

2010

Reaching for Environmental Health Justice: Canadian Experiences for a Comprehensive Research, Policy and Advocacy Agenda in Health Promotion

Jeffrey R. Masuda
University of Manitoba

Blake Poland
University of Toronto

Jamie Baxter
University of Western Ontario

Follow this and additional works at: <https://ir.lib.uwo.ca/geographypub>

 Part of the [Geography Commons](#)

Citation of this paper:

Masuda, Jeffrey R.; Poland, Blake; and Baxter, Jamie, "Reaching for Environmental Health Justice: Canadian Experiences for a Comprehensive Research, Policy and Advocacy Agenda in Health Promotion" (2010). *Geography Publications*. 273.
<https://ir.lib.uwo.ca/geographypub/273>

PERSPECTIVES

Reaching for environmental health justice: Canadian experiences for a comprehensive research, policy and advocacy agenda in health promotion

JEFFREY R. MASUDA^{1*}, BLAKE POLAND² and JAMIE BAXTER³

¹Department of Environment and Geography, University of Manitoba, Winnipeg, Canada, ²Dala Lana School of Public Health, University of Toronto, Ontario, Canada and ³Department of Geography, University of Western Ontario, Ontario, Canada

*Corresponding author. E-mail: jeff_masuda@umanitoba.ca or jeff.masuda@gmail.com

SUMMARY

Spatial disparities in environmental quality and practices are contributing to rising health inequalities worldwide. To date, the field of health promotion has not contributed as significantly as it might to a systematic analysis of the physical environment as a determinant of health nor to a critique of inequitable environmental governance practices responsible for social injustice—particularly in the Canadian context. In this paper, we explore ways in which health promotion and environmental justice perspectives can be combined into an integrated movement for environmental health justice in health promotion. Drawing on Canadian

experiences, we describe the historical contributions and limitations of each perspective in research, policy and particularly professional practice. We then demonstrate how recent environmental justice research in Canada is moving toward a deeper and multi-level analysis of environmental health inequalities, a development that we believe can inform a comprehensive research, policy and advocacy agenda in health promotion toward environmental health justice as a fundamental determinant of health. Lastly, we propose four key considerations for health promotion professionals to consider in advancing this movement.

Key words: environmental justice; Canada; environmental health promotion

INTRODUCTION

Human-produced environmental risks result from both exposures to hazards and limitations on access to environmental opportunities. Globally, myriad human impacts on the environment have become an international crisis and are said to be responsible for up to one-quarter of the global burden of disease (Smith *et al.*, 1999). The distribution of this disease burden, as well as broader threats to wellbeing, is almost invariably skewed as a consequence of structural inequalities that discriminate against society's most socially and economically disadvantaged

populations (Pellow, 2000; Taylor, 2000; Corburn, 2005; Cutter, 2006). The World Health Organization now considers environmental hazards one of the defining issues for public health in the 21st century and a significant threat to achieving 'Health For All' and the Millennium Development Goals (Chan, 2007). The UNDP recently declared that climate change alone has the potential to undo 20+ years of poverty reduction work in the global South (UNDP, 2008). Given the considerable evidence of the population health impacts of socio-economic inequality (Wilkinson, 1996; Wilkinson and Marmot, 2003; WHO Commission on Social

Determinants of Health, 2008), it is clear that climate change is and should be a key health promotion concern. Yet, the lukewarm political leadership of richer nations at the 2009 United Nations Climate (COP15) Conference in Copenhagen, particularly juxtaposed with the significant citizen mobilization in support of strong government action on climate change, highlights the disparity between global environmental concerns and the willingness of governments to act collectively to address their disproportionate impacts on the poorer nations and populations of the world. To close this gap between persistent inaction and growing global environmental health inequalities, we must find pathways for a more systemic response within health promotion research, policy advocacy and community action than presently exists (see Howze *et al.*, 2004; Schulz and Northridge, 2004; Hancock, 2007). In this paper, we present a critical assessment of health promotion's contribution and as-yet largely unfulfilled potential within the environmental arena, arguing for a more concerted synergy between health promotion and the global movement known as environmental justice. More specifically, we suggest a collective movement toward the promotion of *environmental health justice* as a future priority for systemic public health action on environmental health inequalities on a variety of spatial scales.

PARALLEL UNIVERSES? HEALTH PROMOTION AND ENVIRONMENTAL JUSTICE

It is clearly recognized in both health promotion and environmental justice literatures that marginalized populations face a double burden: inequality resulting from stratified *social* environments lead to non-random variability in the quality of *physical* environments, and vice-versa (Bullard, 2005; Hancock, 2007; Poland, 2007). Yet, even with the increasing prevalence and severity of such inequalities and their health impacts, health promotion has been slow to adequately scrutinize the key role of the environment as a mediating factor of the social determinants of health (Cole *et al.*, 1999; Hancock, 2007), nor theorization that explicitly bridges health promotion and environmental justice.

