

FIRST DRAFT: PLEASE DO NOT QUOTE

The Political Economy of Global Health Research

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Paper prepared for presentation at the SGIR Conference, Turin, Italy
September 2007

...only about 10 percent of potential [health] improvements in developed countries will come from advances in health technology and management. Almost half will come from preventive personal health practices. And half will come from improvements in the environment we provide for human life (Naidoo, cited in Cleveland, 2005: 56).

In an era when unprecedented global health funding is being directed towards vaccines and drug therapy, guinea worm eradication has been successful on a modest budget of about \$225 million for the entire 20-year campaign. It has done so, according to Dr. Donald Hopkins, vice president for health programs at the Carter Center, by relying on the old-fashioned public health tactic of educating people about changing their behaviour (Barry, 2007: 2563).

Introduction

A recent article on the front page of our local newspaper carried the arresting title, “‘Landmark Breakthrough’ in Breast Cancer Research’ (2007, p. 1). The article, which described research findings regarding gene mutations that lead to breast cancer, proclaimed that the discovery could, in the future, have major positive implications for the prevention and treatment of breast cancer. The following day, an article on the same research appeared in one of the main national daily newspapers. This article was entitled, ‘New Cancer Genes are Low-risk’ (2007, L4), and this time, the emphasis was on the genes being ‘common’ and ‘relatively low-hazard’, meaning that ‘women who have them run a comparatively small risk of developing cancer’ (ibid.). Because the genes are so common and low-risk, the article concluded, there may not be any benefits achieved by screening individuals. This article was published on the fourth page of the ‘Life’ section of the newspaper.

The difference in the way the research findings were framed by the two articles is illustrative of a broader, important debate in the health field. On one hand, we see each new scientific discovery in health being heralded as a triumph of technology and a probable advancement in the human condition. On the other, we see—albeit, less often and usually on inside pages—expressed caution regarding scientific discovery. The latter perspective recognizes that, while health is obviously conditioned by biology, it is not necessarily determined by it (that is, the expression of health will depend on environment as well as genetic make-up). Moreover, while science may assist in preserving or restoring health, its abilities to do so are limited, and sometimes its solutions are more costly than socially-based alternatives. This perspective takes the social determinants of disease to be as significant as biological predisposition (more significant at a population level), and it promotes prevention of disease through the improvement of social conditions as preferable to relying primarily to technological treatment of disease already established.

There is good evidence-based research to support the assumptions and prescriptions of the second perspective. However, in the past several decades, the ‘scientific’/ technological discourse has dominated to the extent that the vast majority of health research has been carried out within this paradigm and most of the funding for health research has been designated to supporting technological intervention. The explosion of interest in global health would appear to be an opportunity for changing the inequities in health research, given that globalisation—a distinctly social process¹—is at the core of many recent health changes. Yet, although the social changes behind the emergence of global health problems are frequently acknowledged, the preponderance of research on global health concerns the biology of specific diseases and/or the need for developing or distributing technological treatments.

In this paper we explore why, given the strong evidence supporting a social determinants approach to population health (and the knowledge that social inequities are among the strongest determinants) the biomedical model continues to direct the research and policy agendas. We argue that the biomedical model dominates, not because it necessarily produces optimum health outcomes, but because powerful interests benefit from the prevailing structure of health research and policy which is based upon an historically entrenched conceptualization of health as freedom from disease rather than a state of human well-being.² Although the emergence of global health as a new disciplinary focus offers a unique opportunity for changing this inequity, current trends suggest that political economy forces support traditional thinking that creates artificial barriers between academic disciplines; between state, business and civil society; between government departments; and between scientific and social theory—thus perpetuating silos of knowledge and undermining the interdisciplinarity that is required to advance prospects for global health.

Conceptualising Global Health

A Range of Global Health Issues

There has been a virtual explosion of interest in global health over the past two decades. While most of the research is being conducted within the public health field, increasing attention to global health is notable also within the social sciences—in disciplines such as Sociology and Development, which took some note of international health in the past, but also in the fields of International Relations and International Political Economy which previously were largely unconcerned with health. The growing awareness of health as a relevant research topic among IR and IPE scholars and practitioners is particularly interesting because it reflects growing awareness that political and economic dimensions of globalization are affecting human health and also that health trends are markers for

¹ The term ‘social’ here is being used in a broad sense, encompassing economic and political processes, which have been implicated in proliferation of globalization.

² The World Health Organization (WHO, 2006) recognises the negative implication for health of this situation and has attempted, since its inauguration, to promote a definition of health as ‘a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.’

contemporary global changes. IR and IPE scholars have been particularly attentive to several areas of global health, including: the rapid transnationalisation of infectious diseases which threaten national interests (eg. SARS) as well as human security and well-being (eg. HIV/AIDS); concern to ‘securitize’ health in response to the threat of deliberate transfer of pathogens across borders (bioterrorism); various health-related trade issues (TRIPS and pharmaceuticals; inter- and transnational trade in tobacco, drugs, small arms, etc.); and the impact of environmental degradation on health.

