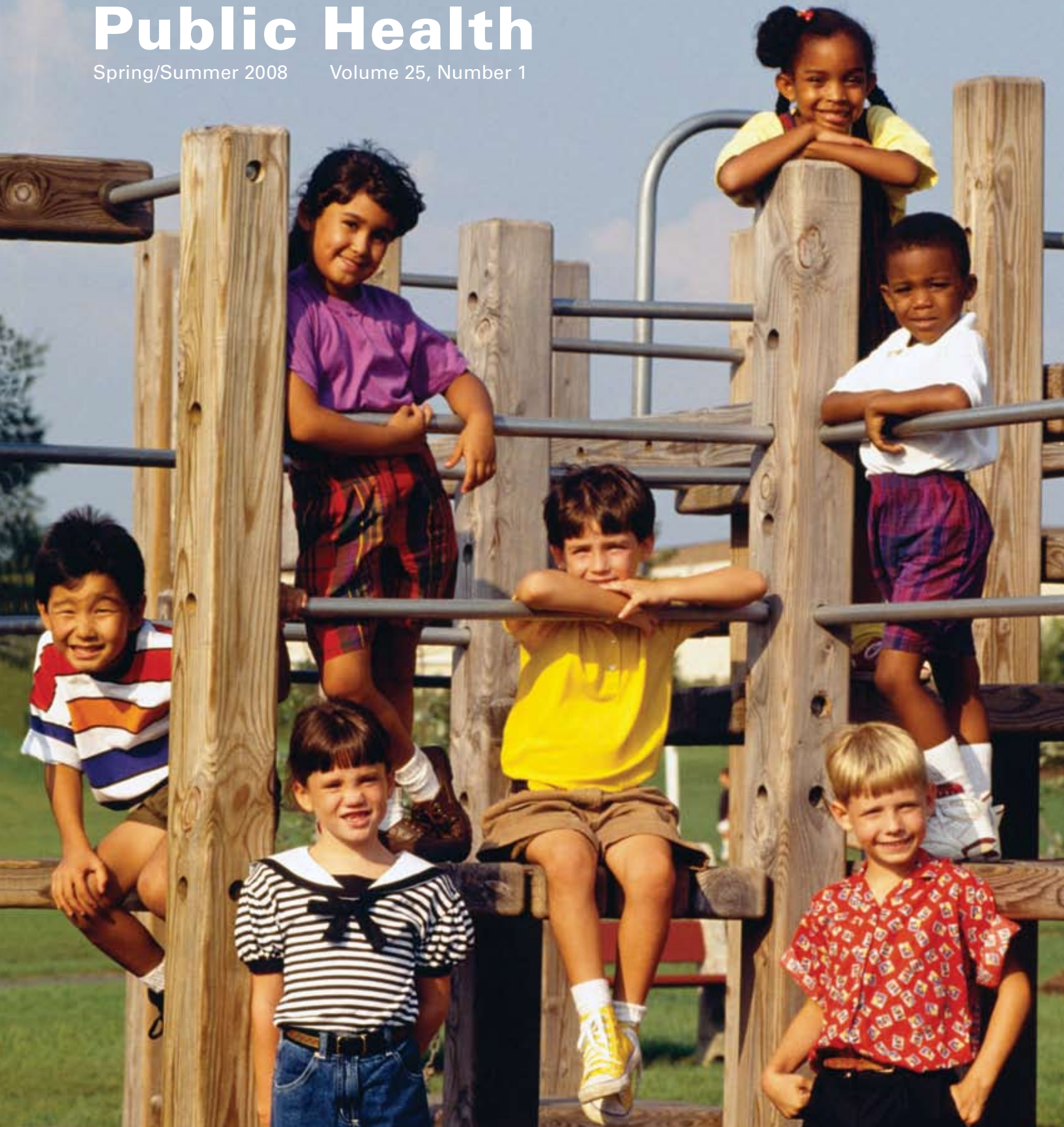


Northwest Public Health

Spring/Summer 2008

Volume 25, Number 1



**PREVENTING OBESITY:
Moving Beyond Individual Responsibility**

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Preventing Obesity— Moving Beyond Individual Responsibility



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Web Special: www.nwpublichealth.org
Annotated Resources on Obesity Prevention
Laura Larsson



Laura Streichert



Building a Research Base for Obesity Prevention

The obesity epidemic—the numbers are stunning, the problem global, and the challenges daunting. Obesity threatens the health of hundreds of millions at all ages and every socioeconomic level. However, we are learning more about its complex causes, including the social determinants of obesity, and we are working on numerous fronts to prevent the epidemic from spreading.

Many of those efforts under way throughout our region are described in this issue of *Northwest Public Health*. Our School is deeply involved in research on obesity from several angles: child and adolescent health, fitness programs for seniors, nutritional sciences, and diabetes prevention among them. We also have a long-standing focus on the social determinants of health, and we promote research, education, and practice that lead to reducing health disparities.

For example, research by Adam Drewnowski, PhD, professor of epidemiology and director of our Nutritional Sciences Program, Center for Public Health Nutrition, and Center for Obesity Research, has indicated that healthy food is more expensive and less available, particularly in rural areas and inner cities. Energy-dense foods, such as those high in fat and sugars, can contribute to obesity in poor areas by being cheaper and more accessible in those communities. A new grant from the National Institute of Diabetes and Digestive and Kidney Diseases (one of the National Institutes of Health) will help us study those geographic and economic indicators of obesity. The grant will fund a study looking at how physical, social, and economic environments influence dietary choices and contribute to disparities in obesity rates.

This study will include a telephone survey of about 2,000 adults in King County to learn about their socioeconomic status, shopping and eating habits, food spending, and health. It will further earlier research on whether physical and economic access to food sources can predict the energy density of a person's diet and the risk of obesity. It also builds on previous research and partnerships established by our Center for Public Health Nutrition. That Center was founded in 2002 to advance and promote public health practice to improve nutrition and reduce obesity. It does that by collaborating with government, community, and academic partners; conducting research in public health nutrition and physical activity; and extending the benefits of University resources and expertise beyond the campus.

On another front, the UW Center for Obesity Research (UW-COR) is developing new interdisciplinary approaches to examine the social determinants of obesity. UW-COR has been fostering interdisciplinary research involving epidemiology, nutrition, economics, urban planning, and health services to address the biomedical, social, economic, and environmental aspects of obesity. The Center's long-term goal is to translate research results into evidence-based strategies for obesity prevention and treatment. We need new approaches to obesity prevention and want to influence environmental and policy changes that will have an effect on the public's health.

Once again, *Northwest Public Health* has brought us thoughtful articles covering a broad spectrum of regional efforts to address an important public health issue. I am always impressed by the work of our colleagues in the practice community and am pleased to have an opportunity to provide an overview of some of the ways our School supports and contributes to that good work.

A handwritten signature in black ink that reads "Patricia W. Wahl". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

Patricia W. Wahl, Dean
UW School of Public Health
and Community Medicine



Northwest Public Health

Spring/Summer 2008 • Volume 25 No. 1

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The mission of the journal is to provide a forum for practitioners, teachers, researchers, and policy makers in public health to exchange ideas, describe innovations, and discuss current issues.

The logo of the School of Public Health and Community Medicine, designed by Marvin Oliver, is a symbol of physical and mental well-being.

Cover photo: © Photos.com

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From the Editor



This issue of *Northwest Public Health* has a great cover photo, but what do healthy kids of all races hanging out together have to do with obesity prevention? Everything, really. The photo evokes a vision of a time when obesity will not be the major public health concern for current and future generations that it is today. It suggests that interventions to prevent obesity must target the conditions into which children are born and in which they live, attend school, and play. It recognizes the crucial importance of early nutrition for future health and reflects the reality that we all live in a socioeconomic structure that influences our options for healthy choices.

The articles in this issue present a strong case that we can create healthy communities for everyone, but to do so we need to broaden our focus beyond individual behavior to the social, economic, and physical frameworks that support and encourage healthy lives. We have to discard ideologies that ignore the inextricable link between social and political contexts and individual action.

Obesity prevention crosses all aspects of life—from human biology to global marketing—and almost every aspect can be addressed through policy interventions. In fact, the time is ripe for broad collaboration across agencies and communities to insert a health focus into policies ranging from transportation to agriculture. The Washington State *Local Farms, Healthy Kids* bill, signed in April by Governor Gregoire, is an example of such policies. The bill envisions more farm-fresh, locally grown food in schools, food banks, and other community institutions. The combined focus on schools, the environment, the health of kids, and support of small businesses created common ground and widespread support that bridged traditional divides between environment, education, public health, and agriculture sectors.

In this issue, three guest editors from the UW School of Public Health and Community Medicine—Laura C. Streichert, Donna B. Johnson, and Adam Drewnowski—bring their expertise in obesity prevention to consider the social determinants of obesity and the intermediate factors that must be addressed to stem the rising obesity rates. Their lead article (p. 6) highlights some of the current and emerging areas of focus for obesity prevention.

A common theme throughout the issue is a focus on environmental and policy-level change through practical, evidence-based interventions targeted to populations most in need. Several articles stress the importance of early nutrition (Adams and Bagby, p. 7), the disparity in food costs (Drewnowski and Monsivais, p. 4), and the costly effects of food insecurity (Curtis, p. 10). Sitaker and Brandt (p. 20) outline a training program to bring about a fundamental shift in approach to doing public health work at the state level, and articles by West (p. 12) and MacDougall and Valenzuela (p. 16) demonstrate just how effective a county health department can be when working across agencies to bring health issues into neighborhood planning. But policy plays out in the lives of individuals, and articles by Manhas (p. 8), Sutherland and Weiler (p. 14), and Baehr (p. 18) picture the results of systemic interventions to enhance communities' capacity to create healthy environments. Finally, Bekemeier (p. 22) reminds us that public health nursing has a long history of working to improve environmental conditions and still has work to do.

As these articles show, preventing obesity has to start early and reach far beyond individual weight loss plans, if we are to create that world reflected in our cover photo. We owe no less to those kids.

Aaron Katz, Editor-in-Chief

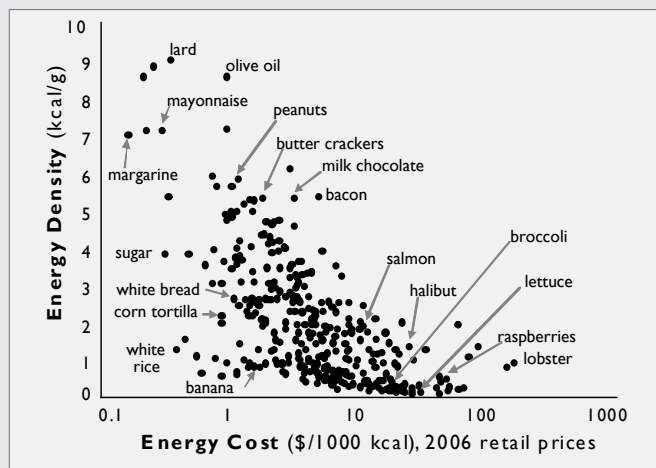
Director, Packard-Gates Population Leadership Program
UW School of Public Health and Community Medicine

The High Cost of Low-Priced Food

Adam Drewnowski
Pablo Monsivais

Food Checkout Day was February 6 this year. Sponsored by farm bureaus around the US, it celebrates the day—counted from January 1—when the average American household had earned enough disposable income to pay for a year's worth of food. The early February date draws attention to the fact that only 37 days of work are needed to provide a household with food for a whole year. By all accounts, Americans enjoy the most affordable food supply in the world, spending less than 10 percent of their disposable income on food.