We are not the first to call for a shift toward a more explicit focus on the environment and

equity in health promotion (see Kickbusch, 1989; Cole *et al.*, 1999; Hancock, 2007 for example). Cole *et al.* see potential in building on core values of ecological integrity and equity as the basis for health promotion action (Cole *et al.*, 1999). However, most analyses, to date, have not yet addressed the distinctive differences in values between adherents of environmental justice and that of mainstream environmentalism. Indeed, proponents of environmental justice are critical of the many ways in which the voices of the oppressed are absent or marginalized within most environmental discourses (Gosine and Teelucksingh, 2008; Agyeman *et al.*, 2009). We believe that health promotion can and should draw on the rich history of scholarship and activism of environmental justice. This could have the double benefit of linking not only common theoretical and value-based approaches to social justice and equity, but also helping to move past several limitations within each perspective. For example, many environmental justice researchers in recent years have focused largely on quantifiable hazard distributions (e.g. air pollution) as the basis for characterizing environmental injustice [see (Jerrett *et al.*, 2001, 2005; Buzzelli and Jerrett, 2004; Maantay, 2007) for a forthright account of the limitations of these approaches]. While such evidence is important in 'proving' what is already intuitively known by those who live near toxic facilities or busy roadways, it is limiting in two important ways. First, the focus on distributional evidence is akin to what health promotion refers to as 'downstream' health determinants, which may obscure the historically constituted structural inequalities which have led to their formation (and continuation despite remedial community action). Second, a heavy reliance on evidence narrowly defined as a small subset of variables in the physical environment obscures a larger picture of the full range of environmental impacts on people's lives. Accordingly, efforts to ascertain the full breadth and consequences of environmental impacts can be expanded from narrowly defined and reductionist illness-based models to more broadly based 'upstream' socio-ecological health promotion approaches that define health expansively and that privilege people's lived experiences of injustice.

On the other hand, health promotion has not always paid sufficient attention to the environment in its application of the social determinants

of health, with the majority of government-funded initiatives favouring instead more programmatic strategies focused on risk behaviours aimed at specific disease categories. Yet, as the WHO Commission on the Social Determinants of Health has recently affirmed, the *settings* approach within health promotion that connects healthy people to healthy places is an essential ingredient for reducing health inequities (WHO, 2008). While the Healthy Cities Movement has captured this tradition in the context of recognizing the importance of urban ecosystems on health (Tsouros and Green, 2009), the field as a whole has been slow to move beyond treating settings (workplaces, schools, etc.) as venues for delivering health promotion programming to 'captive audiences' to instead addressing the healthfulness of settings themselves (a signature characteristic of a true settings approach) (Poland *et al.*, 2000, 2009; Dooris *et al.*, 2007). We submit that a health promotion movement can usefully learn from the historic accomplishments of the grassroots-driven environmental justice movement over the past quarter century. Here, the successes in environmental justice in mobilizing communities to address environmental inequalities (Weinberg, 1998; Bullard, 2005) is more in tune with the socio-ecological, community-based tradition of health promotion and offers the potential for coordinated global political action on environmental determinants of health inequality.

To achieve theoretical and practical integration, we argue that there needs to be a (re)acknowledgement of the need to work in solidarity with geographically, ethnically and socially based communities who are already pursuing environmental justice goals within their respective jurisdictions. In the pursuit of justice, we need to develop coordinated global priorities that aim to redress ongoing legacies of environmental discrimination and to promote in environmental governance more equitable participation and recognition of those groups who have been relegated to society's margins. To make our case for this paradigm shift, we draw on our own experiences as social scientists closely attuned to Canadian environmental problems as well as knowledge gained from working within health promotion research and policy development over the past several years. [Though we are not arguing that the Canadian experience is typical, anchoring our discussion in empirical examples helps illustrate and

ground more general principles and points that we believe are still highly relevant and transferable to other jurisdictions and issues.] Following our analysis, we present key considerations with which health promoters can move toward advancing an environmental health justice approach.

THE FAILURE OF INSTITUTIONAL HEALTH PROMOTION TO ADDRESS ENVIRONMENTAL HEALTH INEQUALITIES (IN CANADA)

Since the earliest articulation of health promotion (Lalonde, 1974), the physical environment has figured prominently in the new ways of thinking about the non-medical determinants of health (Lalonde, 1974) and the global Health-for-All movement (WHO, 1978). The Ottawa Charter for Health Promotion (WHO, 1986) defined a socio-ecological approach as the basis for an approach to health promotion that is committed to 'the inextricable links between people and their environment' (p. 2) with the primary purpose of achieving equity in health. Similarly, the WHO's Sundsvall Statement on Supportive Environments for Health (WHO, 1991) made clear early on that reaching Health-for-All was contingent on continued action in the face of growing environmental degradation, especially in the most socioeconomically marginalized places of the world.

Yet Canada's institutional response within health promotion, as embodied in the academic foci of many (but not all) health promotion scholars and operationalized in many (but again not all) governmental health promotion practices, has never reflected a sustained emphasis on environmental determinants of health, environmental policy development, or community goals of environmental health justice. [To put some recent context to this observation, we noted at the 2007 International Union of Health Promotion and Education meeting in Vancouver, Canada, that few of the nearly 2500 presentations focused on topics relating to environmental determinants of health, let alone environmental inequity.] Looking back on the past three decades, as attention to environmental problems and their health impacts increased in the late 1980s and 90s, the potential for health promotion to weigh in on these debates was consistently undermined by its prioritization (in practice, if not in rhetoric) of

individualist, lifestyle approaches within the neoliberal context of deficit reduction and health reform. In Canada, for example, rather than expand health promotion into new territory, governments at all levels redirected finances and policy priorities away from (an expanded Ottawa Charter-style) health promotion in order to address perceived acute care shortages (waitlists, bed closures) while simultaneously absolving the state of responsibility for meeting the health needs of society's most vulnerable populations (Canadian Public Health Association, 1996; Poland, 2007). In so doing, mainstream government-sponsored health promotion policies and programs have avoided pressing environmental issues, leaving many groups unsupported in their efforts to coalesce against the significant and disproportionate health impacts of environmental inequalities on our nation's most vulnerable populations (Masuda et al., 2008).