These issues are unique to the contemporary global period, either because they are entirely new (HIV/AIDS, SARS) or because they result from unprecedented events or processes (TRIPS, the globalization of terrorism). Infectious diseases have had worldwide impacts in the past, but never with the same rapidity of spread, and in this age of mass movements of people, the emergence and spread of virulent new diseases are increasing, raising the possibility of deadly worldwide pandemics (eg. avian ‘flu). Biological weaponry is not a new concern for security specialists, but technological advances that facilitate transnational terrorist networking have intensified the threat, and introduced the possibility that the world will end “not with a bang but with a cough” (‘The Global War’ 2002). The impact of trade on health is not new either: governments have long established standards to protect health from any harm from imports, for instance. However, the rapid growth in world trade, encouraged by the World Trade Organisation’s success in liberalising trade has created unprecedented challenges for national governments to retain established national standards on health-related trade issues and to import expensive, patent-protected drugs to protect and/or improve their citizens’ health (Labonte, 2004; Lee & Collin 2005).

As Woodward, et al. (2001: 876) assert, ‘[t]here are multiple direct and indirect linkages between *globalization* and the proximal determinants of *health*.’ Not only have trade liberalisation and changes in financial flows influenced ‘the availability of resources for public expenditure on *health*’ (ibid., 876) and established high pharmaceutical costs through the control of the WTO Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPs) (Busfield, 2005), but effective global marketing strategies, particularly in the tobacco (Bettcher, et al., 2001) and food industries (Popkin, 2006) are having profound effects on health, worldwide. Furthermore, changes in the global division of labour threaten the health and safety of certain groups of workers (Brown, 2002) as well as create ‘population risks’ such as ‘effects on nutrition and living conditions resulting from impacts on household income’ (Woodward, et al., 2001: 876). Finally, environmental changes related to globalised production is implicated in a variety of health problems, from malnutrition to respiratory problems and cancer (Haines, 2004).

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A compilation of the preceding range of issues is frequently taken as a definition of global health. But, this definition is inadequate, as are those that define global health by the broadening geographical scope of certain illnesses. These are aspects of global health, certainly, but the concept, to be meaningfully distinguished from the long-established concept of ‘international health’ must be situated within the political

economy of contemporary global change. A good effort in this regard is Lee and Collin's (2005, 3) definition of global health as 'a health issue where the determinants circumvent, undermine or are oblivious to the territorial boundaries of states and, thus, beyond the capacity of individual countries to address through domestic institutions'. However, what is not explicit in this definition, and which is critical to understanding the nature of global health, is the concept of power, and specifically the dialectical realignments of power between state and non-state actors and the interface between structure and agency (Underhill, 2000:17-19). In other words, that health issues are 'oblivious to the boundaries of states' and 'beyond the capacity of individual countries to address' them is the result of a variety of factors that comprise globalisation: the transnationalisation of production and finance, producing increased deterritorialisation and interdependence (Scholte, 2000: ii); the trend whereby technology has become a driver as well as product of transnationalised production (Tabb, 2004: 22-3); a global shift in power that favours business over the state and civil society (Ferguson, 2006); an associated tendency in public policy toward market-oriented initiatives at the expense of programming that supports social welfare and equity; reallocations of wealth and power that are creating new sets of winners and losers across geo-political and social lines (Milanovic, 2005; Rudra, 2002; Schmidt & Hersh, 2006; Peterson, 2005); threats to human welfare and security associated with the decline of welfarism, downward pressures on labour and encroaching environmental crisis; and responses in the form of citizen 'backlash' (Broad, 2002) and the growth and invigoration of civil societies (O'Brien, et al. 2000).

In summary, the globalisation of health is a phenomenon of profound transformations in political economy. To treat global health problems adequately and appropriately—in practice and theoretically—requires an awareness of these transformations. At the same time, understanding the mechanisms by which health is achieved and maintained, and exploring contemporary trends in health, helps to illuminate the nature and extent of these transformations. Impacts on health of social change tend to be manifested with immediacy and clarity; therefore research on (global) health helps to facilitate the timely exposure of the local, people-centred impacts of globalisation.

The Social Determinants of Global Health

Extensive research, conducted over the past two and one-half decades, underscores that health, at least at a population level, is largely determined by social condition and status. A comprehensive analysis of population data published as the Black Report (UK Department of Health and Social Services, 1980) was a watershed in thinking about health; it provided evidence of a strong, inverse association between mortality and social class thus challenging the assumption that health was a function only or mainly of biological predisposition and/or technical responses to disease. The Black Report stimulated research that confirmed the initial findings (Karachi & Kennedy, 2002; Marmot, 2003; Marmot & Wilkinson, 1999) and ascertained that, after fundamental basic needs are met, socioeconomic gradient is an even greater determinant of health than is poverty. This association has been found consistently for virtually every cause of ill health that has been studied to date (Evans, et al., 1994).

