, Japan, Singapore. Source: US Census, International Database. IMR, infant mortality rate; SES, socioeconomic status.

perspective, global health inequalities provide no moral motive for remedy. A second view stems from John Rawls's theory⁷ and coincides with Thomas Nagel's⁸ account; both apply a relational perspective and ground the obligation of justice in the sovereign nation state; global health inequalities have no moral standing; justice, an associative obligation, is owed only our sovereign citizens. Both Hobbes and Rawls would require global sovereignty or world government to justify duties and responsibilities of global actors to address global health inequalities. A final view, cosmopolitanism, argues principles of justice apply to all individuals wherever they are in the cosmos; and varies from strong demands for fair terms of cooperation⁹ on a global scale to at a minimum adherence to the no harm principle, that international institutions and agreements be prohibited from causing harm¹⁰, particularly extreme poverty, to others. Rectifying such harm justifies international action. Despite this broader background, however, ethicists are virtually silent on the philosophical foundations of global health, its distribution and global health justice. Many question whether a moral framework is required to take action. Is it not given that these inequalities exist and that they require redress? Why are global health inequalities a matter of justice—or are they?

Health as the end goal: valuing health both intrinsically and instrumentally

We must ask why global health disparities are morally problematic and why efforts to reduce them are justified. One answer comes from a theory of health ethics^{11–19} that builds on and integrates Aristotle's political theory^{20–24} and Amartya Sen's capability approach.^{25–27} Although recognising the inter-relatedness of health and other social ends, this approach emphasises the importance of health for individual agency—the ability to live a life we value. Society's obligation to maintain and improve health rests on the ethical principle of human flourishing—or human capability.^{20–24} Indeed, certain aspects of health sustain other aspects of human flourishing because without being alive, no other human functionings are possible.

This perspective views health as intrinsically and instrumentally valuable; all individuals should have equal capability to be healthy.^{11–19} It places emphasis on health capability—an individual's ability to achieve good health^{11–19} and be free of preventable morbidity and mortality.^{25–26} Although the idea of capability relates to opportunity, it is a more positive notion of overall freedom: "real opportunities" we have regarding the life we may lead.²⁸

Deprivations in people's health are unjust because they unnecessarily reduce the capability for health functioning and the exercise of agency. We value human life equally and deprivations in health capability constitute threats to human flourishing. For example, policies that deny antiretroviral drugs to patients with HIV/AIDS, as happens in sub-Saharan Africa and other parts of the world, are morally troubling not only because they constitute subminimal healthcare, reduce individuals' opportunity for employment and require cosmopolitan duty, humanitarian assistance, or adherence to a global social contract. The moral concern is the reduced capability for physical and mental functioning or even for being alive. Deprivations in the capability to function rob individuals of the freedom to be what they want to be.^{25–26} This underlying principle of justice applies to all humans regardless of where they live and regardless of any given person's or people's specific relationship to them. It takes individuals as the central moral unit of justice.

Why are efforts to reduce global health inequalities morally justified?

If we value individuals' capability to be healthy intrinsically and instrumentally, deprivations in health are inequalities in individuals' capability to function. Such reductions in functioning conflict with the view that justice requires public policies to bring "people as close to good functioning as their natural circumstances permit," as Aristotle notes.²² Decrements in health constitute direct threats to well-being and agency. If basic capabilities—crucially important functionings, such as health, which are associated with basic needs²⁶—are unavailable, most other human capabilities are also inaccessible. Basic capabilities, such as health, are therefore prerequisites to other capabilities, and their "particular moral and political importance" associates with "fulfilling well-recognized, urgent claims".²⁶ This notion implies that society should create the conditions for individuals to achieve a certain threshold level of health functioning.²⁹ This perspective differs from other schools of thought. The contractarian or utilitarian views see contracts to achieve mutual advantage—or states of affairs that maximise societal welfare (the aggregation of individual welfare)—as solutions to global injustice. However, this approach does not seek to find ways in which global and national actors deal with global justice by virtue of their effect on self-interest, national interest, collective security or humanitarian assistance; all insufficient foundations of global health justice. Rather, it endorses the more robust

concept of human flourishing and the desire to live in a world where all people have the capability to be healthy.^{11–19} This approach to global health inequalities differs from general cosmopolitan theory by rejecting the attenuation of attachments of duties and obligations to the nation-state, fellow citizens and local communities. From this perspective, the primary, though not sole,²⁹ duties fall on nation-states. Global health inequalities are morally troubling because our intuition and ethical claim of equal respect for all humans tells us that being born into a country or society in which one has a good chance of being in the worse-off health group is morally arbitrary and requires rectification. Moral arbitrariness should not be the basis for determining one's health; or survival.