While health promotion policies in Canada have continued to be insufficiently attentive to environmental inequalities, some health promoters working with communities across the country have nonetheless been mobilizing as knowledge increases of the persistent hazards that mediate environment, socioeconomic inequality and health (Potvin and Hayes, 2007; see Chaudhuri, 1998 for an example of the nationally recognized environmental health promotion work of the South Riverdale Community Health Centre). Unfortunately, many of these initiatives have gone undocumented and insufficiently profiled in education and practice circles where the argument for sustained attention to environmental health injustice remains only partially and sporadically articulated, particularly among Canadian researchers and practitioners.

CONCEPTUALIZING ENVIRONMENTAL HEALTH JUSTICE

The environmental justice movement has made significant progress since its birth in the collective acts of civil disobedience against a landfill for polychlorinated biphenyls (PCBs) in the predominantly African-American community of Warren County, North Carolina (Weinberg, 1998; Bullard, 2005). Environmental justice is now both a global movement that includes collaborations among researchers,

non-governmental organizations, public health professionals, legal advocates and community leaders as well as a theoretical paradigm that links environmental research to debates around rights, human dignity and social equity (Taylor, 2000; Scandrett, 2007). While much of the early focus of environmental justice research was on the distributional *outcomes* of hazardous facility siting in minority and low-income communities, the focus has also broadened to include a deeper and multi-level structural analysis of the social, economic and political *processes* involved in the production of environmental health injustices, both in relation to hazards exposure and to limitations on access to environmental opportunities (Pellow, 2000; Lambert et al., 2006). In turn, the increase in scrutiny of inequities that vulnerable populations face in environmental decision-making has drawn attention to a more fundamental question of *recognitional* environmental injustice (Schlosberg, 2004). Recent work in this area highlights the subversive ways that epistemology operates within the currently technoscientific and deliberative nature of environmental procedures to render invisible the traditional expertise, values and identities of First Nations and other non-western peoples (Haluz-Delay, 2007; Agyman et al., 2009).

Here we provide some specific contours for what an environmental health justice orientation in health promotion might look like. As in the USA and elsewhere, Canadian environmental justice analyses are beginning to throw light on socio-historically fault lines that have structured environmental inequalities on the basis of ethnoracial marginalization, class exclusion and (neo)colonialism (Teelucksingh, 2002; Eichler and Burke, 2006; Haluz-Delay, 2007). Among these, we can discern three distinct ways in which an environmental health justice approach in health promotion might be articulated.

First, environmental health justice can focus on dismantling what we might call *functional discrimination*—that is, the notion that environmental inequalities produced as a result of policy and planning gaps are actually seen to be in the best interest of non-marginalized populations, the so-called public interest. For example, Teelucksingh (Teelucksingh, 2002) has used environmental justice as a critical lens to trace how the formation of neighbourhood inequalities in the city of Toronto has been a function of a discriminatory pattern of urban

development. Her study demonstrates how people's daily struggles among the urban minority and immigrant underclass are not so much a sign of dysfunction in the community, but are rather symptomatic of hegemonic power structures in Toronto that function for the interests of more privileged social groups. The functional discrimination perspective illuminates how the urban vision in places like Toronto views inner cities as requiring strategies for the containment of poverty, violence and racialized people. Yet, as recent research shows, in the face of this portrait of the derelict inner city is always a strong community and history of resilience and social activism directed toward the improvement of neighbourhood health (Masuda and Crabtree, *In Press*). We submit that such activism could benefit from a structural shift in health promotion research and action that channels some of this energy toward addressing the systemic determinants of environmental inequality that might be found within public and private sector institutions responsible for 'governing' the well-being of urban populations.

Second, an environmental health justice approach can focus not only on 'harms' but also on *barriers to amenities*. In a landmark Canadian study, Cruikshank and Bouchier (Cruikshank and Bouchier, 2004) examined the historical development of the city of Hamilton, Ontario, a post-industrial city on the southern shore of Lake Ontario with a legacy of working class immigration, socioeconomic marginalization and environmental degradation in its highly industrialized north end. Their research focuses on how the development of spatial inequalities in environmental quality imposed on north end communities must be seen not only in terms of exposure to hazards, but also in terms of limited access to environmental amenities, including public beaches and clean water. They point to the ways in which Hamilton's post World War II development used zoning policies as a kind of politics of containment that contributed to the 'blighting' of the city's original working class north-end neighbourhoods in the name of growth and modernization of the more privileged parts of the city. Yet, even in the face of continuing environmental pollution and neighbourhood degradation, Hamilton's north end community also supports a strong level of environmental justice activism that seeks to re-affirm the right of north end residents to the same quality of

living conditions as enjoyed in other parts of the city (see www.environmenthamilton.org).