The realization that health conditions are socially-induced as much as (perhaps more than) they are biologically/genetically-preordained has significant policy implications. It suggests, first, that policies directed toward reducing poverty and reducing inequality are the most effective strategies for improving health outcomes of populations. Secondly, it suggests that treatment at a population level can be as (perhaps more) effective at reducing overall rates of disease as/than treatments directed at individuals who have already acquired the disease or who have biological/genetic predispositions for acquiring it.

Growing awareness of this information, notwithstanding, there is good evidence that inequalities are increasing in this era of globalisation. According to the World Bank, the North-South income gap doubled between 1960 and 2000, so that by the turn of the century the average income in the wealthiest twenty countries of the world was thirty-seven times greater than the average income in the poorest twenty countries (World Bank, 2000, cited in Dallmayr, 2006: 67). The UNDP reported in 1999 that ‘the combined wealth of the world's three richest families (about \$135 billion) is greater than the annual income of 600 million people in the economically least-developed countries’ (UNDP, 1999, cited in Dallmayr, 2006: 67). The gap between those at the top and bottom ends of the income scale has increased exponentially in recent years: ‘... between 1995 and 1999 the world's two hundred richest people doubled their wealth to more than \$1 trillion, while the number of people living on less than \$1 a day ... remained steady at 1.3 billion (ibid).

These statistics represent social conditions of the global era that, according to the late John Kenneth Galbraith (2002), are the result of a ‘perfect crime’. While acknowledging that the accuracy of international economic statistics is uncertain, and that inequality is a difficult concept to measure or even to define, Galbraith accepted that statistical analyses such as those of the World Bank and UNDP report accurately on the overall trend toward increased inequality and inequity. Given this, he asserted that the lack of responsiveness by those in positions of power in the West to the dislocations created in the South from increasing economic integration and financial deregulation amounted to a ‘crime’.³ While most scholars refrain from using such strong language to condemn globalisation practices, many are offended by the immorality of intensifying global inequalities (Chossudovsky, 1997; Doyle, 2000). Others are troubled by an increasing potential for insecurity stemming from inequity (Keen, 2005; Wilkins, 2002). But most compelling are those who collapse these positions, arguing that the long-standing ‘justice versus order’ dilemma of international relations⁴ is a false dichotomy (Smith, 2004). Rather, morality and safety (development and security) are converging in the globalised world; grievances fueled by injustice threaten everyone and the globalisation of instability intensifies conditions of inequity.

³ Charles Derber provides details: ‘With over \$1.5 trillion racing around the planet for maximum profit each day, the financial markets are the ultimate masters of the universe, controlling not only governments but the corporations themselves’ (quoted by Dallmayr, 2006: 67).

⁴ See Hedley Bull’s (1997) seminal work on this.

Health figures prominently in contemporary debates on justice/order and security/development (Annan, 2005; Chen, et al., 2003; McInnis & Lee, 2006; Owen & Roberts, 2005). It is argued that ‘... poor health undermines the economic and social structures of the state’ and ‘[p]oor health may contribute to economic decline, fueling discontent’ (McInnis & Lee, 2006: 16). Alternatively, good health is portrayed as a necessary precondition for economic development (and by extension, stability) (Sachs, 2005). Establishing these connections is critical to understanding the centrality of health in the global changes. Some progress is being made in this; for instance, the United Nations recently established a Commission on Social Determinants of Health⁵ (http://www.who.int/social_determinants/en/) and several countries (eg. Sweden, Norway, Canada) have indicated their intentions to include consideration of social determinants in policy calculations. However, despite such initiatives, and the considerable attention to global health by an expanding array of state, inter-state and non-state actors, underlying social problems, especially of inequity and inequality, are not being adequately addressed. Moreover, there is concern that ‘[i]nternational health assistance is provided in an ineffective way that does not enhance the capability for human functioning’ (Goslin, 2007: 225). As Goslin (2007) argues, in poor countries, health policy is heavily influenced and shaped by the immediate self-interests of powerful external actors or by fleeting efforts to ‘do good’ following highly publicized, disastrous events. Meager funds are devoted to public health through initiatives that would have long-term, sustainable effects in preventing and controlling disease.

Inadequate policy reflects inadequacy either in the research that informs the policy or in the translation of the research findings. In an attempt to expose the nature and extent of the problem in the research-policy nexus, in the next section, we explore the state of global health research. Drawing on Robert Cox’s observation that ‘policy is always for someone and for some purpose’, we ask who is funding what areas of global health research and who is benefiting from that research?

Funding Global Health Research

Health Agencies

Several national and international initiatives have emerged to respond to global health problems and threats.⁶ Correspondingly, agencies that fund health research are now beginning to support projects specifically targeted at ‘global health’ and various government-led or –supported national funding agencies have begun to institute programmes specifically designated to address ‘global health’. For example, in 2001, the Canadian Institute for Health Research (CIHR) launched the Global Health Research Initiative in conjunction with the Canadian International Development Agency (CIDA), the International Development Research Council (IDRC) and Health Canada. Meanwhile, Norway has established the Norwegian Forum for Global Health Research; the German National Commission on Global Change Research includes health as one of four research

⁵ The Commission was launched in Santiago, Chile, in March 2005.

