

Healthy Communities, Healthy Behaviors: Using Policy, Systems, and Environmental Change to Combat Chronic Disease



Introduction

The policies, systems, and environments (PSEs) in communities, schools, workplaces, parks, transportation systems, faith-based organizations, and healthcare settings can significantly shape lives and health.^{1,2} Access to affordable fruits and vegetables, design of sidewalks and bike lanes within communities, and smoke-free policies in workplaces and businesses directly increase the likelihood that people can eat healthy and nutritious food, walk to school or work, and avoid exposure to second-hand smoke. PSEs in communities that make healthy choices easy, safe, and affordable can have a positive impact on the way people live, learn, work, and play. Partnerships with community leaders in education, government, transportation, and business are essential in creating sustainable change to reduce the burden of chronic disease.

PSE change is instrumental in creating and encouraging healthy behaviors in communities. Definitions and examples of PSE change are included in Figure 1.

This issue brief provides general information on the role of PSE change within communities and specific examples of local health department (LHD) initiatives promoting PSE change with support from the National Association of County and City Health Officials (NACCHO).

Background

More than half of Americans, approximately 133 million people, live with one or more chronic diseases, which include cancer, heart disease, hypertension, mental disorders, diabetes, pulmonary conditions, and stroke. Chronic diseases are attributed to seven in 10 deaths annually.³ Healthcare expenditures for the most common chronic diseases cost approximately one-trillion dollars each year, and the economic burden of chronic disease is projected to increase. Within the next 15 years, an estimated 157 million U.S. residents will have one or more chronic conditions, driving the cost of treatment to \$4.2 trillion.^{4,5}

Much of this burden is preventable. Modifying lifestyle behaviors to reduce tobacco use, increase physical activity, consume nutritious foods, and limit alcohol consumption can reduce the impact of chronic disease in communities across the nation.³ However, current public health solutions fail to address barriers and challenges in the environment that enable unhealthy behaviors.⁶ Inadequate access to affordable and nutritious food, poor air quality, and unsafe neighborhoods can make healthy living impractical and unfeasible, particularly in low-income communities. While education can influence individual behavior choices, addressing environmental barriers and community conditions is a crucial aspect of supporting and encouraging healthy behavior change in communities. Therefore, manipulating the socioeconomic factors within PSE provides the foundation for creating sustainable public health change at the population level, as illustrated in Figure 2.^{6,7,8}

Figure 1. PSE Definitions and Examples

Type of Change	Definition	Examples
Policy	Interventions that create or amend laws, ordinances, resolutions, mandates, regulations, or rules	Increasing taxes on cigarettes to discourage purchase and use of tobacco
Systems	Interventions that impact all elements of an organization, institution, or system	Improving school systems, transportation systems, and parks/recreation systems
Environmental	Interventions that involve physical or material changes to the economic, social, or physical environment	Incorporating sidewalks, paths, and recreation areas into community design

Figure 2. Health Impact Pyramid⁶



NACCHO PSE Initiatives

With NACCHO support, the following PSE initiatives have been successfully achieved: Action Communities for Health, Innovation, and EnVironmental ChangE (ACHIEVE), Leadership for Healthy Communities (LHC), Tobacco Prevention and Control, and Diabetes Prevention and Control in communities nationwide.

ACHIEVE

With support from the Centers for Disease Control and Prevention (CDC) Healthy Communities Program, NACCHO has partnered with the National Association of Chronic Disease Directors (NACDD), the National Recreation and Park Association (NRPA), the YMCA of the USA (Y-USA), and the Society for Public Health Education (SOPHE) to engage LHDs in PSE change strategies through a collaborative approach called ACHIEVE.

ACHIEVE communities address key chronic disease risk factors such as tobacco use, physical inactivity, and poor nutrition by encouraging businesses to adopt worksite wellness policies, constructing tobacco-free parks, instituting farmers' markets to increase local access to fruits and vegetables, and supporting other public health initiatives. NACDD and Y-USA jointly selected 10 initial communities to pilot the ACHIEVE model in January 2008. Over the course of the following years, NACDD and Y-USA, along with NACCHO, NRPA, and SOPHE, each selected and funded approximately 10 new communities for a total of 40 new communities annually. Currently, 133 communities have been funded by the national organizations on behalf of ACHIEVE. By spring 2013, at least 150 communities will have participated in the initiative.