The apparent affordability of the American diet hides a darker truth: Not all foods have become more affordable. Calories have become cheap in our food supply, but nutrients—the vitamins, minerals and other dietary components that we need for health—still carry a price premium. Fresh produce, seafood, and lean cuts of meat are good sources of nutrients, but are expensive sources of calories. In contrast, refined grains, sugars, and fats provide calories at a very low cost, but those calories are often “empty,” or nutrient free.



Food prices and energy density are inversely linked, as this graph of 339 foods shows. (Prices collected in 2006 from Safeway, Albertsons, and QFC in Seattle. Adapted from Monsivais and Drewnowski, *Journal of the American Dietetic Association*, 2007;107(12):2071-6.)

Adam Drewnowski, PhD, is director of the Nutritional Science Program and Pablo Monsivais, PhD, MPH, is a research analyst with the Center for Public Health Nutrition at the UW School of Public Health and Community Medicine.

Research has shown that obesity rates in the US, including the Pacific Northwest, are higher among groups with lower education and income levels. Higher rates are observed in lower-income states, in poor counties and legislative districts, and in disadvantaged zip code areas and neighborhoods. One theory holds that inequities in access to healthy foods are responsible for the social gradient in obesity rates. Energy-dense (high-calorie) sugars and fats are inexpensive, readily available, and satisfying. In contrast, many healthier foods have become luxury items, well beyond the reach of the low-income consumer. Diet quality, in fact, is a reliable index of social class.

Although average food prices have declined relative to incomes, a large and growing affordability gap exists between the more healthful and less healthful foods, and that price gap by nutrient quality appears to be growing over time. US Department of Agriculture statistics show that real prices for fresh fruits and vegetables rose more than 140 percent between 1984 and 2002; prices for sugars and sweets fell by 12 percent, and soft drinks fell by 30 percent over the same period.

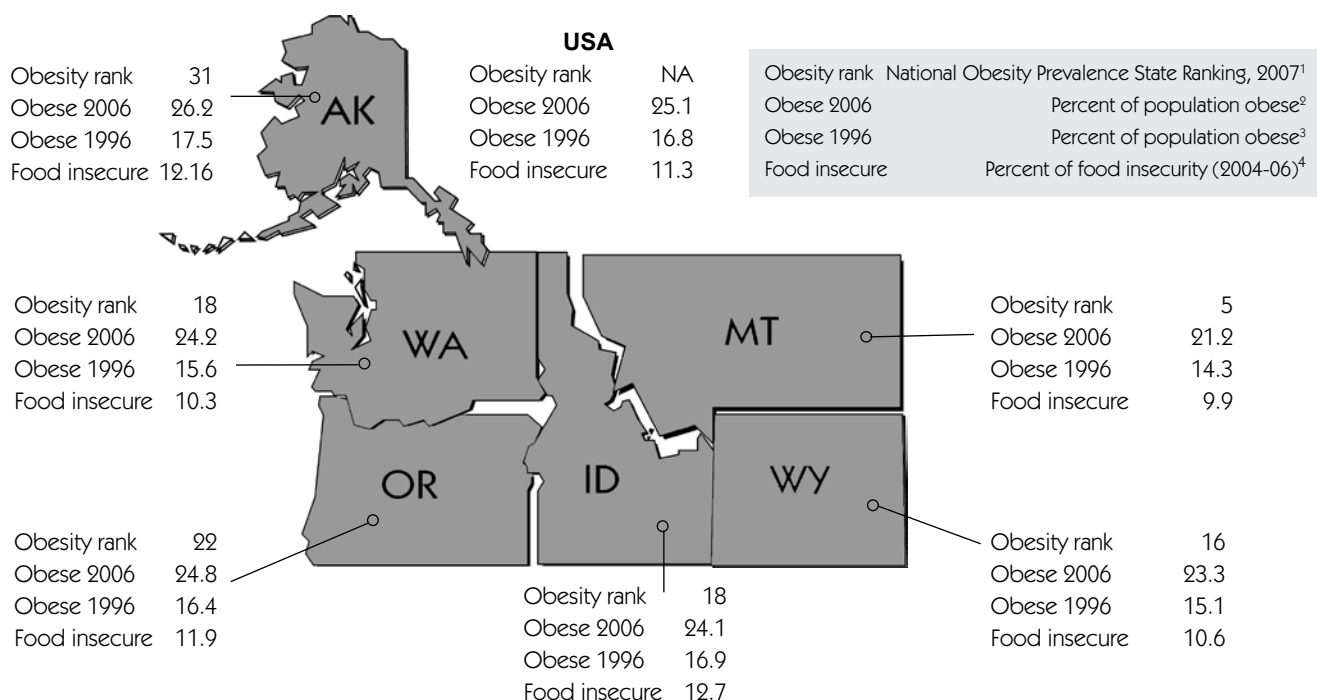
A study conducted in Seattle supermarkets in 2004, and again in 2006, showed that the most healthful foods of lowest energy density increased in price by almost 20 percent over a two-year period, outpacing inflation. By contrast, the price of energy-dense foods remained constant.

Several studies have now shown that poor diet quality, rather than total energy consumed, is a predictor of higher obesity rates. One possibility is that low diet costs, rather than the consumption of any particular food or beverage, are the best predictor of weight gain. For example, it is easier to overeat inexpensive and energy-dense potato chips than a spinach salad.

Is it possible to achieve a nutritious diet at low cost? In theory, yes. The USDA's Thrifty Food Plan (TFP) is essentially a shopping list and menu planner that uses complex statistical algorithms to optimize the recommended foods and menus. The TFP achieves its goal by balancing the cost and nutrition of foods across food groups. However, the TFP does not take into consideration that dietary choices are also driven by limited time and social and cultural norms.

Obesity in America is largely an economic issue. Many past approaches to preventing or controlling obesity have been based on information, education, and theories of behavior change. The emphasis has been on decisions or choices made by the obese person. But the realization is emerging that some economic choices are beyond individual control. As a result, the obesity epidemic must be approached from the environmental and policy standpoint. A convergence between agricultural policy and public health is long overdue. A coherent agricultural policy, in the Pacific Northwest and beyond, is needed to stop Americans from becoming some of the most overfed, yet undernourished, people on Earth. ■

Obesity in the Northwest



Notes: Obesity ranking 1 is the lowest percentage and 50 is the highest percentage of obese population. "Percent food insecure" includes low and very low food security. Food insecurity is a household-level, economic and social condition of limited access to food.

Sources: 1. *America's Health Rankings*, Prevalence of Obesity Summary. United Health Foundation, www.unitedhealthfoundation.org/ahr2007/obesity.html; 2. National Center for Chronic Disease Prevention & Health Promotion. Behavioral Risk Factor Surveillance System (BRFSS). Overweight and Obesity (BMI)—2006. apps.nccd.cdc.gov/brfss/list.asp?cat=OB&yr=2006&qkey=4409&state=All; 3. National Center for Chronic Disease Prevention & Health Promotion. BRFSS. Overweight and Obesity (BMI)—1996. apps.nccd.cdc.gov/brfss/list.asp?cat=OB&yr=1996&qkey=4409&state=All; 4. Appendix D—Prevalence Rates of Food Insecurity by State, 1996-98, 2001-03, and 2004-06, Table-D, *Household Food Security in the United States, 2006*. Economic Research Service, US Dept. of Agriculture, www.ers.usda.gov/Publications/ERR49/ERR49appD.pdf.

Social and Economic Indicators for Obesity

	AK	ID	MT	OR	WA	WY	USA
Below 125% poverty (%) 2001 ¹ ▼	11.9	16.9	20.2	16.5	15.0	12.7	16.1
Gini ratio*, household (1999) ² ▼	0.402	0.427	0.436	0.438	0.436	0.428	0.463
High school graduation rate (%) 2007 ³ ▲	67.2	81.5	80.4	74.2	74.6	76.0	74.3
Some leisure-time physical activity (%) 2005 ⁴ ▲	78.6	78.4	77.6	81.4	82.6	78.0	76.2
Eating 5+ fruits and vegetables per day (%) 2005 ⁵ ▲	24.8	23.2	24.7	25.9	25.2	21.8	23.2

▼ Lower numbers are better. ▲ Higher numbers are better.

* The Gini ratio (or index of income concentration) is a statistical measure of income equality ranging from 0 to 1. A measure of 1 indicates perfect inequality, i.e., one person has all the income, and the rest have none. A measure of 0 indicates perfect equality, i.e., all people have equal shares of income. www.census.gov/hhes/www/income/defs/gini.html.

Sources: 1. US Census Bureau. Annual demographic survey, Table 25. Poverty status by state, 2001. pubdb3.census.gov/macro/032002/pov/new25_001.htm; 2. US Census Bureau. Table S4. Gini ratios by state 1969, 1979, 1989, 1999. www.census.gov/hhes/www/income/histinc/state/state4.html; 3. United Health Foundation. www.unitedhealthfoundation.org/ahr2007/hsgrad.html#Table24; 4. National Center for Chronic Disease Prevention and Health Promotion. CDC. apps.nccd.cdc.gov/brfss/list.asp?cat=EX&yr=2005&qkey=4347&state=UB; 5. National Center for Chronic Disease Prevention and Health Promotion. CDC. apps.nccd.cdc.gov/brfss/years.asp?yr=2005&state=All&cat=FV.

Data researched and compiled by Carmen C. Washington.

Reframing Obesity Prevention

The obesity epidemic signals shifts in the economic, social, and physical environments that shape our lives. It demands a new approach in public health obesity prevention efforts.

Guest Editors

Laura C. Streichert
Donna B. Johnson
Adam Drewnowski

In the Northwest states, more than one in five adults is now considered obese—and the rates are rising. Racial and ethnic minorities and groups with lower education and incomes are most likely to be obese. Looking at obesity through the lens of health disparities sheds light on how factors outside of individual control interact to promote, or prevent, health.

Obesity has significant, long-lasting health consequences. It contributes to a host of chronic illnesses, including diabetes, heart disease, cancer, mental illness, and even Alzheimer's. Disproportionate increases in obesity across groups further widen health gaps. Left unchecked, escalating obesity rates in children threaten to reduce the life expectancy of the next generation.

The financial toll of obesity is enormous. According to the Centers for Disease Control and Prevention, obesity costs the Pacific Northwest region an estimated \$4.87 billion a year in direct medical costs and untold amounts through illness-related absenteeism and lost productivity. In Washington State, 10 percent of all Medicaid costs are obesity-related. With compelling health needs and taxpayers' interests at stake, reducing obesity has become a top priority for health and economic policy agendas.

This overview highlights some of the emerging areas of focus and action for obesity prevention.

Population health focus

Obesity has long been viewed as a medical and behavioral problem to be treated and prevented at the individual level. The notion that we each can choose what to eat and whether to be active is entrenched in America's concept of personal freedom. Obesity prevention has traditionally been based on this idea. Yet strategies to reduce obesity using surgery, pills, and public health messages exhorting personal behavior change have failed to stop rates from climbing. A broader view is needed that recognizes the factors that influence health at a population level.

