The double burden of neoliberalism?
Noncommunicable disease policies and the global political economy of risk

Abstract

The growing prevalence of NCDs in low- and middle-income countries (LMICs) is now recognized as one of the major global health policy issues of the early 21st century. Current official approaches reflect ambivalence about how health policy should approach the social determinants of health identified by the WHO Commission on the topic that released its report in 2008, and in particular the role of macro-scale economic and social processes. Authoritative framing of options for NCD prevention in advance of the September, 2011 UN high-level meeting on NCDs arguably relied on a selective reading of the scientific (including social scientific) evidence, and foregrounded a limited number of risk factors defined in terms of individual behaviour: tobacco use, unhealthy diet, alcohol (ab)use and physical inactivity. The effect was to reproduce at a transnational level the individualization of responsibility for health that characterizes most health promotion initiatives in high-income countries, ignoring both the limited control that many people have over their exposure to these risk factors and the contribution of macro-scale processes like trade liberalization and the marketing activities of transnational corporations to the global burden of NCDs. An alternative perspective focuses on "the inequitable distribution of power, money, and resources" described by the WHO Commission, and the ways in which policies that address those inequities can avoid unintentional incorporation of neoliberal constructions of risk and responsibility.

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Introduction and background

The United Nations High-Level Meeting on Non-communicable Diseases (NCDs; subsequently the NCD Summit) in September, 2011 took place a decade after the first such meeting in the history of the UN, which addressed the AIDS epidemic and took place in 2000. The NCD Summit was a milestone in a long period of activity by public health researchers and policy-makers. It provided new visibility to a category of diseases that, taken together, account for more than three out of every five deaths worldwide; roughly four out of five of those deaths from NCDs occur in low- or middle-income countries (World Health Organization, 2010). Thus, among its other accomplishments the Summit foregrounded the rapidly rising incidence of NCDs in low- and middle-income countries as an unwelcome form of convergence that blurs the spatial lines between 'core' and 'periphery,' like many of the economic processes associated with globalization (*cf*. Robinson, 2002). Indeed, globalization of certain patterns of development leading to rapid dietary transitions can be seen as a key driver of that convergence (Popkin, Adair, & Ng, 2012; Popkin, 2014), although the issue received limited attention at the Summit. NCDs do not take the place of communicable diseases like HIV/AIDS, tuberculosis, and malaria; rather, the two categories combine to produce what is often referred to in the literature as a double or even multiple[1] burden of disease.

The main output of the NCD Summit itself was a negotiated Political Declaration, passed by the General Assembly three days *before* the start of the Summit (United Nations General Assembly, 2011). Like many such documents generated on the basis of a *de facto* unanimity rule, the Declaration was long on generalities and ringing statements of principle but notably short on specific targets and commitments. Responding to a near-final draft of the Declaration in advance of the Summit the NCD Alliance, a global network founded in 2009 by four international professional organizations concerned with NCDs,[2] stated that the Declaration "[fell] short in several key areas," including the absence of time-bound targets for NCD reduction, weak language on restricting the availability and use of alcohol, and lack of concrete commitments to increase funding for dealing with NCDs (Noncommunicable Disease Alliance, 2011).

These perceived shortcomings were partly addressed by a subsequent initiative led by the World Health Organization (WHO) that generated, in November 2012, a proposed set of indicators of progress and a set of targets for prevention and control of NCDs (World Health Organization, 2013a). The most fundamental of these was the objective of a 25 percent reduction in premature mortality from NCDs by 2025. These indicators and targets were endorsed by a resolution of the 2013 World Health Assembly, the decision-making body of WHO member states. They are voluntary and non-binding; indeed, it is difficult to envision a mechanism that would give such indicators and targets the force of treaty commitments or their equivalents in international law. Nevertheless, the

[1] Multiple, because in many countries injury rates, in particular from road traffic accidents, are rising in parallel with the incidence of NCDs, exhibiting a pronounced socioeconomic gradient.
[2] The International Diabetes Federation, World Heart Federation, Union for International Cancer Control, and the International Union against Tuberculosis and Lung Disease.

head of one of the constituent organizations of the NCD Alliance described the targets in glowing terms, as signaling "major progress in the fight against diabetes and noncommunicable diseases" (Keeling, 2013). They have now been incorporated into WHO's most recent Action Plan for preventing and controlling NCDs (World Health Organization, 2013b), and into the outcome resolution of a 2014 follow-up meeting of the General Assembly (United Nations General Assembly, 2014).