Third, an environmental health justice approach can *mobilize community knowledge*. While often excluded from environmental decision-making, community-based expertise has proven to be immensely helpful in improving the political (and yes even the scientific) legitimacy of conventional environmental knowledge rooted in the ecological sciences. For example, Lambert *et al.* (Lambert and Lane 2004; Lambert *et al.*, 2006) have worked with communities in Sydney, Nova Scotia that have been burdened by the toxic legacy of 80 years of coke and steel production which deposited over 700 tonnes of coal tar into the surrounding environment. Their research has shown how community participation in the research process was instrumental in constructing scientifically rigorous *and* socially relevant knowledge that helped to legitimate community environmental justice efforts to consider a more extensive tar pond remediation than was originally considered by officials. An environmental health justice approach would therefore seek to level the playing field in terms of whose knowledge 'counts' in policy decisions that affect disenfranchised communities. And yet, as the Hamilton North End example also illustrates, the Sydney case simultaneously highlights the exceptional efforts of residents and a handful of researchers to generate relevant and actionable knowledge; and also a lack of appropriate knowledge generation from those in traditional positions of power in a system prone to denial of harm.

Community struggles in Canadian cities such as Hamilton, Toronto, and Sydney illustrate how environmental health justice can challenge the historical reproduction of places which relegate socio-economically disadvantaged groups to the margins, exposing them to hazards and depriving them of access to health promoting amenities enjoyed by others. All three studies illustrate how working with more inclusive definitions of environment, health and place can be instrumental in identifying the uneven power relations embedded in institutional policies and practices that reproduce and legitimate social and spatial inequities in environmental health. Further, the authors of these studies also point to a strong sense of community pride and attachment to place that is rooted in history, culture and hope. Herein lies the focal point for a concerted movement toward environmental health justice in

health promotion, one that is focused on supporting marginalized groups in their struggles against systemic exclusion and discrimination in economic and environmental policies that have functioned against their best interests.

FOUR KEY CONSIDERATIONS FOR AN ENVIRONMENTAL HEALTH JUSTICE MOVEMENT

We propose a definition of *environmental health justice* as a three-fold process for enabling groups to reorient economic, health and environmental systems in ways that redress past and present discrimination and ensure that there is: (1) equity at all jurisdictional levels in the distribution of environmental hazards and amenities; (2) access to information and meaningful participation in decisions that influence the optimal conditions for health and wellbeing; and (3) recognition of and respect for the diversity of people and their experiences in communities traditionally marginalized from mainstream environmental discourse (see Schlosberg, 2004; Center for Environmental Policy and Law, 2003, for complementary definitions). Our definition builds upon the socio-ecological approach in health promotion that recognizes how action on our social environments (improving community resilience, reforming democratic institutions, promoting cultural autonomy) not only increases capacity to ensure environmental risks and opportunities are distributed more equitably, but ultimately better positions us to reduce our overall impacts on the physical environments that constitute the settings of our lives (neighbourhood quality, food security, ecosystem sustainability). In this last section, we offer considerations for how we operationalize such a definition in our approach to health promotion.

Consideration 1: identify entry points for community perspectives in environmental governance structures

The first step toward environmental health justice is to carry forward health promotion's successes in broadening the determinants of health into new policy terrain. In Canada, finding support for health promotion intervention in environmental matters is complicated by disconnections between health, economic and environmental jurisdictions at all levels and by

the absence of clear commitment to equity principles in current environmental policy [see, for example, the keystone *Canadian Environmental Protection Act* (Government of Canada, 1999)]. For communities such as Sydney, Nova Scotia, this has meant a perpetual and perplexing avoidance of accountability by industries and governments and long delays in site remediation (Lambert and Lane, 2004). Likewise, in environmental impact assessment legislation, now the foundation for regulating environmental development worldwide, it is most often the interests of citizens with sufficient social and economic capital that can influence the inevitably complex, technical and protracted public consultative processes that are required by provincial and federal legislation, leaving less-resourced communities at the margins of planning, visioning and decision-making (Palerm, 2000). For residents of Hamilton, Ontario, the exclusion of low-income residents from decision-making processes may account for much of the ongoing failure to abate the downwind impacts of air pollution as well as the continuing allocation of new hazardous facilities (including waste incinerators and biodiesel facilities) in the city's north end.

We submit that a more meaningful commitment to healthy public policy within the environmental arena would ensure that disadvantaged groups have the capacity and resources to engage effectively in environmental policy decisions. There is also a need to encourage politicians and regulators to consider the full range of implications of management decisions on the wellbeing of impacted communities by broadening the metric for the evaluation of environmental activities beyond one-off environmental impact assessments and narrowly defined physical health measures in regulation. We need to learn how to measure not only what is breathed and ingested, but also what is *experienced* in people's everyday environments and monitor the impacts of policy implementation and practice with these things in mind. A more comprehensive approach to environmental policy would address neighbourhood aesthetics and safety, recreational opportunities, safe and affordable housing, and other contributors to community health and quality of life that often fall outside of the officially defined scope of public health departments. In seeking justice, we must also recognize that what constitutes a 'healthy' neighbourhood differs from place to

place, and that imposing mainstream (i.e. middle class) environmental values onto others can serve to displace *in situ* communities through processes such as gentrification. Recent advances in health impact assessments, now common in Europe and increasingly the USA, show promise in improving environmental governance by including broader determinants of health inequities in policy decisions beyond the health sector (Scott Samuel, 1998; Banken, 1999; Lock, 2000; Douglas and Scott Samuel, 2001; Kemm, 2001; Cole and Fielding, 2007). However, to date, such models are in their infancy and efforts to increase buy-in to health promotion principles may be required before such models could be incorporated into environmental policy here (Frankish *et al.*, 1996; Eyles, 1999; McCaig, 2005). In the meantime, further research on determining the range of environmental impacts on communities is needed, particularly with an explicit purpose of legitimating community-based knowledge and concerns and ensuring those are well represented within existing (and new) governance processes.