⁶ See US Institute of Medicine (1997); Ministers of Foreign Affairs ... (2007); Donaldson & Banatyala (2007).

foci; and the US National Institute for Health Research (NIHR) doubled the amount it spent on 'global health' research between 1999 and 2004 (Fleck, 328: 1220).⁷

Major funding agencies in the Social Sciences are also devoting more attention to global health research. The US Social Science Research Council has emphasized HIV/AIDS research, with particular interest in the social impacts of the disease. It has interest also in the health impacts of China's rapid industrialisation, health and security, and the economic opportunities through technological advances in health. The UK Economic and Social Research Council supports various initiatives on health, including global health. The Social Science and Humanities Research Council (SSHRC) of Canada does not fund 'global health' as a specific thrust, but does support Tri-Council (SSHRC, CIHR and the Natural Sciences and Engineering Research Council (NSERC)) programmes on health, including a 'global health' component.⁸

Pharmaceutical companies are the second group of contributors to global health research. The funds devoted to research in this sector are significant. For instance, the US-based Pharmaceutical Research and Manufacturers of America (PhRMA) which 'represents the country's leading pharmaceutical research and biotechnology companies', reports that '[i]ndustry-wide research and investment reached a record \$55.2 billion in 2006' and that 'PhRMA members alone invested an estimated \$43 billion in 2006 in discovering and developing new medicines' (http://www.phrma.org/about_phrma/). PhRMA does not segregate 'global health' as a separate research category, but it professes a commitment to global health generally, as the following assertion indicates:

PhRMA member R&D investment is global, including supporting biopharmaceutical research efforts in Africa, Asia, Australia, Europe, and the Middle East. While the North American market for medicines is the world's largest, American-funded research targets many diseases that do not affect North American patients (http://www.phrma.org/2005_industry_profile/9/).⁹

One researcher who has investigated this sector's research investment in global health reports that it contributes nearly as much as governments do (42% and 50%, respectively) (Fleck, 2004).

The third group of funding agencies that contribute global health research includes private trusts and philanthropic agencies (8% of the total) (Fleck, 2004). Many of these

⁷ See the following websites for more on these organizations and/or initiatives: Global Health Research Initiative (<http://www.cihr-irsc.gc.ca/e/13249.html>); Norwegian Forum for Global Health Research (<http://www.globalhealth.no/>); German National Commission on Global Change Research (<http://www.geographie.uni-muenchen.de/nkgcf/english/frameset.htm>), US National Institute for Health Research (NIHR).

⁸ See websites: US Social Science Research Council (<http://programs.ssrc.org/>), UK Economic and Social Research Council (<http://www.esrcsocietytoday.ac.uk/ESRCInfoCentre/research/index.aspx>), and the Social Science and Humanities Research Council (SSHRC) (http://www.sshrc.ca/web/about/policies/psychology_e.as).

⁹ PhRMA specifically notes attention to the diseases malaria, trachoma, dengue fever and tuberculosis.

contributors are established trusts that have only recently become engaged in ‘global health’. These include such organizations as the Wellcome Trust in the UK which now ‘covers a broad range of activities that support global health research’, and the US-based Kaiser Foundation, which describes itself as having ‘a growing role in global health’. This category also includes the Bill and Melinda Gates Foundation which was established expressly for funding global health research and currently is, without doubt, one of the most significant contributors to both the amount and the type of research being conducted on the topic. Often the Gates Foundation and other philanthropic agencies operate within public-private partnerships. For example, the European Partnership for Global Health seeks to create ‘a bridge between governments, civil society and the private sector’ for promoting global health research; the Global Health Council is ‘comprised of health-care professionals and organizations that include NGOs, foundations, corporations, government agencies and academic institutions who work to ensure global health for all (http://www.globalhealth.org/view_top.php?id=25); and ‘the 2008 [Bamako] Global Ministerial Forum on Research for Health aims to bring together 1000 stakeholders including ministers of health, science & technology, and social development; researchers; civil society organizations; national research councils; donor agencies; philanthropic foundations; and representatives of the private sector’ ([http:// Bamako2008.org/en/index.shtml0](http://Bamako2008.org/en/index.shtml0)).¹⁰

Who Gets How Much to Do What?

Insufficient Funding

Clearly, the *idea* of global health has taken root in the funding community. Yet, it is questionable whether the idea has been matched by a significant amount of resources actually committed to global health research. Best estimates are that the topic receives only a small proportion of the amount devoted to health overall. However, it is difficult to discern exactly what is being spent. The Global Forum for Health Research, which was founded in 1998 to reduce North-South inequalities in health research,¹¹ has discovered that there are serious impediments to acquiring the information needed to evaluate the situation. In particular, there are problems with estimation methodology as well as with inadequate accounting measures; as the Forum notes, ‘[r]outine, comprehensive statistics on expenditures on research for health simply do not exist for any country in the world’ (Burke & de Francisco, 2006: 9-10). Overall, given incomplete information and blunt methodological instruments, estimates on spending on specific health areas are markedly imprecise at present.