How should global health inequalities be measured?

The question arises of which measure is most suitable for comparing global health inequalities. Key issues include the delineation of population groups and how to weight the ill health of individuals or groups.³⁰ Also, there is the issue of conceptualising and measuring health, which is beyond the scope of this article and is discussed elsewhere.²⁹

This approach, as discussed elsewhere,^{11–19 29} justifies the provision of capabilities for good health rather than complete health equality, recognising that individuals have different health capacities; equal outcomes are not a goal. One country may achieve an average life expectancy of only 50 years, whereas another may achieve an average of 75 years. Therefore, using 50 years as an indicator of achievement would not allow the country with the higher life expectancy to realise its population's full potential. Thus, the concept of attainment equality can level down everyone's health status.^{5 26}

Another reason for not using equal health outcomes lies in a respect for individual autonomy. Such respect enables us to differentiate between poor health outcomes that result from free and informed choices (eg, fasting for religious purposes) and those that do not (eg, starving because of the inability to buy food). This example highlights the difference between evaluating achievements only (health outcomes) and evaluating the capability to achieve functionings (health capability).

This approach builds on Aristotle's political conception of a parametric consideration of human diversity. Given that people differ in their maximal capacity for achievement, "it is appropriate, if people are governed best that they should do best, insofar as their circumstances admit ...".²² This consideration is particularly important in evaluating health equality.

This approach thus differentiates between "attainment" and "shortfall" equality. Attainment equality requires equality in absolute levels of achievement. Shortfall equality requires that the difference between actual and maximal achievement be a main criterion of justice and be consistent for members of a particular group. When comparing life expectancies, the maximal achievement is the highest average attained by any country. If that were 78 years, the shortfall from that target would be 7 years in Uruguay, where the average life expectancy is 71 years, but it would be 46 years in Sierra Leone, where the average life expectancy is 32 years.

It may be important to use proportional reduction in shortfall, especially when comparing life expectancies across countries.^{31 32} If the target life expectancy is 78 years, the proportion of shortfall is reduced more when life expectancy increases from 60 to 70 years (for country A) than when it rises from 30 to 40 years (for country B). Using shortfall and proportion of shortfall reduced as indicators of life expectancy shows what is needed to bring health to adequate levels: to equalise the proportion of shortfall reduced in the

example above, country B would need to increase life expectancy by 30 years, not 10 years.

Using shortfalls requires a reference group against which levels of health achievement can be assessed.^{28 33} In Nigeria, researchers used the mortality of a privileged ethnic group as a benchmark for evaluating mortality in other groups.³⁴ Moreover, reference groups can have different norms, as when life expectancy differs by sex.³⁵ Figure 1 shows the policy implications of a shortfall inequality compared with intergroup inequality perspective³³ on the conceptualisation and measurement of global health inequalities.

How much priority should be given to the most disadvantaged groups?

Aristotelian justice treats like cases alike and different cases differently.²⁰ This principle of proportional justice applied to health requires society to reduce barriers to good health by weighing the needs of the worse-off and the mid-level health groups, in proportion to their difference. Aristotle introduced the concept of "disproportionate" effort, which aims to bring disadvantaged people as close to a threshold level of functioning as their circumstances permit. Sen's notion of "basic capabilities" argues that justice requires raising people above a certain threshold.

This line of reasoning also places moral importance on practical reasoning and individual agency, noting that no individual's agency should be sacrificed to improve another's functioning, even if it falls beneath the norm level of functioning.¹⁹ These formulations generally imply that societal conditions be in place to enable each individual the capability to achieve a certain threshold level of functioning (within the limits of that person's circumstances), provided such efforts do not reduce the health functioning of the general population below the minimally acceptable level.²⁹ Therefore, priority should be given to people who have a gap between their health status and the threshold status they could achieve, and those with the greatest disparity should receive priority.