Consideration 2: commit to a multi-scalar social and environmental analysis

A second consideration for an environmental health justice approach is to interrogate political and economic systems at all levels. It has been widely argued that there has been too much emphasis in North America, on the local, the individual and particular when it comes to health promotion efforts in the environment (Hancock, 1994). We believe that action at all levels, from individual to societal, is important to ensure that pressing environmental problems are addressed, as well as the root causes of environmental health inequality are uncovered. Recent work in the USA has highlighted the many connections between micro, meso and macro levels in the analysis of social inequalities and environmental health. The framework proposed by Schulz and Northridge (Schulz and Northridge, 2004) highlights the web of connections in the production of health inequalities, including individual (e.g. cancer rates), proximate (e.g. local environmental conditions), intermediate (e.g. transportation systems, land use policy) and fundamental levels (e.g. institutionalized discrimination or silences in legal codes and political orders).

It should also be noted that interventions by communities working alone can have unexpected consequences in other jurisdictions and across scales—a hazard that is successfully blocked in one jurisdiction often ends up in a (more) disadvantaged community down the road (Baxter *et al.*, 1999). Specific problems are interconnected to whole ecosystems. For example, one community's fight against the siting of a natural gas fired electrical generating plant in relatively wealthy GTA suburban Town of Oakville, for example, has been argued not as opposition to power generation (among residents with above-average levels of consumption) or opposition to the province's plan to phase out coal-fired power plants, but rather on the basis that the facility should be sited elsewhere where, it is suggested, the jobs might be (more) welcomed and the potential health impacts less extensive or problematic in an area with an airshed already heavily taxed by extensive (private) motor vehicle traffic (Reinhart, 2009). As such examples demonstrate, communities often focus on resolving singular environmental problems without considering the broader social and political forces that connect to the local level (Lieberman and Hager, 2004). While taking local action is often worthwhile for those affected, such efforts when considered at the inter-local, regional or global levels may result in nothing more than a redistribution of environmental burdens rather than their reduction or elimination.

Consideration 3: apply community-based participatory research to empower and connect communities

One of the most effective ways that health promoters have integrated research with social action is through community-based participatory research (CBPR). CBPR is a philosophy of inquiry whose central function is in transforming societal power structures *vis-à-vis* the democratization of knowledge creation and the promotion of emancipatory action leading to social change (Themba and Minkler, 2003; Wallerstein and Duran, 2006). Indeed, CBPR has become the approach of choice among researchers working in solidarity with communities on issues of environmental health injustice. It is an effective method of building community capacity with respect to the complex legal and policy environments in which these struggles are fought

(Minkler *et al.*, 2008). And it has been championed by a number of respected authors within the environmental justice movement (e.g. Corburn, 2005; Agyeman *et al.*, 2009). We nevertheless note that ideally CBPR should not have to be reactive to fill voids left by unresponsive industry and/or government agencies as was the case, for example, with the Woburn contamination of local wells (Brown, 1997).

In addition to its traditional emphasis on community-specific issues, it is possible that CBPR can support multiple communities, even at great distances from each other, in mobilizing together against political power and systems of expertise that are unapproachable and undermining of their individual and collective efforts. Also, proponents of CBPR seek to expose and circumvent underlying structures of oppression/marginalization *through* the research process itself. Through broader research-based partnerships, communities can learn to expose power inequities embedded within economic, labour market, environmental and social policies that prioritize capital accumulation at the expense of the wellbeing of society's most disadvantaged populations (Baum, 1988; Israel *et al.*, 2005). Such research can also reveal the institutional contexts of environmental governance where priority-setting, resource allocation, eligibility criteria, decision-making processes and accountability mechanisms favour those with affluence and influence and exclude those lacking in resources and displaced from their homes as a consequence of hazards or gentrification. Ultimately, research that acknowledges the voices of the community can help expose and overcome the individual and interpersonal manifestations of racism, classism and sexism that are all too often left unscrutinized in relations between dominant and marginalized groups.

Consideration 4: build interdisciplinary partnerships for 'healthy and just settings'

Health promoters are uniquely positioned as knowledge brokers within community-research partnerships. Achieving environmental health justice requires the integration of knowledge and methodological insight and leveraging of resources to address the multifaceted dimensions of environmental governance, including the politics surrounding divergent ideologies and values as well as the often-equivocal nature of scientific knowledge. Accordingly, researchers cannot

depend upon partnerships with communities alone to advocate for change, especially those that are already socioeconomically marginalized and excluded from environmental decision-making and broader policy influence (Geronimus, 2000).

