

CHAPTER FOURTEEN

GOVERNANCE OF CHRONIC DISEASES¹

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Chronic diseases are the leading causes of death and disability worldwide. This chapter evaluates the governance of chronic diseases and their associated risks. A brief overview of the sources of weak global responses to chronic diseases is provided, after which the actions of major players on chronic diseases are mapped. We conclude with some strategies for strengthening chronic disease governance based upon historical precedents of governance interventions.

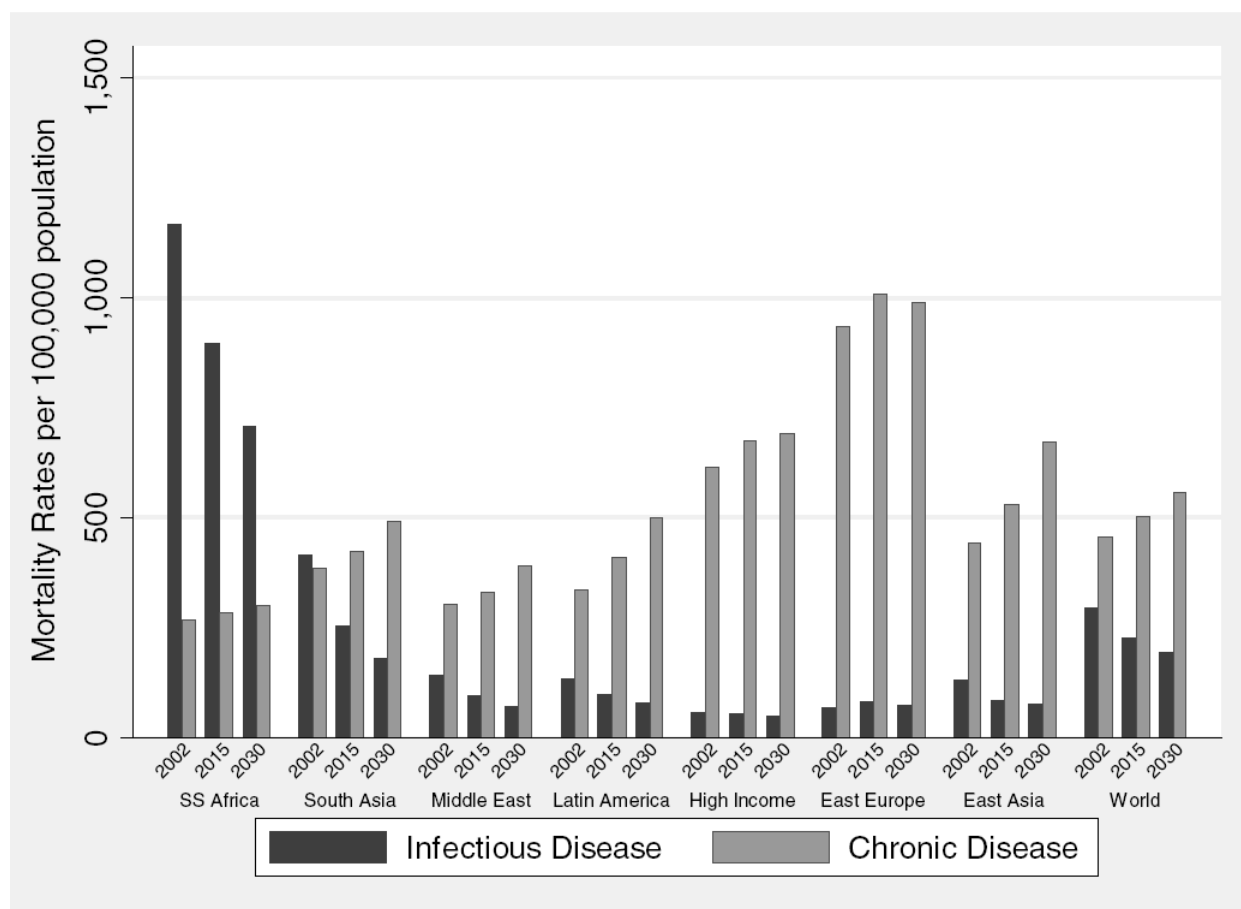
Global Burden of Chronic Diseases

Each year over 31 million people are estimated die from just four leading chronic noncommunicable diseases – heart disease, common cancers, respiratory diseases and diabetes (Mathers & Loncar, 2006; Stuckler, 2008).¹ Close to half of these deaths are estimated to be premature (WHO, 2005). Nearly 80 per cent occur in low- and middle-income countries, where chronic diseases claim around 80 per cent more lives than all infectious causes put together (Mathers & Loncar, 2006). In 2002, chronic diseases were responsible for 46 per cent of all deaths in developing countries – a figure which will grow to 59 per cent by 2030, or to over 37 million lives a year. In all regions of the world, except sub-Saharan Africa, leading chronic diseases are projected to be the major killers – see figure 14.1 (Suhrcke et al., 2006; Mathers & Loncar, 2006; Stuckler 2008). For some lower-middle income regions, the original Global

¹ Excerpts of this chapter have been drawn from a previous unpublished report by the authors, ‘Towards a WHO long-term strategy for prevention and control of leading chronic diseases’ and from D. Stuckler. 2008. ‘Population causes and consequences of leading chronic diseases: A comparative analysis of prevailing explanations.’ *Milbank Quarterly* 86(2): 273-326. Copyright Milbank Memorial Fund.

Burden of Disease ‘pessimistic scenarios’ for diabetes (Murray & Lopez, 1996) have now become the ‘optimistic scenarios’ (Mathers & Loncar, 2006) for the next two decades.

Figure 14.1 Evolution of the Global Burden of Disease: 2002 to 2030



Notes: Infectious disease classification is based on WHO’s type I infectious disease cluster. Chronic disease classification is based on cardiovascular disease, cancers, respiratory disease, and diabetes mellitus subcategories of WHO’s type 2 burden of disease cluster. Source: Stuckler 2008, *Milbank Quarterly*.

With these foreseeable consequences, and given the potential for prevention, one might expect that key health organizations, such as the World Health Organization and national health ministries, and development institutions that focus on poverty, such as the World Bank and United Nations Development Program, would be scaling-up efforts to combat the rising tide of chronic diseases in developing countries, especially in light of recent rises in global health

financing (Garrett, 2007). Yet, a string of recent publications have suggested that this is not the case, instead claiming that global chronic diseases are ‘neglected’, ‘silent’, ‘a hidden epidemic’, and that their epidemiologic and economic impacts have not translated into a proportionate global response (Yach, 2004b; Horton, 2005 and the *Lancet* special issue ‘the neglected epidemic of chronic disease’).

