Policy and Environmental Change: New Directions for Public Health

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Solving major, persistent public health problems requires new policies and more aggressive, sweeping interventions that affect large populations. We need well-conceived health policies and effective interventions for environmental change, but are we likely to get them? To find out, the Directors of Health Promotion and Education and the U.S. Centers for Disease Control and Prevention initiated a study of state and local public health agencies in the United States from 1996 through 1999. Data were collected by peer- and nonpeer-reviewed literature searches, key informant interviews, reviews of Internet sites, and a nationwide survey. Study conclusions found confusion about the legitimacy of advocacy, lack of priority and funding for interventions that take more time versus quick fixes, variable leadership, reluctance to take risks, and a political climate that often discourages government agencies to take on these interventions. There are successes, yet more can be done.

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In 2001, James S. Marks, the director of the National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP) within the U.S. Centers for Disease Control and Prevention (CDC), stated, "Health problems are heavily influenced by societal policies and environments that in some way either sustain the behaviors and practices that contribute to the problems or fail to foster healthier choices that could prevent the problems" (Directors of Health Promotion and Education [DHPE] & CDC, 2001, p. i). Dr. Marks went on to say: "The major public health problems of our time will not be solved solely by individual actions and health choices, but by individuals coming together to make our society one in which healthy choices are easy, fun, and popular" (DHPE & CDC, 2001, p. i).

Many of public health's triumphs over the years have come through environmental interventions or the development of policies. Ever since John Snow broke the Broad Street pump—a source of contaminated water—to stem a London cholera epidemic in 1853 (Garrett, 2000), environmental interventions have been a key element of public health. Think of the miracle of potable water running from the taps of most U.S. homes, of community sewage treatment, of the eradication of smallpox, all successes of public health interventions. Or think of immunization programs to prevent childhood infectious diseases, food safety inspections, prevention of lead paint poisoning and exposure to other toxic substances, and countless other success stories.

Historically, pursuing health policies has also been key to public health. In 1805, responding to a yellow fever epidemic, New York City created legislation establishing the nation's first Board of Health to stop the reoccurring epidemics, and in the 1860s, Dr. Charles Hewitt pressured Minnesota political leaders to create a board of health to raise physicians'standard of care and to begin collecting birth, death, and disease data (Garrett, 2000). Examples of public health policies since then include air pollution regulations, rabies vaccination and dog licensing requirements, the inclusion of mammography and Papanicolaou (Pap) tests as routine cancer screening within primary care, laws mandating clean indoor air and seat belt use, and regulations involving workers and day care. The enactment of such enlightened policies has frequently been dramatic and often met with great resistance.

In 1988, the Institute of Medicine (IOM) issued its landmark report *The Future of Public Health* that cited three core public health core functions: assessment, policy development, and quality assurance. In 1993, a study supported by the CDC, the University of Illinois at Chicago School of Public Health, and the Association of Schools of Public Health, set out to determine how effective local health departments were in addressing

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these core functions. This study found that performance was highest for quality assurance and lowest for policy development (Turnock et al., 1994). A new IOM report [2002], *The Future of the Public's Health in the 21st Century* states that "action at a broad societal level" is needed to improve overall population health and that a population-based approach is necessary in public health practice, research, policy, and community engagement.

That was then; where are we now? Have we fallen even further from 1993 to the point where policy development threatens to vanish from our public health radar screen? Just how are policy development and environmental interventions used today, if at all, by state and local public health departments? In particular, what interventions are being used that might lessen the country's burden of chronic diseases, the plagues of the 21st century?

BACKGROUND

In 1999, DHPE and CDC initiated a study designed to take a hard look at the use of new policies and environmental interventions by state (and to a lesser degree, local) health departments from 1996 through 1999 (DHPE & CDC, 2001). This study forms the basis of the current article. According to the CDC's Marks, there is "a growing sense of the importance of broader societal trends and policies that affect behaviors" (DHPE & CDC, 2001, p. i), and indeed CDC had begun to include environmental interventions in its comprehensive chronic disease programs (DHPE & CDC, 2001). CDC and others in public health knew that some states and local health departments were using environmental interventions and policy development; however, the study promised to let them know much more.

Environmental interventions and the enactment of policies have been cited as among the best and most cost-effective approaches to preventing cardiovascular disease (Speers & Schmid, 1995), through control of tobacco use (Brownson, Koffman, Novotny, Hughes, & Ericksen, 1995), enhancement of nutrition (Glanz et al., 1995), and the promotion of physical activity (King et al., 1995). Tobacco control programs in California and Massachusetts that used innovative policies such as taxation and smoke-free indoor air laws to lower adult and youth smoking prevalence are recent examples (California Department of Health Services, 1998; CDC, 1999). On a larger scale, the World Health Organization's (WHO) Framework Convention on Tobacco Control to build support for global tobacco control is an example of a powerful policy initiative (WHO, 1999, 2003). In addition, school-based policies that eliminate sales of soft drinks and fast foods to improve youth nutritional status, efforts to obtain universal insurance coverage for colorectal screening examinations to lower colorectal cancer mortality, and policies that allocate funding for community-based collaborative research to help eliminate health disparities all demonstrate a renewed interest in achieving improved health outcomes through policy development.