We focus here, first of all, on the antecedents and subsequent manifestations of the Summit's emphasis on four major groups of NCDs - cancer, cardiovascular diseases, chronic obstructive pulmonary disease (COPD) and diabetes - and on four major risk factors identified as the major contributors to rising NCD incidence: tobacco use, unhealthy diet, physical inactivity and the harmful use of alcohol. This algorithm reflected the content of an earlier WHO Action Plan (World Health Organization, 2008) on NCDs, which was invoked both in the General Assembly resolution establishing the Summit and in the Political Declaration; it was also used to organize WHO's 2010 status report on NCDs (World Health Organization, 2010) and the "about NCDs" section of the web site WHO offered as part of preparations for the Summit.[3] The 2008 Action Plan, in turn, referenced an NCD strategy document and resolution on NCDs adopted by the World Health Assembly in 2000 (World Health Organization, 2000). With the addition of alcohol abuse to the list of behaviours and one omission, which we address later, a remarkable consistency exists among the 2000 document's statement that the NCDs in question "are linked by common preventable risk factors related to lifestyle," i.e. tobacco use, unhealthy diet and physical inactivity; WHO's 2010 Status Report assertion that "NCDs *are caused, to a large extent*, by four behavioural risk factors that are pervasive aspects of economic transition, rapid urbanization and 21st-century lifestyles: tobacco use, unhealthy diet, insufficient physical activity and the harmful use of alcohol" (World Health Organization, 2010, p. vii, emphasis added); and the statement in a United Nations report issued as background to the conference that NCDs "*are largely caused by* four shared behavioural risk factors" (United Nations Secretary-General, 2011, p. 1, emphasis added). As one might expect, the focus on these risk factors carries over to the November 2012 indicators and targets, which are intended to guide national NCD policies and strategies. Our focus is on this consistency and its policy implications, rather than on the Political Declaration considered in isolation.

Given the relative lack of attention to NCDs in global health policy and in the health policies of many low- and middle-income countries (LMICs), it is difficult to critique any effort to foreground prevention and treatment, lest the critique be seen as questioning their importance. That is not our intention here. We begin from the proposition that identification of behavioural risk factors as 'causes' is neither scientifically complete nor self-evident. Rather, the focus and language of the Declaration, antecedent documents and subsequent policy initiatives reproduce a "biomedical individualism" (Baum, Bégin, Houweling, & Taylor, 2009, p. 1968-9) that provides an incomplete picture of the influences on health and illness, and one that is fundamentally at odds with the focus on structural or "upstream" factors (Marmot, 2000) articulated by the WHO Commission on Social Determinants of Health. That Commission's report focused on how "a toxic combination of poor social policies and programmes, unfair economic arrangements, and bad politics" leads to inequitable distribution of opportunities to lead a healthy life, within and across national borders

[3] See http://www.who.int/nmh/events/un_ncd_summit2011/en/index.html (last accessed August 12, 2014).

(Commission on Social Determinants of Health, 2008, p. 1). Biomedical individualism dominates the perspective of at least one post-Summit assessment of how the targets in question are to be achieved (Bonita et al., 2013). As in the high-income world, a focus on risk factors in LMICs may divert attention from the political economy of NCDs - specifically, the contribution of transnational corporations and trade and investment agreements to rising incidence rates. Some aspects of that neglect were commented upon in the lead-up to the NCD Summit; others remain unexplored and require further investigation, as does the broader process of issue definition and agenda-setting both pre-and post-Summit.

That process, in our view, often reflects the more general, and unreflective, incorporation into health promotion strategies of assumptions grounded in neoliberal rationality. Among other things, such a rationality presumes and promotes the cultivation of self-governing subjects who take an entrepreneurial approach to the management of their health. Such an approach frames the body as a site of investment, with the investment taking the form of such practices as improving one's diet, avoiding tobacco and excessive alcohol consumption, and engaging in regular, physical activity (Glasgow, 2005; Glasgow, 2012). That rationality is the first of our foci in this paper. The second is a related set of research questions having to do with how the international agenda for NCD policy has been set, and how authoritative knowledge about NCD etiology and causation is socially produced.