Are chronic diseases actually being neglected in low- and middle-income countries? If so, does this mean that global chronic disease governance is failing? As an initial step in addressing these questions, this chapter evaluates the governance of chronic disease by first analyzing how diseases are prioritized and then mapping the actions of key players in chronic disease prevention and control.

How do we define and evaluate governance?

Before proceeding, a brief discussion of the term ‘governance’ and its application to health is needed. Governance is frequently referred to as the actions to steer decision-making procedures, rules and authority (Buse, 2000; Mayntz 2005). For example, Rosenau writes that ‘Governance can be defined as the process whereby an organization or society steers itself’ (1995 in Buse, 2000), and Fidler claims ‘[health] governance refers to how societies structure responses to the [health] challenges they face’ (2004: 799). One strength of these definitions for contemporary policy analysis is that they separate the content of *governance* from the actions of *government*; however, a limitation is that they do not give rise to objective criteria for identifying governance success or failure as has been done for market and state failure (Jessop, 1998).

Our analysis starts from a more generalized and integrative view of health governance: we consider health governance, in a quantitative sense, as a function that maps burden of disease

parameters into a set of collective societal responses *and* further maps those reactions back upon the burden of disease. Governance then becomes, in a social sense, equivalent to the dynamic relationship between the burden of disease and the complete set of civil society, private sector, non-governmental organization, nation-state, and other national- and trans-national institutional responses.²

Figure 14.2. Input-Output Model of Health Governance

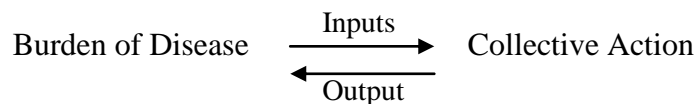


Figure 14.2 models this input-output governance dynamic. The forward arrow in the model represents the ‘inputs to governance’, or the political economy. This involves considerations such as which diseases are prioritized and why? The reverse arrow in the model can be thought of as the ‘outputs of governance’.³ This involves considerations such as are actors’ policy actions coherent and coordinated?

Governance failure occurs when the level of ‘inputs’, or the priority assigned to the disease burden, mismatches with the level of ‘outputs’, or the action on the disease.⁴ This definition of governance offers criteria for what governance is supposed to maximize, while avoiding the normative aspects of what ought to be the appropriate level of action. To evaluate chronic disease governance as a system, therefore, we must first consider the ‘inputs’, or what determines whether chronic diseases are prioritized, against the ‘outputs’, or the current actions of relevant chronic disease actors. The rest of this chapter evaluates each of these elements of the governance system in turn.

Political Economy of Chronic Diseases: the ‘inputs’

Several scholars have suggested that the epidemiological and economic consequences of chronic diseases in developing and developed countries have not translated into a global response proportionate to the magnitude of their impacts. Below we present a parsimonious set of explanations for why chronic diseases are receiving less attention compared to their contribution to the global burden of disease (see Stuckler, 2008 for greater detail):

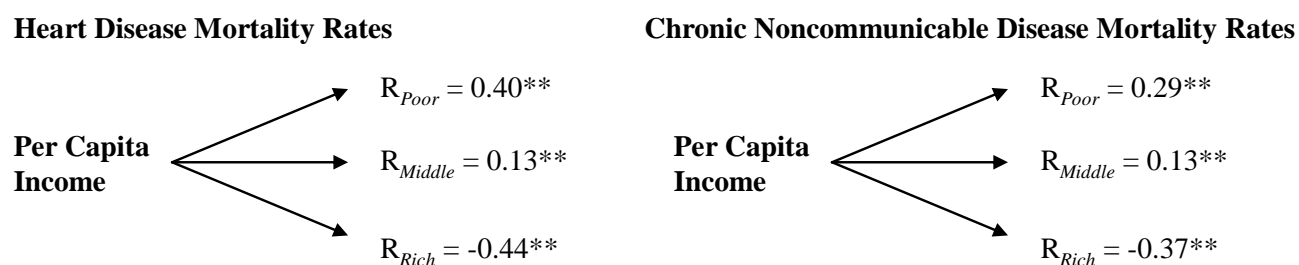
- *Orientation of Health Systems:* Historically, acute conditions have been the principal concerns for health care systems. When health problems are chronic in nature, however, the acute care practice model breaks down. Yet the acute care paradigm is pervasive and now permeates the thinking of decision-makers, health care workers, administrators, and patients;
- *Risk Accumulation and Distribution:* (i) Long and variable lag times between accumulation of risk and the onset of illness make chronic diseases easier to ignore and less likely to fit shorter-term political cycles; (ii) Conditions which afflict middle- and older-age persons or are more dispersed in the population are less politically salient than those which afflict younger populations or at greater concentrations (see Reich, 1995). The higher prevalence of chronic diseases among older-age groups has promoted the ageing of the population as the leading population explanation of chronic disease growth. This has given rise to the notion that chronic diseases are ‘inevitable consequences of ageing’, implying that public policy cannot make a difference (World Bank, 2007; see Stuckler, 2008 for a critique); (iii) Chronic diseases have also tended to first impact higher socioeconomic groups, and as a result chronic diseases were branded as ‘diseases of affluence.’⁵ But over time the within-

population distribution of chronic diseases and their risks undergoes a ‘social transition’ to disproportionately afflict lower socioeconomic groups – as witnessed for both tobacco/lung cancer and obesity/diabetes (Monteiro et al., 2004; Yach, 2005; Suhrcke et al., 2006).

- *Social and Economic Determinants:* Chronic diseases are often seen as problems of individual behavioral choices – choosing to smoke, drink alcohol, eat an unhealthy diet, and not to be physically active. This assumption neglects the fact that macroeconomic drivers – and the industries that power them – shape the markets and the regulations within which people make choices (see Box 14.1). Figures 14.2a and 14.2b show that macroeconomic forces such as trade liberalization, foreign direct investment and economic growth are connected with rising chronic diseases in poor countries. Capacity in the health sector for addressing these socio-economic drivers is low.