Glaring socioeconomic disparities in health outcomes point to the role of upstream forces and systemic inequity in options for healthy

decision making. These factors are reflected in an unequal distribution of and access to resources, especially those that influence dietary choices and opportunities to be physically active.

In a population health context, obesity can be seen not as something we do to ourselves, but as a result of living in our society. In Washington State, for example, adults with annual household incomes under \$20,000 are 40 percent more likely to be obese than those in households with annual incomes of \$50,000 or more. The question for public health is: How does living in poverty translate to increased risk for obesity?

The challenge for obesity prevention is to understand how advantage is conferred to some groups, to pinpoint modifiable environmental factors, and to develop strategies for changing current norms. This requires examination of both structural influences, such as the multilevel effects of poverty, and the intermediary factors, such as access to healthy food, through which the broader social determinants get expressed. Actual change will require community engagement, support, and collaboration across sectors.

Although public health practitioners may lack authority to evoke change in some areas, they play a crucial role by collaborating with decision makers in zoning, economic policy, transportation, food systems, and other areas in which policy has newly recognized health implications.

Place matters

The built environment shapes behavior. Disparities in the availability and quality of food markets, restaurants, parks, community centers, walking trails, and other amenities mirror socioeconomic indicators. Lower-income neighborhoods, for example, tend to have fewer supermarkets, more convenience stores, and a higher density of fast-food restaurants. High-poverty areas also have more safety issues that discourage physical activity. Unsafe parks, for example, are less likely to be used, even if nearby.

The convergence of epidemiology and spatial analysis is revolutionizing our conception of the social determinants of health and providing novel

Policies to support
and strengthen families
and community
networks provide a
foundation for obesity
prevention efforts.

insights into how poverty, wealth, wellness, and disease are spatially clustered. A recent University of Washington study, for example, showed six-fold disparities in obesity rates between higher- and lower-income zip code areas.

Identifying areas of deprivation and modifying the environment to increase the availability of food and recreation resources are, therefore, important focuses for intervention and policy. New York City, for example, has issued permits for mobile produce carts to increase the availability of fresh produce in low-income neighborhoods. Tax breaks and other incentives are being used to attract supermarkets to low-income areas. Community design, zoning, and land-use policies that consider health effects are transcending traditional health policy borders.

High cost of eating healthy

Cost and convenience are primary drivers of consumer choice. Food costs connect nutrition, health, economics, and consumer behavior and are, therefore, an effective point of intervention and area for further research. The small stores typical in low-income neighborhoods often have a limited selection of fresh fruits and vegetables that are more expensive than high-calorie, less nutritious foods. The higher price of nutritious food is a major obstacle for adopting healthier diets, especially among low-income consumers. Higher food costs also fuel recession, which pushes even more households into poverty.

Hunger, a symptom of poverty and long associated with undereating, is now also tied to overconsumption of a poor-quality diet. The staples commonly disbursed through assistance programs are often unhealthy foods. Efforts to overcome barriers to access to higher-quality foods include building food banks' capacity for providing fresh produce to low-income clients. Financial policies, such as rebates to food stamp participants for purchases of fruits and vegetables, have also been shown to increase consumption of healthy foods.

With skyrocketing food prices, escalating global demand for alternative fuel sources, rising transportation costs, shrinking farmland, and other concerns, a healthy diet may become more difficult for everyone and even further out of reach for low-income populations.

Time poverty

Time is a limited resource for everyone and yet an often overlooked dimension of health disparities. Sleep deprivation and chronic stress, both linked to obesity, can be a function of time availability. Having limited control over time use and scheduling can significantly influence eating and physical activity.

Why Help Moms? Critical Periods for Nutrition

Elizabeth Adams and Susan Bagby

Events at the earliest stages of life can have long-term effects. Obesity, heart disease, diabetes, cancer, hypertension, and other adverse health outcomes in adulthood have been linked to exposure to poor nutrition before birth. When small size at birth and in infancy is followed by rapid growth and being overweight in early childhood, risk of developing chronic diseases later in life is further increased. Similarly, when slow linear growth in utero is followed by failure to thrive during infancy and childhood, risk is increased for coronary disease and stroke.

How does this effect work? When the body's organs and regulatory systems are forming, poor nutrition and too few or too many calories can permanently alter their structure and function. These changes are possible because, for each organ or system, a period of plasticity occurs during critical windows of development, making it possible for environmental influences to permanently affect gene expression and program developmental pathways.

Developmental plasticity makes it possible for organ systems to adjust their development in response to the nature and the timing of nutrition and other cues from the intrauterine environment. Such adjustments favor survival if similar conditions prevail after birth. For example, insufficient calories and nutrients in utero may trigger adaptive physiological mechanisms that encourage maximal use of available nutrients, conferring an adaptive advantage in the womb. However, if food is abundant in post-natal life, the same adaptations can be detrimental for weight control.

Maternal weight before pregnancy is a strong predictor for childhood obesity in offspring. Obese women have higher rates of large-for-gestational-age births, which increases a child's risk for becoming obese. High-calorie intake early in life can affect fat cell development as well as how the brain regulates appetite, resulting in childhood obesity. When the obese child becomes an obese parent, the cycle continues.

The higher prevalence of obesity among women in lower socioeconomic groups suggests how health disparities can be initiated in the prenatal period. The evidence for the developmental origins of obesity presents a strong case for public health interventions that target the nutrition and health of young children, girls, and women through the child-bearing years, especially those from disadvantaged populations. The results of these efforts will influence the health and health equity of current and future generations. ■

Elizabeth Adams, PhD, RD, is an assistant professor in the Department of Public Health and Preventive Medicine and Susan Bagby, MD, is professor of medicine and physiology/pharmacology at Oregon Health & Science University in Portland, Oregon.

Time constraints, in fact, are changing food and family culture. Increases in the number of women in the workforce have significantly limited the time available for preparing healthy meals—from shopping and preparing to cleaning up. This time deficit drives up demand for convenience foods. Understandably, promotion of healthier but more expensive and time-intensive diets has encountered resistance and had little effect on obesity rates.

Work-site policies are an important avenue for obesity prevention. Flexible schedules, breastfeeding support, financial incentives for physical activity, and similar strategies make it easier to fit healthy behavior into work schedules.

The causes of obesity are woven into the economic and social fabric of a community. Having quality time to build bonds with others, for example, creates social cohesion, which has been linked to health. Policies to support and strengthen families and community networks, therefore, provide a foundation for obesity prevention efforts.

Continued on page 24



Community Coalition Starts with Parents

Sonia Manhas

When Ruth Ponce photographs her two daughters' walk to school, she isn't taking photos for her scrapbook, she's working to create sustainable changes in her children's environment that will help combat obesity. Her photo project is part of a community capacity-building initiative to engage parents at two Portland, Oregon, schools in understanding the social determinants of obesity and developing strategies to reduce their community rates of obesity and chronic disease.

The seeds for the project and its focus on community capacity building began with a conversation in 2006 between Clarendon Elementary School Principal Antonio Lopez and Multnomah County Health Department's Chronic Disease Prevention Program staff about the health status of his students. Data showed that the community was disproportionately affected by chronic diseases and obesity. The conversation led to a broad-based effort to form the Healthy Eating Active Living (HEAL) Coalition, representing parents, teachers, and community partners including Portland State University, the Schools Uniting Neighborhoods Program, Portland Schools Alliance, Portland Parks and Recreation, and the Health Department.

The organizing efforts caught the attention of neighboring James John Elementary School, which shared the vision of a healthy community and had similar school demographics, and the Coalition expanded to include both schools.

The Coalition developed a work plan focused on four key elements: the use of the local elementary schools as the central point for community organization, implementation of the Community Health Worker model to engage with underserved communities, application of community-based

participatory research methodology, and a focus on policy and environmental approaches. Since Hispanics were the largest cultural population served by the schools, the Coalition decided to focus its outreach during the first year on this community.

According to the Oregon Department of Human Services, about 63 percent of the Hispanic community in Oregon are overweight or obese, less than one-third of the Hispanic population meets current physical activity guidelines, and the Hispanic population is less likely than the total Oregon population to have received preventive services such as cholesterol or high blood pressure screenings.

Building community capacity

The Coalition quickly established the goal of building an engaged, informed, and empowered community of parents who are actively shaping a policy agenda to reduce obesity by addressing community-wide barriers to healthy eating and physical activity. Recognizing that much remains to be learned about what will work to reduce overweight and obesity in specific cultural communities, part of the work of the Coalition has been to create opportunities for the community members themselves to identify solutions that will create sustainable change.

With funding in large part by the Northwest Health Foundation, the Coalition was able to hire two part-time bicultural, bilingual community health workers to bring together local residents and begin a conversation about healthy eating and active living. "We work to get parents to take ownership of their neighborhoods and surroundings. We want to motivate parents to recognize that they hold power to make changes

Photo: Coalition parents photograph their school grounds for a Photovoice research project. (Multnomah Health Department)

in their community and make choices for their families. We want parents not only to pass along healthy eating habits to their children but also to send the message of belonging to a community that they can shape,” said Olivia Quiroz, one of the Coalition’s community health workers.

Early on, parents expressed interest in opportunities to increase their knowledge about nutrition and physical activity as well as in organizing efforts that could address barriers to healthy eating and physical activity in the schools and in their neighborhoods. Parents worked with community health worker Yolanda Morales to identify topics to form a healthy eating workshop series and to hold salsa dance classes at the schools, which became venues not only for education but for recruiting parents into the Coalition.

As more parents became aware of the Coalition’s purpose and the scope of the obesity problem, they identified other activities they wanted to pursue, such as coordinating Walk to School days, revitalizing a community garden, and organizing parent wellness committee meetings.

Parents in the lead

To support leadership development, the Coalition also set up a Parent Leadership Initiative to create structured opportunities for parents to take lead responsibility for specific Coalition projects and be compensated for their work.

By the start of the Coalition’s second year, a core group of parents from both schools began to play a stronger role in shaping the Coalition’s policy agenda. They formed a research team to lead a Photovoice Research Project, a research methodology that puts cameras in the hands of a group of people to photograph and present to others their concerns and realities. Their goal was to use the critical dialogue about the photographs to develop policy recommendations and then reach decision makers through public showing of the photographs. In addition to the team of parents, key community partners Portland State University, Metro, and Kaiser Permanente helped make the Photovoice Research Project happen.

Over the course of several weeks, the research team used photography to document various aspects of their communities that demonstrated barriers to or opportunities for healthy eating and active living. The team met weekly to share their photographs and discuss what they were learning about their community.

Ruth Ponce, whose daughters attend Clarendon, is a Coalition parent leader who helped coordinate the Photovoice Research Project. Ponce was interested in helping parents use the photographs to create dialogue about the effect of the built environment on the health of their community. She observed that by taking

photos, she and her fellow researchers have started to see their community in new ways. “I am most concerned about safety in my neighborhood. I want my neighborhood to be safe and more visually appealing. Now when I see an empty space, I see an opportunity to start a garden. If we see more appealing community spaces, we will get out and use them for walking and biking,” Ponce said.

The research team presented their findings and recommendations to 30 community partners in March 2008, leading to a prioritization of policy strategies that included promoting safe walking and biking to school, improving the nutrition of school breakfasts, establishing a farmers market, and enhancing safety of areas around schools.