Risk, responsibility, and neoliberalization

WHO's 2008 Action Plan on NCDs acknowledged that "health gains can be achieved *much more readily* by influencing public policies in sectors like trade, taxation, education, agriculture, urban development, food and pharmaceutical production than by making changes in health policy alone" and that: "Throughout the life course, inequities in access to protection, exposure to risk, and access to care *are the cause of* major inequalities in the occurrence and outcome of non-communicable diseases" (World Health Organization, 2008, p. 13, emphasis added). This is quite a different view of causation from that cited in the preceding paragraphs, one that is closer to the WHO Commission's approach. Yet when the plan moved on to highlighting the major risk factors for NCDs, and promoting interventions to reduce the prevalence of that risk, a notable shift occurred away from social determinants of health and toward atomistic behaviouralism. This is an instance of lifestyle drift: "the tendency for policy to start off recognizing the need for action on upstream social determinants of health inequalities only to drift downstream to focus largely on individual lifestyle factors" (Popay, Whitehead, & Hunter, 2010, p. 148). The logic of such transitions is far from self-evident; they require explanation. Notable in this context is the Political Declaration's discussion of

> … the critical importance of reducing the level of exposure of individuals and populations to the common modifiable risk factors for non-communicable diseases, namely, tobacco use, unhealthy diet, physical inactivity, and the harmful use of alcohol, and their determinants, while at the same time strengthening the capacity of individuals and populations to *make healthier choices* and follow lifestyle patterns that foster good health (United Nations General Assembly, 2011, ¶35, emphasis added).

The language of choice is noteworthy, and we return to it later in the article. The indicators and targets adopted in 2013 relate to behavioural risk factors (harmful use of alcohol, insufficient

physical activity, sodium intake, tobacco use), biological indicators (high blood pressure, diabetes, overweight, obesity) as well as availability of medicine (including drug therapy to prevent heart attack and strokes). Under desired "national systems responses" are included references to reducing the impact on children (but not adults) of marketing ultra-processed foods, and to policies to limit saturated fatty acids and partially hydrogenated vegetable oils in the food supply, but these are notable exceptions. Apart from those related to tobacco use, targets related to cancer are limited, and targets related to cancer prevention (as distinct from expanded access to screening) are entirely absent. This arguably reflects a special treatment of tobacco-related risks and health outcomes that has been characterized as "tobacco exceptionalism" (Collin, 2012) – another theme to which we return later.

In the context of health inequalities, the policy thrust of the Summit (and, to a lesser extent, the current WHO NCD Action Plan) instantiates what Bambra (2011, p. 16-17) has called the cultural-behavioural approach to health policy, which focuses on socioeconomic differences in specific risky behaviours, sometimes although not always conceding that such differences "are themselves a consequence of disadvantage" but rarely looking at structural influences or the cumulation of disadvantage across multiple dimensions of life and work.[4] Four elements stand out here.

First, the focus on risk factors is scientifically incomplete as an explanation of socioeconomically patterned health disparities, in particular. For example, analyses of data from both the Whitehall and Whitehall II cohorts of British civil servants found that major risk factors and health behaviours accounted for only a portion of observed socioeconomic gradients in health (Brunner et al., 1997; van Rossum, Shipley, van de Mheen, Grobbee, & Marmot, 2000). This suggests the importance of socioeconomic position above and beyond its contribution to differences in health-related behaviour, operating through a different mechanism. So, too, does accumulating evidence about the biological effects of economic insecurity and other sources of chronic stress (e.g. Geronimus, Hicken, Keene, & Bound, 2006; Lundberg, 2008; Offer, Pechey, & Ulijaszek, eds., 2012). A more recent analysis of Whitehall II data, which included health behaviours at multiple points in time rather than only at the start of the study, found that they explained a larger proportion (72%) of the socioeconomic gradient in mortality (Stringhini et al., 2010). However, mortality is a relatively crude measure of health status. More seriously, health behaviours may reflect differences in opportunity structures: "A law school graduate from a wealthy family who has a gym on the top floor of his condominium block is more likely to succeed in losing weight if he tries than is a teenage mother who grew up and continues to live and work odd jobs in a poor neighbourhood with limited access to healthy food and exercise opportunities" (Schmidt, Voigt, & Wikler, 2010, p. e3(2)).

Relatedly, findings about health behaviours in a relatively homogeneous population like the Whitehall cohort may have limited applicability to populations that are far more diverse in terms of their material situations and range of exposures. Thus, even before we move outside the high

[4] A *reductio ad absurdum* is provided by sociologist William Cockerham's (2007) attempt to explain the mortality crisis in post-Soviet Russia, as the economy imploded and social protection and health systems collapsed, with reference to the working class as "the major social carrier of a particularly unhealthy male lifestyle in Russia" (p. 468), involving high rates of smoking and alcohol consumption. Health crisis is explained by the failure of economic reforms to create a Western-style "stable and resourceful middle class [that] has served as a powerful social carrier of a positive health lifestyle capable of penetrating the boundaries of other classes" (p. 469; citations omitted).

income countries, a full account of the role of health behaviours in explaining health disparities in London (where the Whitehall cohorts worked) would require a cohort that included contract building cleaners, low-wage fast food workers and City banking executives as well as civil servants. Full examination of the relevant bodies of evidence is far beyond the scope of this paper, but it is clear that the dogmatic focus on NCDs as "caused by" a limited number of behaviourally defined risk factors reflects what Shrader-Frechette & McCoy (1993, p. 84) describe as "methodological value judgments," if not a selective view of the relevant bodies of research. Defining the boundary between methodological value judgments and scientific incompleteness, for example with respect to excluding evidence from certain research designs, is an important area for future investigation; like many other aspects of the politics of NCD science, this is likely long to remain contested terrain.