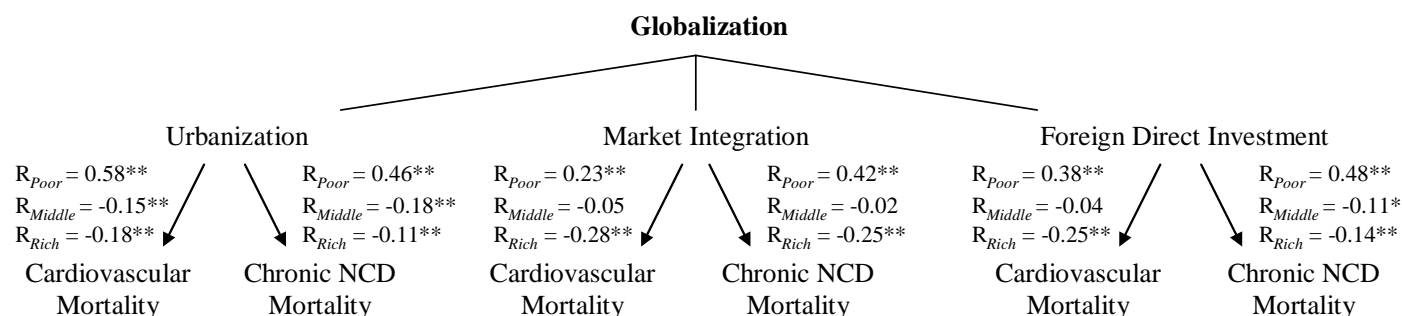
[Box 14.1 about here]

Figure 14.2a Associations between Country-Income Levels Per Capita and Log Heart Disease and Chronic Noncommunicable Disease Mortality Rates



Notes: Poor countries < US\$3000 per capita income, middle countries > \$3000 and < \$7000, and rich countries > \$7000 on average from 1960 to 2002. Male mortality rate data are from the WHO Global Mortality Database and are in logs. Chronic noncommunicable disease is WHO’s type 2 burden of disease category. Economic data are from the World Bank’s World Development Indicators, 2005 ed., and the International Monetary Fund’s International Financial Statistics, 2007 series. Per capita income is based on gross domestic product per capita (GDP). Cross-country data are de-trended for effects of changing ICD classifications. Source: Stuckler 2008. Significance at * $p < 0.05$, ** $p < 0.01$.

Figure 14.2b Associations between Globalization and Log Heart Disease and Chronic Noncommunicable Disease Mortality Rates



Notes: Poor countries < US\$3000 per capita income, middle countries >\$3000 and <\$7000, and rich countries >\$7000 on average from 1960 to 2002. Male mortality rate data are from the WHO Global Mortality Database and are in logs. Chronic NCD is chronic noncommunicable disease mortality based on WHO's type-2 burden of disease category. Economic data are from the World Bank's World Development Indicators, 2005 ed. and the International Monetary Fund International Financial Statistics 2007 series. Urbanization is the percentage of population living in urban settings. Market integration is total capital flows as a percentage of GDP. Foreign direct investment is the log level of foreign direct investment inflows. Cross-country data are de-trended for effects of changing ICD classifications. Source: Stuckler 2008.

* p<0.05, ** p<0.01

[insert Table 14.1 about here]

Region	Projected Chronic Disease Increase (% change from 2002 to 2030)	Estimated Effect on Growth Rates in 2030 (% per year)
World	21.90	-1.02
High Income	12.06	-0.56
Eastern Europe and Central Asia	5.73	-0.27
East Asia and Pacific	52.23	-2.43
South Asia	27.89	-1.30
Latin America	48.01	-2.24
Middle East and North Africa	28.28	-1.32
Sub-Saharan Africa	12.13	-0.57

Source: Stuckler, 2008

More generally, policymakers often ‘reason by metaphors’ as a way to simplify complex policy tradeoffs into a few consistent strategies when prioritizing health resources (Schlesinger & Lau, 2000). Of five leading global health metaphors that have been identified, namely global health as *foreign policy*, *security*, *charity*, *investment* and *public health* (Stuckler & McKee, 2008, see Table 14.2 for a description), chronic diseases tend to be given more emphasis by actors who view global health as public health, which aims to maximize health impact, and, increasingly and global health as investment, which aims to maximize economic development (Suhrcke et al., 2006; World Bank, 2007).

Principle	Selected goals	Priority diseases	Key institutions
Global health as foreign policy	Trade, alliances, democracy, economic growth, reputation, stabilize or destabilize countries	Infectious diseases, HIV/AIDS	US State Department, USAID, President’s Emergency Plan for AIDS Relief
Global health as security	Combat bioterror, infectious diseases, and drug resistance	Avian influenza, severe acute respiratory syndrome, multidrug-resistant tuberculosis, AIDS	US Centers for Disease Control and Prevention
Global health as charity	Fight absolute poverty	Famine or malnutrition, HIV/AIDS, tuberculosis, malaria, rare diseases	Bill & Melinda Gates Foundation, other philanthropic bodies
Global health as investment	Maximize economic development	HIV/AIDS, malaria	World Bank and International Monetary Fund, International Labour Organization, private sector
Global health as public health	Maximize health effect	Worldwide burden of disease	WHO, vertical disease-specific non-governmental organizations

Source: Stuckler & McKee, 2008

Mapping the actions of key chronic disease actors: the ‘outputs’

We have identified eight actors who are currently or potentially, and directly or indirectly, active in chronic disease prevention and control: WHO; international financial institutions; United Nations organizations; nation-states/national health ministries; NGOs; the private sector; donors; and academic institutions.

Before we map out the actions of these players on chronic diseases, we need some criteria for understanding ways in which these actions might be inefficient, independent of the level of prioritization. Table 14.3 provides examples of four types of policy inefficiencies that can arise for the possible cases of action on the burden of disease: (i) one actor on one disease (lack of consonance); (ii) one actor on multiple diseases (inconsistence); (iii) multiple actors on one disease (incoherence); and (iv) multiple actors on multiple diseases (lack of coordination). Because each of these cases refers to a different policy issue, it is helpful to differentiate them in order to more accurately diagnose the problems that may arise in chronic disease policy-making. This is important for the policy analysis, even if the first three criteria appear to be similar, because many terms and phrases such as lack of coordination, fragmentation, disengagement, and incoherence are frequently applied in the governance literature in ways that appear synonymous but actually involve, and potentially derive from, different policy problems. For example, a lack of consonance for one actor on heart disease, when aggregated with multiple actors, may look like incoherence on heart disease according to the commonly applied usage, even though the actual problem stemmed from the level of one actor’s policies on heart disease.

Similar logic applies to say inconsistency on chronic diseases by the IMF and a lack of coordination on chronic diseases for all actors. Thus, these four criteria – consonance, consistency, coherence, and coordination – are applied throughout the discussion below.