Some are concerned about defining such a gap (eg, in terms of historical or urgent health conditions, social groups or overall well-being) and that it will lead to the "bottomless pit" problem.^{3 4 6} Others advocate priority for those whose health decrements are preventable and not for those whose disabilities occurred by chance or genetic predisposition.⁴ Another concern is the trade-off between giving priority to the worst-off and maximising health outcomes for the general population.⁴ Recent work suggests that aggregate health can be advanced by focusing on the worse-off who have the greatest scope for improvement.²⁷

This perspective provides no specific formulas for measuring deprivation, prioritising services or comparing inequalities in different situations, although frameworks for analysing these issues and generating policy recommendations have been developed elsewhere.¹⁹ There is no blueprint for a just society. Instead,

... foundational ideas of justice can separate out some basic issues as being inescapably relevant. The greatest relevance of ideas of justice lies in the identification of patent injustice, on which reasoned agreement is possible, rather than in the derivation of some extant formula for how the world should be precisely run.²⁷

Prioritisation will also be informed by "the emergence of a shared recognition"²⁷ of an injustice that evolves from public deliberation. Such "reasoned agreement" relies on individuals' freedom to participate in decisions, another key aspect of this approach. In many cases, the "emergence of a shared

recognition of that 'injustice' may be dependent in practice on open discussion of issues and feasibilities".²⁷

What does reducing global health inequalities require?

In an accompanying article, we have seen how global health inequalities reflect broader social, political and economic environments.³⁶ We know from past research that health inequalities will not be reduced through market mechanisms alone—government, policy, and individual and social commitments are required.²⁹ Reducing health disparities requires social organisation and collective action of four key functions: redistribution of resources; related legislation and policy; public regulation and oversight; and creation of public goods. Redistribution of resources is conducted between groups within and between societies. Policy measures are required to make transfers and include progressive taxation, equitable and efficient risk pooling, redistributive expenditure patterns, subsidies and cash transfers. In many countries, especially those in the developing world, the distribution of resources within society is inequitable. In Ghana, Indonesia and Vietnam, public spending on health considerably favours the wealthy. The trend is reversed in countries such as Argentina, Malaysia and Uruguay. In such areas of social organisation and collective activity, ethical commitments are required.

ETHICAL COMMITMENTS AND PUBLIC MORAL NORMS

Ethical commitments are required because without such norms, it is not possible to socially organise and redistribute resources; the efforts to do so must be voluntary and not coerced, and they must be based on moral grounds. This is because individuals must sacrifice some of their resources and autonomy to be regulated and redistribute those resources to others. Once individuals internalise these ethical commitments, they freely enter into them and create obligations for individuals to obey them. Individuals also need to internalise public moral norms that motivate their social action towards other regarding or altruistic behaviour. Individuals who are willing to give up some of their autonomy and resources through collective action can take steps towards achieving this goal. Thus, the obligations of individuals, states and global entities require them to give serious consideration to providing reasonable help to the person whose human flourishing and health is threatened; inequitable or threatened health is that which differs from the feasible threshold.

What duties and responsibilities ascribe to global and state actors and institutions, proportionally?

DUTIES AND OBLIGATIONS IN DOMESTIC AND INTERNATIONAL POLICY AND LAW

The question arises of who is responsible for addressing global health inequalities. Firstly, however, it is important to underscore that although the overarching principle espoused here delineates duties and responsibilities for both national and international actors, the primary duty falls to nation-states who have the most direct and prior obligations. The extent of extranational or international obligations is defined in the context of the scope and limits of national obligations. Secondly, it is important to highlight the need for a variety of institutions; the framework presented here and elsewhere^{12 15 19 29} is one I call shared health governance, whereby state and international governments and institutions along with non-governmental organisations, communities, businesses, foundations, families and individuals are responsible for shared governance in correcting global

health injustice. Global and national institutions and actors' roles relate to the functions and their comparative roles in dealing with deprivations in health functioning and health agency.^{11–19 29}

