Article

HEALTH EDUCATION & BEHAVIOR

Health Education & Behavior
2015, Vol. 42(1S) 46S–56S

DOI: 10.1177/1090198114568304
heb.sagepub.com
SAGE

New Approaches for Moving Upstream: How State and Local Health Departments Can Transform Practice to Reduce Health Inequalities

Nicholas Freudenberg, DrPH[1], Emily Franzosa, MPH[1], Janice Chisholm, MPH[1], and Kimberly Libman, PhD, MPH[1]

Abstract

Growing evidence shows that unequal distribution of wealth and power across race, class, and gender produces the differences in living conditions that are "upstream" drivers of health inequalities. Health educators and other public health professionals, however, still develop interventions that focus mainly on "downstream" behavioral risks. Three factors explain the difficulty in translating this knowledge into practice. First, in their allegiance to the status quo, powerful elites often resist upstream policies and programs that redistribute wealth and power. Second, public health practice is often grounded in dominant biomedical and behavioral paradigms, and health departments also face legal and political limits on expanding their scope of activities. Finally, the evidence for the impact of upstream interventions is limited, in part because methodologies for evaluating upstream interventions are less developed. To illustrate strategies to overcome these obstacles, we profile recent campaigns in the United States to enact living wages, prevent mortgage foreclosures, and reduce exposure to air pollution. We then examine how health educators working in state and local health departments can transform their practice to contribute to campaigns that reallocate the wealth and power that shape the living conditions that determine health and health inequalities. We also consider health educators' role in producing the evidence that can guide transformative expansion of upstream interventions to reduce health inequalities.

Keywords

health disparities, health policy, health promotion, social determinants, social inequalities

Growing evidence shows unequal distribution of wealth and power across race, class, and gender creates differences in living conditions that are "upstream" drivers of health inequalities (Braveman, Egerter, & Williams, 2011; Institute of Medicine, 2012; Marmot, Friel, Bell, Houweling, & Taylor, 2008; World Health Organization, 2008). However, despite this evidence on the role of employment, housing, education, and pollution on health inequalities (Galea, Tracy, Hoggatt, Dimaggio, & Karpati, 2011), health educators and other public health professionals still develop interventions that focus mainly on "downstream" behavioral risks (Braveman, Kumanyika, et al., 2011; Shankardass, Solar, Murphy, Greaves, & O'Campo, 2012).

Three factors explain the difficulty in translating this evidence into practice. First, in their self-interest and allegiance to the status quo, powerful elites often resist and block upstream policies and programs that redistribute wealth and power (Gilens & Page, 2014; Muntaner, Chung, Murphy, & Ng, 2012). Second, public health practice, especially in the state and local health departments that constitute the backbone of the U.S. public health enterprise, is often grounded in dominant biomedical and behavioral paradigms (Hofrichter & Bhatia, 2010). Health departments also face legal and political limits on their scope of activities, making behavioral approaches seem more feasible than structural ones. In addition, no systematic framework is available to assist health educators (our focus here) in finding their way upstream. Finally, while evidence of the impact of social conditions on health is growing, the evidence for the impact of interventions addressing those conditions is limited, in part because methodologies for evaluating upstream interventions are less developed (Blankenship, Friedman,

[1]City University of New York, NY, USA

Corresponding Author:
Nicholas Freudenberg, City University of New York, Silberman Building 2180 Third Avenue, New York, NY 10035, USA.
Email: nfreuden@hunter.cuny.edu

Table 1. Campaigns to Change Living Conditions in United States With Potential to Reduce Health Inequalities.

Campaign seeks to	Associated health and social conditions	Selected references on campaigns
Provide living wage	Poverty, access to health care, stress-related disorders	Luce (2005); Murray (2005)
Prevent mortgage foreclosure	Homelessness, access to health care, stress-related disorders	Groarke (2004); Libman, Fields, and Saegert (2012)
Reduce exposure to air pollution	Asthma, respiratory and cardiac diseases	Bullard (2005); Gibbs (2011); Minkler et al. (2008)
Limit targeted marketing of alcohol, tobacco, and unhealthy food	Obesity, diabetes, lung cancer, liver disease, and other chronic conditions	Freudenberg (2014); Herd (2010)
Improve school graduation rates	Lifetime health benefits of more education	Gonzalez (2012); Ruglis and Freudenberg (2010)
End mass incarceration	Poverty, discrimination, access to health care, substance use, mental health conditions	Alexander (2012); Cadora (2014)
Assure equal rights to immigrants	Access to health care, discrimination, stress-related disorders, social isolation	Nicholls (2013); Voss and Bloemraad (2011)
End discrimination against LGBQT people	Discrimination, stress-related disorders, social isolation, violence	D'Emilio, Turner, and Vaid (2000); Frank (2014)
Provide access to reproductive and sexual health services	Unintended pregnancy, sexually transmitted infections, reproductive health problems	Fried (2013); Nelson (2003)

Dworkin, & Mantell, 2006; Braveman, Egerter, et al., 2011; Lieberman, Golden, & Earp, 2013; O'Campo, 2012) and the pathways are complex, making it difficult to meet demands for evidence-based policy (Brownson, Fielding, & Maylahn, 2009). Nonetheless, this need not preclude action. As Braveman, Kumanyika, et al. (2011) noted to the President's Secretary's Advisory Committee on Healthy People 2020,

> Demonstrating that a given disparity is plausibly avoidable and can be reduced by policies [is sufficient evidence for action; researchers are not required to] definitively establish . . . either the causation of the disparity or prove . . . the effectiveness of existing interventions to reduce it. (p. S153)

In this article, we explore strategies for overcoming these three obstacles. Using McKinlay's (1998) metaphor, we define upstream interventions as those that seek to redistribute the wealth and power that are the most powerful influences on health. We label practice that contributes to such redistribution transformative in comparison to traditional practice that seeks to ameliorate the impact of this inequitable allocation of resources.

To illustrate this approach, we sketch profiles of three campaigns to modify living conditions associated with health inequalities—low wages, mortgage foreclosure, and exposure to air pollution. Campaigns are defined as advocacy initiatives in which one or more organizations mount targeted activities of variable duration designed to achieve explicit changes in the policies or practices that shape living conditions (Freudenberg, Bradley, & Serrano, 2009).

These profiles were drawn from a wider body of evidence on popular mobilizations that challenge the power of elites in driving policy decisions. We selected these three from a longer list shown in Table 1 based on the health impact of the problem; the existence of multiple local, geographically varied campaigns targeting the problem; and diverse documented evidence.