The Coalition’s focus on environmental change rather than individual behavior change is an advantage for the community health workers. As Quiroz said, “Talking about weight and the need to lose weight is a hard conversation. For us, the goal is reframing the message so that it is not about individual blame for poor choices. Our conversations are about understanding how the different layers of our experiences have led us here, whether it’s eating habits we’ve learned from our parents, how safe we feel walking in our neighborhood, how easy and affordable it is for us to buy fresh food, or the bombardment of commercials for junk food.”

Will Multnomah County’s coalition-building model prove effective at cutting obesity rates? Initial indications are promising. Take Ruth Ponce, for example. Her first exposure to the Coalition was attending a healthy-eating workshop. She kept returning to meetings because of the attention paid to her cultural traditions and norms. She quickly went from attending the workshops to taking a lead role in the Coalition’s activities. “By being a part of this, I’ve realized that there are lots of different ways I can serve healthy food to my family. And I’ve noticed that my daughter is trying to eat better since I’ve become involved with the Coalition. She is setting her own limits on eating smaller portions,” Ponce said.

Staff, too, believe the work is effective. “Parents are excited about being advocates and having opportunities to share their concerns,” Quiroz noted. “We are reaching out to many different partners and finding out that we have similar goals for a healthy community.”

Although the Chronic Disease Prevention Program does not expect to see significant health outcomes in the short-term, it recognizes that the process it’s using to create change—especially the focus on community capacity building—will go a long way in ensuring that the community can create an environment that makes healthy choices possible. ■

“Talking about weight and the need to lose weight is a hard conversation. For us, the goal is reframing the message so that it is not about individual blame for poor choices.”

Author

Sonia Manhas, MSW, is supervisor of the Multnomah County Chronic Disease Prevention Program in Portland, Oregon.

Resources

Alliance for a Healthier Generation.
www.healthiergeneration.org
Action for Healthy Kids.
www.actionforhealthykids.org
Photovoice.
www.photovoice.com

Food Insecurity: Family Problem, Community Challenge



Megan Ward, Courtesy of First Harvest

Shelley Curtis

Washington State has long struggled with high rates of food insecurity. From 1997 to 2001 Washington had the second highest rate of very low food security, or hunger, in the United States. National food security data from 2004 to 2006 show significant improvement, but 88,000 households still experienced very low food security in 2006, with an additional 250,000 households in Washington experiencing low food security (*see definitions in box*).

Washington isn't unique. Many states in the Pacific Northwest reflect similar situations. Although much improved in recent years, Oregon repeatedly had one of the highest hunger rates in the nation in the late 1990s. Washington's other Northwest neighbors—Wyoming, Montana, Idaho, and Alaska—also struggle with high food insecurity rates.

Food insecurity is most often the result of poverty. High housing costs, low wages, frequent moving, and high tax burdens on low-income households are some of the factors identified by the US Department of Agriculture (USDA) that influence food insecurity. Households with children, especially those headed by single women, are at increased risk, as are African American, Hispanic, and Native American households.

Food insecurity creates public health problems

Hunger and food insecurity challenge the well-being of children, adults, families, and communities. Research has shown that pregnant women who are malnourished are more likely to

give birth to low-birth-weight babies. Once born, children who experience hunger and food insecurity are more likely to have behavioral problems, do poorly in school, require more medical care and hospitalizations, and develop chronic diseases as adults. Children who live in food insecure households also have poorer health-related quality of life.

Hunger and food insecurity aren't just problems for children. Among the elderly, food insecurity exacerbates acute chronic diseases and speeds the onset of degenerative diseases, leading to decreased quality and length of life.

Ironically, food insecurity and obesity can coexist in the same household and even the same individual, particularly for women. Although this paradox is not completely understood, several factors are likely at play. Research on coping strategies among food-insecure households, for example, shows that trade-offs are often made between food quantity and food quality. When money and resources for food are stretched, low-income families and individuals may buy cheaper, less nutritious food (often higher in fat and sugar) to maximize calories in order to stave off hunger.

Obesity could also be a response to cyclic supplies of food. When money or resources are available for food (usually in the beginning of the month), family members may overeat to compensate for when food is unavailable. And finally, community research at the zip code level has found that obesity rates are higher in areas that have lower property values. These less affluent areas often lack access to fresh, affordable produce and other nutritious foods.

The physical, mental, and socio-emotional effects of hunger and food insecurity are enough to cause immense concern, but they also come

Photo: Young client and mother visit food bank's weekly "Baby Day" service.

Food Insecurity Defined

Food insecurity is a household-level, economic and social condition of limited access to food.

Food secure households have access at all times to enough food for an active, healthy life for all household members.

Low food security (formerly referred to as *food insecure*) households have no reduced food intake, but reduced quality, variety, or desirability of diet.

In **very low food security** (formerly referred to as *hungry*) households, normal eating patterns of one or more household members are disrupted, and food intake is reduced at times because of insufficient money or other resources for food.

Source: US Department of Agriculture.

with a considerable financial burden on society as a whole. A recent analysis by Dr. Larry Brown (Harvard School of Public Health) and his colleagues estimates the total cost of hunger to US households, communities, businesses, and the government to be \$90 billion a year. Add that to the cost of obesity (approximately \$75 billion per year, according to estimates by RTI International and the Centers for Disease Control and Prevention), and you have a pretty hefty price communities pay for these major public health challenges.

Key areas for policy action

Key solutions to the public health consequences of hunger and food insecurity are to strengthen food assistance programs and improve the economic security of low-income families and individuals.

Increase funding for food assistance

USDA funds numerous food assistance programs such as the Special Supplemental Nutrition Program for Women, Infants and Children (WIC), the Food Stamp Program, and various school meal programs. These programs have far-reaching effects. The Food Stamp Program, in particular, has been shown to increase food spending and household income.

Participation in the School Breakfast Program affects students' test scores, cognitive ability, and memory. Food assistance programs may also help reduce the risk of obesity. A study of school-aged food-insecure girls, for example, found that those who participated in the school meal programs and the Food Stamp Program had a lower risk of being overweight.

The majority of funding for food assistance programs comes from the federal government. However, this funding is not enough to ensure that all eligible families and individuals can participate and receive adequate benefits. Programs need to be available in local communities, and program locations and hours of operation must meet working families' needs. Also, families need to be aware of the programs and have accurate information about program benefits, eligibility, and application guidelines. Decreasing the administrative red tape is also important, to make applying for and receiving benefits easier.

Access to and funding for federal food programs is an area of considerable emphasis for the Children's Alliance, a statewide, nonprofit child advocacy organization. As part of its End Childhood Hunger Project, it is engaging a broad group of stakeholders to develop a long-term plan to end childhood hunger in Washington. In addition to state and local anti-hunger advocates, key targets for implementation of the plan include

policy makers in state and local government, state program administrators, the media, and the general public.

Increase access to healthy food

In a just food system, everyone—rich and poor—would have equal access to nutritious, reasonably priced foods. However, low-income neighborhoods often lack the kinds of natural foods grocery stores found in higher-income areas. Sometimes low-income neighborhoods lack any kind of grocery store at all. Changes in public policy that increase access to local farmers markets, for example, could help ensure that low-income households have the same choices that are available to their more well-to-do counterparts. Securing funds to attract grocery stores to underserved communities is another avenue to help close the food gap.

Boost economic support for low-income households

Although food assistance programs are important for reducing hunger and food insecurity, the fundamental cause of hunger—poverty—must also be addressed. The high cost of living, coupled with rising health insurance costs, forces many low-income families and individuals to live from paycheck to paycheck. When times are tight, some families and individuals have to make the choice between paying for heat and medicine or paying for food.

Food assistance programs, along with other public assistance programs such as the Earned Income Tax Credit and the Child Tax Credit, can play a critical role in lifting people out of poverty. Food assistance programs alone, however, cannot end hunger or poverty. People need job opportunities that offer a living wage and access to good-quality, affordable housing, health care, and child care.

The costs of hunger and obesity affect all of us. Public health professionals and their academic colleagues are well-placed to promote policy and systemic changes that will help ensure that all families have access to healthy, affordable food choices. Strengthening the nation's anti-hunger safety net and improving access to nutritious food are critical steps toward eliminating hunger, food insecurity, and obesity. We must also look beyond food assistance programs and advocate for smart changes in economic support programs to help lift families and individuals out of poverty.

Creating a just food system in every community will take a coordinated, comprehensive effort as well as targeted public policy advocacy at the local, state, and national levels. Communities and individuals will reap the benefits of this effort. ■

In a just food system, everyone—rich and poor—would have equal access to nutritious, reasonably priced foods.

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Resources

Children's Alliance.
www.childrensalliance.org
Food Research and Action Center. www.frac.org

Planning Ahead for Healthy Communities



Julie West

Public health professionals have always worked with planners and policy makers to reduce exposure to health risks, especially to prevent the spread of infectious diseases and protect against well-defined environmental hazards. Early collaborative work, for example, eliminated cholera-laden water sources and such noxious land uses as garbage dumps and industrial factories in residential neighborhoods.

With the growing understanding of the role that the built environment has on people's health—from sidewalks and transit options to parks and grocery stores—public health practitioners are again collaborating with planners on broader environmental influences of chronic health conditions, including obesity, diabetes, and asthma. In Seattle and King County, Washington, the local health department, Public Health - Seattle & King County (Public Health), is partnering across agencies to raise health as a crucial issue to consider when it comes to neighborhood development.

Why bring health into planning?

The design of our built environment greatly influences the extent to which we are physically active, and therefore, the quality of our health. For example, transportation choices determine if we drive, walk, bus, or cycle, and the presence or absence of sidewalks may influence our decision to drive or walk to our destinations. Zoning rules influence how many grocery stores are in our neighborhood or even whether we have any stores at all within a convenient walking distance from where we live. Neighborhood parks and other recreation opportunities also play a role in how much exercise we get.

Photo: Residents on "Walk to Work Day" pass by a community garden in southeast Seattle.

Land-use and transportation decisions can have far reaching effects on a range of health outcomes, besides obesity. Initiatives to increase physical activity can also affect respiratory health, mental health, and safety, to name only a few important outcomes.

The health of individuals, families, and communities is affected by more than just the built environment, of course. But it is impossible to consider individuals' health without taking into account their interactions with the environment in which they live.

Built environment issues—from community design to neighborhood safety—often also highlight the relationship between equity, social justice, and health. For example, areas with lower incomes often have fewer grocery stores and parks and residents are at higher risk for poor health. Land-use and transportation plans and policies have the ability to support development of and equal access to places that encourage healthy eating and safe, active living.

Partnerships in planning

The Built Environment and Land Use Program, housed in Public Health's Environmental Health Services Division, has been promoting the connection between planning and health for a number of years. The focus started with obesity prevention but has expanded to include other public health issues such as water and air quality, noise, safety, and community connections.

Essential to the Division's successes was its early focus on intradepartmental collaboration and developing partnerships and building relationships with others outside the department. In 2004, staff from Public Health and the Seattle Department of Planning and Development attended a workshop on interagency collaboration held by NACCHO

and the American Planning Association, where participants strategized ideas for working together in the future. About the same time, Public Health was invited to provide input to the Puget Sound Regional Council's Vision 2020, a regional plan for the four counties surrounding central Puget Sound. Public Health worked with other agencies and groups to encourage the inclusion of policies and language reflecting the relationship between health and the built environment. Although a full health chapter was not included in the plan, health was included in several of the plan's areas.