Dimension	One Actor/One Disease	One Actor/Multiple Diseases	Multiple Actors/One Disease	Multiple Actors/Multiple Diseases
Description of Failure	Actors' direct responses to one disease are not consonant with other actions which have effects on, but are not directly in relation to, the disease	Actors efforts in one disease domain have spillover consequences on other disease domains	Actors' efforts counteract each other or are not synchronized	Antagonistic as opposed to neutral or synergistic interactions among actors and diseases
Hypothetical Negative Example(s)	IMF programs provide financial support for HIV/AIDS bundled with financial packages, yet the IMF does not evaluate potential consequences of their financial packages on HIV/AIDS	Vertical TB intervention programmes divert public health capacity horizontally away from other disease control efforts others like malaria – yielding success in TB control but risking losses in malaria control	WHO seeks to introduce taxes for tobacco control, but FAO seeks to subsidize farmers tobacco crops	WHO, World Bank, and NGOs launch campaigns on malaria, tuberculosis and HIV/AIDS. Some duplicate programs and functions are in place that act antagonistically rather than synergistically
Governance Indicator	Lack of Consonance	Inconsistence	Incoherence	Lack of Coordination

World Health Organization: Few resources but many resolutions

WHO has historically focused on infectious diseases, and operations have not kept pace with changes in the global burden of disease (so-called institutional inertia). There are, however, some signs of policy responsiveness to chronic diseases, particularly for resolutions from WHO member-states at the World Health Assembly. In 1998, WHO established a cluster dedicated to chronic noncommunicable diseases at its headquarters. In 2000, a Global Strategy on the Prevention and Control of Chronic Noncommunicable Diseases requested that the Director General prioritize chronic diseases in developing countries. A resolution on diet, physical activity and health passed in 2002, followed by a global strategy on diet, physical activity and health approved at the 2004 World Health Assembly. A 2005 WHO report, *Preventing chronic*

diseases: a vital investment has the potential to stimulate global action. Significant capacity for tobacco control has built around the development and passage of the Framework Convention on Tobacco Control.

Most WHO chronic disease activities are not well coordinated. Research and policy work for chronic diseases has focused on developing more extensive surveillance in conjunction with the WHO Evidence for Information and Policy cluster. All regional offices have departments with a specific mandate to address chronic disease prevention and control. Capacity is currently inadequate, but is being addressed through the development of regional networks. Most country offices have extremely limited capacity in the majority of core areas of chronic disease prevention and control. Virtually no WHO country offices have expertise in chronic diseases - and when they do, such expertise is usually under-utilized. WHO collaborating centers have considerable capacity for chronic disease research and training, but are insufficiently engaged in global and country work.

WHO resources allocated to chronic diseases mismatch with their contribution to the global burden of disease. In 2002, WHO spent 3.5 per cent of its total budget (US\$ 43.6 million) on chronic noncommunicable diseases. In 2000/01, only \$1 was spent for every chronic disease death compared with \$15 spent for every communicable disease death (Yach et al., 2004b). The inverse relationship between the burden of disease and resources allocated appears to be the greatest for so-called extrabudgetary funds (i.e., voluntary contributions), which have risen over the past several decades from composing just one-quarter of WHO budget in 1971-2 to more than two-thirds in 2004-5.

United Nations: Excluding chronic diseases but emerging possibilities

Outside of WHO, several UN organizations with non-health mandates play a major role in setting out principles, goals and actions that affect global health. The focus of these organizations has been on WHO's historic focal areas: infant and maternal mortality; malnutrition; and HIV/AIDS. The prominent health and development risks posed by chronic diseases have not been directly recognized by any of the major initiatives intended to have sustained impact.

The Millennium Development Goals (MDGs), the United Nations' social development agenda for 'reducing poverty and improving lives', do not include chronic diseases (Fuster & Voute, 2005). The main global health MDG, number 6, aims 'to halt and begin to reverse the spread of infectious diseases (HIV/AIDS, malaria, and other diseases).' Although 'other diseases' theoretically include chronic diseases, in practice they are ignored because they do not serve as a measurable indicator of MDG progress.

Exclusion of chronic diseases is further evident in the agendas of multiple UN actors and initiatives. The International Labor Organization's (ILO) report to the World Commission on the Social Dimension of Globalization and the Multinational Enterprises (MNE) Declaration (2002) do not refer to chronic diseases. The UN Children's Fund's (UNICEF) goal-setting programme, *A World Fit for Children* (2003) fails to include risk factors for chronic diseases among the 25 action points proposed to 'promote healthy lives' despite evidence of the widespread risks for tobacco, obesity and diabetes in children. The UN Population Fund (UNFPA) does not incorporate chronic diseases in its strategy on population and development (See <http://www.unfpa.org/>, e.g. *Population, Reproductive Health and the Millennium Development Goals* 2007). FAO has expressed its concern about the rise of obesity and chronic diseases and

jointly published the WHO Report *Diet, Nutrition and the Prevention of Chronic Disease* (2003), although the Committee on Agriculture of the FAO actively expressed disapproval of the resulting WHO strategy on diet, physical activity and health because of its perceived threat to the sugar industry.

In December 2006 the UN adopted the first resolution on diabetes (61/225), designating November 14 as World Diabetes Day, which may serve as an entry point for broader action on chronic diseases.

International Financial Institutions: Low priority, but policy development underway

International financial institutions, primarily the World Bank and International Monetary Fund, are leading players in global health. The World Bank in particular is one of the top three financiers of global health, committing over US \$ one billion US per year, while the IMF plays a lesser role though has begun to support HIV/AIDS control for countries that comply with its economic programmes (see Stuckler et al., 2008).

Historically, the primary objective of these institutions has been to boost economic growth. Because the World Bank and IMF have no policy specific to chronic diseases, activities thus far have been limited in scope. Though the World Bank has conducted important work on the economics of tobacco control, the Poverty Strategy Reduction Papers, which are intended to dictate the Bank's investment priorities to fight poverty, to our knowledge do not contain strategies for chronic diseases prevention and control. All World Bank health sector loans used for chronic diseases were provided to eastern European countries, which were primarily a response to two factors: first, the epidemic rise of chronic diseases in the central and eastern European and former Soviet region connected with the economic policies advised by the Bank

(Stuckler et al., 2008); and second a recent Bank report that found that feasible action on chronic noncommunicable diseases would achieve five-times the health gains as the region's MDGs targets (World Bank, 2004). A recent World Bank report, *Public Policy and the Response to the Challenge of Non-Communicable Chronic Diseases*, which summarizes market failure and avoidable economic costs associated with chronic diseases, has potential to stimulate greater action.⁶

National Health Ministries: Weak capacity but high awareness

Direct actions by nation-states on chronic diseases are mainly through the health ministry. Most non-health state institutions do not consider chronic disease a priority and are as result disengaged – similar to the incoherence observed between WHO and the rest of the UN. Partly because many of the drivers of chronic diseases are transnational (Hawkes, 2006; Stuckler, 2008), national health ministries have been particularly vocal about seeking support from global institutions such as WHO. Among health ministries, a 2001 survey of 167 countries revealed nearly universal recognition of the chronic diseases as a health priority. This awareness, however, had not resulted in the development of significant fiscal or human resources for chronic diseases. Nearly two-thirds of the health ministries surveyed did not even have a budget line for chronic disease.