To focus our inquiry, we examine how health educators working in state and local health departments might contribute to these campaigns. We spotlight health educators because they already serve as ambassadors to their communities and practitioners from many sectors, and local and state health departments because, as Scutchfield and Howard (2011) note, they are the only entities that have statutory and fiduciary responsibility for the health of the communities they serve. Our goal is to identify areas where health educators can transform their practice to make redistributing the resources that shape health a primary goal. We also consider how health educators and researchers can expand the body of practice-based evidence on these campaigns and translate it into action that contributes to meaningful reductions in health inequalities.

We intend these accounts as a starting point toward constructing narratives linking campaign activities and health department participation to changes in the policies and decisions that have an impact on living conditions. More in-depth investigations beyond the scope of this article are also needed to demonstrate the pathways that connect such changes to improvements in health and reductions in health inequalities.

Profiles of Campaigns to Change Living Conditions

Based on academic, journalistic, and activist accounts, we developed sketches of three efforts to improve living conditions associated with health across the United States, summarized in Box 1. Our profiles illustrate the processes by which campaigns that include social movements and

Box 1. Selected Campaigns to Modify Social Determinants of Health.

Campaign objectives	Desired health outcomes	Supportive constituencies	Practice-based examples
Increase low wages	More resources for food, housing, health care, and education; fewer stress-related health problems	Low-wage workers and their families, labor unions, faith-based groups, civil rights groups, health professionals, some health departments, municipal governments	Los Angeles, Montgomery County (MD), San Francisco, Santa Fe, Washington. D.C., Seattle
Prevent mortgage foreclosures	Fewer physical and mental health problems related to housing instability or homelessness	Housing rights groups, community associations, health departments, faith-based groups, legal advocates, state attorneys general	Alameda County (CA), Minneapolis, Richmond (CA)
Prevent exposures to air pollution	Lower rates of asthma, respiratory and cardiovascular diseases, cancer, and other conditions	Families with asthma or other respiratory conditions, health professional groups, environmental justice organizations, faith-based groups	Los Angeles, Oakland (CA), New York City, San Diego

government take action to change the policies and processes that inequitably distribute unhealthy living conditions. The profiles describe efforts by partnerships of community activists, social movements, and government agencies to raise low wages, prevent mortgage foreclosure, and reduce toxic exposures. In each case, as we describe, health departments and health educators played some part, a starting point in our search for expanded roles.

Raise Low Wages

In 2013, 3.3 million U.S. workers—4.3% of the U.S. workforce—earned the federal minimum wage or less, a level that cannot support a family above the federal poverty line (Bureau of Labor Statistics, 2014). These wages have documented health effects, from higher prevalence of chronic disease to premature mortality (Dowd et al., 2011; Galea et al., 2011). Race, class, and gender discrimination in the U.S. labor market has led to a low-wage workforce disproportionately made up of women, people of color, and immigrants, widening wealth and health inequalities (Baron et al., 2014; Blank, Danziger, & Schoeni, 2008; Figart & Mutari, 2002). More troubling, the gap between this workforce and better off workers continues to widen (National Employment Law Project, 2013). Over the past 20 years, coalitions of labor, community, and faith groups have fought for local living wage regulations that enable low-wage populations to afford better housing, food, education, and other necessities that support health. These grassroots coalitions have taken on entrenched business interests and sought to expand democratic participation (Luce, 2005). In one early and successful example, activists in San Francisco achieved citywide living wages and companion health care legislation. The city's initial living wage proposal, introduced in 1998, drew on city resources, including a Department of Health impact assessment, to support the case for a higher wage (Bhatia & Katz, 2001). However, faced with strong business opposition and a reluctant mayor, the final bill covered only a limited number of workers (Bhatia & Corburn, 2011; Epstein, 2000). The San Francisco Living Wage Coalition—a network of labor and community groups—responded by bypassing City Hall politics to put the issue directly into the hands of voters, mobilizing community supporters to create a citywide Minimum Wage ballot initiative that voters overwhelmingly passed (Jacobs, 2009; Jacobs & Reich, 2014). The Coalition also pressured the city to create an Office of Labor Standards Enforcement, which generated needed revenue through fines for noncompliance (Luce, 2004). San Francisco's minimum compensation is now more than $13 per hour, and a new ballot proposal, negotiated by the Coalition for a Fair Economy and the current mayor, could raise the hourly wage to $15 by 2018. Coalitions across the Bay Area are now using similar tactics to address wages and other labor policies such as paid sick leave (J. Israel, 2014; Romney, 2014).

Coalitions using ballot measures in other cities have not been as successful. In New Orleans, a citywide living wage measure passed by a significant margin. But without any support from city administrators, strong business interests brought the issue before the State Supreme Court, where it was overturned (Murray, 2005). Regardless, these efforts and growing national concern over income inequality have spurred new organizing on behalf of low-wage workers (Feur, 2013; Greenhouse, 2013), and a host of wage hikes in cities and states across the country (DeBonis & Wilson, 2013). In the 2014 legislative session, 38 states introduced minimum wage laws and 12 plan to raise their minimum wage to over $9 in the next few years (National Conference of State Legislators, 2014). Recent reports show that the 13 states that passed minimum wage measures in the past year experience higher job growth than others (Luce, 2014; Rugaber, 2014). New legislation proposes to increase the federal minimum wage and index it to inflation (Rampell, 2013). In some cases, public health practitioners conducted health impact assessments and evaluation studies (Bhatia & Corburn, 2011; Cole et al.,

2005) to build support and inform voter opinion, supporting more democratic decision-making.

Prevent Mortgage Foreclosures

The 2008 economic crisis caused more than 4 million households and 10 million Americans to lose their homes to foreclosure (Stiglitz & Zandi, 2012). By 2013, almost one in five homeowners with mortgages owed more than their homes were worth, putting them at risk of foreclosure. Disparities in mortgage foreclosure parallel and contribute to disparities in health and wealth, especially between Black and White Americans (Saegert, Fields, & Libman, 2011). Mortgage foreclosures contribute to negative mental and physical health outcomes for homeowners and their families (Bennett, Scharoun-Lee, & Tucker-Seeley, 2009; Libman et al., 2012; Pollack & Lynch, 2009). Foreclosures may exacerbate health inequalities between communities of color, low- and moderate-wage workers, and female-headed households and higher-income and predominantly White populations (Nettleton, 2000; Pollack & Lynch, 2009). Contemporary racial disparities in foreclosure extend the history of government policy and financial industry practices that publicly promote yet functionally undermine Black homeownership (Immergluck, 2011; Wyly, Moos, Hammel, & Kabahizi, 2009).