¹⁰ See websites: Wellcome Trust (<http://www.wellcome.ac.uk/node2292.html>); Kaiser Foundation, (<http://www.kff.org/about/index2.cfm>); Bill and Melinda Gates Foundation (<http://www.gatesfoundation.org/GlobalHealth/>), European Partnership for (<http://www.ukglobalhealth.org/Default.aspx?textID=761>); Global Health Council (http://www.globalhealth.org/view_top.php?id=25); and ‘the 2008 [Bamako] Global Ministerial Forum on Research for Health’ (<http://bamako2008.org/en/index.shtml0>).

¹¹ The objective of the Global Forum for Health Research is to reduce the so-called 10-90 gap, where ‘less than 10% of the world’s resources for health research ... were being applied to the health problems of developing countries, where 90% of the avoidable burden of ill-health was to be found’ (Global Forum for Health Research, 2006: vii).

Yet, the information that is available does provide a sense of broad funding trends in global health. For instance, the Global Forum has discovered that there has been a substantial, overall increase in funds for overall health research and development in recent years—from US\$ 30 billion in 1986 (*ibid.*, vii) to US \$84.8 billion in 1998 and US \$105.9 billion in 2001 (*ibid.*, 9). However, of this total amount on health, only a portion is expressly devoted to ‘global health’. Moreover, only about 10% goes to research in the South, which has 90% of the disease burden. To put the amount spent on ‘global health’ in some perspective, Wooley, et al. (2005: 092) observe that the US\$ 49.5 million spent on global health research in 2003 by the US, as the world’s largest contributor, is ‘less than 1 cent of each dollar spent on health in the US each year’ (Woolley, et al., 2005: 092).

Low Priority of Social Determinants Research

These figures, while helpful in providing a general indication of how research dollars are being spent, should be treated with some caution, since it is not clear what is being included as ‘global health’ research. The Global Forum’s report on health research published in 2006, seeks to include all expenditures—from state and non-state; multilateral, bilateral, national sources—on health research around the world. This would suggest a definition of ‘global health’ as the total of the world’s health issues, and not as a separate category, with a unique set of conditions or issues, distinguishable from say ‘international’ or ‘national health.’ The Global Forum’s emphasis on the 10/90 gap, however, suggests that North-South inequalities are an integral component of its conception of ‘global health’. Several other organizations take this further, defining the term explicitly as the health issues only of the South. A founding document for the Canadian Coalition for Global Health Research, for instance, states that “‘Global Health’ in this document refers to the health of individuals and societies within less developed, less resourced, poorer nations and regions of the world’ (CCGHR, 2001).

Definitions of global health as either the health of the world or health in the South are inadequate. Just as ‘globalisation’, to be meaningful, must be distinguished from ‘internationalization’ (Scholte, 2000: 46-50), ‘global health’ needs to be understood as the product of unprecedented changes of this global era.¹² To define global health either as a set of contemporary diseases in the South or as the totality of health in the world is insufficient if the economic, political and social forces that promote health and/or cause or exacerbate current disease rates are not simultaneously addressed. Clearly, researchers’ relative neglect of health problems of the South is a significant global health problem; the South bears a significantly disproportionate burden of disease, and given that inequality is a major determinant of health status, global health conditions as a function of North-South inequality is a critically important focus for research. However, to define global health either as all the health issues of the world or only as a set of predominately Southern health issues misrepresents what is most significant about the

¹² Lee, et al. (2002: 5) distinguish global from international health ‘...when the causes or consequences of a health issue circumvent, undermine or are oblivious to the territorial boundaries of states and, thus, beyond the capacity of states to address effectively through state institutions alone’.

concept of ‘global health’ as distinct from the long-standing concept of ‘international health’ (that is, health problems—addressed usually by Western experts—in different underdeveloped settings around the world).¹³