Non-Governmental Organizations: No integrated effort for all chronic diseases, but past successes show potential

A limited number of international NGOs participate in chronic disease control efforts at the global level, ranging from advocacy groups to NGOs focused on programme management. Most global efforts have been buttressed by domestic NGOs. For example, GLOBALink is an initiative supported by the American Cancer Society and the International Union Against Cancer that links over 4,000 tobacco control advocates and policy-makers around the world. During the development of the WHO Framework Convention on Tobacco Control, GLOBALink played a vital and low-cost role to respond to the need for advocacy and action on tobacco control in the countries of its members. More recently, the Framework Convention Alliance (FCA) has formed as a loose international alliance to support the continued development and ratification of an effective FCTC. Originally composed of developed country and international NGOs, the FCA systematically reached out to new and small NGOs in developing countries. Today the FCA encompasses more than 180 NGOs from over 70 countries and has established itself as an important lobbying alliance.

Despite important progress on tobacco, major gaps in NGOs response to the chronic disease threat persist. There is little unity between the different categories of NGOs with overlapping health interests, weakening the potential for both grassroots and high-level advocacy. Part of this disaggregation results from NGO focusing on specific chronic disease and risks. For example, obesity NGOs, such as the International Obesity Task Force, do not collaborate with diabetes NGOs, such as the International Diabetes Federation. Similarly, obesity NGOs for specific groups, such as children, do not often coordinate efforts with obesity NGOs focused on the general population.

NGO initiatives to advance the agenda on issues related to drug access for HIV/AIDS, malaria, and other infectious diseases by global NGOs such as Oxfam and Médecins Sans Frontières, have not similarly emerged for chronic diseases.

Private Sector: Historic tensions but emerging possibilities for engagement

There are two categories of private sector action on chronic diseases: private action; and private-public interaction.⁷ Action by the private sector only occurs when doing so maximizes shareholder wealth (see Buse & Naylor, this volume). Traditionally in the private sector, action on health has come through corporate social responsibility initiatives (CSR), which often involve voluntary private regulation as a means to avoid more stringent involuntary public regulation. However, CSR initiatives have also been used as strategy for improving brand image, and in recent years a growing number of companies have voluntarily pledged support to HIV/AIDS, malaria and tuberculosis campaigns incorporated into the UN Global Compact and OECD World Economic Forum. Because chronic diseases do not square easily with the ‘global health as charity’ paradigm (Table 14.2), similar action is not likely to be forthcoming.

Over the years tobacco companies Philip Morris and BAT have implemented elaborate own-product CSR campaigns to persuade the public that their products are less dangerous than the epidemiologic evidence suggests they actually are. When evidence appeared that tobacco could be harmful to health, the response by producers and manufacturers was similar: consistent denial of the evidence; creation of front groups to oppose public health action; and intense and sustained lobbying of policy-makers over decades to thwart regulatory progress at national and international levels. The same strategy emerged from the sugar industry to frustrate the development of the WHO strategy on Diet, Physical Activity and Health. Many chronic disease

prevention aims are at odds with the profit maximization goals of private food and beverage companies.

[Table 14.4 about here]

Some direct private sector action on chronic diseases has also come through corporate wellness programs, although this has been mostly observed in developed countries in settings where companies bear the costs of insuring employees, such as the US. There is a clear business case for investing in employee health to reduce costly turnover, limit absenteeism and improve on-the-job productivity – on average US\$ 3 for every \$1 invested in developed countries (Suhrcke, 2005; Goetzel, 2005).

Although close to 25 public-private partnerships have formed to address diseases of poverty, to our knowledge none at the time of this writing focus on chronic disease. Part of the failure for public-private partnerships to form derives from the prevailing anti-corporate culture in public health fostered by a better understanding of the activities of tobacco companies (Wiist, 2006).

Academic and Research Institutions: Historically low engagement but emerging consensus on research priorities

The scale-up of funding for international research has not been proportionally allocated to the growing burden of chronic disease. Most major international research funding portfolios, including the Wellcome Trust in the UK and the Medical Research Council, focus their global research programs almost exclusively on infectious disease. One noteworthy exception is the Fogarty International Center at the US National Institutes of Health, which has allocated one-

third of its resources for the next several years to chronic disease research and training programs in developing countries. There remains a need for a '90/10'-style report on chronic diseases.

Much of the international public health training occurs in the United States, where thousands of future health professionals from developing countries seek graduate instruction in schools of public health. Surveys of the core requirements of members of the Association of Schools of Public Health indicate that global health coursework does not contain instruction for the global challenges facing chronic disease control. Although selected leading institutions, such as Johns Hopkins, Yale, and the University of North Carolina at Chapel Hill have expanded their curricula to address obesity in nutrition courses and Yale has launched an international tobacco seminar, the emphasis remains on primary health care and infectious disease.

Research institutions also play a vital role in shaping the research agenda and diffusing academic knowledge. In November 2007 *Nature* published 'Grand Challenges in Chronic Non-Communicable Diseases' outlining the top twenty policy and research priorities for leading chronic diseases and marking the founding of a global partnership comprising Oxford Health Alliance, the UK Medical Research Council, the Canadian Institutes of Health Research, the US National Institutes of Health, and the Indian Council of Medical Research. However, unlike the grand (infectious disease) challenges in global health (<http://www.gcgh.org>), the chronic disease challenges were not linked to up-front funding commitments (Daar et al., 2007).

Donors: Critical lack of funds

Most non-profit, philanthropic organizations, such as the Bill and Melinda Gates Foundation, have yet to incorporate chronic diseases into their health portfolios. There has been modest support for tobacco control from the UN Foundation, the Open Society Institute and

Rockefeller Foundation, but in recent years this has been declining. Until the public in developed countries perceives chronic disease as a priority in developing countries, or until WHO prioritizes chronic diseases in proportion to their global health burdens, donor resources will probably remain insufficient.

Policy Recommendations

Emerging from this analysis is a long-term picture of the proliferation of chronic diseases, and also of an inadequate response to the need for control by individuals, states, markets, and global players. What strategies can be used to strengthen the governance weaknesses observed in chronic disease control? What do governance interventions even look like?