Activists and government agencies at all levels have responded to the foreclosure crisis using a range of political framings and strategies. New York City's traditional framing focused on changing behaviors of individual homeowners rather than addressing the systemic issues that created the problem. In contrast, efforts in California focused on holding the financial industry accountable for fraudulent lending practices. The state's Attorney General negotiated a "California Commitment" as part of the national $25 billion settlement with five large banks accused of fraud, which guaranteed the state $12 billion in debt reduction, maintained the ability to further sue over damages to the state pension fund, and imposed penalties for noncompliance. In Alameda County, the Public Health Department partnered with the community-based organization Causa Justa::Just Cause to study individual and neighborhood health impacts of foreclosure, using the process to build community capacity and generate evidence for advocacy (Dewan, 2012; Phillips, Clark, & Lee, 2010).

In Richmond, California, a grassroots campaign led by labor unions and community groups supported a proposal enabling the city to seize mortgages in danger of foreclosure from banks and negotiate lower payments for homeowners based on their properties' current value (Harkinson, 2013). With broad community support, the Richmond CARES program overcame lenders' legal challenges and was passed by the city council, which also resolved to partner with other cities to act as a single entity in future court cases against lenders (KGO-TV, 2013). Groups in other cities, such as Seattle and Newark, are now considering similar tactics (Richmond CARES, n.d.). Finally, in an offshoot of Occupy Wall Street, Occupy Homes activists in Minneapolis and elsewhere mobilized to "liberate" bank-owned foreclosed houses for use by homeless families. The group asserts that housing is a human right, and views foreclosed properties as strategic points of vulnerability for financial institutions (Democracy Now!, 2011). These alternate, upstream framings allowed campaigns to leverage their communities' legal rights and powers, in some cases supported by credible evidence from local health departments (Phillips et al., 2010).

Reducing Exposure to Air Pollution

Air pollution contributes to asthma and other respiratory, cardiovascular, and other diseases (Bell, Zanobetti, & Dominici, 2013; Uzoigwe, Prum, Bresnahan, & Garelnabi, 2013). In 2002, at least 146 million people in the United States lived in areas that did not meet at least one U.S. Environmental Protection Agency air pollution standard (Kim, 2004). Exposure to air pollution is higher among low-income, Black, Latino, and Native American populations (Rhodes, 2003). In part because of their weaker political power, low-income communities are closer to polluting highways, power plants, and other facilities, setting the stage for environmental injustices (Bullard, 2005).

Across the country, citizens and community groups have fought to reduce exposure to air pollution. In a mostly Black community in New York City, for example, a grassroots environmental justice organization, WE ACT (Vásquez, Minkler, & Shepard, 2006; WE ACT for Environmental Justice, 2005) used community mobilization and civil disobedience. It ultimately prevailed in a lawsuit against the City's Department of Environmental Protection, winning a full environmental review of a new waste treatment facility and guarantees for corrective action, including $55 million in remediation. WE ACT also forced the city to purchase less polluting busses and distribute bus depots more equitably around the city (Vásquez et al., 2006).

In Oakland, San Diego, and other port cities, environmental activists and local health departments partnered to mobilize communities against the air pollution generated by ports to reduce high rates of asthma symptoms (Palaniappan, Prakash, & Bailey, 2006). Later, when new studies showed particulate pollution was exacerbating respiratory and heart conditions in Oakland, 15 Bay Area community, environmental, and public health organizations including the Alameda County Public Health Department formed the Ditching Dirty Diesel Collaborative to pressure the regional air quality management district to better monitor and regulate particulate matter(Garzon, Moore, Berry, & Matalon, 2011; Solomon, 2004). In these cases, local health departments were often key partners in gathering evidence on local exposure levels and the harms of air pollution, which was then leveraged by community activists to bring about policy change.

How a Transformative Approach Differs From Traditional Public Health Practice

In each of these profiles, activists, community-based organizations, and government officials joined to identify a threat that jeopardizes the well-being of millions of Americans and mobilized their constituencies to address the problem through community and political action. In each case, communities themselves took the lead. Rather than focusing on individual-level causes and interventions, these coalitions started their work upstream, framing the presenting problem as a consequence of unequal access to power and the solution as building democratic participation.

This transformative approach differs from traditional public health practice in several ways. First, it focuses on an underlying social problem rather than a single health problem. This enables coalitions to better understand and articulate the deeper causes of the problem (e.g., unequal access to decision making rather than elevated rates of cancer) and engage a wider base of support. For example, by framing low wages as a fundamental social justice issue, living-wage coalitions have rallied disparate religious, community, labor, tenants' rights, and environmental action groups, as well as legislators and city administrators, around a common goal.

Second, transformative approaches begin with analyzing the role of power in creating and perpetuating a problem rather than limiting the investigation to behavioral and demographic risk factors and health consequences (Freudenberg & Tsui, 2014). Unlike conventional practice, transformative approaches do not limit their attention to the role of government; they follow the money and power to the private corporations whose political and economic power often give them a disproportionate voice in policies that shape health and living conditions (Syme, 2005).

A third difference is the assumption of who sits in the driver's seat. In traditional practice, health departments often assume they must lead the change. The role of community partners is supporting the policy goals that public health professionals have identified. In the transformative approach, community organizations or social movements often take the lead, with health professionals playing a supportive role. In environmental justice campaigns, for example, community organizations demonstrate, file law suits, or engage in civil disobedience. Health departments can support these efforts by providing evidence of harm, evaluating control strategies, and expediting access to policy makers.

A fourth difference is that upstream approaches seek to change the political processes and power imbalances that fundamentally drive the living conditions that produce health inequality (Syme, 2005). The spectrum of approaches to reducing the health impact of mortgage foreclosures includes disrupting the legal foreclosure process, for example, by occupying homes whose residents have been evicted (Herbst, 2012), but also leveraging legal action to take on the structural inequalities at the root of the problem, for instance, through California's bank settlement (Dewan, 2012).

Finally, the activities described in these profiles did not follow traditional public health planning models. Few formal needs assessments guided activities; systematic literature reviews did not identify best practices; and evaluation studies of previous efforts seldom documented the health benefits these activities could produce. As a result, the evidence that public health officials usually depend on to guide their work was mostly not available, a deficit the proposed approach can help remedy.

How Local Health Departments and Coalitions Can Learn From Each Other

Can public health professionals and researchers join forces with the activists and reformers who lead these activities to support campaigns that can reduce health inequalities? In our view, such alliances offer several potential benefits. First, they have the potential to create coalitions that can, over time, accumulate the power to force reallocation of the resources that shape health, an outcome mostly out of reach of public health professionals acting on their own. Second, they open a wider, deeper toolbox of strategies and activities than either partner can offer alone. Third, they generate a larger workforce of participatory researchers who can assemble a more diverse portfolio of practice-based evidence that meets the dual imperatives to address social determinants of health inequalities and rely on evidence-based policy.