Rather, health promoters can influence and solicit allegiances with other disciplines and bodies of knowledge by attending environmentally focused conferences, taking out memberships in mainstream and specialist environmental associations, and engaging in informal conversations at city hall or on university campuses with professionals working in the areas of environmental sciences, management and health. A particularly innovative way that common ground can be found is through the well-described but underutilized 'settings' approach to health promotion (Poland *et al.*, 2000; Dooris, 2005). A settings approach takes an ecological, whole system orientation to emphasize the connections between health and place as a vantage point for disparate sectors to work together toward common goals in community settings (Dooris, 2005; for discussion on varied epistemological approaches to health and place, see Macintyre *et al.*, 2002; Cummins *et al.*, 2007). Professionals across disciplines can be persuaded to see how their own work fits within an agenda focused on promoting healthy places (e.g. schools, neighbourhoods, cities) and therefore help to 'sell' the non-medical determinants of health to their own constituencies (Hancock, 1992, 1994; Frankish *et al.*, 1996; Stokols, 1996; Cole and Fielding, 2007; Poland *et al.*, 2009). There have been numerous successes in Canada and elsewhere of healthy settings approaches at various levels, from schools (Dooris *et al.*, 2007; Lee *et al.*, 2007) to communities (Harcourt, 2006) and entire cities (Hancock, 1992; O'Neill, 2006; Becker *et al.*, 2007) that may be viewed as key points of departure for an explicit agenda for environmental health justice within health promotion.

CONCLUSION

While there have been many examples of communities across Canada advocating for local environmental justice, the overall trend in this country is one of increasing prevalence and severity of environmental hazards, compounding social vulnerabilities, further marginalizing communities and exacerbating overall health inequity. Seen from this vantage point, there is

a need to 'scale up' environmental health justice efforts from the many important but often-isolated local efforts taking place from within particular contexts. Here in Canada and in other nations where an environmental justice movement is emerging, it is imperative to find ways to connect local victories to a national and international movement that includes a commitment to transforming underlying societal structures (e.g. legal codes, macro-level policies), as well as institutional policies and practices, toward a more equitable and just society.

The integration of health promotion and environmental justice can produce powerful conceptual tools and strategies to ensure that all citizens share in the balance between responsible human development and environmental sustainability. There are already several good examples of health promotion practitioners working in community, governmental and advocacy sectors in Canada who have adopted environmental justice principles in programming and advocacy on a range of issues, including prenatal health, food security, outdoor air pollution and global climate change. Yet in so doing, these practitioners are working largely outside of the existing institutional boundaries and mandates of academic and governmental health promotion bodies. Careful foresight and involvement of more health promotion researchers is required to support these actors and help ensure that a robust socioecological approach is embraced that is focused on supporting and connecting community efforts to mobilize knowledge that can expose and overcome inequities that are still firmly entrenched within these sectors.

REFERENCES

- Agyeman, J., Cole, P., Haluza-DeLay, R. and O'Riley, P. (eds) (2009) *Speaking for Ourselves. Environmental Justice in Canada*. The University of British Columbia Press, Vancouver.
- Banken, R. (1999) From concept to practice: Including the social determinants of health in environmental assessments. *Canadian Journal of Public Health*, **90**, S27–S30.
- Baum, F. (1988) Community-based research for promoting the new public health. *Health Promotion International*, **3**, 259.
- Baxter, J., Eyles, J. and Elliott, S. (1999) When facility siting principles conflict: a case study of the roles of trust, equity, and community participation. *Journal of Environmental Planning and Management*, **42**, 501–525.
- Becker, D., Edmundo, K., Bonatto, D., Nunes, N. and Baptista, A. (2007) Network of healthy communities in Brazil—empowering for equity and social change in urban settings. *Tropical Medicine and International Health*, **12**, 50.
- Brown, P. (1997) Popular epidemiology revisited. *Current Sociology*, **45**, 137–156.
- Bullard, R. (2005) *The Quest for Environmental Justice: Human Rights and the Politics of Pollution*. Sierra Club Books, San Francisco.
- Buzzelli, M. and Jerrett, M. (2004) Race gradients of ambient air pollution exposure in Hamilton, Canada. *Environment & Planning A*, **36**, 1855–1876.
- Canadian Public Health Association. (1996) *Action Statement for Health Promotion in Canada*. Canadian Public Health Association, Ottawa.
- Center for Environmental Policy and Law. (2003) *Improving Environmental Justice in Central and Eastern Europe*. Central and Eastern European Workshop on Environmental Justice, Budapest.
- Chan, M. (2007) Climate change and health: preparing for unprecedented challenges. *The 2007 David E. Barmes Global Health Lecture*. World Health Organization, Bethesda, Maryland, USA.
- Chaudhuri, N. (1998) Child health, poverty and the environment: the Canadian context. *Canadian Journal of Public Health*, **89**, S26–S30.
- Cole, B. and Fielding, J. (2007) Health impact assessment: a tool to help policy makers understand health beyond health care. *Annual Review of Public Health*, **28**, 393–412.
- Cole, D. C., Eyles, J., Gibson, B. L. and Ross, N. (1999) Links between humans and ecosystems: the implications of framing for health promotion strategies. *Health Promotion International*, **14**, 1.
- Corburn, J. (2005) *Street Science: Community Knowledge and Environmental Health Justice*. MIT Press, Boston.
- Cruikshank, K. and Bouchier, N.B. (2004) Blighted areas and obnoxious industries: constructing environmental inequality on an industrial waterfront, Hamilton, Ontario, 1890–1960. *Environmental History*, **9**, 464–496.
- Cummins, S., Curtis, S., Diez-Roux, A. and Macintyre, S. (2007) Understanding and representing 'place' in health research: a relational approach. *Social Science and Medicine*, **65**, 1825–1838.
- Cutter, S. (2006) *Hazards, Vulnerability and Environmental Justice*. Sterling, Earthscan, London.
- Dooris, M. (2005) Healthy settings: challenges to generating evidence of effectiveness. *Health Promotion International*, **21**, 55–65.
- Dooris, M., Poland, B., Kolbe, L., de Leeuw, E., McCall, D. and Wharf-Higgins, J. (2007) Healthy settings: Building evidence for the effectiveness of whole systems health promotion—challenges and future directions. In McQueen, D. V. and Jones, C. M. (eds), *Global Perspectives on Health Promotion Effectiveness*, Springer, New York, pp. 327–352.
- Douglas, M. and Scott-Samuel, A. (2001) Addressing health inequalities in health impact assessment. *Journal of Epidemiology and Community Health*, **55**, 450–451.
- Eichler, M. and Burke, M. A. (2006) The BIAS FREE framework: a new analytical tool for global health research. *Canadian Journal of Public Health*, **97**, 63–68.
- Eyles, J.D. (1999) Health, environmental assessments and population health: Tools for a complex process. *Canadian Journal of Public Health*, **S1**, S31–S34.
- Frankish, C., Green, L., Ratner, P., Chomik, T. and Larsen, C. (1996) *Health Impact Assessment as a Tool*