Building on these first important events, Public Health has continued to partner with organizations on many activities, with physical inactivity, obesity, and other environmental health topics at the core of the work. Three examples of these activities are the Design for Active Living Workgroup, Comprehensive Planning, and the Promoting Healthy Built Environments project.

DESIGN FOR ACTIVE LIVING WORKGROUP. Keeping its focus on policy, the Design for Active Living Workgroup provided decision makers with information about linkages between planning choices and health. This diverse group of King County organizations worked together to create an Active Living Checklist to support incorporation of active living design elements into future land use, transportation, and capital improvement planning. The checklist was distributed to the 39 municipalities in King County and was used as a template by the Puget Sound Clean Air Agency for its global warming and air quality checklist.

KING COUNTY COMPREHENSIVE PLANNING. One activity with long-term health implications is Public Health's work as part of a cross-disciplinary team updating the King County Comprehensive Plan. A goal is to introduce and integrate public health information, concepts, and new policies into the plan to influence areas of land-use policy affecting health. The team also includes such King County departments as Transportation, Agriculture and Rural Economic Development, Development and Environmental Services, Natural Resources and Parks, and the Executive's Office.

PROMOTING HEALTHY BUILT ENVIRONMENTS. Through Public Health's Steps to a Healthy King County grant, the Environmental Health Services Division initiated a project to promote healthy built environments in partnership with Feet First, a pedestrian advocacy organization. Potential development around the new Sound Transit Link Light Rail system, being built in the Puget Sound, offered the project an opportunity to explore the usefulness of Health Impact Assessments (HIAs) for taking health issues into account during development projects.

HIAs offer a powerful avenue for raising awareness of the link between land use and health by evaluating plans, policies, and projects from a health perspective. HIAs can influence and support decision making by providing a set of recommendations that highlight practical ways to enhance the positive health effects of a proposal's outcomes and to remove or minimize its negative effects. The process helps focus attention on the health consequences of projects and brings a broad understanding of health to all the partners and stakeholders. Public Health and Feet First, along with the Seattle Department of Planning and Development and the neighborhood Beacon Hill Pedestrian Group, used an HIA to examine potential health effects of development associated with the future Beacon Hill light rail station.

The Beacon Hill HIA's goal was to develop recommendations that encourage appropriate development compatible with the neighborhood's character and needs at and near the light rail station and that provide for a healthy and active living environment. HIA activities included gathering information about the community's assets (such as parks and other recreational areas, community organizations, businesses, transportation options, and other community services), reviewing neighborhood planning guidelines and literature that link health and elements of the built environment, meeting with community members, facilitating a walking audit, and holding a collaborative design session with community and agency stakeholders.

The health issues that emerged for many HIA participants were about increasing physical activity opportunities, pedestrian/cyclist safety, and community social cohesion and connectedness. Discussions with residents centered on their definitions of a healthy neighborhood. Everyone agreed that good development in the area surrounding the new light rail station could contribute to the livability and walkability of the Beacon Hill community. The project team expects to deliver the results of the HIA to community and organization participants in spring 2008.

Moving forward

Built environment issues are complex, with roots in many disciplines. Planners and health officials share many common goals, including anticipating community needs and working collaboratively to make our communities the best possible places to live. Through participation in planning, public health professionals can emphasize the role of health in meeting those goals, as well as provide the experience that comes with the profession's long and valuable history of ensuring that the places where we live, work, learn, and play allow us to lead healthy lives. ■

Some Definitions

Built Environment refers to the surroundings created or modified by people, such as homes, schools, workplaces, parks and recreation areas, greenways, business areas, overhead and underground facilities (electric transmission lines, waste disposal sites), and transportation systems.

Bikability/Walkability refers to aspects of the environment that support cycling and walking.

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Resource

HealthScape: Community design for health and the environment. www.metrokc.gov/healthscape

Giving Community Voice to Health Promotion



Dawn Weiler

Leonie Sutherland
Dawn Weiler

To be successful,
involving local
community leaders
and members is vital
in health education
projects.

More and more of our folks are misinformed or not informed at all about their health,” reports a Hispanic Idahoan. Recognizing that health information won’t translate into action if it doesn’t reach Idaho’s Hispanic population, five organizations came together in 2006 to craft effective health interventions for the Hispanic community. The solution they arrived at is rooted in community participation in both planning and implementation. The benefit of the community’s involvement is its increased capacity to take charge of its own health.

Community-based partnerships

Nationwide, community-based partnerships are starting to assess health needs, and plan and evaluate interventions that are relevant for local communities. These collaborative alliances can generate a solid evidence base for policies that will improve the health of residents through preventive care, health promotion, and comprehensive education.

The Idaho Partnership for Hispanic Health (IPHH), a community-based participatory research project, focuses on identifying and intervening in the health conditions of greatest concern to Southwest Idaho Hispanics. Funded by the National Institutes of Health, Office of Minority Health, the partnership includes the University of Washington and Boise State University, two Hispanic organizations (Centro de Comunidad y Justicia and the Idaho Commission on Hispanic Affairs), and the Mountain States Group, a community nonprofit organization and Area Health Education Center. All of these organizations work on health, with specific projects focused on the Hispanic population.

To be successful, involving local community leaders and members is vital in health education projects. In the first phase of the project, the partnership concentrated on engaging community members and selecting a representative community advisory board. The board is the cornerstone of the project and is actively involved in all aspects of program development, decision making, and fostering community connections. The strength of this model is that the board makes all the decisions. It relies on the partners to do the data gathering and develop the plans, but before anything is enacted, it reviews all aspects of the project, makes suggestions and revisions, and has the final say. The partnership acts only with the consent of the board.

Assessing community health

In 2006, guided by the advisory board’s input, the partnership conducted a community assessment using both quantitative and qualitative survey methods to identify the Hispanic community’s perceptions about health care access, the prevalence of health conditions, and health status.

IPHH researchers interviewed 519 adult Hispanic individuals in an eight-county area of Southwest Idaho, asking about, among other details, height, weight, and physical activities. The results showed that 75 percent of surveyed Hispanic adults were either overweight or obese, compared to 61.4 percent of the general adult population in Idaho (*see table for other data*). Although the study participants identified many health problems including diabetes and high blood pressure, they also saw obesity and lack of exercise as important factors to consider for health.

Multiple studies have linked obesity with the development of type 2 diabetes. Obesity is

Photo: A promotora delivers health information, including blood pressure readings.

reaching epidemic proportions in the United States, and the Hispanic population is at particular risk for obesity for a number of reasons, including poverty, acculturation (as immigrants incorporate the behaviors of the mainstream population, they become heavier), lack of available sources for healthy food, and maternal feeding practices, including a diet higher in fat and lower in fruits and vegetables.

The experience of the Hispanic community in Southwest Idaho mirrors what is happening across the nation. In addition, agricultural work conditions are changing. As a survey participant commented, “I think that when we were eating all these fattening food, we were working our little buns off out in the fields, we were working our fat off, and now we either drive a tractor or do other kinds of things that are not as physical.”

Community health workers key to success

The board, in cooperation with the other members of the partnership, selected the rural town of Weiser in Southwest Idaho to implement the pilot intervention. Of Weiser’s 5,343 people, 22.9 percent are Hispanic, compared to a 9.5 percent Hispanic population for Idaho as a whole. Weiser was chosen as the pilot intervention site, in part, because the town’s close-knit Hispanic community expressed a high level of interest in participating in the project.

In order to develop an appropriate intervention, the community advisory board had to make two decisions: what health condition should the intervention focus on, and what strategies would be best to manage that health condition.

The assessment results indicated that diabetes, hypertension, and heart disease were major health concerns in the Hispanic community. After much discussion, the partnership and board decided to target metabolic syndrome for intervention. Metabolic syndrome is characterized by increased abdominal fat, elevated cholesterol, hypertension, and insulin resistance. These factors also relate to diabetes and heart disease, and strategies to manage them are similar to those used to manage metabolic syndrome. And finally, the highest prevalence of metabolic syndrome has been found in Mexican Americans.

The partnership selected the *promotora* model for promoting health in the Hispanic community. *Promotores*, or community health workers, are leaders in traditional Mexican communities. In the United States, *promotores* have been used to help promote health in hard-to-reach Hispanic communities. Seen as trusted community members, and working in group settings as well as with families in their homes, *promotores*

provide health education and outreach services using culturally appropriate methods, such as taking time to get to know a family before delivering health advice. The *promotores* knew the community’s strengths as well as its weaknesses and were able to visualize how best to implement the family education program.

They recruited participants for the intervention by using a randomly assigned door-to-door method and often knew the residents.

Several members of IPHH developed an educational curriculum that addressed such issues as healthy lifestyles, healthy eating, physical activity, and health conditions related to metabolic syndrome. Advisory board members reviewed the curriculum for cultural appropriateness and relevance. The *promotores* received training to help them not only understand the curriculum but gain skills in presenting it to their community.

Assessing the project

As of spring 2008, the most exciting aspect of developing the intervention has been the *promotores*’ direct involvement in the revision of the curriculum. Even though the partnership used curricular materials designed for Hispanic populations, the inside perspective of the *promotores* helped make the educational content relevant to the particular characteristics of the Weiser community.

As active participants in the educational sessions, the *promotores* provided continual feedback on how the information could best be presented in a culturally congruent manner to the families participating in the program. Their insight into the needs and practices of the Weiser Hispanic community has been instrumental in creating a culturally appropriate curriculum.

The project’s next step is to implement the final educational program with Weiser families. The group education sessions will be complemented with family home visits. Program activities also include a grocery store outing, healthy cooking demonstrations, and group physical activities.

Education of the children is an integral part of the program, which is designed to meet the needs of different age groups. The advisory board believes this combination of educational strategies is the best way to inform Hispanics about conditions affecting their health. Partnership members are excited about the possibility of not just improving the health of a community, but of facilitating a process by which residents can take charge of their own health. ■

Issue of Concern	IPHH Data	BRFSS/ Census
Fair or poor health	43%	13%
Median monthly income	\$1750	\$3750
Self-reported diabetes	11.6%	5.9%
Hispanic population	13%	9.5% (state)
Speak Spanish in the home	75%	6.7% (state)
Overweight or obese	75%	61.4%

Table: Key indicators for eight SW Idaho counties and Idaho State. (IPHH data source: Survey conducted by IPHH, summer 2006.)

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The authors wish to acknowledge for their considerable help with this article: Matthew C. Keiffer, MD, MPH, University of Washington (UW), and Linda Powell, MS, Mountain States Group, the co-principal investigators for the Idaho Partnership for Hispanic Health project (NIH: National Center on Minority Health and Health Disparities 1 R24 MD001711-01). Thanks also to Lesley Hoare, MS, UW; Molly Prengaman MSN, FNP, Boise State University; and L. Samuel Byrd, Centro de Comunidad y Justicia.

Partners in Action: Collaborating to Prevent Obesity

Erin MacDougall
Matias Valenzuela

Obesity reached a new high in the public's consciousness in 2004 as obesity rates soared. *Time* magazine declared it "The Year of Obesity," other publications announced, "Scientists still seeking cure for obesity," and the Atkins diet was in full force. That year, King County, located in Washington State's Puget Sound region, formed a broad-based community coalition, the King County Overweight Prevention Initiative, to identify priority action areas to address the county's rising obesity rates.