Such alliances are not new. The history of public health documents efforts to modify the living conditions that shape patterns of population health. In the first decades of the last century, for example, social movements, public health reformers, and progressive elected officials joined forces to improve sanitation, housing, and working conditions and to limit child labor in ways that led to substantial improvements in population health (Fairchild, Rosner, Colgrove, Bayer, & Fried, 2010). Researchers, journalists, and other scholars recorded the impact of these campaigns, contributing to further improvements (Rosner, 1995). More recently, the women's, gay and lesbian, and environmental justice movements have won important victories that have contributed to improved living conditions and better health (Bullard, 2005; D'Emilio et al., 2000; Rodrigues-Trias, 1984). Thus, the challenge is not to create a new framework for public health practice but to reintegrate older traditions that contributed to public health's greatest successes.

Our profiled campaigns achieved victories, but also experienced roadblocks and setbacks. It is significant that the most arguably successful campaigns, those aimed at reducing air pollution, included local health departments as key partners. This may be attributable to public reaction to the strong evidence linking environmental exposures to health; evidence shows that protecting family and community health can be a powerful incentive for individuals to act on social

Table 2. Expanding the Repertoire of Health Department Practice.

Domain of practice	Existing skills	Transitional skills	Transformative skills
Assessment	Collect and analyze data on existing health needs and health inequities; conduct health impact assessments	Locate common underlying causes of multiple health conditions and inequities and processes that create them	Assess power dynamics and identify windows of opportunity to support facilitators and remove barriers to policies that promote health equity
Policy Development	Analyze facilitators and barriers toward identified health goals, including actors with power to advance or block health policy	Identify facilitators and barriers toward structural, political, and policy changes needed to remove, reduce, or mitigate harmful social processes, including informal actors who can build power	With partners, develop strategies to fight social processes that create or maintain health inequalities and promote processes that support health equity; promote economic development that supports health at community and municipal levels
Communication	Educate community and policy makers about threats to health; provide health information to media	Frame public health problems for community mobilization	Use media advocacy to generate support for transformative changes
Strategic Partnerships	Develop coalitions with other public agencies and CBOs, listen to community concerns	Identify and support health enhancing social movements; assess role in improving living conditions; find common ground with others who do (and do not) share broader vision	Support community partnerships that have power to win on health equity issues
Leadership Development	Define role and limits of public health professionals; provide opportunities for career development and mentoring	Describe and promote role of democracy and democratic participation, and their processes in advancing public health and reducing health inequities	Create sources of power that can be used to support democratic action for health equity and lead municipal government to advance health equity

issues, such as climate change (Myers, Nisbet, Maibach, & Leiserowitz, 2012). By educating the public on these links, local health departments can contribute to the needed mobilizations while fulfilling a core public health function.

Toward Transformative Public Health Practice

Building Transformative Skills

Identifying the limitations of traditional roles and the barriers health educators face in taking on health inequalities (Smedley, 2012) may help chart a roadmap for change. Many attribute these obstacles to external political and economic forces that constrain action, to the bureaucratic procedures that limit their daily practice, and to a perceived lack of public support for a wider role (Campbell, Fowles, & Weber, 2004; Crawford et al., 2009; National Association of City and County Health Officials, 2012).

How can health educators surmount these blocks to action? What will enable them to contribute to more equitable health outcomes and greater job satisfaction? We acknowledge that this transition will not be easy. Expanding the role of health educators within health departments requires acknowledging two seemingly contradictory realities. On the one hand, any realistic hope for change must be rooted in current public health practice. On the other, only transformational changes and a revitalized vision can lead to meaningful progress. If current practices were sufficient, the United States would not be experiencing stagnant or growing health inequalities more than 35 years after their reduction was identified as a national priority (Braveman, Kumanyika, et al., 2011; Knight, 2014). Thus, the challenges are to identify current activities, mandates, and assets that can serve as the starting points for needed changes and to develop the skills, strategies, and evidence that can effectively guide them.

Table 2 shows how broadening the core competencies and skills defined by public health professional organizations (Council on Linkages between Academia and Public Health Practice, 2010) can guide health educators and health departments upstream. The transitional and transformative skills we outline build on existing expertise while allowing professionals to apply it to broader goals, changing their focus from mitigating the impact of power imbalances to addressing those imbalances directly. Moving practice from the traditional focus on changing individual behavior to the transformational focus on redistributing the power and wealth that shape health will require health departments and universities to provide health educators with the new skills shown in Table 2 and different kinds of support, for example, more autonomy to engage key players without political interference. The specific training health educators will need to move upstream has been described elsewhere (Freudenberg, 2014; B. A. Israel et al., 2010; Minkler et al., 2008).

Table 3. Creating the Evidence for Action by Practice Domains.

Domain of practice	Transformative strategies	Sources of evidence	Methodological approaches	Selected references
Assessment	Use community-based participatory research processes; assess social conditions as well as health indicators; assess power dynamics	Social epidemiological literature documenting "cause of the causes" and sociological studies of distributions of wealth and power that produce health inequalities	Structured literature reviews and evidence scans, participatory health impact assessment; power analyses	Domhoff, (2013); Galea (2007); Gilens and Page (2014); Mills (1959); Rose (1992)
Policy Development	Use participatory processes to analyze and develop policy proposals that will build community power and curtail practices that perpetuate inequities	Historical, activist, and journalistic analyses of previous movements and campaigns; government, scholarly and advocacy policy analyses inside and outside health sector	Prospective and retrospective health impact assessments; participatory policy work; comparative policy analyses; investigative journalism	Adams and Neumark (2005); Minkler et al. (2008); Tsui, Cho, and Freudenberg (2012)
Communication	Make news, not press releases; frame issues to emphasize social justice and power dynamics	Scholarly and advocacy reports on framing and policy discourse	Analyses of policy framing and discourses	Dorfman (2010); Freire, (1970/2005); Wallack and Lawrence (2005)
Strategic Partnerships	Develop alliances with enduring and new community organizations and social movements; defer leadership to constituencies best able to win needed changes	Historical, activist and journalistic analyses of previous movements and campaigns; evaluations of campaigns, coalitions and partnerships	Case studies and comparative case studies; journalistic accounts	Bezold, Birnbaum, Masterson, and Schoomaker (2011)

Building Transformative Evidence

Policy makers and practitioners will also need evidence that explains both how specific social processes contribute to inequality, and what changes could shrink this gap. As Szreter (2003) has observed, an essential duty for public health professionals is to "measure and publicize the dimensions of damage being done to the health of populations." Using the five core competencies shown in Tables 2, Table 3 suggests the types of evidence that might accelerate the path upstream for each competency. The types of evidence and methodologies listed here can provide policy makers and advocates with a thicker portfolio of justifications for transformative strategies.