Second, evidence from LMICs highlights the impact that sociocultural processes have on mediating health behaviours—and the politics of knowledge that inform these processes. In their recent review of empirical studies on chronic disease in LMIC populations, de-Graft Aikins, Pitchforth, Allotey, Ogedegbe, & Agyemang (2012) found that "given the health systems deficiencies in chronic disease care in LMICs, pragmatic, cost-effective and sustainable interventions are required and these must prioritise the social determinants of NCDs as well as the social participation of affected communities" (p. 551). Most particularly, they emphasize the critical role of the lay perspective in shaping understandings of and interventions for NCDs in LMICs, noting that the dichotomization of knowledge within public health has often decontextualized and de-valued that perspective: "There is a tendency within global public health to view health and illness beliefs in the western context (usually denoting high-income countries of Europe and North America) as rational and health and illness beliefs in non-western cultures (most LMICs) as faulty and irrational, particularly among the uneducated rural poor. This perception influences the development of education and related interventions" (de-Graft Aikins et al., 2012, p. 554; on this point, see also Confortini & Krong, 2015). These interventions are not universally successful in changing health behaviours, though, leading the authors to conclude that there are limitations to exclusively valorizing biomedical knowledge and the means by which it is disseminated. Rather, they posit that sites of lay practice such as schools, the mass media, and workplace and community groups are important for framing risk, prevention, and intervention strategies. These findings echo those of van de Vijver, Oti, Addo, de Graft-Aikins, & Agyemang (2012), whose study of community-based CVD interventions also finds limitations in this dichotomization of knowledge. Thus, while there is a recognition among public health scholars that social determinants of disease and the social networks that frame knowledge and lay perceptions of NCDs in LMICs are important, many actual policies and practices have yet to reflect this understanding.

Third, the message is less about population-level approaches to minimizing risk than about individualizing that process; in key sections of the Declaration individuals are foregrounded, with families, communities, and the population framed as ancillary entities. The message is one of promotion, choice, and specifically *empowerment.* Thus, the first actionable item for reducing risk listed in the Political Declaration: the development of policies to enhance "health-promoting environments that empower individuals, families and communities to *make healthy choices* and lead healthy lives" (United Nations General Assembly, 2011, ¶43(a)), emphasis added). Here as elsewhere in health promotion, the concept of empowerment can elide differences in circumstances of life and work, arising from elements of social structure, that mean some people have far fewer opportunities to lead healthy lives, and far less ability to make "healthy choices," than others. The

simple unaffordability of healthy diets for poor people, including many of the working poor, in high-income countries is an important case in point (Williams et al., 2012; Ashton, Middleton, & Lang, 2014; Jones, Conklin, Suhrcke, & Monsivais, 2014).

Causation and responsibility remain contested terrain, as they should, and there have been and continue to be dissenting voices, even within the mainstream of public health practice and health policy research. Critical epidemiologists like Nancy Krieger (1994; 2008) have for more than two decades noted systematic neglect of the social production of disease. Rockhill (2001) warned about the pervasiveness of "risk privatization" in modern epidemiology, emphasizing the need to distinguish statistical associations of risk factors with disease at the population level from "the implication that responsible individuals who avoid such risk factors will prevent their own case of disease" and that "the equating of risk factors with the causes of individual cases fosters an indifference to the social determinants of risk factor distributions" (p. 367). Importantly, the preface to an issue of *Global Heart*, the official journal of the World Heart Federation, specifically addressed the promise of the NCD Summit while emphasizing that the

> … challenges are much farther upstream and multisectoral than other health challenges; what presents as a health issue has its origins in a variety of determinants …. In addition, language including 'lifestyle' and 'diseases of affluence' continues to mask the reality that CVD and other NCDs are causing greater devastation in low income settings and that *most people have little control over* the determinants including food supply, access to safe physical activity and protection from tobacco (Smith & Ralston, 2011, p. 125, emphasis added).

A multidisciplinary study of the rise in overweight and obesity in the United States commented that: "The causes of the obesity epidemic are multifactorial, having much more to do with the absence of sidewalks and the limited availability of healthy and affordable foods than a lack of personal responsibility" (Institute of Medicine, 2012, summarizing Glickman, Parker, Sim, Cook, & Miller, eds., 2012) – an observation about responsibility that surely carries even greater weight in many LMIC contexts.