Given the various definitions by which global health is understood, it is difficult to sort out the different claims regarding whether or not certain projects actually qualify as ‘global health’ research. Equally, and perhaps more relevant, for describing the current research agenda, it is especially difficult to separate out those that investigate the social determinants of global health. The Global Forum (Burke & de Francisco, 2006: 11) points out that there may actually be more current research on social determinants than is accredited given that data used to compile figures on research funds tend to refer to biomedical research. This is relevant in the sense that research on social conditions such as inequities and inequalities may be informative with respect to health even if health is not expressly designated as an area for investigation in the project. However, currently, it appears that research which consciously and unambiguously investigates health as a socially determined condition is conspicuously underfunded in both the health field and in the social sciences. It is true that some countries have indicated a commitment to supporting research on the social determinants of health.¹⁴ For instance, the UK Department of Health recently donated \$1.25 million to support the launch of the WHO Commission on Social Determinants (http://www.dh.gov.uk/en/Publicationsandstatistics/Pressreleases/DH4106_446). However, while such commitments are important in signaling awareness, the total amount designated for social determinants is extremely small relative to spending on health, generally. To illustrate, the UK’s Medical Research Council’s only reference to social determinants in its call for proposals in 2005/6 was in the area of ‘Population-based studies ... with particular emphasis on lifestyle and psychosocial factors’, and this item was only one of several in the budget for ‘Health Services and Public Health Research’, which received only 11% of the £224million spent on research that year ([www.mrc.ac.uk/Our Research/Research Portfolios /index.htm](http://www.mrc.ac.uk/Our%20Research/Research%20Portfolios/index.htm)). In the US, likewise, social determinants research on health is a low priority, comprising less than 5%¹⁵ of the areas funded by the US NIH (http://www.nih.gov/news/funding_research_areas.htm).

In a recent review of health funding in the UK, the author (Cooksey, 2006) indicates that the information gathered included ‘...a body of opinion which argued that prioritization

¹³ Note, for example, the following programme description at the Johns Hopkins Bloomberg School of Public Health. ‘The Department of International Health seeks to understand health problems and develop means of disease reduction and health protection in underserved populations around the world. International Health draws on all public health disciplines for application in global settings and emphasizes master’s and doctoral training programs for students with international and cross-cultural interests.’ available at <http://www.jhsph.edu/dept/IH/index.html> >, accessed 10 July 2007.

¹⁴ Also, several countries have introduced projects within their national constituencies that have a social determinants focus or component. Sweden and Norway are probably the most advanced in this (Ågren, 2003; Norwegian Ministry of Health and Care Services, 2007), but others are beginning to commit resources. In 2005, for instance, the UK Department of Health made £1.2 million available for projects specifically targeted at social inequalities (http://www.dh.gov.uk/en/Publicationsandstatistics/Pressreleases/DH4106_446).

¹⁵ The figure is probably much less than 5%; that percentage represents all the projects funded by the NIH for one year that might be likely to be construed to have a social determinants focus or

of spend [sic] on research should be proportional to monies spent by the NHS, to the socio-economic burden of disease'.¹⁶ Nevertheless, despite this body of opinion, and despite the author's acknowledgment that 'two-thirds of public and charity funding of health research is invested in basic science projects', the report recommended '**future increases in funding should be weighted towards translational and applied research until a more balanced portfolio is achieved**' (*ibid.*, emphasis in original). Given strong evidence that health is largely socially determined, the decision to accept this bias is lamentable. Nevertheless, the interest in translational and applied research could be a positive development, if it refers to investigations into reasons why information gained from research is not taken up by policy/decision makers. In other words, this type of research could be very useful in understanding why policymakers, who are obviously well informed about the social determinants of health are unwilling or unable to devote sufficient and appropriate resources to make significant improvements. It could also be useful in devising projects that show the socioeconomic impediments to and/or impacts of application.

This seems not to be the intent of promoting translational and applied research, however. Instead, it appears that the main objective is to gain information on how research findings can be translated and applied for economic gain. The Cooksey Report (*ibid.*, 3) stresses the importance of maintaining the UK's edge in health research in order to continue to entice the pharmaceutical industry to locate research and development (R&D) operations in the UK:

The quality of the health research base, combined with a national health service, creates a unique selling point that attracts R&D investment from the pharmaceutical, devices and biotechnology industries. These industries form a major part of our knowledge economy. They are prime investors in R & D. The pharmaceutical industry alone accounts for 25 per cent of UK business investment in R&D and it is a significant employer of highly-skilled staff. Given the sector's contribution to the UK economy, the healthcare industries are a key driver of wider productivity and make a significant contribution to the UK Government's vision, as set out in the Science & Innovation Investment Framework 2004-2014, of increasing aggregate investment in R&D to 2.5 per cent of GDP by 2014 (*ibid.*, p. 9).

Sir Cooksey did not overlook the South in his report; he notes that '...emerging economies also provide new markets and opportunities which the UK is well placed to exploit ...' (*ibid.*, p. 9).

The top priority among agencies that support health research, whether global or otherwise, is clearly biotechnology. Genomics, in particular, have captured the interest of

¹⁶ The report also acknowledges '... calls for increased funding in specific areas such as: epidemiology; public health; health promotion; disease prevention; service delivery; diseases which burden society/chronic diseases; ageing; maternal health; orthopedics; musculoskeletal disease; lung disease; kidney research and midwifery/maternity care'. Several of these areas reflect health issues that relate directly to socioeconomic conditions.