Fortunately, health departments and health educators bring assets to this work and can contribute both by creating new evidence and documenting it. Health educators have access to substantial scientific and practice literatures that demonstrate the links between social determinants of health, health equity, and public health interventions (Blas, 2010; Brennan-Ramirez, Baker, & Metzler, 2008; Evans, Whitehead, Diderichsen, Bhuiya, & Wirth, 2001; Friel & Mormot, 2011; Marmot, Allen, Bell, Bloomer, & Goldblatt, 2012; Marmot, Allen, Bell, & Goldblatt, 2012; Marmot et al., 2008; Wilkinson & Pickett, 2010). By expanding the definition of what constitutes relevant evidence to include "practice-based evidence" (Green, 2006) such as documenting campaigns, then synthesizing and translating this evidence into guidance that can inform policy and practice, health departments can leverage existing community assets to contribute to the expansion of upstream interventions. New methods for integrating diverse evidence including systematic reviews, knowledge mapping, rapid reviews, integrative reviews, portfolio reviews, and realist reviews (Baxter et al., 2014; Pawson, Greenhalgh, Harvey, & Walshe, 2005; Spilsbury, Norgbey, & Battaglino, 2014; Whittemore & Knafl, 2005) can guide this synthesis and translation and help measure the impact of these efforts.

In addition, many health educators in state and local health departments already have close relationships with precisely the organizations and communities that have the capacity, mission, and will to act on social determinants. Some partnerships, such as the ones between Minnesota Department of Public Health and ISAIAH (ISAIAH, n.d.), a faith-based community organization, or the Alameda County Public Health Department's alliance with the community-based organization, CausaJusta::Just Cause (Phillips et al., 2010), may serve as models for new approaches to moving upstream. Further analyzing the changes in living conditions that result from these campaigns will provide additional evidence that can guide partnerships (Hofrichter & Bhatia, 2010; Minkler et al., 2008; National Association of City and County Health Officials, 2012).

Implications for Practice

Health educators working in state and local health departments have an opportunity to contribute to more upstream practice. By forging alliances between campaigns for improving living conditions and public health and

documenting the process and impact of such campaigns, they can help to create the data, evidence, and coalitions that can expand the foundation for interventions that redistribute the living conditions that support health and health equity.

Acknowledgments

This analysis grew out of a series of discussions convened by the National Association of County and City Health Officials to explore how to make reducing health inequality a central focus of public health practice, now summarized in the NACCHO publication *Expanding the Boundaries Health Equity and Public Health Practice* (Washington, DC: NACCHO, 2014). We gratefully acknowledge the contributions of the participants in these discussions, including Jeanne Ayers, Sonali Balajee, Rajiv Bhatia, Dorothy Bliss, Doak Blass, Ashley Bowen, Paula Braveman, Renee Canady, Subha Chandar, Kathryn Evans, Amy Fairchild, Kristina Gray, Jonathan Heller, Richard Hofrichter, Paula Tran Inzeo, Joanne Klevens, Reshma Mahendra, Marilyn Metzler, Linda Rae Murray, Lexi Nolen, Ngozi Olerud, Bob Prentice, Kirsten Rambo, Clair Reidy, Dean Robinson, Linda Rudolph, Baker Salsbury, Tom Schlenker, Doran Schrantz, Amy Schulz, Umair Shah, Mikel Walters, Lynn Weber, David Williams, and Sandra Witt. The views expressed herein are those of the authors and do not necessarily reflect the opinions of these participants or the organizations that sponsored the discussions, NACCHO, and the U.S. Centers for Disease Control and Prevention. We also acknowledge the detailed and thoughtful suggestions from *Health Education and Behavior* reviewers and editors.

Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The authors disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: The research on which this article is based was supported in part by the National Association of City and County Health Officials.

Supplement Issue Note

This article is part of a *Health Education & Behavior* supplement, "The Evidence for Policy and Environmental Approaches to Promoting Health," which was supported by a grant to the Society for Public Health Education (SOPHE) from the Robert Wood Johnson Foundation. The entire supplemental issue is open access at http://heb.sagepub.com/content/42/1_suppl.toc.

References

Adams, S., & Neumark, D. (2005). The effects of living wage laws: Evidence from failed and derailed living wage campaigns. *Journal of Urban Economics*, *58*, 177-202.

Alexander, M. (2012). *The New Jim Crow: Mass incarceration in the age of colorblindness*. New York, NY: New Press.

Baron, S. L., Beard, S., Davis, L. K., Delp, L., Forst, L., Kidd-Taylor, A., . . .Welch, L. S. (2014). Promoting integrated approaches to reducing health inequities among low-income workers: Applying a social ecological framework. *American Journal of Industrial Medicine*, *57*, 539-556.

Baxter, S. K., Blank, L., Woods, H. B., Payne, N., Rimmer, M., & Goyder, E. (2014). Using logic model methods in systematic review synthesis: Describing complex pathways in referral management interventions. *BMC Medical Research Methodology*, *14*, 62.

Bell, M. L., Zanobetti, A., & Dominici, F. (2013). Evidence on vulnerability and susceptibility to health risks associated with short-term exposure to particulate matter: A systematic review and meta-analysis. *American Journal of Epidemiology*, *178*, 865-876.

Bennett, G. G., Scharoun-Lee, M., & Tucker-Seeley, R. (2009). Will the public's health fall victim to the home foreclosure epidemic? *PLoS Medicine*, *6*(6), e1000087.

Bezold, C., Birnbaum, N., Masterson, E., & Schoomaker, H. (2011). *State of the health equity movement 2011 update*. Alexandria, VA: Institute for Alternative Futures.

Bhatia, R., & Corburn, J. (2011). Lessons from San Francisco: Health impact assessments have advanced political conditions for improving population health. *Health Affairs (Project Hope)*, *30*, 2410-2418.

Bhatia, R., & Katz, M. (2001). Estimation of health benefits from a local living wage ordinance. *American Journal of Public Health*, *91*, 1398-1402.

Blank, R., Danziger, S., & Schoeni, R. F. (2008). *Working and poor: How economic and policy changes are affecting low-wage workers*. New York, NY: Russell Sage Foundation.