GLOBAL RESPONSIBILITIES AND ROLES

Global actors and institutions, whether they act bilaterally (especially direct overseas development assistance, trade agreements) or multilaterally (through eg, the United Nations system, World Bank or International Monetary Fund), are obligated to remedy global inequalities that exist in affluence, power, and social, economic and political opportunities. Global actors and institutions, while serving a secondary rather than primary role in achieving just health outcomes, nonetheless represent the will of the international community not only to function collectively on national-interest but to rectify global market failures, create public goods and address concerns of fairness and equity on a global scale. Global actors and institutions should have a supportive and facilitative role such that countries can develop, flourish and promote health. The focus should be on a broad approach that deals with all determinants of health and poverty, not a narrow, technical approach. In terms of the macrosocial environment, global actors and institutions should pursue the following: facilitate growth in developing countries; promote global financial stability; finance global public goods; develop country participation in global fora; provide debt relief and development assistance; offer fair trade and open markets to developed countries; provide technical assistance and know-how to developing countries; and finance global public goods.

Global health institutions have a more narrow set of obligations and duties around four sets of work:¹³ generate and disseminate knowledge and information; empower individuals and groups in national and global fora; provide technical assistance, financial aid and global advocacy for equitable and efficient health systems; and coordinate institutions to exclude redundancies.¹³

In terms of generating and disseminating knowledge and information, global health institutions can help create new technologies; transfer, adapt and apply existing knowledge; manage knowledge and information; create and set standards and international instruments; and help countries develop information and research capacity.

In terms of empowering individuals and groups, global health institutions can aid in reforming state and local institutions; encourage political will for public action; help governments improve public administration; provide greater voice in national and international fora; and assist states in ensuring greater citizen participation in decision making.

Finally, in terms of health system development, global health institutions can provide technical assistance in the following key domains: equitable and efficient health financing; training of medical and public health professionals; management of tertiary, secondary and primary care facilities; regulatory agencies; and standardised diagnostic categories. Global health organisations can also provide financial aid and mobilise resources for health systems development and specific disease areas, and offer global advocacy.³⁷

STATE OBLIGATIONS: HEALTH EQUITY AT THE STATE LEVEL

Individual nation-states have primary and prior obligations to deal with health inequalities. Firstly, state actors and institutions assume primary responsibility for creating conditions to fulfil individuals' capability to be healthy; states are in the most direct position to reduce the shortfall between potential and actual health. This includes efforts to deal with

What this paper adds

- International and national responses to health disparities must be rooted in core ethical values about health and its distribution; because ethical principles have the power to motivate and hold global and national actors accountable for achieving common goals.
- The problem, however, is that a moral framework is lacking.
- This article studies why global health inequalities are morally troubling, why efforts to reduce them are morally justified, how health inequalities should be measured and evaluated, how much priority disadvantaged groups should receive, and delineates roles and responsibilities of national and international actors and institutions.

the social, economic and political determinants of health. Secondly, states assume the primary responsibility for creating an institutional framework for equitable and affordable healthcare and public health; this includes allowing equal access to quality health-related goods and services, and to proximal and controllable determinants, including nutritiously safe food and potable drinking water, basic sanitation, adequate living conditions, healthcare, public health surveillance and health literacy. Regulation and stewardship of the health system is a critical state action.

State programmes and policies should focus on health equity, with a focus on three areas of reform: participatory approaches (participation in health service planning and delivery); targeted approaches (health services, individual, geographical, disease-specific programmes); and social funds (direct grants to community organisations for investment in infrastructure, microcredit and social services).

CONCLUSION: GLOBAL POLICY TO DEAL WITH INJUSTICES IN HEALTH

From a global perspective, an essential first step to redress global health inequities is to show the injustice of the present situation and make "explicit the values on which proposed action is based".³⁸ A second is to develop principles to guide global and national actions to redress such inequalities. With these two goals as its primary aim, this article has examined some ethical and governance issues in global health inequalities. It has also presented the view that health inequalities are morally troubling because deprivations in people's capability for good health reduce their overall capability to achieve alternative "beings" and "doings". Justice in health requires societies to provide individuals with the necessary conditions for achieving the highest possible threshold level of health so they can have flourishing lives.