Few authors, though, have explicitly acknowledged the congruence of a focus on risk factors defined at the individual level with neoliberal conceptions of responsibility (but *cf*. Schrecker, 2013). This is the *fourth* element that deserves attention. Neoliberalism constitutes at the same time a policy and program, a distinctive set of state institutions, and an ideological project (Ward & England, 2007). It is this last aspect that is relevant here, and the work of two legal scholars (Fudge & Cossman, 2002) is crucial. For them, a core element of the ideological project, which has consequences for policies and institutions, involves "individualization":

> … the process whereby a broad range of social issues is being reconstituted, both with respect to causes and solutions, in highly individualized terms. Health care and poverty are treated as individual shortcomings, products of poor individual choices, to be remedied by emphasizing individual responsibility. …. Social and structural analyses are displaced in favour of individual solutions to individual problems valorizing individual choice and markets (p. 21-22; citations omitted).

Individual responsibility, in fact, emerges as a dominant theme in what many authors have identified as a distinctively neoliberal reconceptualization of citizenship, in which individuals strategize as

rational economic actors who maximize their opportunities in labour, product and property markets (see e.g. Schild, 2000; Clarke, 2005; Lister, 2011). Importantly, the 1996 US legislation that ended a decades-old guarantee of (minimal) federal financial assistance to poor households with children, forcing large numbers of women onto the low-wage labour market (Dodson, 2007; Seccombe, 2009), was styled the *Personal Responsibility and Work Opportunity Reconciliation Act*. In the health policy research world, the question of the extent of individual responsibility for health is considered serious enough to be the topic of journal articles (e.g. Schmidt, 2009; Offeret al., eds., 2012; Brown, 2013) and, in July 2013, a funded symposium at the prestigious Brocher Foundation.[5] In political life, some actors appear to have resolved the question, at least for public consumption. On the issue of choice Tony Blair, then Britain's prime minister, opined in 2006 that many public health problems were "not, strictly speaking, public health problems at all. They are questions of individual lifestyle - obesity, smoking, alcohol abuse, diabetes, sexually transmitted disease … These are not epidemics in the epidemiological sense - they are the result of millions of individual decisions, at millions of points in time" (Blair calls, 2006).

It is essential to be clear: our position is *not* that the international NCD policy agenda – itself a problematic concept, as we note in our concluding section - has been directly shaped by perspectives like Blair's that assimilate the ideological project of neoliberalization. Rather, we are concerned that the unreflective adoption of an individualized or risk factor oriented approach to NCD prevention and control may fit destructively with broader currents of neoliberal ideology and serve to reinforce or legitimize them, as in the high-income world superimposing on the socioeconomic gradient in (ill) health an additional burden of ascribed responsibility that weighs most heavily on those who have least control over their conditions of life and work. This is the double burden referred to in the article's title. Neither do we impute motives to those who participated in developing that agenda in the pre-Summit process, or in the subsequent initiatives. So far, the perspectives articulated by the dissenting voices to which we referred earlier appear to have had limited influence on the outcomes of that process, but we are simply interested in why that was the case as a topic for future research.

For future investigation: The social production of scientific knowledge

Sir Michael Marmot, who chaired the Commission on Social Determinants of Health, has been candid about the nature of resistance to its emphasis on structural influences. Following the World Conference on Social Determinants of Health, which took place the month after the NCD Summit, he wrote: "The word on the street was that there were objections to the Commission's strong emphasis on inequities in power, money and resources. Trying to convince poor people to eat vegetables is one thing, acceptable and safe; attacking the inequity in power, money and resources," which was one of the three overarching themes of the Commission's report, "is altogether less safe" (Marmot, 2011).

[5] See http://www.brocher.ch/fr/events/preventing-obesity-personal-responsibility-social-responsibility-moving-beyond-polarization-in-policy-discourse-and-practice-to-ensure-equitable-access-to-effective-health-care/.