Leadership for Healthy Communities

As a national program of the Robert Wood Johnson Foundation (RWJF), LHC supports local and state government efforts to reduce childhood obesity by promotion of active living and healthy eating throughout communities nationwide. LHC emphasizes the promotion of sustainable policies to increase physical activity and healthy eating opportunities among children at highest risk for obesity in 15 priority states: Alabama, Arizona, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, New Mexico, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, and West Virginia. LHC efforts align with RWJF's overall goal to reverse the obesity epidemic by 2015.

NACCHO will assemble LHD teams throughout 11 southeastern states, Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, Tennessee, South Carolina, and West Virginia, to support local-level policy change and create a learning community of public health providers to promote active living and healthy eating. NACCHO will offer technical support to five LHDs from the 11 states through a policy academy and will choose LHDs from those who are demonstrating effective policy leadership through implementation of safe walking programs,

such as Safe Routes to School, or farm-fresh food access programs, such as the WIC Farmers' Market Nutrition Program. Selected LHDs will receive funding and technical assistance to develop and apply action plans to encourage the rapid adoption of successful policy strategies.

Tobacco Prevention and Control

NACCHO's Tobacco Prevention and Control Project increases the capacity of LHDs to address tobacco use, the single most preventable cause of death, disability, and disease in the United States. With support from the CDC's Office on Smoking and Health (OSH), NACCHO, in partnership with the National Association of Local Boards of Health, provides training, technical assistance, and funding to LHDs and their tobacco prevention and control coalitions. This support improves the ability of local public health professionals, leaders, and tobacco control advocates to plan and implement activities that are evidence-based and sustainable. Since 2010, NACCHO has conducted one-day facilitated action planning meetings and provided follow-up support to 16 LHDs and their coalitions.

NACCHO distributes information, resources, model practices, and research in tobacco prevention and control through the tobacco webpage, e-newsletter, print newsletter, and webinars. Additionally, NACCHO disseminates the *2010 Program and Funding Guidelines for Comprehensive Local Tobacco Control Programs*, which provide a solid foundation on which LHDs and state partners can structure comprehensive local tobacco control efforts and discuss how to allocate local funds to help ensure effective programs.

Diabetes Prevention and Control

Diabetes affects nearly 24 million people nationwide, or eight percent of the U.S. population, which represents an increase of more than three million in approximately two years.³ NACCHO, funded through a cooperative agreement with the CDC's Division of Diabetes Translation, provides information to LHDs to guide development and implementation of diabetes prevention programs at the local level and to build LHD capacity for creating sustainable coalitions. NACCHO's diabetes program objectives aim to identify and disseminate best practice in diabetes prevention among LHDs; develop LHD expertise in diabetes prevention; and provide technical assistance and training to LHDs in creating sustainable chronic disease prevention-related coalitions. Since 2010, NACCHO has trained 20 LHDs in the three-day *Diabetes Today* training, which empowers communities to develop appropriate interventions that will prevent or reduce diabetes complications and improve diabetes care.

NACCHO also disseminates information to LHDs about model practices, research, and resources in diabetes prevention, including the *Guide to Community Preventive Services* recommendations for diabetes prevention and *Building Healthy Communities: Diabetes Compendium*.

ACHIEVE Examples

Alexandria Childhood Obesity Action Network (A-COAN), Alexandria, VA—According to a 2007 study conducted by Inova Health System, approximately 44 percent of children ages two- to five-years-old in Alexandria, VA, are overweight or obese. Such startling statistics stimulated the community to create A-COAN in 2009, through sponsorship from the 200-member citizen-led Partnership for Healthier Alexandria and an ACHIEVE grant from NACCHO, to encourage active living and healthy eating for toddlers and preschoolers through PSE change. A-COAN has successfully implemented four strategic goals, including passage of city-wide policy in support of breastfeeding; increased accessibility and use of safe places for children to play; establishment of a food stamp acceptance system at a local farmers' market; and integration of physical activity and nutrition promotion into curriculum at preschools and daycare centers.

Action for Health, Clinton County, NY—The Clinton County Health Department employed NACCHO's Mobilizing for Action through Planning and Partnership process to establish a community-based group composed of members of the local public health system. Through ACHIEVE funding and training on PSE strategies, the "Action for Health" partners addressed chronic disease by improving the county's tobacco-free campus policy; piloting a worksite wellness program within a local business of over 300 employees; and training planning and zoning board members on "complete streets" initiatives. Additionally, the LHD created a farmers' market for residents with little access to healthy food and increased membership at two local gyms among employees at local worksites through discounted corporate rate offers.