Environmental interventions, whether sweeping or smaller in scale, can establish a foundation for policy development or stand on their own. Broad population-based environmental interventions to promote healthy eating and physical activity, for example, now include creating safe routes to schools that encourage parents and their children to walk or bicycle together to and from schools; creating safe streets, playgrounds, and parks through community planning and partnerships; measures in low-income neighborhoods to improve food security, access to affordable nutritious food, enabling transportation, and a reduction in the number of fast food restaurants (Center for Civic Partnerships, 2002; Twiss, 2001); and the ambitious environmental interventions of the California 5-A-Day nutrition campaign that spread nationwide and involved the agricultural industry, supermarket chains, schools, government agencies, and many others to change the way people eat in America (Nestle, 2002). These large-scale population-based environmental interventions not only affected large numbers of people and social norms but supported individual behavior change as well. In short, they were the best of both worlds.

Why should public health departments be policy developers and the creators of environmental change? Are not these sometimes-risky ventures beyond the departments' mandate? No, public health departments do have an urgent role in these initiatives and here are some reasons why:

- Health departments are society's primary institutions for protecting the public's health.
- Chronic diseases persist as public health problems and will only increase as our population ages.
- Public health needs to affect populations on a larger scale; and policies and well-considered and designed environmental interventions can do that.
- The development of policy and the creation of environmental change demand participation from many parts of society, and health departments are uniquely equipped to play a variety of roles.

Health departments need to move aggressively into policy formulation and environmental interventions; however, many lack the staff skills, administrative support, and necessary funding. Yet health promotion and programs to prevent chronic diseases must be given a high priority in today's world, including the interventions and funding needed to make those programs a success. In this context, the study findings take on a new and important meaning for the public health community.

PROJECT SCOPE

To launch their study, DHPE and CDC organized a work group of 16 public health professionals that

included state and local health departments, DHPE, CDC, academia, and relevant projects, as well as consultants. This group guided the study's direction, implementation, and final report, with Strategic Health Concepts, Inc. of Colorado carrying out the project's logistics.

First, the work group narrowed the project's scope to chronic diseases and related risk factors addressed by the CDC's NCCDPHP that included aging, arthritis, cancer, cardiovascular disease, diabetes, nutrition, oral health, physical activity, and tobacco control. Interventions to develop and maintain comprehensive school health services were also included. Activities of state and local public health departments were the study's focus.

The working definition for policy included laws, regulations, and rules, formal and informal, such as a city ordinance or an organization's voluntary rule to restrict smoking. Environmental interventions were those that change the economic, social, or physical environments, such as community designs for walking and biking trails.

METHODS, FINDINGS, AND DISCUSSION

Five data collection methods were used: (a) a search of the peer-reviewed literature, (b) a search of other literature, (c) interviews with key informants, (d) a review of Internet sites, and (e) a survey of state-level program directors in all 50 states and five territories.

The first challenge was the dearth of related peer-reviewed literature. Of 700 articles found, only 58 were deemed relevant. Clearly, the odds for a public health surge in the use of policy and environmental interventions were very long. State health departments were rarely mentioned in the articles; however, when they were, their role was usually a funder, convener, or a provider of data. Most of the articles had a research orientation being authored by academicians who sometimes collaborated with a community organization rather than a health department. Articles on tobacco appeared most frequently, then cancer, physical activity, general health, and nutrition. In addition, the preponderance of articles focused only on what was done, not how. Unfortunately, most environmental interventions and policy developments, especially those initiated by public health departments, are never written for dissemination in the peer-reviewed literature and seldom receive more than cursory evaluations.

Literature that was not peer reviewed also mentioned health departments infrequently, and again the most prevalent topic was tobacco, this time followed by general health or chronic disease. Nutrition, cardiovascular disease, and physical activity each appeared once.

The key informant interviews that were held with 29 public health experts were more fruitful. Numerous informants quickly identified the successes of health departments and the barriers they faced in carrying out policy development and environmental interventions that are revealed later in this article.

Of the 52 Web sites reviewed, the work group and key informants repeatedly identified five:

- California Center for Health Improvement (www.cchi.org)
- Community Tool Box (http://ctb.ku.edu/)
- Community Health Indicators–University of Washington (http://faculty.washington.edu/cheadle/cli)
- Advocacy Institute (www.advocacy.org)
- The Association of State and Territorial Health Officials (www.astho.org)

The survey was sent to state-level directors of health promotion, health education, and chronic disease prevention programs in all states and territories. They were asked to list program content areas with corresponding successful interventions, critical success factors and barriers, key contacts, and to a limited extent roles played by local health departments. Responses to the assessment were received from 41 states and 3 territories.

What DHPE and CDC found in their study was illuminating and challenging. The survey revealed that the development of policies was most often found in tobacco programs (70 or more); then diabetes (42); cancer (28); physical activity (23); oral health, for example, fluoridation (23); and nutrition (21). Environmental change interventions most frequently dealt with nutrition (148), physical activity (102), local-level capacity building (at least 84), tobacco (68 or more), and diabetes (59).