In the context of NCD policy, at least as long ago as 2004 it was argued that similarities existed between the tobacco and food industries in terms of their role in epidemics of (respectively) tobacco-related disease and obesity (Chopra & Darnton-Hill, 2004)—the latter a risk factor for cardiovascular disease and diabetes, two of the four NCDs that were identified as a primary focus in background documents for the Summit. A recent journalistic exposé of how the sugar industry in the United States resisted regulation and tried to undermine public health interventions (Taubes & Couzens, 2012) underscores the relevance of the comparison with tobacco industry strategies, and an especially strong post-Summit paper on "profits and pandemics" argues that the alcohol and "ultra-processed" food and drink industries are responsible for an "industrial epidemic" of NCDs: "In industrial epidemics, the vectors of spread are not biological agents, but transnational corporations. Unlike infectious disease epidemics, however, these corporate disease vectors implement sophisticated campaigns to undermine public health interventions" (Moodie et al., 2013, p. 671). Further, a substantial body of research identifies trade liberalization and reduced restrictions on foreign investment, key elements of the legal infrastructure for neoliberal globalization, in the diffusion of ultra-processed foods and the domination of food systems and dietary choices by transnational supermarket and fast-food chains (Hawkes, 2005; Hawkes, 2007; Hawkes, Chopra, & Friel, 2009; Thow et al., 2014).

As one illustration, consider how a trade publication described a fast food marketing strategy: "McDonald's arrived in Chile targeting the segment of children, but over time, the customer base has expanded from not just children to also their parents, as well as young people. This strategy has allowed this brand to claim an important part of the category, and it has established itself amongst consumers of fast food" (Euromonitor, 2011)—and Chile is one of the emerging economies in which McDonald's commercial successes have been relatively modest. Worldwide, the number of McDonald's outlets increased more than sevenfold between 1987 and 2002 (Malik, Willett, & Hu, 2013). Another diet-related example is the dramatic increase in exports of high-fructose corn syrup (HFCS) from the United States to Mexico, one of the world's largest *per capita* consumers of sugar-sweetened drinks, after trade restrictions under the North American Free Trade Agreement (NAFTA). HFCS appears to be distinctively implicated in raising the prevalence of diabetes, and is economically important in the United States as an outlet for surplus corn production (Goran, Ulijaszek, & Ventura, 2013).

In the lead up to the Summit concern was expressed that transnational corporate actors and those working on their behalf, including the food processing and alcohol industries as well as pharmaceutical firms concerned about proposals to expand access to essential medicines, were shaping the negotiating positions of high-income countries in pre-conference drafting sessions where the real diplomatic action took place (Stuckler, Basu, & McKee, 2011; Cohen, 2011). Notably, the tobacco industry was excluded from participation; the Political Declaration explicitly "[r]ecognize[d] the fundamental conflict of interest between the tobacco industry and public health" (United Nations General Assembly, 2011, ¶36) However, this reflects a distinctive approach both in national policy and in the global governance of health that has been referred to as "tobacco exceptionalism" (Collin, 2012; Smith, 2013a, p. 103-105) rather than a broader rejection of the legitimacy of corporate involvement in public health policy.[6] "Civil society" participation included

[6] The Framework Convention on Tobacco Control (FCTC) reflects this approach, requiring the exclusion of the tobacco industry from public health policy. This is "very different from policy making

such transnationals as PepsiCo, Anheuser Busch InBev, and Molson Coors Brewing as well as pharmaceutical and medical device manufacturers. These corporate activities may or may not have played a role in the decision to include in the Political Declaration a paragraph that called upon the private sector to participate voluntarily in reducing NCD prevalence. Suggested directions included reducing marketing of unhealthy products (especially to children), promoting food products that are part of a healthy diet, and "creating an enabling environment" for healthy workplace behaviours (United Nations General Assembly, 2011, ¶44(c)). This position is congruent with one segment of the expanding literature on global governance for health, which holds that business can play an important and constructive role because of, and not in spite of, its command of financial resources and fidelity to the profit motive (Hancock, Kingo, & Raynaud, 2011). Conversely, it can be argued that accepting transnational corporations as citizens, or at any rate as stakeholders meriting 'a seat at the table' neglects a point made decades ago by Andrew Hacker: trying to understand contemporary public policy without taking corporate power into account is "like Frankenstein with the monster left out" (Hacker, 1973, p. 173).

Like the preoccupation with a limited number of risk factors, the plausibility of corporate social responsibility, at least in the NCD context, is contested. The director of the United Nations Development Programme said in her Summit speech that: "Unhealthy diets, limited physical activity, tobacco use, and excessive alcohol consumption … do not represent behavioural choices made in a vacuum. They are influenced variously by practices passed on through generations, poverty, social pressure, and professional marketing …" (Clark, 2011). In her June 2013 address to the Global Conference on Health Promotion, WHO Director-General Margaret Chan addressed issues of political economy and the role of industry, listing a range of corporate tactics and warning of "a failure of political will to take on big business." She continued:

> I am deeply concerned by two recent trends.
>
> The first relates to trade agreements. Governments introducing measures to protect the health of their citizens are being taken to court, and challenged in litigation. This is dangerous.
>
> The second is efforts by industry to shape the public health policies and strategies that affect their products. When industry is involved in policy-making, rest assured that the most effective control measures will be downplayed or left out entirely. This, too, is well documented, and dangerous (Chan, 2013).