LHC Examples

Kanawha-Charleston Health Department, WV—The LHD partnered with the school district and "KEYS 4 HealthyKids" initiative to adopt PSE strategies, such as a joint-use agreement policy for the local school board to increase "green space," a calorie-posting policy for county school menus, and incorporation of physical activity during the school day. To ensure that all children have an opportunity to be physically active and receive healthy meals and snacks, local childcare centers use the Nutrition and Physical Activity Self-Assessment for Childcare. Additionally, the LHD is working with the board of education to (1) promote partnerships between local schools and community organization that create joint-use agreements, which enhance the physical activities available for children within the community; and (2) establish a mechanism to post calories and incorporate parent education and

awareness into the initiative. The LHD is also creating policies to support schools' application for Safe Routes to School grants and encourage use of energizers and activities throughout the school day.

Wilkes County Health Department, NC—In August 2010, Wilkes County schools adopted the evidence-based "In-school Prevention of Obesity and Disease" program based on recommendations from the Wilkes County Health Department and the Fitness and Nutrition for Disease Prevention Task Force. Additionally, 13 local elementary schools have secured funding to enhance playgrounds or walking trails and transform the spaces into "community park" facilities open to community members outside of school hours. The Wilkes County School Health Advisory Council drafted a comprehensive healthy foods policy, which limited unhealthy food in schools and increased healthy food access for a la carte foods, after-school snacks, classroom celebrations, fundraisers, class snacks, intramural events, vending machines, and rewards. The policy was presented to the board of education in spring 2011.

Tobacco Prevention & Control Examples

South Carolina Region 8 (Jasper, Beaufort, Colleton, Hampton Counties)—In January 2010, NACCHO worked with the Coastal South Tobacco Coalition (CSTC) to develop an action plan for tobacco prevention and control. The coalition prioritized developing strategic plans for the localities and gaining public support for its efforts. In addition to tobacco work, the coalition also focused on its structure, created memoranda of understanding, and gathered letters of support from members. The CSTC has worked to expand smoke-free policies in workplaces and schools in the region. The coalition surveyed local restaurants to understand existing policies and address challenges in passing smoke-free ordinances. In the "Blazing the Way" campaign, the coalition worked with counties in the region to promote smoke-free school campuses. With ongoing technical assistance from NACCHO, the CSTC and South Carolina Region 8 continue to advocate for smoke-free air policies and build awareness of the dangers of smoking and secondhand smoke.

Monroe County, KY—In November 2010, NACCHO facilitated an action planning meeting with the Monroe County Health Department and key community leaders to guide the activities of their coalition. The group discussed strategies to sustain local tobacco control efforts and to support state efforts. NACCHO has continually supported the coalition on the activities outlined in its action plan through Web-based and telephone support. The coalition surveyed policymakers of the city, county, and board of health to determine

the best target for policy change; created postcards and billboards to increase public awareness of the dangers of smoking; compiled stories and support from members of the business community on smoke-free policies; and advocated for tobacco-free schools and workplaces. The LHD and coalition celebrated a major success in February 2011, when the county passed a smoke-free courthouse policy.

Diabetes Prevention & Control Examples

Jefferson County, KS—The Jefferson County Health Department came into the *Diabetes Today* training in October 2010 with no diabetes coalition in place. Armed with the knowledge and skills taken from the training, the Jefferson County Health Department returned to Kansas and began recruiting members to join the Jefferson County Diabetes Coalition (JCDC). While working to develop vision and mission statements, the new coalition spoke to county residents with diabetes to understand their needs. The JCDC also contacted the state diabetes program manager and began collaborating with the state to ensure that they were working toward the same goals. The coalition prioritized raising awareness about the burden of diabetes in the community with a focus on prevention. To this end, the JCDC published an editorial in the local newspaper and released PSAs on local radio stations about healthy lifestyles and diabetes prevention. NACCHO supports the efforts of the Jefferson County Health Department and JCDC through peer-to-peer conference calls, information sharing, webinars, and technical assistance.