From this perspective, a global community that allows individuals to die prematurely and suffer unnecessary morbidity when it could create the social and economic conditions necessary to sustain life is unjust. Rather than subscribing to the bottomless pit view, it sees aid to the worse-off as a moral imperative. This deprivation-oriented view attempts to identify the most deprived within and between countries by disaggregating health outcomes;³⁶ it also urges policy makers to track progress. Such monitoring would supplement, rather than displace, the typical type of monitoring, which tracks changes in average health. Global and national efforts could then focus on improving opportunities for health in the worse-off groups. As this view does

Policy implications

- The ethical principles endorsed for responding to global health inequalities include the intrinsic value of health to well-being, the importance of health for individual and collective agency, the concept of a shortfall from the health status of a reference group, and the need for a disproportionate effort to help disadvantaged groups reduce their deprivations in health.
- Shared health governance is essential for delivering health equity on a global scale.

not advocate abandoning attempts to improve average health or to improve the health of groups in the middle of the ill-health spectrum, it would support universal health coverage for conditions that reduce individuals' capability to function, such as tuberculosis, malaria and AIDS that are particularly prevalent among disadvantaged groups.

In conclusion, international agencies and organisations such as the World Bank, the World Health Organization and the United Nations must work together and in a supportive and facilitative role vis-à-vis state actors and institutions to correct global health injustices. State governments, institutions and actors, along with non-governmental organisations, local communities, businesses, foundations, families and individuals must assume a prior and direct role and responsibility, through a framework of shared health governance, at the level of the nation-state. A moral framework should be applied to all global health policies. Reducing gaps in preventable mortality and morbidity is an essential focus of the global health community in the 21st century.

ACKNOWLEDGEMENTS

I thank Amartya Sen, Ezekiel Emmanuel and the participants in seminars and workshops at the McMaster University, Yale Law School, and the University of North Carolina School of Public Health, North Carolina, USA, for helpful comments on earlier versions of this work. I thank Susan Gatchel, Kimberly Hannon, Linda Sage and Christine Park for their administrative and editing assistance. Portions of this article were presented at the 2005 Labelle Lecture Dr. Ruger gave at McMaster University.

Funding: JPR is supported in part by a Career Development Award (Grant Number K01DA01635801) from the US National Institutes of Health.

Competing interests: None declared.

REFERENCES

- 1 **Jong-wook L.** Global health improvement and WHO: shaping the future. *Lancet* 2003;**362**:2083–8.
- 2 **World Health Organization.** *The world health report 2003: shaping the future.* Geneva: WHO, 2003, http://www.who.int/whr/2003/en/overview_en.pdf (accessed 12 Jan 2004).
- 3 **Brook D.** Broadening the bioethics agenda. *Kennedy Inst Ethics J* 2000;**10**:21–38.
- 4 **Powers M, Faden R.** Inequalities in health, inequalities in health care: four generations of discussion about justice cost-effectiveness analysis. *Kennedy Inst Ethics J* 2000;**10**:109–27.
- 5 **Evans T, Whitehead M, Diderichsen F, Bhuiya A, Wirth M, eds.** *Challenging inequities in health: from ethics to action.* London: Oxford University Press, 2001:24–33.
- 6 **Wikler D.** Bioethics, human rights, and the renewal of Health for All: an overview. In: Bankowski Z, Bryant JH, Gallagher J, eds. *Ethics, equity and the renewal of WHO's Health for All strategy.* Geneva: Council for International Organization of Medical Scientists, 1997:21–30.
- 7 **Rawls J.** *The Law of Peoples.* Cambridge, MA: Harvard University Press, 1999.