- for *Population Health Promotion and Public Policy*. Public Health Agency of Canada, Ottawa.
- Geronimus, A. T. (2000) To mitigate, resist, or undo: addressing structural influences on the health of urban populations. *American Journal of Public Health*, **90**, 867–872.
- Gosine, A. and Teelucksingh, C. (2008) *Environmental Justice and Racism in Canada: An Introduction*. Emond Montgomery Publications, Toronto.
- Government of Canada. (1999) Canadian Environmental Protection Act. Health Canada and Environment Canada, Ottawa.
- Haluza-Delay, R. (2007) Environmental justice in Canada. *Local Environment*, **12**, 557–563.
- Hancock, T. (1992) *Promoting health environmentally*. Supportive Environments for Health. WHO European Region, Copenhagen.
- Hancock, T. (1994) Health promotion in Canada: Did we win the battle but lose the war?. In Pederson, A., O'Neill, M. and Rootman, I. (eds), *Health Promotion in Canada: Provincial, National, and International Perspectives*. Saunders, Toronto.
- Harcourt, M. (2006) From Restless Communities to Resilient Places: Building a Stronger Future for All Canadians. Final Report of the External Advisory Committee on Cities and Communities. Ottawa. 108 pp.
- Hancock, T. (2007) Creating environments for health—20 years on. *Promotion and Education*, (Suppl. 2), 7–8.
- Howze, E. H., Baldwin, G. T. and Kegler, M. C. (2004) Environmental health promotion: Bridging traditional environmental health and health promotion. *Health Education and Behavior*, **31**, 429–440.
- Israel, B. A., Eng, E., Shulz, A. J. and Parker, E. A. (eds) (2005) *Methods in Community-Based Participatory Research for Health*. Jossey-Bass, San Francisco.
- Jerrett, M., Burnett, R. T., Kanaroglou, P., Eyles, J., Finkelstein, N., Giovis, C. et al. (2001) A GIS-environmental justice analysis of particulate air pollution in Hamilton, Canada. *Environment and Planning A*, **33**, 955–973.
- Jerrett, M., Buzzelli, M., Burnett, R. T. and DeLuca, P. F. (2005) Particulate air pollution, social confounders, and mortality in small areas of an industrial city. *Social Science & Medicine*, **60**, 2845–2863.
- Kemm, J. (2001) Health impact assessment: a tool for healthy public policy. *Health Promotion International*, **16**, 79–85.
- Kickbusch, I. (1989) Approaches to an ecological base for public health. *Health Promotion*, **4**, 265–268.
- Lambert, T. W. and Lane, S. (2004) Lead, arsenic, and polycyclic aromatic hydrocarbons in soil and house dust in the communities surrounding the Sydney, Nova Scotia, Tar Ponds. *Environmental Health Perspectives*, **112**, 35–41.
- Lambert, T. W., Guyn, L. and Lane, S. E. (2006) Development of local knowledge of environmental contamination in Sydney, Nova Scotia: Environmental health practice from an environmental justice perspective. *Science of the Total Environment*, **368**, 471–484.
- Lalonde, M. (1974) *A New Perspective on the Health of Canadians: A Working Document*. Government of Canada, Ottawa.
- Lee, A., St Leger, L. and Cheng, F. F. K. (2007) The status of health-promoting schools in Hong Kong and implications for further development. *Health Promotion International*, **22**, 416–426.
- Lieberman, L. D. and Hager, B. (eds) (2004) Practice notes: Strategies in environmental health promotion. *Health Education and Behavior*, **31**, 417–428.
- Lock, K. (2000) Health impact assessment. *British Medical Journal*, **320**, 1395–1398.
- Maantay, J. (2007) Asthma and air pollution in the Bronx: Methodological and data considerations in using GIS for environmental justice and health research. *Health and Place*, **13**, 32–56.
- Macintyre, S., Ellaway, A. and Cummins, S. (2002) Place effects on health: How can we conceptualise, operationalise, and measure them? *Social Science and Medicine*, **55**, 125–139.
- Masuda, J. R. and Crabtree, A. (2010) Environmental justice in the therapeutic inner city. *Health and Place*, **16**, 656–665.
- Masuda, J. R., Zupancic, T., Poland, B. and Cole, D. C. (2008) Environmental health and vulnerable populations in Canada: mapping an integrated equity-focused research agenda. *Canadian Geographer*, **52**, 427–450.
- McCaig, K. (2005) Canadian insight: the challenges of an integrated environmental assessment framework. *Environmental Impact Assessment Review*, **25**, 737–746.
- Minkler, M., Vásquez, B. B., Tajik, M. and Peterson, D. (2008) Promoting environmental justice through community-based participatory research: the role of community and partnership capacity. *Health Education & Behavior*, **35**, 119–137.
- O'Neill, M. (2006) Choosing indicators to evaluate Healthy Cities projects: a political task? *Health Promotion International*, **21**, 145–152.
- Palerm, J. R. (2000) An empirical-theoretical framework for public participation in the Environmental Impact Assessment. *Journal of Environmental Planning and Management*, **43**, 581–600.
- Pellow, D. N. (2000) Environmental inequality formation: toward a theory of environmental injustice. *American Behavioral Scientist*, **43**, 581–601.
- Poland, B. (2007) Health promotion in Canada: perspectives and future prospects. *Revista Brasileira em Promoção da Saude (Brazilian Journal of Health Promotion)*, **20**, 3–11.
- Poland, B. D., Green, L. W. and Rootman, I. (2000) *Settings for Health Promotion: Linking Theory and Practice*. Sage, Thousand Oaks.
- Poland, B., Krupa, E. and McCall, D. (2009) Settings for health promotion: an analytic framework to guide intervention design and implementation. *Health Promotion Practice*, **10**, 505–516.
- Potvin, L. and Hayes, M.V. (2007) Place and health research in Canada. *Canadian Journal of Public Health*, **98**, S6–S7.
- Reinhart, A. (2009) Oakville's wealthy fight the power. *The Globe And Mail*, November 14, 2009, Toronto.
- Scandrett, E. (2007) Environmental justice in Scotland: policy, pedagogy and praxis. *Environmental Research Letters*, **2**, 1–7.
- Schlosberg, D. (2004) Reconceiving environmental justice: Global movements and political theories. *Environmental Politics*, **13**, 517–540.
- Schulz, A. and Northridge, M. E. (2004) Social determinants of health: implications for environmental health promotion. *Health Education and Behavior*, **31**, 455–471.