Fulton County, GA—In March 2011, the Fulton County Department of Health Services took part in the *Diabetes Today* training conducted by NACCHO. Following the training, Fulton County created a diabetes-focused coalition, the Fulton County Diabetes Initiative, and held a community forum to introduce the community to the initiative. Since the training, the Fulton County Diabetes Initiative met with faith-based community leaders and elected officials to raise awareness about diabetes prevention and control and garner support for the initiative. As a result of these meetings, 14 mayors in the county gave commitments of support. The coalition continues to work on the objectives outlined in its action plan, including mobilizing resources for addressing diabetes in Fulton County for the most affected populations, providing the public with information about the prevalence of diabetes in specific sections of the county, and developing and implementing a diabetes prevention pilot program to promote nutrition education and increased physical activity. NACCHO supports the Fulton County Department of Health Services and the Fulton County Diabetes Initiative as they move forward with these efforts.

[ISSUE BRIEF]

October 2011



Conclusion

Strengthening the current public health solutions to address environmental barriers and challenges is necessary to foster healthy behaviors. Thus, promoting PSE change provides an opportunity for LHDs to reduce the burden of chronic disease within communities, as demonstrated by examples from ACHIEVE, LHC, Tobacco Prevention and Control, and Diabetes Prevention and Control communities. LHD involvement in PSE change within communities is integral in combating chronic disease nationwide and ensures that such change will be sustainable in the future.

Acknowledgments

Funding for this project was provided by the Centers for Disease Control and Prevention, award #5U38HM000449-04. The contents of this document are solely the responsibility of NACCHO and do not necessarily represent the official views of the sponsor.

NACCHO thanks the following people who contributed to this report: Nicole Garcia, NACCHO Intern, MPH candidate; Ken Smith, PhD; Laura Horne, MPH; Amy Henes, MPH; Julie Nelson Ingoglia, MPH; Erin Bonzon, MSW, MSPH; Camillia Easley, MPH; and Truemenda Green, MA.

References

1. Ahlquist, B. *Understanding Policy, Systems, and Environmental Change to Improve Health* (presentation). Minnesota Department of Health. Retrieved from <http://www.health.state.mn.us/ommh/committees/ommhadvcomm/policypres0110.pdf>.
2. Centers for Disease Control and Prevention. (2011). *Policy, Systems, and Environmental Change*. Retrieved from <http://www.cdc.gov/communitiesputtingpreventiontowork/policy/index.htm#strategies>.
3. Centers for Disease Control and Prevention. (2009). *Chronic Diseases: The Power to Prevent, The Call to Control: At a Glance*.

Retrieved from <http://www.cdc.gov/chronicdisease/resources/publications/aag/chronic.htm>.

4. DeVol, R., & Bedroussian, A. (2007). *An Unhealthy America: The Economic Burden of Chronic Disease: Charting a New Course to Save Lives and Increase Productivity and Economic Growth Executive Summary*. The Milken Institute. Retrieved from http://www.milkeninstitute.org/pdf/es_researchfindings.pdf.
5. Flores, L. M., Davis, R., & Culross, P. (2007). Community Health: A Critical Approach to Addressing Chronic Diseases. *Preventing Chronic Disease Public Health Research, Practice, and Policy*, 4(4), 1–6. Retrieved from <http://eatbettermovemore.org/documents/preventingchronicdisease.pdf>.
6. Frieden, T. R. (2010). A Framework for Public Health Action: The Health Impact Pyramid. *Am J Public Health*, 100, 590–595. Retrieved from <http://ajph.aphapublications.org/cgi/content/short/100/4/590>.
7. Smedley, B.D. & Syme S.L. (2000). A social environmental approach to health and health interventions. *Promoting health: Intervention strategies from social and behavioral research*. Washington, DC: National Academy Press.
8. Tackling the burden of chronic diseases in the USA. (2009, January 17). *The Lancet*, 373(9659), 185. Retrieved from <http://www.thelancet.com/journals/lancet/article/PIIS0140-6736%2809%2960048-9/fulltext>.

FOR MORE INFORMATION, PLEASE CONTACT:

Truemenda Green, MA

Director of Healthy Communities/Chronic Disease
202-507-4213
tgreen@naccho.org

NACCHO

National Association of County & City Health Officials

The National Connection for Local Public Health

www.naccho.org



Public Health
Prevent. Promote. Protect.

The mission of the National Association of County and City Health Officials (NACCHO) is to be a leader, partner, catalyst, and voice for local health departments in order to ensure the conditions that promote health and equity, combat disease, and improve the quality and length of all lives.

1100 17th St, NW, 7th Floor Washington, DC 20036

P 202-783-5550 F 202-783-1583

© 2011. National Association of County and City Health Officials.