- 8 Nagel T. The problem of global justice. *Philosophy and Public Affairs* 2005;**33**:113–147.
- 9 Singer P. *One World*. New Haven, CT: Yale University Press, 2000.
- 10 Pogge T. *World Poverty and Human Rights*. Cambridge: Polity Press, 2002.
- 11 Ruger JP. *Aristotelian justice and health policy: capability and incompletely theorized agreements* [PhD dissertation]. Cambridge MA: Harvard University, 1998.
- 12 Ruger JP. Health and development. *Lancet* 2003;**362**:678.
- 13 Ruger JP. Health and social justice. *Lancet* 2004;**364**:1075–80.
- 14 Ruger JP. Ethics of the social determinants of health. *Lancet* 2004;**364**:1092–7.
- 15 Ruger JP. Combating HIV/AIDS in developing countries. *BMJ* 2004;**329**:121–2.
- 16 Ruger JP. Millennium development goals for health: building human capabilities. *Bull World Health Organ* 2004;**82**:951–2.
- 17 Ruger JP. Democracy and health. *Q J Med* 2005;**98**:299–304.
- 18 Ruger JP. Global tobacco control: an integrated approach to global health policy. *Development* 2005;**48**:65–9.
- 19 Ruger JP. Health, capability, and justice: toward a new paradigm of health ethics, policy and law. *Cornell J Law Public Policy* 2006;**15**:102–182.
- 20 Aristotle. *The Nicomachean ethics* [Translated by JEC Welldon]. Amherst, NY: Prometheus Books, 1987.
- 21 Aristotle. *The politics* [Translated by Lord C]. Chicago: University of Chicago Press, 1994.
- 22 Nussbaum MC. Nature, function, and capability: aristotle on political distribution. In: von Gunther Patzig H, ed. *Aristoteles politik*. Gottingen: Vandenhoeck & Ruprecht, 1990.
- 23 Nussbaum MC. Human functioning and social justice: in defense of Aristotelian essentialism. *Pol Theory* 1992;**20**:202–46.
- 24 Nussbaum MC. Nature, function, and capability: aristotle on political distribution. In: von Gunther Patzig H, ed. *Aristoteles politik*. Lanham, MA: Rowman & Littlefield, 1998:312–41.
- 25 Sen AK. *Commodities and capabilities*. Amsterdam: North-Holland, 1985.
- 26 Sen AK. *Inequality reexamined*. Cambridge, MA: Harvard University Press, 1992.
- 27 Sen AK. *Development as freedom*. New York: Knopf, 1999.
- 28 Sen AK. *Foreword, Is inequality bad for our health?* Boston: Beacon Press, 2000.
- 29 Ruger JP. Toward a theory of a right to health: capability and incompletely theorized agreements. *Yale J Law Humanit* 2006;**18**:273–326.
- 30 Anand S, Diderichsen F, Evans T, et al. Measuring disparities in health: methods and indicators. In: Evans T, Whitehead M, Diderichsen F, Bhuiya A, Wirth M, eds. *Challenging inequities in health: from ethics to action*. London: Oxford University Press, 2001:48–67.
- 31 United Nations Development Programme. Human development report 1990. <http://hdr.undp.org/reports/global/1990/en/> (accessed 13 Jan 2004).
- 32 United Nations Development Programme. Human development report 1997. <http://hdr.undp.org/reports/global/1997/en/> (accessed 13 Jan 2004).
- 33 Ruger JP. Measuring disparities in healthcare. *BMJ* 2006;**333**:274.
- 34 Brockerhoff M, Hewett P. Ethnicity and child mortality in Sub-saharan Africa. Policy Research Division Working Paper No: 107, New York: The Population Council.
- 35 Bhuiya A, Chowdhury M, Ahmed F, et al. Bangladesh: an intervention study of factors underlying increasing equity in child survival. In: Evans T, Whitehead M, Diderichsen F, Bhuiya A, Wirth M, eds. *Challenging inequities in health: from ethics to action*. London: Oxford University Press, 2001:48–67.
- 36 Ruger JP, Kim H. Global health inequalities: an international comparison. *J Epidemiol Community Health* 2006;**60**:928–36.
- 37 Ruger JP. Changing role of the World Bank in Global Health. *AJPH* 2005;**95**:60–70.
- 38 Whitehead M, Dahlgren G, Gilson L. Developing the policy response to inequities in health: a global perspective. In: Evans T, Whitehead M, Diderichsen F, Bhuiya A, Wirth M, eds. *Challenging inequities in health: from ethics to action*. London: Oxford University Press, 2001:309–24.