Blankenship, K. M., Friedman, S. R., Dworkin, S., & Mantell, J. E. (2006). Structural interventions: Concepts, challenges and opportunities for research. *Journal of Urban Health*, *83*, 59-72.

Blas, K. A. (2010). *Equity, social determinants and public health programmes*. Geneva, Switzerland: World Health Organization.

Braveman, P., Egerter, S., & Williams, D. R. (2011). The social determinants of health: Coming of age. *Annual Review of Public Health*, *32*, 381-398.

Braveman, P., Kumanyika, S., Fielding, J., Laveist, T., Borrell, L. N., Manderscheid, R., & Troutman, A. (2011). Health disparities and health equity: The issue is justice. *American Journal of Public Health, 101*(Suppl. 1):S149-S155.

Brennan-Ramirez, L. K., Baker, E. A., & Metzler, M. (2008). *Promoting health equity: A resource to help communities address social determinants of health*. Atlanta, GA: U.S. Department of Health and Human Services.

Brownson, R. C., Fielding, J. E., & Maylahn, C. M. (2009). Evidence-based public health: A fundamental concept for public health practice. *Annual Review of Public Health*, *30*, 175-201.

Bullard, R. (2005). *The quest for environmental justice: Human rights and the politics of pollution*. San Francisco, CA: Sierra Club Books.

Bureau of Labor Statistics. (2014, March). *Characteristics of minimum wage workers, 2013*. Retrieved from http://www.bls.gov/cps/minwage2013.pdf

Cadora, E. (2014). Civics lessons: How certain schemes to end mass incarceration can fail. *Annals of the American Academy of Political and Social Science*, *651*, 277-285.

Campbell, S. L., Fowles, E. R., & Weber, B. J. (2004). Organizational structure and job satisfaction in public health nursing. *Public Health Nursing*, *21*, 564-571.

Cole, B. L., Shimkhada, R., Morgenstern, H., Kominski, G., Fielding, J. E., & Wu, S. (2005). Projected health impact of the Los Angeles City living wage ordinance. *Journal of Epidemiology and Community Health*, *59*, 645-650.

The Council on Linkages between Academia and Public Health Practice. (2010). *Core competencies for public health professionals*. Washington, DC: Author.

Crawford, C. A., Summerfelt, W. T., Roy, K., Chen, Z. A., Meltzer, D. O., & Thacker, S. B. (2009). Perspectives on public health workforce research. *Journal of Public Health Management and Practice, 15*(6 Suppl.), s5-s15.

DeBonis, M., & Wilson, R. (2013, November 28). Push for minimum wage hike led by localities, democrats. *The Washington Post*. Retrieved from http://www.washingtonpost.com/local/dc-politics/2013/11/28/5b2c7dc4-5795-11e3-8304-caf30787c0a9_story.html

D'Emilio, J., Turner, W. B., & Vaid, U. (Eds.). (2000). *Creating change: Sexuality, public policy, and civil rights*. New York, NY: St. Martin's Press.

Democracy Now! (2011). *Occupy homes: New coalition links homeowners, activists in direct action to halt foreclosures*. Retrieved from http://www.democracynow.org/2011/11/11/occupy_homes_new_coalition_links_homeowners

Dewan, S. (2012, February 14). Performing under pressure. *New York Times*, p. 1.

Domhoff, G. W. (2013). *Who rules America? The triumph of the corporate rich* (7th ed.). New York, NY: McGraw Hill.

Dorfman, L. (2010). *Demographic changes, a view from California: Implications for framing health disparities*. Washington, DC: National Academies Press.

Dowd, J. B., Albright, J., Raghunathan, T. E., Schoeni, R. F., Leclere, F., & Kaplan, G. A. (2011). Deeper and wider: Income and mortality in the USA over three decades. *International Journal of Epidemiology*, *40*, 183-188.

Epstein, E. (2000, August 22). Living Wage Law Wins S.F. Board OK; Supervisors unanimously approve $9-an-hour plan. *San Francisco Chronicle*. Retrieved from http://www.sfgate.com/politics/article/Living-Wage-Law-Wins-S-F-Board-OK-Supervisors-2709043.php

Evans, T., Whitehead, M., Diderichsen, F., Bhuiya, A., & Wirth, M. (Eds.). (2001). *Challenging inequities in health from ethics to action*. New York, NY: Oxford University Press.

Fairchild, A. L., Rosner, D., Colgrove, J., Bayer, R., & Fried, L. P. (2010). The EXODUS of public health. What history can tell us about the future. *American Journal of Public Health*, *100*, 54-63.

Feur, A. (2013, December 1). Life on $7.25 an hour. *New York Times Magazine*, p. 1.

Frank, W. (2014). *Law and the gay rights story: The long search for equal justice in a divided democracy*. New Brunswick, NJ: Rutgers University Press.

Freire, P. (2005). *Pedagogy of the oppressed*. New York, NY: Continuum (Original work published 1970)

Figart, D. M., & Mutari, E. (2002). *Living wages, equal wages: Gender and labour market policies in the United States*. London, England: Routledge.

Freudenberg, N. (2014). *Lethal but legal: Corporations, consumption and protecting public health*. New York, NY: Oxford University Press.

Freudenberg, N., Bradley, S. P., & Serrano, M. (2009). Public health campaigns to change industry practices that damage health: An analysis of 12 case studies. *Health Education & Behavior*, *36*, 230-249.

Freudenberg, N., & Tsui, E. (2014). Evidence, power, and policy change in community-based participatory research. *American Journal of Public Health*, *104*, 11-14.

Fried, M. G. (2013). Reproductive rights activism in the post-Roe era. *American Journal of Public Health*, *103*, 10-14.

Friel, S., & Marmot, M. G. (2011). Action on the social determinants of health and health inequities goes global. *Annual Review of Public Health*, *32*, 225-236.

Galea, S. (Ed.). (2007). *Macrosocial determinants of population health*. San Francisco, CA: Wiley.

Galea, S., Tracy, M., Hoggatt, K. J., Dimaggio, C., & Karpati, A. (2011). Estimated deaths attributable to social factors in the United States. *American Journal of Public Health*, *101*, 1456-1465.

Garzon, C., Moore, E., Berry, W., & Matalon, E. (2011). *At a crossroads in our region's health: Freight transport and the future of community health in the San Francisco bay area*. San Francisco, CA: Pacific Research Institute.

Gibbs, L. (2011). *Love Canal: and the birth of the environmental health movement*. Washington, DC: Island Press.

Gilens, M., & Page, B. I. (2014). *Testing theories of American politics: Elites, interest groups and average citizens. Perspectives on Politics*, *12*, 564-581.