- Scott-Samuel, A. (1998) Health impact assessment—theory into practice. *Journal of Epidemiology and Community Health*, **52**, 704–705.
- Smith, K. R., Carlos, F., Corvalán, C. F. and Kjellström, T. (1999) How much global ill health is attributable to environmental factors? *Epidemiology*, **10**, 573–584.
- Stokols, D. (1996) Translating social ecological theory into guidelines for community health promotion. *American Journal of Health Promotion*, **10**, 282–298.
- Taylor, D. E. (2000) The rise of the environmental justice paradigm: Injustice framing and the social construction of environmental discourses. *American Behavioural Scientist*, **43**, 508–580.
- Teelucksingh, C. (2002) Spatiality and environmental justice in Parkdale (Toronto). *Ethnologies*, **24**, 119–141.
- Themba, M. N. and Minkler, M. (2003) Influencing policy through community based participatory research. In Minkler, M. and Wallerstein, N. (eds), *Community-Based Participatory Research for Health*, Chapter 17. Jossey-Bass, San Francisco, pp. 349–370.
- Tsouros, A. and Green, G. (2009) Health Promotion International: special supplement on European Healthy Cities. *Health Promotion International*, **24**(Suppl. 1), i1–i3.
- United Nations Development Programme (UNDP). (2008) *Fighting Climate Change: Human Solidarity in a Divided World*. Human Development Report 2007/2008. Palgrave Macmillan, New York.
- Wallerstein, N. B. and Duran, B. (2006) Using community-based participatory research to address health disparities. *Health Promotion Practice*, **7**, 312–323.
- Weinberg, A. S. (1998) The environmental justice debate: new agendas for a third generation of research. *Society and Natural Resources*, **11**, 605–614.
- WHO (World Health Organization). (1978) *Declaration of Alma-Ata*. International Conference on Primary Health Care, USSR, 6–12 September.
- WHO. (1986) *Ottawa Charter for Health Promotion*. First International Conference on Health Promotion, Ottawa.
- WHO. (1991) *Sundsvall Statement on Supportive Environments for Health*. Third International Conference on Health Promotion, Sundsvall.
- WHO. (2008) *Closing the gap in a generation: Health equity through action on the social determinants of health*. WHO Commission on the Social Determinants of Health, World Health Organization, Geneva.
- Wilkinson, R.G. (1996) *Unhealthy Societies: The Afflictions of Inequality*. Routledge, London, UK.
- Wilkinson, R. and Marmot, M. (eds) (2003) *Social Determinants of Health: The Solid Facts*. 2nd edition. WHO Regional Office for Europe, Copenhagen, Denmark.