The value of community coalitions to implement public health interventions has long been recognized, but they are equally effective tools for broad policy development and implementation. Four years after its formation, the Initiative's members, who range from community organizations to elected officials, have demonstrated the effectiveness of a cross-sector coalition for developing and implementing policies to address the systemic barriers to maintaining a healthy weight.

Work across sectors

Initiative partners came together around some common principles:

- Scattered approaches to policy development are not the most effective avenue to change.
- Focus should not be solely on individual behavior but on living and working conditions.
- Local and grassroots involvement is needed to identify and make policy changes at all levels.
- Coalition-building is a proven and necessary method for moving policy agendas.

Photo: Student with her choices from her school's self-serve salad bar.



US Department of Agriculture

The Initiative's power for systems change rests in its rich mix of policy makers, public health practitioners, health advocates, and representatives from community organizations, schools, academia, and government, many from outside the health sector. The people in the frontlines at schools, workplaces, and sites where residents gather have personal experiences and insights into their communities' challenges and strengths. In concert with powerful leadership that reaches across sectors, this coalition can set the stage for implementing change at the policy level.

Support from the King County Board of Health, the County Executive, and Public Health-Seattle & King County leadership brought decision makers to the table who can move policy agendas forward. King County Executive Ron Sims emphasized this support, saying, "Through the King County Overweight Prevention Initiative, we will make sure we design our neighborhoods and create policies that promote healthy living, physical activity, and access to healthy foods."

At the same time, academic researchers from the University of Washington's Center for Obesity Research and Center for Public Health Nutrition bring expertise in program evaluation and in grounding Initiative efforts in evidence-based approaches.

Focus on actions and policies

Bringing so many passionate and knowledgeable people together at Initiative forums generates a wealth of ideas and approaches to eliminate obesity, many more than could be tackled all at

once. Consequently, the Initiative participants identified the most significant areas of action through a priority-setting process.

Policy and action priorities were refined first through the work groups (in the areas of nutrition, physical activity, active community design, and communications) and then through the leadership of members of the King County Board of Health. In 2005, the Board of Health passed a resolution backing a 10-point action plan (*see graphic for the points*). The plan represented the buy-in from decision makers and set the stage for a wide range of program and policy interventions.

Move ideas to action

Each item in the 10-point plan represents an area in which groups can collaborate and take action. Three examples of actions are:

SCHOOL INITIATIVES. One point in this agenda, for example, is to assist school districts' development and implementation of nutrition and physical activity policies. Along these lines, the Initiative backed the work of King County Steps to Health, which funds staff to work directly with school districts to promote policies, curricula, and norms within schools that improve nutrition and physical activity for all students. Having Steps to Health school coordinators work directly with students and staff within the Seattle, Highline, and Tukwila school districts has resulted in significant improvements, including salad bars in elementary schools, "walking school bus" programs, and staff wellness activities.

WORK-SITE INITIATIVES. Initiative participants and the King County Board of Health support employers' efforts to promote nutrition and physical activity through work-site wellness programs. Guidelines that the Initiative created for healthy food and physical activity at professional meetings included recommendations regarding foods served and guidance on holding meetings in locations where people can walk in order to promote physical activity. The guidelines were first adopted for employees at Public Health - Seattle & King County and then widely shared and replicated, including by the state Department of Health (*see the guidelines at www.metrokc.gov/health/nutrition/meetings.htm*).

NUTRITION INITIATIVES. Starting in 2006, many participants of the Initiative joined with the Board of Health to study the elimination of trans fat and the addition of nutrition information to menus and menu boards. Trans fat has been linked to increased risk for cardiac disease, and research has shown that point-of-sale information helps consumers make healthier choices. The effort led to groundbreaking regulations, to be implemented

in 2008 and 2009, that require nutrition menu labeling in chain food establishments and the elimination of trans fat countywide.

Set short-term, attainable goals

The King County Board of Health passed a second resolution in 2007 to prioritize short-term goals for the 10-point plan. Among the points in this resolution, the Board placed a high priority on school-based nutrition and physical activity programs, breastfeeding in childcare centers and work-sites, access to parks and recreation,



and active transportation choices. Supporting the implementation of this resolution, Seattle has moved forward with two master plans for pedestrians and bicyclists that promote safety and encourage alternatives to car travel.

The Initiative's successful work so far demonstrates the strength of a diverse and representative coalition. A number of other efforts have also resulted from relationships developed through the Initiative, including a state farm-to-school food policy, recommendations for parks policies that support public health, and an emphasis in the community on using research to inform and shape policies on healthy eating and active living.

By creating synergy and leveraging resources, the Initiative is forging ahead to make the healthy choice the easy choice for residents of King County. ■

Ten-point action plan, King County Overweight Prevention Initiative.

Authors

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Resource

For more information about the King County Overweight Prevention Initiative and related activities and policies, see www.metrokc.gov/health/overweight.



On the **Frontier** Against Obesity

Ninia Baehr

Larry Bonderud is a mayor in the morning, an optometrist in the afternoon, and an advocate and role model for healthy living around the clock. Elected as mayor by the citizens of Shelby, Montana, for the past 18 years, he has developed a specialty in increasing healthy nutrition and physical activity opportunities for local residents.

Shelby, the county seat of Toole County, in Eastern Montana, has a population of 3,327. As with other isolated frontier towns, the area does not have a lavish public health budget, but that hasn't stopped Mayor Bonderud from working to create a healthy environment for his residents.

Most early summer mornings you can find him standing in the bed of a slow-moving pick-up truck, watering the hanging flower baskets that make Main Street more attractive to shoppers who might be enticed to walk, rather than drive, along it. During the school year, weather permitting, you might also see him escorting 100 or so children on "Walk and Wheel Wednesdays," part of Shelby's Safe Routes to School project. And before he does all this, you can certainly catch a glimpse of him on his daily three-mile walk.

Working for systemic change

Mayor Bonderud's most far-reaching efforts to prevent obesity and chronic diseases are in the areas of systemic policy and environmental change. He hasn't made these changes on his own, of course. He knows that any systemic change needs the support of Shelby's residents. He frequently includes surveys in the city newsletter to ask Shelby residents about their wants, needs, and opinions. Mayor Bonderud publicizes survey findings on a weekly radio program, which he pays for with passes for the radio station employees to the Civic Center and swimming pool. The local newspaper also includes survey findings in its free public service announcements. Based on the survey results, he pulls together stakeholders to develop action plans.

Some action items are costly. For instance, after gathering input from residents, Mayor Bonderud and the Shelby Parks and Recreation Committee (comprising a mix of city personnel and private citizens) determined that the town needed a fitness center. (This sentiment is common among frontier community members, according to a recent study conducted by the Montana Office of Rural Health.) In partnership with the local critical access hospital, the Marias Medical Center, he spearheaded an effort to install a fitness center in the Civic Center and to hire a full-time fitness trainer. He and his community partners also convinced major local employers to adopt policies to subsidize fitness center memberships for employees. The result: The fitness center is being used to its full capacity. Most days, the two cardio rooms are full, aerobic classes are using the entire gym floor, and young adults are enjoying the teen rooms. The schedule is so full, in fact, that new groups wanting to organize games and other events have difficulty getting on the calendar, and individuals often have to wait 30 or even 45 minutes for a treadmill to become available.

With the fitness center underway, the mayor and his committee of stakeholders went on to plan a six-mile paved walking/rolling trail that links the business district, residential neighborhoods, the Civic Center, the hospital, and schools to public lands. The trail's financing came from the City of Shelby, the Community Transportation Enhancement Program, the Montana Fish, Wildlife and Parks Urban Recreational Trails Program, the Shelby Theme Committee, and in-kind contributions of labor and materials.

In 2006, Shelby received a \$4,000 planning grant from the Montana Nutrition and Physical Activity Program to Prevent Obesity and Other Chronic Diseases (NAPA), funded by the Centers for Disease Control and Prevention. NAPA's four goals are to increase physical activity, increase fruit and vegetable consumption, increase breastfeeding of infants, and promote "caloric balance."

Photo. A woman enjoys a summer walk on the town's new walking trail.

Shelby used the grant to conduct focus groups addressing NAPA's goal areas. Based on areas of interest identified by residents, NAPA and the city then collaborated to conduct systematic needs assessments and formative research addressing three specific areas: healthy food choices, use of the new walking trail, and support of breastfeeding.

HEALTHY FOOD CHOICES. To assess the nutrition environment, Shelby and NAPA sponsored a graduate student who used the Nutrition Environment Measures Survey (NEMS) to document availability, cost, and promotion of healthy food items in every grocery, convenience store, and restaurant in Shelby. The NEMS tool confirmed what residents had reported in focus groups: Healthy foods, especially in restaurants, were extremely limited.

In a follow-up survey sent to all Shelby households, Mayor Bonderud found that residents (especially parents) were overwhelmingly in favor of improving access to healthy foods in restaurants. Now he is making plans to work with restaurant managers and major food distributors serving Shelby to place healthier items on the menu. Once these choices are available, he hopes to conduct a promotional campaign (using bartered radio time and newspaper space, if necessary) to encourage residents to patronize the places offering healthy foods and to order the healthier items on the menu.

INCREASED USE OF WALKING TRAIL. To assess barriers and facilitative factors to using the new walking/rolling trail, Shelby and NAPA sponsored a graduate student to conduct six triad interviews, four with children aged 9 to 12, and two with parents of children aged 8 and under. Participants were asked to imagine both good and bad things that might happen if they used the trail. Good things included spending more time with family and friends, and bad things centered on being alone and getting hurt in an isolated area. NAPA contracted with social marketing experts at the Academy of Educational Development to craft a message to accentuate the good things and minimize the fear of bad things. The message, "Go Together—Use the Trail Every Day," will appear on every trail promotional item (posters, flyers, and so on) in combination with more targeted messages, such as "Start Them on the Right Track ... on the Shelby Trail," for parents of preschoolers. The social marketing campaign is ready to be launched this summer, as staff and financial resources permit.

SUPPORT OF BREASTFEEDING. To collect baseline data on breastfeeding rates in Shelby, the Marias Medical Center, the Toole County Health Department (located in Shelby), and NAPA developed a low-cost surveillance system. Each

year, about 50 babies are born at the Marias Medical Center. The county public health nurse calls each new mother to see if she needs information or resources. With the new surveillance system, when the nurse calls, she will also ask some questions about breastfeeding: Is the mother still breastfeeding? Is she also feeding her infant other foods? and Are there any factors that make it difficult (or that might make it easier) to continue breastfeeding? The nurse will enter this information into a simple online database and will repeat her calls and questions quarterly. In this way, the county can collect information to provide baseline data about Shelby's breastfeeding rates and help health care providers learn what interventions might increase breastfeeding initiation and duration.

NAPA and its partners hope that, once this affordable system for engaging in surveillance and conducting formative research is piloted in Shelby, it can be replicated in frontier communities across the state.

Shaping up Shelby

Another project Shelby is undertaking in partnership with the Marias Medical Center is to collect baseline data on physical and obesity-related behavioral indicators for at least 300 children and 650 adults, with the intention of repeating these measures in two years, in order to define the current problem.