The outcome document from the 2014 General Assembly followup meeting noted that "limited progress" had been made in implementing the relevant 2011 paragraph on private sector participation (United Nations General Assembly, 2014). Further research will be valuable in providing more detail on corporate influence on NCD policy; describing how that influence plays out both in

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in most areas of public health. The FCTC implicitly sought to constrain transnational tobacco corporations at a time when WHO committed itself to much closer engagement with public health. Whereas tobacco companies are typically viewed as having interests that fundamentally conflict with public health … other industries with substantial global health impacts (notably food and alcohol) are commonly viewed as appropriate partners in the development and delivery of health policy" (Collin, 2012, p. 274; citations omitted).

the context of national efforts to advance the 2025 targets and in international fora; and identifying challenges to corporate legitimacy in areas other than tobacco control.[7]

Such research may also shed light on a mysterious disappearance. The 2000 WHA Resolution (53.17, reproduced in World Health Organization, 2008) on NCDs referred to environmental carcinogens as a risk factor along with tobacco use, alcohol abuse, unhealthy diet and physical inactivity. Interestingly, that reference was not made in the accompanying strategy document, nor has it reappeared since then, despite (for example) a report from the U.S. President's Cancer Panel (2010) finding that "the true burden of environmentally induced cancer has been grossly underestimated," and accumulating evidence on the role of endocrine disrupting agents as carcinogens (Soto & Sonnenschein, 2010). A research question of special importance is therefore: why has cancer prevention, with the exception of tobacco-induced cancers, receded into the NCD policy background despite cancer's growing prominence as a health care challenge in LMICs (Knaul, Anderson, Bradley, & Kerr, 2010; Franceschi & Wild, 2013)? Numerous firms and industry associations have for decades aggressively played down the carcinogenic effects of industrial production and consumer products (Davis, 2007), so it is at least a plausible hypothesis that corporate influence has shaped, or rather constrained, cancer policy at the international level.

Corporate power is a blunt and often effective instrument and may have constrained efforts to widen the frame of reference for NCD policy, but it cannot in our view plausibly explain the ascendance over more than a decade of individualistic, behaviourally oriented understandings of NCD etiology and opportunities for NCD prevention among a variety of more or less authoritative scientific and political institutions. A more complex set of influences is at work. It should no longer be contentious to observe that scientific knowledge, including knowledge about NCDs, is socially produced and that the context of knowledge production has its own distinctive political economy, incentive structures, and relations to host institutions like hospitals and universities,[8] funding agencies and (in the case of global health) a variety of multilateral organizations. The interesting questions, as Lock, Young, & Cambrosio (2000, p. 8) point out, relate to "*how* that same scientific knowledge is (re)produced." In this vein, key research questions specific to NCD policy include: what intra-organizational routines and inter-organizational processes and intra-organizational routines led to the foregrounding of a particular set of perspectives and preferred strategies at the level of the UN system? Why does WHO, after a cross-reference to the work of the Commission on Social Determinants of Health in the 2008 Action Plan, appear to have approached NCD Summit preparations with no reference that body of work and little effort to achieve coherence between the content of the Summit agenda and that of the World Conference on Social Determinants of Health, which took place the following month? That disjuncture has persisted: a 2015 training manual on Health in All Policies (World Health Organization, 2015) repeats the assertion that NCDs "are caused to a large extent by four behavioural risk factors" (p. 21) while conceding that "[i]ndividuals are unlikely to be able to directly control many of the determinants of health" such as income and social

[7] One such challenge occurred in 2013, when the United Kingdom's Faculty of Public Health (a professional organization that is part of the UK's Royal Colleges of Physicians) ended its participation in a government effort, the Public Health Responsibility Deal, to encourage self-regulation by the food and drinks industries (Panjwani & Caraher, 2014).

[8] For a remarkable discussion of this point in the context of the emergence of environmental studies as an academic field, see (Livingstone & Mason, 1978), which unfortunately has not been reproduced for wider circulation so far as we know.

status, education, and the physical environment (p. 11). If these statements are not mutually exclusive, they certainly reflect a radical difference in emphasis. And perhaps most importantly, how will the tensions we have identified play out in national and subnational policies on NCDs?