Gonzalez, T. (2012). Keeping kids in schools: Restorative justice, punitive discipline, and the school to prison pipeline. *Journal of Law and Education*, *41*, 281-335.

Green, L. W. (2006). Public health asks of systems science: To advance our evidence-based practice, can you help us get more practice-based evidence? *American Journal of Public Health*, *96*, 406-409.

Greenhouse, S. (2013, November 29). On register's other side, little money to spend. *New York Times*. Retrieved from http://www.nytimes.com/2013/11/29/business/on-registers-other-side-little-money-to-spend.html?pagewanted=all&_r=0

Groarke, M. (2004). Using community power against targets beyond the neighborhood. *New Political Science*, *26*, 171-188.

Harkinson, J. (2013, September 10). Why a small California city could be Wall Street's worst nightmare. *Mother Jones*. Retrieved from http://www.motherjones.com/mojo/2013/09/richmond-eminent-domain-wall-street-nightmare

Herbst, R. (2012, December 12). *Notorious possession: Occupying foreclosed homes with art*. Retrieved from http://www.kcet.org/arts/artbound/counties/los-angeles/notorious-possession-olga-koumoundouros.html

Herd, D. (2010). Community mobilization and the framing of alcohol-related problems. *International Journal of Environmental Research and Public Health*, *7*, 1226-1247.

Hofrichter, R., & Bhatia, R. (Eds.). (2010). *Tackling health inequities through public health practice: Theory to action*. New York, NY: Oxford University Press.

Immergluck, D. (2011). The local wreckage of global capital: The subprime crisis, federal policy and high-foreclosure neighborhoods in the US. *International Journal of Urban and Regional Research*, *35*, 130-146.

Institute of Medicine. (2012). *For the public's health: Investing in a healthier future*. Washington, DC: National Academies Press.

ISAIAH. (n.d.). *History of effectiveness—Issue highlights*. Retrieved from http://isaiahmn.org/history-of-effectiveness/

Israel, B. A., Coombe, C. M., Cheezum, R. R., Schulz, A. J., McGranaghan, R. J., Lichtenstein, R., . . .Burris, A. (2010). Community-based participatory research: A capacity-building approach for policy advocacy aimed at eliminating health disparities. *American Journal of Public Health*, *100*, 2094-2102.

Israel, J. (2014, July 9). *How a labor coalition plans to bring paid sick leave and a higher minimum wage to the Bay Area*. Retrieved from http://thinkprogress.org/economy/2014/07/09/3457348/labor-bay-area-minimum-wage/

Jacobs, K. (2009, January). *San Francisco values: The new social compact*. Paper presented at the proceedings of the Labor and Employment Relations Association 61st annual meeting, San Francisco, CA.

Jacobs, K., & Reich, M. (2014). When do mandates work? In M. Reich, K. Jacobs, & M. Dietz (Eds.), *When mandates work: Raising labor standards at the local level* (pp. 1-44). Beerkeley: University of California Press.

KGO-TV. (2013, December 18). *Richmond City Council votes for foreclosure prevention plan*. Retrieved from http://abc7news.com/archive/9365232/

Kim, J. J. (2004). American Academy of Pediatrics Committee on Environmental Health: Ambient air pollution: Health hazards to children. *Pediatrics*, *114*, 1699-1707.

Knight, E. K. (2014). Shifting public health practice to advance health equity: Recommendations from experts and community leaders. *Journal of Public Health Management and Practice*, *20*, 188-196.

Libman, K., Fields, D., & Saegert, S. (2012). Housing and health: A social ecological perspective on the US foreclosure crisis. *Housing, Theory and Society*, *29*(1), 1-24.

Lieberman, L., Golden, S. D., & Earp, J. A. (2013). Structural approaches to health promotion: what do we need to know about policy and environmental change? *Health Education & Behavior*, *40*, 520-525.

Luce, S. (2004). *Fighting for a living wage*. Ithaca, NY: Cornell University Press.

Luce, S. (2005). The role of community involvement in implementing living wage ordinances. *Industrial Relations: A Journal of Economy and Society*, *44*(1), 32-58.

Luce, S. (2014). Living wages, minimum wages, and low-wage workers. In S. Luce, J. Luff, J. McCartin, & R. Milkman (Eds.), *What works for workers? Public policies and innovative strategies for low wage workers* (pp. 215-235). New York, NY: Russell Sage Foundation.

Marmot, M., Allen, J., Bell, R., Bloomer, E., & Goldblatt, P. (2012). WHO European review of social determinants of health and the health divide. *Lancet*, *380*, 1011-1029.

Marmot, M., Allen, J., Bell, R., & Goldblatt, P. (2012). Building of the global movement for health equity: From Santiago to Rio and beyond. *Lancet*, *379*, 181-188.

Marmot, M., Friel, S., Bell, R., Houweling, T. A., & Taylor, S. (2008). Closing the gap in a generation: Health equity through action on the social determinants of health. *Lancet*, *372*, 1661-1669.

McKinlay, J. B. (1998). Paradigmatic obstacles to improving the health of populations —implications for health policy. *Salud Publica de Mexico*, *40*, 369-379.

Mills, C. W. (1959). *The power elite*. Oxford, England: Oxford University Press.

Minkler, M., Breckwich Vásquez, V., Chang, C., Miller, J., Rubin, V., Blackwell, A. G., . . .Bell, J. (2008). *Promoting healthy public policy through community-based participatory research: Ten case studies*. Berkeley: University of California-Berkley & Policy Link.

Muntaner, C., Chung, H., Murphy, K., & Ng, E. (2012). Barriers to knowledge production, knowledge translation, and urban health policy change: Ideological, economic, and political considerations. *Journal of Urban Health*, *89*, 915-924.

Murray, B. (2005). *Arcing toward justice: The evolution of the living wage movement*. San Francisco, CA: Tides Foundation.

Myers, T. A., Nisbet, M. C., Maibach, E. W., & Leiserowitz, A. A. (2012). A public health frame arouses hopeful emotions about climate change. *Climatic Change*, *113*, 1105-1112.

National Association of City and County Health Officials. (2012). *Local health department job losses and program cuts: Findings from the January 2012 survey*. Washington, DC: Author.

National Conference of State Legislators. (2014). *State minimum wages: 2014 Minimum wages by state*. Retrieved from http://www.ncsl.org/research/labor-and-employment/state-minimum-wage-chart.aspx

National Employment Law Project. (2013). *The inequality of declining wages during the recovery*. Retrieved from http://www.nelp.org/page/-/Job_Creation/NELP-Fact-Sheet-Inequality-Declining-Wages.pdf?nocdn=1

Nelson, J. (2003). *Women of color and the reproductive rights movement*. New York: New York University Press.