Readers need to remember that the survey is just a brief look, not an in-depth, comprehensive study of state and local health departments' work in policy development and environmental interventions. The study is a start, however. It found that the roles of state

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health departments in policy development largely centered on providing information and data to decision makers (mentioned 56 and 38 times, respectively), and in drafting legislation and policies (39). Their roles in facilitating environmental interventions predominantly involved training and technical assistance (reported 81 times) and funding (42). Another key finding was that state health departments often mentioned their role in local capacity building for environmental interventions (83 instances) but seldom mentioned it for policy development.

FACTORS IMPORTANT FOR SUCCESS

Generally, policy development and environmental interventions related to chronic diseases never go anywhere if they are missing one or more essential factors: More than 50% of state responders reported collaboration, support from the community and key decision makers, a strong intervention science base, and skilled staff are important. A good plan, high visibility, and documented results were also identified but by less than 25%. Nonstate sources listed as important user-friendly translations of science, having practical expectations, assessment of community readiness and capacity, a constant focus on priority areas, an ability to answer hard questions, framing issues for the current climate, and having an organization to coordinate the work.

BARRIERS

The nationwide assessment and key informant interviews also revealed barriers to successful policy and environmental change interventions that included

- Lack of trust in government.
- Legal and bureaucratic distractions, particularly in the policy development arena that demands more time, the involvement of outside partners, and legal expertise.
- "Turf issues" within the state health departments and among state and local official agencies, communities, nonprofit organizations, academic institutions, business groups, and health care institutions.
- Dependence on crisis management or reacting to situations rather than building advocacy over the longer term that takes time, planning, nurtured relationships, support, and skill.
- Inability to handle sudden conflict—a problem certainly not limited to state health departments. The fact that stakeholders often lack a shared vision and agenda does not help. The plans and teams needed to manage a conflict or crisis must be in place before the event, but with increasing work burdens, this often does not happen.
- Confusion over the differences among policy development, advocacy, politics, and lobbying. Health departments must be leaders in policy development when those policies affect the public's health. Policy development often involves a political or legislative process that is necessary to bring a policy or a policy change into existence. Advocacy, a legitimate responsibility of public health, is usually a part of this process but frequently long before policy development has advanced to the point of legislation. Health department staff may engage in advocacy activities, such as community education, to make the case for and to support important public health measures such as healthful school nutrition, smoke-free environments, safe streets and playgrounds, helmet use, and steps to prevent violence, to name a few. Advocacy, however, may find resistance from public health staff when it is confused with lobbying. Lobbying, on the other hand, focuses on a narrow spectrum of activities for which public taxpayer funds are not allowed. Namely, one must not call for action nor urge a yes or no vote on a specific piece of legislation. For example, health department staff may draft legislation for smoke-free workplaces and even provide related technical assistance to legislators as part of policy development. However, if health department staff urge or promote a yes or no vote on that legislation, whether the participants of that action are legislators, their staffs, or the public, then they have crossed the line into lobbying (Adams, 1998; Altman, 1993; Butler, 1993; O'Keefe, 1992).
- Organized opposition. Tobacco control programs, for example, were opposed immediately by the tobacco industry and its allies.
- Benefits not immediate or evident. Many health department programs are under pressure to show results right away, whereas policy development and environmental change interventions take time and long-term commitment.
- Unfamiliarity with the concept of policy development and environmental change. Work is clearly needed to help the public health community understand these concepts and to elevate their comfort and skill in putting interventions in these areas to work.
- Lack of legal capacity. Expertise is often needed to create policies as well as to interpret policies that are external to the health department but that still affect programs.

RECOMMENDATIONS

What should be the next steps? Based on the DHPE-CDC study, the three highest priorities for action are as follows:

- Develop successful interventions in policy and environmental change and create case statements that will explain what they are and are not, describe what they can and should realistically achieve, and establish their credibility as legitimate public health functions.
- Establish interventions in policy and environmental change as core functions of health promotion and chronic disease prevention, and develop training modules based on successful models.
- Develop an online searchable database starting with information collected in the current study, including linkage to other Web-site resources as well as online training opportunities.

The current study is only a beginnng, not an end. Public health practitioners have their work cut out for them.

CONCLUSIONS

Overall, a great deal of information exists, and numerous success stories have been reported on why policy development and environmental change are important endeavors within public health. In addition, these interventions are hampered not only by the variable quality of leadership in health departments but also by a reigning confusion or disagreement as to what public health practitioners in official settings may do. Sadly, advocacy as a legitimate public health responsibility is controversial to some. Because policy formulation and environmental interventions sometimes involve a political process and, hence, advocacy, public health professionals may be reluctant to take them on.

The fear factor is real and, at times, so is the risk. Health departments are beholden to governing bodies that may have other ideas about what health departments and their staffs should or may do. It is not surprising, then, that policy development and environmental change are not priorities in many health departments nor is the necessary funding made available to carry them out. To address these challenges, outside stakeholders need to be more involved in planning and carrying out these interventions, and the public health community must tap into the interest, willingness, and capacity of communities to change.

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