Mayor Bonderud envisions the breastfeeding project, the launch of the social marketing campaign to jump-start use of the new trail, and the promotional campaign to encourage residents to eat more healthfully in local restaurants as components of a broader "Shape Up Shelby!" initiative. Through his leadership, the policy and environmental changes evolving in Shelby to combat obesity at the population level are making the town the site of a natural experiment. The baseline indicators project data will help the mayor and his community partners evaluate the outcomes of changes already taking place, as well as of future interventions.

Obesity rates are rising at a disproportionately high rate in rural communities, yet most of the research to test obesity-prevention strategies is taking place in urban and suburban areas. Shelby can serve as a "rural laboratory" for translating evidence-based obesity prevention strategies at the population level in frontier communities.

Whether Shelby serves as a model for other rural communities or not, however, Mayor Bonderud will keep doing what he has been doing for the past 18 years—creatively using all available resources to make Shelby a healthy and enjoyable place to live, learn, work, and play. ■

... the policy and environmental changes evolving in Shelby to combat obesity at the population level are making the town the site of a natural experiment.

Author

Ninia Baehr, MA, RN, is program manager of the Montana Nutrition and Physical Activity Program at Montana State University in Bozeman.

Resources

Active Living Resource Center.
www.activelivingresources.org

Montana Nutrition and Physical Activity Program.
montananapa.org

Integrating Equity into Public Health Practice

Marilyn Sitaker
Gail Brandt

Personal health and longevity are closely associated with social and economic position. Throughout our lives, socioeconomic status determines both opportunity and environment, affecting our ability to practice healthy behaviors. The wide range in socioeconomic status across the US population is mirrored by dramatic health disparities, including those in obesity rates.

Most public health interventions to address health disparities have focused on health care access and quality. However, with the growing recognition of the socioeconomic influence on health disparities comes the realization that progress toward eliminating health inequities requires expanding the scope of public health practice to include a social justice perspective.

To identify how its public health programs can reduce health inequities by addressing their root causes, the Washington State Department of Health Office of Community Wellness and Prevention has implemented a three-step process that involves education, planning, and action.

Getting started

Although reducing or eliminating health inequities is a mandate of many public health funders, scant guidance exists on how to go about this work or even what the work entails. In 2003, the Chronic Disease Prevention Unit (CDPU) reviewed key points from the Centers for Disease Control and Prevention's *Community Guide to Preventive Services* to better understand how social determinants drive health inequities. The unit also examined its current programs and identified health inequities as a cross-cutting issue for all the unit programs (diabetes, asthma, heart disease, and nutrition and physical activity).

The growing awareness of the importance of health equity work was seen in the statewide *Diabetes Strategic Plan* issued in 2005. Among the Plan's objectives was to address social determinants and reduce inequities in health outcomes. To provide baseline information to address this objective, CDPU issued *Washington State Diabetes Disparities: A Review of Washington*

State Data. The report summarized current research on the linkages between social structure, equitable distribution of social resources, and inequities in diabetes outcomes, as well as an in-depth assessment of existing state data. The report also included a review of potential policies and strategies to address root causes of health inequities, such as early childhood development programs for poor families, nutritional assistance for low-income mothers and infants, and improvements to the work environment.

In late 2006, CDPU was ready to begin planning an expanded approach to address health inequalities in chronic disease. A small group of staff met with managers of other programs (tobacco, cancer, and Women, Infants and Children nutrition assistance) in the Community Wellness and Prevention Office to invite them to participate and gain their support. The planning group pointed out that by intentionally working across programs, they could develop a common integrated framework. These discussions resulted in agreement to participate and a commitment to share the cost (\$10,000) of the project.

Structure of the process

The CPDU project was modeled after work done in Michigan as described in the National Association of County and City Health Officials document *Tackling Health Inequities Through Public Health Practice: A Handbook for Action* (www.naccho.org/topics/justice/).

The objectives for the CDPU health inequities project were to:

- Learn about social and economic factors driving health inequities and create a common understanding among staff
- Brainstorm what public health professionals can and should do to address the social determinants of health
- Create an action plan to address health inequities in a more upstream fashion

To meet these aims, the project planners coordinated four half-day educational sessions between October 2007 and January 2008 for Community Wellness and Prevention staff to

By the end of the final session, participants, could see how strategies arising from practice-based evidence could be incorporated into community initiatives to address health inequities.

1) examine socioeconomic determinants of health; 2) understand how social hierarchy gives rise to unequal distribution of resources; 3) see how inequality creates health-damaging chronic stress for everyone, but particularly for those of lower socioeconomic status; and 4) learn about effective practices for reducing socioeconomic inequities that lead to health disparities.

The sessions consisted of lectures, multimedia presentations, and experiential exercises led by experts in health equity and representing the fields of medicine, public health policy, community psychology, and health education. The speakers included practical strategies to address health inequities from a public health standpoint.

Although participation in the educational sessions was voluntary, upper management encouraged participation. As a result, of the 104 public health staff in the Community Wellness and Prevention programs, between 20 and 40 people attended each session.

Sessions I and II covered the mechanisms linking social conditions to health inequities, with the first speaker emphasizing the effect of political and economic trends, and the second emphasizing the biologic effect of chronic stresses associated with lower social position. (*See a table of the objectives and key concepts covered in each session in the online article at www.nwpublichealth.org.*) By the end of these sessions, many participants felt overwhelmed or discouraged by the magnitude, complexity, and intractability of social, economic, and political processes driving health inequities.

Session III used experiential exercises to communicate the power dynamics of social class and identify developmental stages in creating change. Session IV offered academic and grassroots perspectives on effective strategies. By the end of the final session, participants had grown more confident and comfortable with their accumulated knowledge and could see how strategies arising from practice-based evidence could be incorporated into community initiatives to address health inequities.

A half-day structured dialogue in the week after the final presentation allowed participants to process the new material together, generate diverse ideas for interventions, and achieve consensus on next steps.

Road map for change

In February 2008, Community Wellness and Prevention staff participated in a half-day facilitated session to brainstorm on how to translate their new understandings into public health practice. As a result, they identified 36 concrete activities grouped into seven major categories:

- **Internal environmental scan:** Integrate efforts across programs
- **Leadership:** Advocate that agency senior management lead efforts to address root causes
- **Workforce development:** Institute trainings to increase staff knowledge and skills
- **Partnerships:** Identify, engage, and support state and local partnerships with multiple agency and community sectors
- **Implementation:** Design new programs or modify existing ones to better address social determinants of health
- **Communication plan:** Develop, coordinate, and disseminate consistent messages regarding root causes of health inequity
- **Assess and evaluate:** Assess, plan, and evaluate initiatives to address health inequities in a strategic manner

A subsequent action-planning session identified next steps to incorporate social determinants into public health practice. For example, the group decided to secure endorsement from Community Wellness and Prevention management for incorporating the health equity action plan into existing efforts to integrate chronic disease into program planning.

Lessons learned

Carefully introduce the issue of integrating social determinants into public health programming. Senior management may be wary of changes that are promoted from the bottom up, and bureaucracies are not adept at rapid change. It is helpful to frame the issue as good public health practice, present the research evidence, and show how integrating social determinants into program planning fits with the organization's strategic plan.

Identify internal champions early and involve them as much as possible in getting buy-in from other program managers and staff. To institutionalize the process, it is necessary to include staff time and support funds in the organization's budget.

Finally, as in all efforts, flexibility and humor go a long way in developing and implementing such fundamental changes as the meaningful infusion of social determinants into public health programs.

The effort to infuse health equity into an agency's work is worthwhile and has potential for helping public health agencies meet their goals for preventing illness and promoting health for all citizens. The results of the Community Wellness and Prevention Office's efforts to infuse health equity into the agency's planning and programs is still underway, but by laying the foundation for a shared integrated approach, the staff is confident that it can sustain this effort into the future. ■



Authors

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Resources

Community Guide to Preventive Services.
www.thecommunityguide.org

National Association of Chronic Disease Directors, Health Disparities Interest Group.
www.chronicdisease.org/i4a/pages/index.cfm?pageid=3310

Unnatural Causes.
www.unnaturalcauses.org

NACCHO. Health Equity and Social Justice program activities. www.naccho.org/topics/justice/

Nurses on the Frontlines of Community Health

Throughout its history, public health nursing has challenged social norms and driven reforms to improve community health.

Betty Bekemeier

By the end of the 20th century, public health nurses found their realm of action shifting from earlier broad environmental health and safety concerns to a focus on individual health. With the new century underway, the time is ripe for a widespread return of public health nursing practice to leadership roles in improving health through broader environmental and social action.

Historical background

The modern public health enterprise in the United States owes much to Lillian Wald, who established public health nursing in the US and practiced in Manhattan's lower east side beginning in the 1890s. She and her nurse colleagues recognized first-hand the limitations of treating illness and offering health education to people who were living in crowded tenements. Wald noted the irony when she wrote, "Impressing upon the poor the latest findings of science without simultaneously urging reform in housing, child protection, and wages is cruelly sardonic on the part of the nurse."

As frustration with unhealthy living conditions grew, the visiting nurses of Wald's Henry Street Settlement concluded that reforming those conditions was the best hope for improving health in their communities. Henry Street Settlement nurses and community activists took on social and environmental reforms related to housing, child labor, unsafe cottage industries, and other factors contributing to poor health. The concept of independent public health nurses addressing the social conditions that affect health spread rapidly to other cities and towns.

As infectious disease rates plummeted, chronic health conditions attracted more practitioner attention and became seen as personal medical problems rather than public health issues. By the end of the 20th century, the public health system had been thoroughly medicalized under the pressures of specialization, fee-for-service direct care, and division of labor. Much of the scope of public health nursing narrowed to affecting the behaviors of individual clients. Efforts to

change the environment—from housing to food safety—moved from public health to other governmental agencies.

The limitations of our medicalized public health system, with its focus on individual behavior, have become clear when we review the lack of progress over recent decades in reducing rates of diabetes, asthma, and obesity, or in creating equitable health status across racial and ethnic lines.



Visiting Nurse Service of New York, www.vnsny.org

Today's public health challenges require that the public health workforce travel well upstream to have a positive effect on the health of their communities.

Photo: A public health nurse crosses over tenement roofs to visit families, c. 1908.

Today's public health challenges require that the public health workforce travel well upstream to have a positive effect on the health of their communities. As public health practitioners become attuned to the critical interaction of populations with their social, cultural, and physical environments, they are identifying strategies beyond individual solutions and addressing environmental factors to create living conditions that promote health. Nurses make up the single largest professional discipline in the public health workforce today, and the time has come for them to play key roles again in this crucial function of public health practice.

Training for environmental health

Beginning in the 1990s, several efforts got underway to make certain that public health nurses were once again prepared to respond to environmental health challenges. In 1994, the Agency for Toxic Substances and Disease Registry (ATSDR) started these efforts with an initiative to support environmental health knowledge, skills, and awareness among nurses. The initiative encouraged nurses' contributions to promoting environmental health for individuals and communities. It developed educational resources and implemented training programs nationwide, in collaboration with the National Institute of Environmental Health Sciences and the National Institute of Nursing Research.