the major funding agencies. The World Survey of Funding for Genomics Research located at Stanford University estimates that the government and nonprofit sectors spent \$1,805 million on genomics research in 2000; genomics firms spent \$2,061 million; and the pharmaceutical and biotechnology sector spent \$900 million (Stanford in Washington, 2002).¹⁷ Yet, while enthusiasts speculate about the vast therapeutic potential of genomic research, the translational prospects have not yet been clearly established. For instance, recent findings suggest that RNA fractions, rather than genes, determine physical expressions, and because these fractions exist in vast numbers and in exponentially numerous combinations, it will likely take considerable time, and certainly immeasurable resources, to sort out the therapeutic possibilities. The relatively new field of epigenetics is also complicating the picture with information on apparent epigenetic changes in response to environmental factors. That these changes appear to be transmissible to future generations contravenes the prevailing assumption that physical characteristics result from immutable gene codes (Gosden & Feinberg, 2007: 371). To put it another way, epigenetics research indicates that the long-established debate over the nature-versus-nurture dichotomy has been rather pointless; that in fact, both are in play in determining health and disease (Hoover, 2007).

National ambitions to attract R&D industries or individual aspirations to develop lucrative patents are strong incentives to disregard the nurture part of the equation; and the result is a highly skewed research agenda that grossly favours genomes (nature) over social determinants (nurture). This impacts the North-South research imbalance in two ways. First, almost all of this research is being conducted in the North, thus adding to the gap in respective Northern and Southern contributions to 'cutting-edge' research. Moreover, even if genome research eventually proves to have significant therapeutic value, the translational costs are likely to make advances prohibitive for treating disease in the South.

Not all the news regarding global health research is bad. Increased levels of research with more practical benefit, at least in the short term and probably also in the long term for the majority of the world's people, is being undertaken in diseases that primarily affect the South. Historically, such diseases have been largely neglected in the development of pharmaceuticals. However, recently, pressures from global civil society, multilateral engagement (as with the Millennium Development Goals) and economic opportunities accruing from Southern diseases have created new research interest in several diseases. HIV/AIDS, malaria and TB have been the most prominent of these and the Global Fund, a public-private partnership¹⁸ to address these three diseases, committed US\$4.6 billion over two years in its last funding round (<http://www.theglobalfund.org/en/apply/current/rivate>). These funds are allocated to project implementation rather than research, but they can have the benefit of generating

¹⁷ See power point slide entitled 'Funding: Public>Private (Year 2000)', (Stanford in Washington, 2002)

¹⁸ The proliferation of public-private partnerships (PPPs) is heralded by some as an important advancement in getting therapeutic drugs to poor people in poor countries, while others are concerned about the implications of PPPs '... creat[ing] new opportunities for the private sector to exercise power and influence over domains which were once the preserve of public-sector organizations' (Buse & Harmer, 2004: 50).

interest both in developing pharmaceutical products to combat these diseases and in translational research into areas such as country capacity to up-take the products.

Private donors are now major actors in such initiatives. The Bill and Melinda Gates Foundation is the most visible and probably the main private contributor to ‘global health’ issues; that is, global health defined as diseases of the South. The Foundation is concerned with conditions of poverty as well as the high-profile diseases like HIV/AIDS and malaria. Yet, while there is a clear acknowledgement of causal conditions of poverty and inequality, the main emphasis is on technological solution (eg. technologically-enhanced food products to treat malnourishment). Researchers seeking funds in the ‘global health’ division of this organization are provided with the following comment on the Foundation’s philosophical position: ‘Our grantmaking is driven by the unprecedented opportunities in science and technology to transform health throughout the world’ (http://www.gatesfoundation.org/GlobalHealth/Grantseekers/GH_Strategy/default.htm0).

The preceding quotation illustrates the unquestioning assumption that health problems are solved through science and technology. And as corporate actors become more heavily involved in the governance arrangements by which health issues are addressed, a business rationale is creeping into the arguments for supporting a biomedical model. Raymond V. Gilmartin (2005:11), Chief Executive Officer (CEO) of pharmaceutical company, Merck and Co., Inc. argues that ‘...improving global health is not merely a charitable goal; it is a business imperative’. The assumption is that greater access to medicine in poor countries will improve individuals’ health, thus creating healthier, more productive populations that will contribute to economic growth and the expansion of markets.

Not only is the notion of health as human right being denigrated by this bias towards a biomedical/business approach to health (Barr, 2007; Scott-Samuel & O’Keefe, 2007), but the assumption that this approach will solve the health problems goes largely unquestioned. It is generally assumed that the main problem of social inequalities as they affect global health is poor people’s lack of access to medicines and health care. The point is not that these are issues are unimportant; in fact, access to treatment is a critical component of restoring health. But, what tends to be ignored or overlooked is that poor social conditions increase the need for treatment. Poor people whose human needs are not adequately met are more likely to develop health problems. Therefore, before putting all reliance on addressing diseases already established, more emphasis is needed on achieving and maintaining health through preventative measures. These include good public health infrastructures, but much more—good quality education, gender equality, safe housing conditions, relief from psychosocial tensions, etc. It is crucial, given the impact of globalisation on social environments and relations, that considerable more funding be devoted to them within the global health research framework.