A starting point is to look at governance interventions currently promoted by WHO. Consider WHO's strategy to promote 'inter-sectorality', which has now been pushed for decades. We argue that this approach, implicitly, is a governance intervention. One of the problems facing WHO in implementing inter-sectorality is that it has not clearly detailed what inter-sectorality implies in practice or how such a framework should be operationalized. From our perspective, WHO's cry for inter-sectorality is nothing more than a plea for establishing coherence; inter-sectoral action is coherent action. Inter-sectoral approaches aim to move away from multi-sectoral approaches, which risk incoherence, and to direct actions of relevant, but indirectly engaged, actors. Thus, improving coherence will mean directing what is currently indirect action on chronic diseases taking place in non-health bodies at the global level (UN development agencies), nation-state level (non-health ministries), and as a result re-directing the NGOs that are reproducing the incoherent platforms of these global bodies.

A recent example of a governance intervention by WHO is the Framework Convention on Tobacco Control (FCTC). Beyond flexing its treaty-making powers for the first time, WHO implemented three major and significant governance interventions in building the FCTC: (i) established an internal advisory board leading to internal coherence and coordination; (ii) established an external or inter-UN board which dislodged existing tobacco company influence and ensured that for the first time UN organizations spoke with one voice on tobacco; and (iii) established a platform for NGOs to scale up efforts and connect WHO/UN strategies to the public and nation-states. In a similar way, the exemplary FCTC approach could be replicated or scaled-up for the four leading chronic diseases singled out in this chapter.

Until WHO establishes consistence in its own chronic disease operations, as it was originally able to do with tobacco, WHO will have difficulty implementing a more general FCTC-style platform for chronic diseases. Another complication is that tobacco is known to be a global vice, whereas other chronic disease factors, such as diet, can be either healthy or unhealthy, making them more difficult to mobilize around. Many of the chronic disease risks which are being driven at a population level by macro-economic forces are at present being engaged at an individual and biomedical level by the public health field – a counterproductive strategy when a major limiting political economy factor is the perception that chronic diseases are ‘lifestyle-related’ or ‘individual choices.’

WHO’s efforts to engage the World Bank, FAO, ILO and other players mirror what action should be taken by health ministries for players at similar levels, finance ministries, agricultural ministries, etc. Of these, interactions with ministers of finance in particular are crucial in order to align economic growth strategies with public health policy. Economic development need not lead to chronic disease. More generally, to achieve such coherence there is

a need for public health to look at how chronic disease relates to a range of social and economic dependent variables. This would be relatively easy to do and may in the long-run result in greater population health gains than the plethora of studies within the field which further characterize the relationships between individual risk factors and chronic diseases.

For WHO the *priorities of populations*, not just the *priorities of donors*, should be emphasized, irrespective of the source of budgetary funding. In the past several decades, national health ministries have raised more than forty resolutions at WHO World Health Assemblies to develop stronger systems for combating chronic diseases. Heeding these national calls for global change would bring the world's health closer to what it aspires to be: an equitable practice, committed to the egalitarian principles espoused by WHO's *Health for All* population health approach, originally outlined in the *Declaration of the Alma Ata* (WHO 1978; also see recent calls by the WHO Commission on the Social Determinants of Health to return to the *Alma Ata* principles 2008). Instead, when WHO devotes budgetary resources to disease that mismatch with the actual global burden of disease, it sends a powerful and contradictory signal to the rest of the world – irrespective of whether the organization does so intentionally – about what global health priorities *should* be.

A general governance strategy for WHO is to more proactively shape more accurate global perceptions of the global burden of disease. Social marketing campaigns from WHO might be better directed at intervening not directly in the burden of disease but at intervening in establishing more accurate public perceptions of the burden of chronic diseases. Perhaps targeting World Bank and UNICEF officials rather than sick persons in poor countries would yield greater long-term health gains as WHO tries to establish inter-governmental coherence on chronic diseases and correct the underlying political economy failures which lie behind it.

While WHO is arguably the best positioned to act rationally to set the stage for the global health system to work properly, the organization is losing its place at the center of global health. Non-profit philanthropic foundations are increasingly supplanting WHO's legitimacy, and more such foundations are beginning to enter the stage as arms of private companies with threats to chronic disease coherence. Greater competition in global health is leading to a closer match between global health actions and the public's perception of what global health means. Foundations will continue be driven by, rather than drive, the public's view of global health. For chronic disease, this means, at least in the short-run, continued governance weaknesses.

NGOs appear to be well positioned to make strides. They can find organizational niches in responding to burden of disease which exploit neglect in chronic disease governance. Oxford Health Alliance provides an example. The Alliance has built multi-sectoral partnerships and gathered momentum by integrating disparate chronic disease efforts, effectively strengthening coherence in research. Evidence redressing pervasive chronic disease myths, such as that they are 'inevitable consequences of aging' or 'diseases of affluence,' must be more widely disseminated (WHO, 2005).

For health ministries, one clear solution is a coordinated approach to combating infectious and chronic diseases, that is, to build the capacity of health systems while transforming the systems from acute to chronic care. As recent studies have shown, AIDS treatment in resource-poor settings is failing owing to poor adherence (Rosen, Fox, and Gill, 2007). What the studies do not mention is that *AIDS is a chronic disease*. That AIDS is one of the few infectious diseases that are on the rise reflects the same limitations fueling the unchecked growth of chronic diseases in poor countries today. Yet learning and sharing regarding the control of AIDS-CVD-diabetes is not taking place, and a tremendous opportunity for enabling

health systems to address long-term population health care problems is lost as billions of dollars are spent controlling AIDS and TB.⁸

The public health's anti-corporate culture is leading to missed opportunities to engage the private sector in synergistic ways: public health distrusts CSR yet is not using its scientific authority to set standards or to engage in partnerships. This can be seen by the poor performance of public health in setting the food labeling standards being battled out in the UK in 2008. Public health has an important role to play in convincing corporations to expand healthy product lines and can help as 'health investment advisers' to show the economic benefits of doing so. Likewise, public health can learn from the private sector, and collaboration could yield significant gains in the effectiveness of public health.