Soon after this ATSDR initiative took root, the Institute of Medicine (IOM) produced its 1995 report *Nursing, Health, and the Environment*. This report described environmental health nursing competencies that extend nurses' existing roles as investigators, educators, and advocates. Additional competencies included understanding the basic mechanisms of exposure to environmental health hazards, completing environmental exposure histories, making appropriate referrals for conditions with probable environmental



etiologies, and understanding the principles of environmental justice and risk communication in addressing environmental health issues.

The National Institute of Health's National Institute of Nursing Research followed IOM's lead by endorsing a research focus on reducing hazards for high-risk population groups, assessing for hazards, and determining infrastructure needs for enhancing nurses' ability to investigate environmental health issues.

More recently, in 2005, the Quad Council of Public Health Nursing Organizations developed and endorsed the Environmental Health Principles and Recommendations for Public Health Nursing.

New Environmental Health Nursing Certificate Program

The University of Washington School of Nursing established a new Advanced Practice Environmental Health Nursing certificate program in fall 2007. This 15-credit, post-master's nursing certificate is available to graduate nursing students and professionals who have finished a master's degree or are in the process of completing one. An array of electives encourages those who pursue this certificate to develop a specialty in an area of their interest, such as policy, toxic substances, or children's environmental health issues. A capstone experience in a community or clinical setting offers the opportunity for mentorship and practical application of coursework. For more information about the program or to apply, see www.son.washington.edu/eo/apehns-certificate/default.asp. ■

These principles include statements in support of environmental justice and the precautionary principle, which states that if the consequences of an action are potentially severe or irreversible, the absence of full scientific certainty should not be used to prevent action. The environmental health principles also declare that environmental health is "integral to the role and responsibilities of all public health nurses."

In line with national efforts, schools of nursing around the country, including at the University of Washington, are increasingly adding environmental health content to their core nursing curriculum as well as developing academic opportunities for environmental health nursing specialization. These efforts are intended to better prepare the public health nursing workforce for an evolving practice that understands the effect of the environment on human health and that recognizes nurses as crucial for identifying environmental hazards and generating community-based solutions (*see box for details on the UW's new certificate program*).

National and local efforts to reintegrate environmental health into public health nursing practice are a significant step toward reinvigorating the role of public health nurses in addressing environmental conditions that affect health. Through a renewed emphasis on the environment, public health nurses will be reconnected to the profession's past and prepared to carry on the work of their sisters at the Henry Street Settlement into the future, taking on new environmental challenges in order to protect and promote the health of communities and the individuals who live in them. ■

Photo: Nurses Susan Clark and Patricia Butterfield sample water for bacteria, 2007.

Author

Betty Bekemeier, PhD, MPH, RN, is a faculty member in the University of Washington School of Nursing.

Aim for maximum impact

Improving nutrition, especially for young women, is a primary cross-cutting strategy for addressing health inequalities. Social and health disadvantages from poor nutrition begin before birth, accumulate over time, and persist across generations. Malnutrition in fetal life and infancy elevates the chance of obesity in adulthood (*see box on page 7*). Breastfeeding confers protective benefit for later obesity and other health problems. Women with less education and lower incomes are less likely to nurse their newborns. Nutrition interventions that target pregnant women and those of child-bearing age, therefore, can have significant short- and long-term benefit.

The Supplemental Nutrition Program for Women, Infants and Children (WIC) is an example of an intervention with potential for long-term, population-level change. WIC provides nutritional support to low-income children so they are born healthy, are breastfed, and have an opportunity to grow at a healthy rate during their first years of life. Recent changes in the WIC package that include more fruits and vegetables have the potential to further reduce the diet and health differentials among people from different social strata. With nearly 50 percent of newborns participating in the WIC program, this change has the potential for widespread positive effect.

Align partner priorities

Obesity prevention garners greater support when health becomes a shared goal. Throughout the Northwest, efforts are underway to increase access to healthy food, notably local produce, in schools and other institutions. The Washington legislature recently passed the landmark *Local Farms, Healthy Kids* bill that facilitates the availability of local foods in schools and food banks, with additional benefit to farmers and the public. Advocates from educational, agricultural, public health, and environmental sectors are now joining forces to create healthier food environments for children.

The connection between nutrition and academic achievement and the association between graduation and health outcomes have made schools a prime setting for childhood obesity prevention. Schools are well-positioned to reach children and to model and reinforce healthy eating habits. Well-designed and -implemented school meals programs help ensure that all children are fed healthy food and are ready to learn. Wellness policies are setting new standards to improve the nutritional status of food served at

school. Bans on the school marketing and sale of foods that are energy-rich but nutrient-poor also have the potential for improving children's diets.

Low graduation rates are a primary indicator for obesity, which suggests that investing in education to boost graduation may have as great an effect on obesity rates as improving student access to fruits and vegetables.

Find the tipping points

Reversing current trends in obesity rates will require collective calls for change. New norms begin with a deep understanding of community needs, priorities, and concerns. The challenge is to identify policies that are not only effective, but also practically and politically feasible. Listening to the voice of the community is a fundamental element of community health assessment.

Most of the Northwest states have developed state plans for nutrition and physical activity. These plans support breastfeeding, anti-hunger programs, physical activity, school health, and many other policy-level interventions.

The plans are based on the work of broad coalitions that come together to propose policy and environmental solutions to advance quality of life across several sectors. For instance, active transportation, such as walking or biking, reduces environmental burdens associated with automobile traffic, reduces exposure to air pollution that exacerbates asthma, and reduces risk of obesity. In Washington, language taken directly from the state plan is now part of legislation to include active transportation as part of city planning.

Act for equity

Poverty means more than having a low income. It includes the multiple and profound effects of disenfranchisement and lack of power, all of which increase chronic stress. Stress responses have biological ramifications, often expressed as changes in brain function and behavior and, ultimately, obesity. When negative responses are triggered at the population level, the extent of the outcomes is severe.

Communities throughout the Northwest are confronting obesity at many levels and acting at different points of intervention. The recently launched King County Equity and Social Justice Initiative, for example, is creating a community dialogue and bringing new stakeholders to the table to develop shared strategies for eliminating disparities.

With concerted plans of action that build equity into all efforts, advance forward-thinking public policy, and embrace community engagement, we can realize a vision of healthy communities and headlines reading "Obesity rates declining!" ■

Low graduation rates are a primary indicator for obesity, which suggests that investing in education to boost graduation may have as great an effect on obesity rates as improving student access to fruits and vegetables.

Resources

King County Equity and Social Justice Initiative.

www.kingcounty.gov/equity

World Health Org. Commission on Social Determinants of Health. www.who.int/social_determinants/en

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UW-COR: www.uwcor.org

CPHN: www.cphn.org

The UW-COR is supported by a grant from the NIH Roadmap Initiative (5P20RR020774-03).



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Montana Public Health Summer Institute. June 9–13, 2008. Great Falls, Montana. www.dphhs.mt.gov/PHSD/MPHTI/mphti-summer-institute.shtml

Northwest Portland Area Indian Health Board Emergency Preparedness Conference. July 23–24, 2008. Pendleton, Oregon. www.npaihb.org

NWCPHP Summer Institute. August 11–15, 2008. Seattle, Washington. www.nwcpnp.org/training/summer-institute

Montana Public Health Association Annual Conference. September 9–11, 2008. Bozeman, Montana. www.mtpha.com/conference.htm

Oregon Public Health Association Conference. October 6–7, 2008. Corvallis, Oregon. www.oregonpublichealth.org

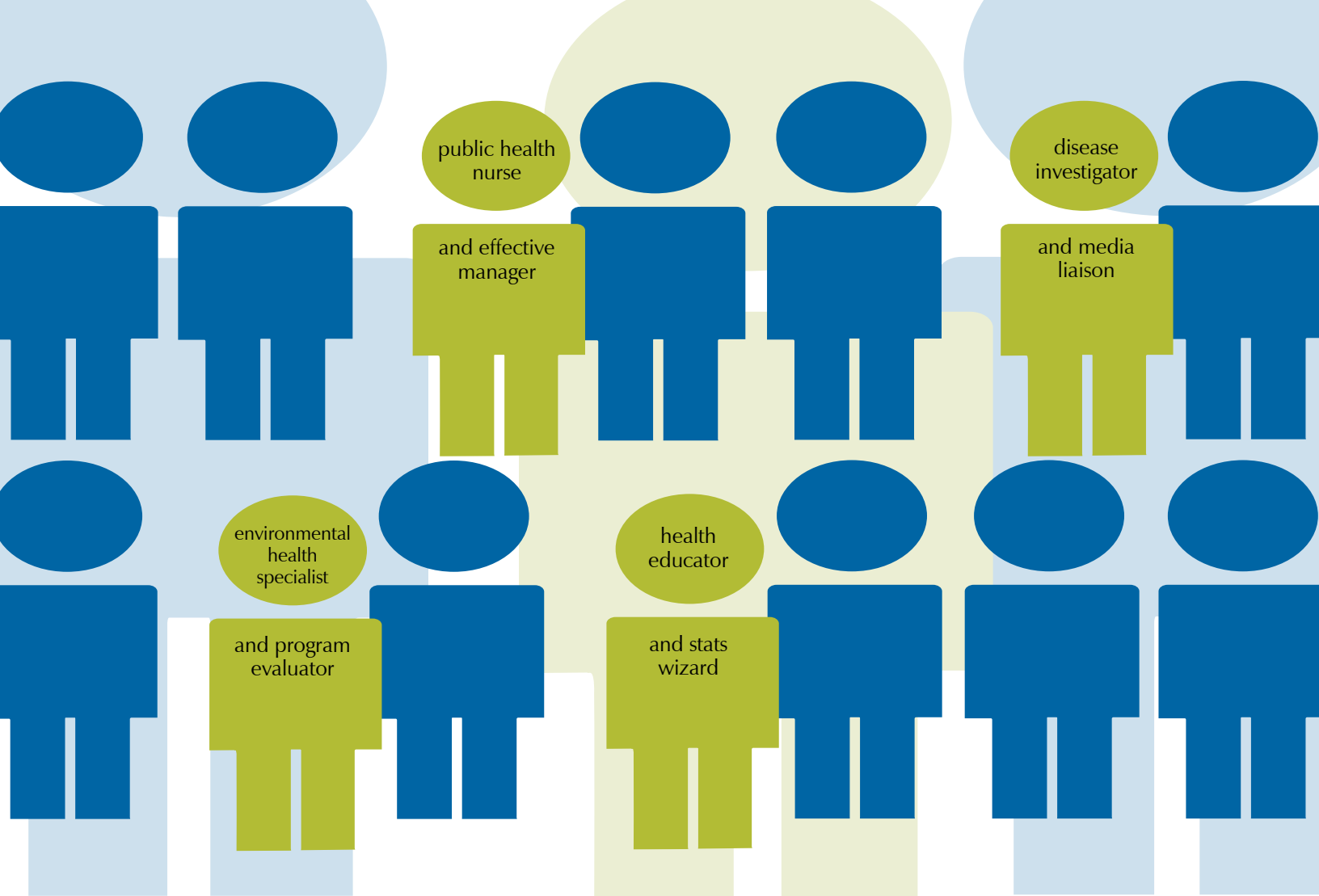
Washington Joint Conference on Health. October 6–8, 2008. Yakima, Washington. www.wspha.org/JCH1.html

APHA Conference. October 25–29, 2008. San Diego, California. www.apha.org/meetings



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