IR/IPE Contributions to Global Health Research

International relations and international political economy can offer useful insights in these areas. However, to date, the contributions in these fields have been limited, in part because scholars in the field have been interested in only a narrow range of health issues. More importantly, they tend to accept the preeminence of the biomedical health paradigm without question and thus lack a critical analysis of the politics and political economy of health.

Regarding a narrow focus on health, IR and IPE scholars are mostly interested in the impact of certain global health problems on national security or wealth (the effects of HIV/AIDS on economies or militaries; the economic costs of SARS; the threat of bioterrorism) (MacLean, 2006) or emerging governance structures, especially public-private partnerships (Brown, 2008). Referring specifically to IR, McInnis and Lee (2006: 9) argue that the focus on foreign and security policy analysis obscures important issues of public health generally, and because of the preoccupation with infectious epidemics and bioterrorism, other specific health concerns that are relevant to IR are neglected. McInnis and Lee contend that the agenda needs to be broadened to include health destroying illegal activities such as trafficking in drugs and in people. This is a useful corrective to the present state of research, but in our opinion, the list of topics to be explored should be extended even further. For example, although the rapid, worldwide growth of chronic diseases such as cardiovascular disease and cancer are largely triggered by economic, political and social processes associated with globalisation, little interest has been generated in IR/IPE fields (MacLean & MacLean, 2007). However, simply extending the list of health items that IR/IPE should address is insufficient, if meaningful strategies are to be devised in the analysis (and enhancement) of global health.

Most IR/IPE scholars appear to conceive of ‘global health’ as a set of certain diseases. Moreover, although it is acknowledged that these diseases are being spread, or have a greater threat potential, because of globalisation processes, there is little evident awareness of the role that the economics and politics of globalisation plays in creating the global disease burden—including the types and rates of diseases as well as the inequitable impacts—of the contemporary world. To achieve both public health improvements and the human and national security benefits of improved health, much greater attention, in IR, IPE and other social science research, as well as in public health, needs to be paid to the power dynamics in society that determine the state of global health, and particularly the health inequalities that currently characterize global health. Moreover, IR and IPE are well situated to investigate who global health research is for, and for what purpose.¹⁹ What are the power dynamics that determine what is taken as a relevant topic for research and what topics receive the majority of research funding? As argued above, there is clear and convincing evidence to show that health is largely determined, especially at a population level, by social factors. This means that susceptibility to disease is established by the conditions in which humans live and the relations by which those conditions come into being. To address health only after disease is established is to miss, arguably, the most important factors that contribute to health outcomes.

¹⁹ This, of course, paraphrases Robert Cox’s (1981: 128) well-known aphorism that ‘theory is always for someone and for some purpose’.

Conclusions

Global health, characterized by new or altered diseases and illnesses and by significant inequalities (especially North-South), is a function of changing political economy. To put this another way, the emergence of global health as a separate area of investigation demonstrates clearly that health, at population levels, is largely socially determined. Yet, as the Global Health Forum (Burke & de Francisco, 2006: 11-12) notes, there continue to be major gaps in knowledge regarding social determinants. The Global Health Forum has indicated that the figures it uses to assess the level of research funding in global health is biased in favour of biomedical research funding (see above). It also recognizes that its own modeling of research funding may contribute to a misrepresentation of the type of research that is required:

... a single global aggregate figure might “obscure or distract attention not only from the real health needs of many populations (given the diversity of health problems in different populations and sub-groups in countries and regions) but from the more complex determinants of health such as poverty, inequities, gender, violence and abuse, access to education, and opportunities to participate and be part of decision-making processes” (*ibid.*: 11).

Investigations conducted for this paper suggest that, even if social determinants research is underestimated in the Forum’s calculations, the amounts missed are not likely to be significant, relative to those spent on biomedical research. The reason for the lack of emphasis on social determinants is not so much that the connections are not being drawn between research on social issues and their health impacts, but rather that well-established evidence showing that health is strongly determined by social conditions does not facilitate lucrative research agendas. The recent surge of interest in the translational quality of research is similarly motivated. While such research could be directed to determine where social interventions are more appropriate than technological ones, or where combinations of social and technological approaches could enhance positive outcomes, the main objective in this research area has been to investigate how research on drugs or other products can be translated most profitably.

Social sciences and particularly international relations and international political economy are well-situated to contribute to investigations in these areas. However, to date, these fields have focused too narrowly on a small set of health problems, and most importantly, the fields have accepted without question, that health can be understood only as biomedical problems amenable to technical solution. Similarly, if not quite with the same degree of parochialism and narrow-mindedness, public health scholars have tended to merely rename international health as global health without acknowledging the extent to which global health is actually a feature of profound contemporary political and political economy changes. Combining insights from the respective disciplines is critical in addressing these limitations in current research. Rich and productive global health research calls for partnerships and teams of public health and IR/IPE scholars who seriously engage with the ideas of global health as socially determined. But to create such

teams requires a conducive environment, one that is not currently supported by the prevailing biomedical model that dominates in setting current research structures, values and norms.

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