Within public health, the rhetoric about 'disease neglect' has gone a long way to perpetuating the rift between infectious and chronic diseases. Overall, both types of diseases are receiving too little support in developing countries. Yet, infectious disease advocates have garnered much greater resources, and held onto them tightly, relative to the burden of disease infectious diseases cause. As part of those campaigns, chronic diseases have been 'vilified', being branded as 'diseases of affluence' and 'diseases of ageing'. Other arguments have suggested that, because so much research and development goes into chronic diseases in rich countries, they cannot possibly be neglected – ignoring the fact that the highly specialized and medicalized research into Western treatments offer little help for developing countries. Just as rolling out anti-retrovirals in poor countries is a challenge, so is rollout of insulin. Such infighting between disease types in public health is perverse. Overall it weakens the fundamental goal of global health: to raise resources for reducing the global burden of disease as much as possible.

While numerous cost-effective interventions for chronic diseases have been tested and are available (Suhrcke et al., 2006; World Bank, 2007), we still need a road map of appropriate interventions based on the population- and individual-causes of chronic diseases, from which a coherent prevention plan can be constructed. At the broadest level, the road map could begin with economic, political, and social factors, and at the narrowest level, it might begin with psychological and biological factors that affect eating and activity. In the case of eating, these would be taste, accessibility, convenience, cost, and the amount of promotion. The factors lying between the broad and narrow factors must be defined so that prevention can be based on estimates of the most powerful point at which to intervene in the causal chain at different stages of chronic disease progression (Yach et al., 2006; Stuckler, 2008).

The academy can be of great help in all these processes, but currently it is not doing enough. The evidence that upstream forces are playing a role in driving chronic diseases is quite clear and robust. Genetics or biomedical factors alone cannot independently explain any of the rises in populations' chronic diseases. Yet almost all the scant academic resources today are being devoted to genetic research, mainly driven by the pharmaceutical sector, with the hope of creating ways to cure obesity and other afflictions. As a result, this individual biomedical paradigm is being reproduced in public health and medical classrooms worldwide.

What is desperately needed—and long overdue in the academic world—is cross-disciplinary collaboration with economists, sociologists, and political scientists to understand the social transformations at the population levels that are driving chronic diseases and to develop feasible and effective strategies to reverse them. Until then, the chronic disease prevention road map will implicitly remain fixated on the narrow set of biomedical factors.

Conclusion

Our analysis suggests several political economy factors are weakening the global responses to chronic diseases. These include, among others, the historic orientation of health systems toward acute infectious diseases, the slow and steady rise of population chronic diseases compared to the rapid and variable outbreak of infectious diseases, low levels of public awareness about the significance of chronic diseases in developing countries, individualization/medicalization of chronic disease risks, and the socio-economic nature of chronic disease risk factors. We have provided evidence of significant incoherence on chronic diseases between health and non-health actors at local, national and global levels. We propose that WHO is the best positioned to correct the observed failures in chronic disease governance, but to do so WHO must first address the political economy problems that are driving the inadequate prioritization of chronic diseases as well as resolve its own lack of coordination on chronic disease control. Building upon the strategies used in the WHO Framework Convention on Tobacco Control, an example of a successful global chronic disease governance intervention, would be a good place to start.

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Box 14.1 Role of Economic Globalization in Chronic Disease Risks

FLOW OF GOODS

Facing saturated markets at home, TNCs in developed countries have sought new markets for tobacco, alcohol and food products in developing economies. Trade liberalization has facilitated this process. In the case of tobacco, the 1994 Uruguay Round of the General Agreement on Tariffs and Trade (GATT) liberalized trade in unmanufactured tobacco. World Trade Organization (WTO) agreements have since significantly reduced tariff and non-tariff barriers to tobacco trade. The result: increasing flow of tobacco between countries, leading to increased supply, lower prices, more extensive marketing of all forms – and increased risk of chronic diseases. Trade liberalization has had similar effects for food and dietary patterns (Rayner 2006; Hawkes 2005, 2006).

FLOW OF MONEY AND RESOURCES

Like trade, investing across borders plays a fundamental role in integrating the global marketplace. One of the most important types of investment is foreign direct investment (FDI). FDI has played an unprecedented role as a source of funding and economic development in developing nations. FDI has risen dramatically over the past 25 years – US\$ 162.1 billion flowed into developing countries in 2002, mainly from TNCs in developed countries. Developing country governments have liberalized investment rules and introduced incentives in order to benefit from the much needed capital, skills, technology and goods and services promised (though not always realized) by FDI. TNCs, meanwhile, benefit from the potential of new, emerging markets and low cost resources.

FDI has important implications for chronic diseases because investment in tobacco, food and alcohol products is high. TNCs have specific incentives to invest in tobacco, food and alcohol because they favor investments in concentrated markets where there is high brand recognition, of which cigarettes, alcohol, soft drinks and other processed food products are prime examples. FDI has also been crucial in transforming chronic disease risks as countries grow: i) by directly changing the way tobacco, alcohol and food products are produced and distributed and ii) by indirectly shaping physical activity patterns.

The more liberal investment regime put into place by governments to attract FDI can preclude the introduction of regulations, or the raising of standards, concerning the good or service in which the investment has been made into line with what has been shown to be effective in developed countries for protecting health. For example, globalization may bring with it pressures for tax competition, creating disincentives for a tobacco tax in countries wishing to attract FDI, illustrating the tensions faced by countries between the market opportunities and potential risks inherent in FDI. See Stuckler 2008 for empirical evidence.

FLOW OF INFORMATION AND IMAGES

The trade of and investment in tobacco, alcohol and food products around the world, along with technologies that affect physical activity patterns, is accompanied by a flow of information and images designed to encourage their use or consumption. These images, such as brands, logos and promotional initiatives, influence behavior and consumption patterns through their emotional appeal and have the ability to shift cultural and social norms to encourage regular and frequent use and consumption of tobacco, alcohol, energy-dense, nutrient-poor foods and cars, personal computers, etc.

TNCs invest significantly in advertising and other forms of promotion, spreading brands all over the world while tailoring their campaigns to local conditions. Children and youth are targeted directly via strategies like adverts, sponsorship and sports and music events. This process has been greatly facilitated by the transnationalization and consolidation of advertising and communications agencies (Hawkes 2005, 2006).