Conclusion: Future uncertain, prevention as contested terrain

These are not rhetorical questions. Despite the recent upsurge of interest in global health diplomacy (see e.g. Kickbusch, Lister, Told, & Drager, 2013), the shaping of NCD policy in the global arena is seriously under-explored relative to, for example, comparable events as they involve HIV/AIDS (see e.g. Hein, Bartsch, & Kohlmorgen, eds., 2007). At the international level, NCD policy provides a first-rate case study of the increasing complexity of global health diplomacy, politics and governance, with non-state actors like the NCD Alliance and its constituent organizations playing a major role in agenda-setting and priority definition, along with the less visible presence of transnational corporations. The specifics of that complexity as it plays out in the NCD domain remain inadequately explored. Moreover, there is not really a single global NCD policy agenda; rather, NCD policies and politics will unfold in multiple jurisdictions as they respond to the challenges of rising NCD prevalence, often while dealing with far more severe resource constraints than those characterizing NCD policy in the high-income world. Policies targeting NCDs and the associated risk factors in LMICs are still relatively nascent; a recent study determined that less than half (47 percent) of LMICs had any established policies on NCDs, and of these, only a small minority proposed actions to address such areas as poor diet and physical activity (Lachat et al., 2013). Thus it will be interesting to explore (for example) how the views on NCD policy expressed by political and public health leaders in LMICs, where they have addressed the issue at all, compare and contrast with perspectives like those of Tony Blair (quoted earlier) and researchers and practitioners in the 'global North'?

A Brazilian example from well before the 2011 Summit illustrates the problem: a behaviourally oriented program to promote physical activity in São Paulo state was reported as "widely copied" and "as a model for other developing countries" (Matsudo et al., 2003), while automobile use increased rapidly and public transport remained inadequate and excessively costly (Alcantara de Vasconcellos, 2005), entrenching socioeconomic inequalities and creating an environment inimical to physical activity. This is not promising in terms of the "multisectoral approaches" that the 2011 Political Declaration (¶36) correctly identified as essential for effective prevention. A pessimistic view is that the pressures toward lifestyle drift and biomedical individualism that have affected public policy in the high-income world, even when governments have stated a commitment to reducing health inequalities (Smith, 2013a, p. 59; Baum & Fisher, 2014), will manifest themselves elsewhere. The sources of such pressures include institutional fragmentation within government of responsibilities relevant to social determinants of health (Smith, 2013b); the entrenchment of a medical model of health in the relevant agencies (Smith, 2013a, p. 119-125); and, we argue here, the congruence of behavioural approaches to prevention with the underlying assumptions of neoliberalism. None of these is distinctive to the high-income world, and the potential for diffusion of behavioural approaches and medical models by way of

professional networks, as in the case of the WHO training manual, and (in some low-income countries) donor priorities[9] merits further study.

On the other hand, as noted earlier the individualized perspective is contested in the core, and important signs of contestation can be found elsewhere. Mexico, with some of the world's highest obesity rates attributable in part to the "export of obesity" from the United States, facilitated by unilateral trade liberalization as well as WTO disciplines (Clark, Hawkes, Murphy, Hansen-Kuhn, & Wallinga, 2012), has implemented a national tax on sugary drinks despite intense opposition from the soft drinks industry (Boseley, 2014); initial reports are that it appears to be influencing consumption (Guthrie, 2014; Gallucci, 2015). India subsequently adopted similar measures (Bhaumik, 2014). Brazil has taken at least preliminary actions to counter transnational corporate influence on its food systems, although researchers in that country argue that more initiatives are needed (Monteiro & Cannon, 2012). A 2014 assessment of global cancer patterns did not explicitly reject the four risk factors approach, but did call for greater attention to occupational and environmental exposures in LMICs. It also emphasized that "[t]ackling of the worldwide NCDs epidemic will be impossible if prevention is limited to promotion of health behaviours at the individual level," but "prevention is hardly feasible in the absence of structural changes" (Vineis & Wild, 2014, p. 554). Recognition is growing that neoliberal globalization may be inimical to the prevention of NCDs in a variety of ways, ranging from corporate relocation of dangerous industrial operations to lightly regulated jurisdictions to the use of trade agreements to block tobacco control initiatives (Vineis & Wild, 2014; Ottersen et al., 2014). We hesitate to offer predictions, but conclude by reiterating the need for finer grained understandings than we now have both of corporate influence on NCD policy at various levels and of processes by which particular ascriptions of responsibility for NCDs, in both scientific (i.e. as "caused by four shared behavioural risk factors," in the words of a key NCD Summit background document cited earlier) and social/moral senses, are (re)produced.

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[9] This may primarily represent a concern for the future, as the value of development assistance for health that targets noncommunicable diseases, while growing, remains small relative to their contribution to the burden of disease (Dieleman et al., 2014).

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