Nettleton, B. R. (2000). When a capital investment becomes an emotional loss: The health consequences of the experience of mortgage possession in England. *Housing Studies*, *15*, 463-478.

Nicholls, W. (2013). *The DREAMers: How the undocumented youth movement transformed the immigrant rights debate*. Stanford, CA: Stanford University Press.

O'Campo, P. (2012). Are we producing the right kind of actionable evidence for the social determinants of health? *Journal of Urban Health*, *89*, 881-893.

Palaniappan, M., Prakash, S., & Bailey, D. (2006). *Paying with our health: The real cost of freight transport in California*. Oakland, CA: Pacific Institute.

Pawson, R., Greenhalgh, T., Harvey, G., & Walshe, K. (2005) Realist review—A new method of systematic review designed for complex policy interventions. *Journal of Health Services Research Policy*, *10*, 21-34.

Phillips, D., Clark, R., & Lee, T. (2010). *Rebuilding neighborhoods, restoring health: A report on the impact of foreclosures on public health*. Alameda, CA: CausaJusta: Just Cause, Alameda County Public Health Department.

Pollack, C., & Lynch, J. (2009). Health status of people undergoing foreclosure in the Philadelphia region. *American Journal of Public Health*, *99*, 1833-1839.

Rampell, G. S. (2013, November 8). $10 minimum wage proposal has growing support from White House. *New York Times*. Retrieved from http://www.nytimes.com/2013/11/08/business/10-minimum-wage-proposal-has-obamas-backing.html

Richmond CARES. (n.d.). *Frequently asked questions*. Retrieved from www.richmondcares.com/content/faq

Rhodes, E. (2003). *Environmental justice in America*. Bloomington: Indiana University Press.

Rodrigues-Trias, H. (1984). The women's health movement: Women take power. In S. R. Sidel (Ed.), *Reforming medicine: Lessons of the last quarter century* (pp. 107-126). New York, NY: Pantheon.

Romney, L. (2014). San Francisco leads the way with $15 minimum-wage ballot measure. *Los Angeles Times*. Retrieved from http://www.latimes.com/local/la-me-minimum-wage-20140616-story.html

Rose, G. (1992). *The strategy of preventive medicine*. Oxford, England: Oxford University Press.

Rosner, D. (1995). *Hives of sickness: Public health and epidemics in New York City*. Newark, NJ: Rutgers University Press.

Rugaber, C. (2014, July 19). *States with higher minimum wage gain more jobs, new challenges*. Retrieved from http://www.usatoday.com/story/money/business/2014/07/19/us-states-with-higher-minimum-wages-gain-more-jobs/12879113/

Ruglis, J., & Freudenberg, N. (2010). Toward a healthy high schools movement: Strategies for mobilizing public health for educational reform. *American Journal of Public Health*, *100*, 1565-1571.

Saegert, S., Fields, D., & Libman, K. (2011). Mortgage foreclosure and health disparities: Serial displacement as asset extraction in African American populations. *Journal of Urban Health*, *88*, 390-402.

Scutchfield, F. D., & Howard, A. F. (2011). Moving on upstream: The role of health departments in addressing socioecologic determinants of disease. *American Journal of Preventive Medicine, 40*(Suppl. 1), S80-S83.

Shankardass, K., Solar, O., Murphy, K., Greaves, L., & O'Campo, P. (2012). A scoping review of intersectoral action for health equity involving governments. *International Journal of Public Health*, *57*(1), 25-33.

Smedley, B. (2012). *Striving for health equity: opportunities as identified by leaders in the field*. Washington, DC: Grantmakers in Health.

Solomon, D. (2004, January 4). *Polluting ships in California ports shielded from accountability*. Retrieved from http://cironline.org/reports/polluting-ships-california-ports-shielded-accountability-2097

Spilsbury, M. J., Norgbey, S., & Battaglino, C. (2014). Priority setting for evaluation: Developing a strategic evaluation portfolio. *Evaluation and Program Planning*, *46*, 47-57.

Stiglitz, J., & Zandi, M. (2012, August 12). The one housing solution left: Mass mortgage refinancing. *The New York Times*. Retrieved from http://www.nytimes.com/2012/08/13/opinion/the-one-housing-solution-left-mass-mortgage-refinancing.html?_r=0

Syme, S. L. (2005). Historical perspective: The social determinants of disease—Some roots of the movement. *Epidemiologic Perspectives & Innovation*, *2*(1), 2.

Szreter, S. (2003). The population health approach in historical perspective. *American Journal of Public Health*, *93*, 421-431.

Tsui, E., Cho, M., & Freudenberg, N. (2012). Methods for community-based participatory policy work to improve food environments in New York City. In B. A. Israel, E. Eng, A. J. Schulz, & E. A. Parker (Eds.), *Methods for community-based participatory research for health* (2nd ed., pp. 517-546). San Francisco, CA: Jossey-Bass.

Uzoigwe, J. C., Prum, T., Bresnahan, E., & Garelnabi, M. (2013). The emerging role of outdoor and indoor air pollution in cardiovascular disease. *North American Journal of Medical Science*, *5*, 445-453.

Vásquez, V. B., Minkler, M., & Shepard, P. (2006). Promoting environmental health policy through community based participatory research: A case study from Harlem, New York. *Journal of Urban Health*, *83*, 101-110.

Voss, K., & Bloemraad, I. (Eds.). (2011). *Rallying for immigrant rights: The fight for inclusion in 21st century America*. Berkeley: University of California Press.

Wallack, L., & Lawrence, R. (2005). Talking about public health: Developing America's "second language." *American Journal of Public Health*, *95*, 567-570.

WE ACT for Environmental Justice. (2005). *17th Anniversary report*. Retrieved from http://www.weact.org/Publications/OtherPublications/tabid/260/Default.aspx

Whittemore, R., & Knafl, K. (2005). The integrative review: Updated methodology. *Journal of Advance Nursing*, *52*, 546-553.

Wilkinson, R., & Pickett, K. (2010). *The spirit level: Why more equal societies almost always do better*. London, England: Penguin.

World Health Organization. (2008). *Report to the WHO Commission on Social Determinants of Health from the Knowledge Network on Urban Settings: Our cities, our health, our future: Acting on social determinants of health equity in urban settings*. Kobe, Japan: World Health Organization Centre for Health Development.

Wyly, E., Moos, M., Hammel, D., & Kabahizi, E. (2009). Cartographies of race and class: Mapping the class-monopoly rents of American subprime mortgage capital. *International Journal of Urban and Regional Research*, *33*, 332-354.