Tables and Figures

TABLE 14.4 Pathways Of Private Sector Influences On Chronic Disease		
Type of Influence	Description	Summary of Effects
Self Regulation: Independent or Voluntary	<p><i>Social Standards</i> Corporate Social Responsibility (CSR), centering on voluntary codes of conduct and self-imposed business standards</p>	<p>Poor Performance: Has been used to mislead public and manipulate policymaking;</p> <p>Co-opt health messages as public-relations strategy without changing behavior;</p> <p>Hedge social image by performing on health dimensions unrelated to products</p>
	<p><i>Market Standards</i> Investment Community Pressure to manage risk and maximize profits;</p> <p>Socially Responsible Investment (SRI) in companies with good governance;</p> <p>Wellness Programs</p>	<p>Mixed Performance: Favorable effects when driven by investment community pressure or by prospects of return-on-investment;</p> <p>Diversifying products lines and changing business models, facilitated by support of trade bodies; SRI has not focused on health performance;</p> <p>Proliferation of employee health promotion programs in Western countries.</p>
Shared/Co-Regulation: Public-Private Partnerships	<p><i>Reciprocal Benefits</i> Systems/Issues partnership based on social concerns and priorities</p> <p>Product-Based partnership to increase demand for health good or service;</p> <p>Product-Development partnership to create markets, expand product lines and distribute health information</p>	<p>Positive Performance: Beneficial effects, but limited issue-based partnerships</p> <p>Emerging systems/issues partnerships for chronic diseases as awareness grows;</p> <p>Initiation from pharmaceutical sector has helped expand access to treatment and promoted earlier detection of chronic diseases;</p> <p>Initiation from public sector has stimulated product-development partnerships</p>
Public Regulation	<p><i>Agenda and Priority Setting</i> Non-Profit Scientific Research Organizations;</p> <p>International Monitoring and Standardizing Bodies</p>	<p>Poor Performance: Influence public regulation through industry funded non-profit organizations and monitoring bodies Create industry front groups supporting industry-friendly science, sometimes commissioning and publishing fraudulent research;</p> <p>Divert public health agenda by influencing key actor priorities;</p> <p>Attempt to generate self-regulation to reduce pressure or substitute for public regulation;</p> <p>Public recognition of issue by private actors can increase potential for public regulation</p>

¹ For brevity, in this article the term *chronic disease* refers to these four chronic, noncommunicable diseases, based on the usage by the Oxford Health Alliance (www.oxha.org) and the recent identification of Grand Challenges in chronic disease control (Daar et al., 2007).) This simple taxonomic division between infectious and chronic diseases, originally institutionalized by the World Health Organization (WHO) as types 1 and 2 burden of disease categories has become increasingly problematic for epidemiologists and policy-makers. Diseases can be acute or chronic and infectious (communicable) or noninfectious (noncommunicable), with considerable overlap among these categories (for a comprehensive discussion on medical problems associated with developing a disease taxonomy, see Nolte and McKee, 2008). An epidemiologic justification for focusing on the four leading chronic diseases is that more than four-fifths of all deaths and two-fifths of all disabilities due to chronic noncommunicable diseases are derived from them. Although other important chronic noncommunicable diseases, such as neuropsychiatric disorders and sensory organ diseases, have high morbidity rates, they have comparably lower mortality rates. Another pragmatic policy motivation for concentrating on this subset of chronic noncommunicable diseases pertains to their similar set of determinants: of the many chronic noncommunicable diseases, these four in particular are related to three modifiable risks: (1) tobacco use, (2) alcohol consumption, and (3) unhealthy diet and physical inactivity. Although this does not mean that the other chronic noncommunicable diseases are not important, if the risks of contracting the leading chronic diseases were lowered, the outcome of many of the high-burden, low-probability chronic noncommunicable diseases would be improved as well.

² Several definitions in the literature reflect partial aspects of the model introduced here. For a definition closer to ours: global health governance can be considered ‘the totality of collective regulations to deal with international and transnational interdependence problems in health (Bartsch and Kohlmorgen, 2005, in Hein, 2005). According to the World Bank and IMF, ‘Governance encompasses the state’s institutional arrangements, the processes for formulating policy, decision-making and implementation; information flows within government; and the overall relationship between citizens and government’ (World Bank, 1997; Woods, 2000). Promoting ‘good governance’ has typically involved superimposing a set of values on this system: accountability, efficiency, fairness, transparency, participation and ownership (See IMF and WB definitions of ‘good governance’ (Woods, 1999; World Bank, 1997). However, we argue that these values typically refer to the relationship between the forward and reverse arrows and often for how these relationships vary across actors. For example, lack of transparency leads to a lack of observability in inputs and outputs, and possibly inefficient exchange; lack of participation leads to a smaller forward arrow than might be socially optimal; lack of ownership can lead to smaller reverse arrows, etc. While these value-based criteria suggest a way of evaluating the process or *means of governance*, governance failures might exist even in the presence of success on these factors. They also face similar normative evaluation problems: what is the optimal level of transparency? What is fair? To whom should actors’ be held accountable? Thus, we stress a focus on the *ends of governance*.

³ Although health policy analysis sometimes considers political feasibility, the emphasis is overwhelmingly on the ‘outputs’ rather than ‘inputs’, or the policy content rather than what determines whether a certain disease is prioritized. A possible explanation is that policy inputs (access/selection) are much harder to observe than policy outputs (content/action).

⁴ Two distinct issues must be disentangled here: governance ‘effectiveness and ineffectiveness’, or properties of the inputs and outputs themselves, and governance ‘success and failure’ which is a property of the exchange between inputs and outputs. For example, let us suppose all actors have an unrealistic perception of the burden of disease, so the aggregate priority level p assigned to the disease is lower in magnitude than p^* , or the level that would be socially optimal. Such a case relates solely to the inputs and could be constructed as a ‘political economy failure’. But let us similarly pose a level of output o that perfectly matches the socially desired level p . In this case, the governance system is behaving properly (like a market clearing supply and demand). Alternatively, let us suppose there is a lack of coordination in response to the disease burden, so the effect output is $o - c$, or the output minus a loss due to coordination failure. This can be conceived of as a ‘policy failure’. These two issues, political economy and policy problems, are distinct from the problems associated with the exchange between priority and action, inputs and outputs.

⁵ This has led some advocates to argue that ‘any shift in attention from communicable diseases toward [chronic disease] ailments... would work to the detriment of the poor...[and] the shift’s primary beneficiaries would be the rich, who would therefore gain at the expense of the poor’ (see Gwatkin, 2000).

⁶ Social epidemiologists have also provided empirical evidence that macroeconomic policies promoted by IFIs, such as market integration, foreign direct investment and economic growth, are linked to increasing CDs (Hawkes, 2006; 2007; Stuckler, 2008)

⁷ A third, driven by public regulation, is not considered here

⁸ Recent studies have also identified significant interactions between the control of infectious diseases and of chronic diseases and their associated risk factors (e.g., TB, MDR-TB, and diabetes; Bashar et al., 2001; Stevenson et al., 2007), AIDS and TB incidence and tobacco (Bates et al., 2007; Furber et al., 2007), and stunting and obesity (Popkin et al., 1996), which further emphasize the need for a more coordinated approach to infectious and chronic disease interventions.