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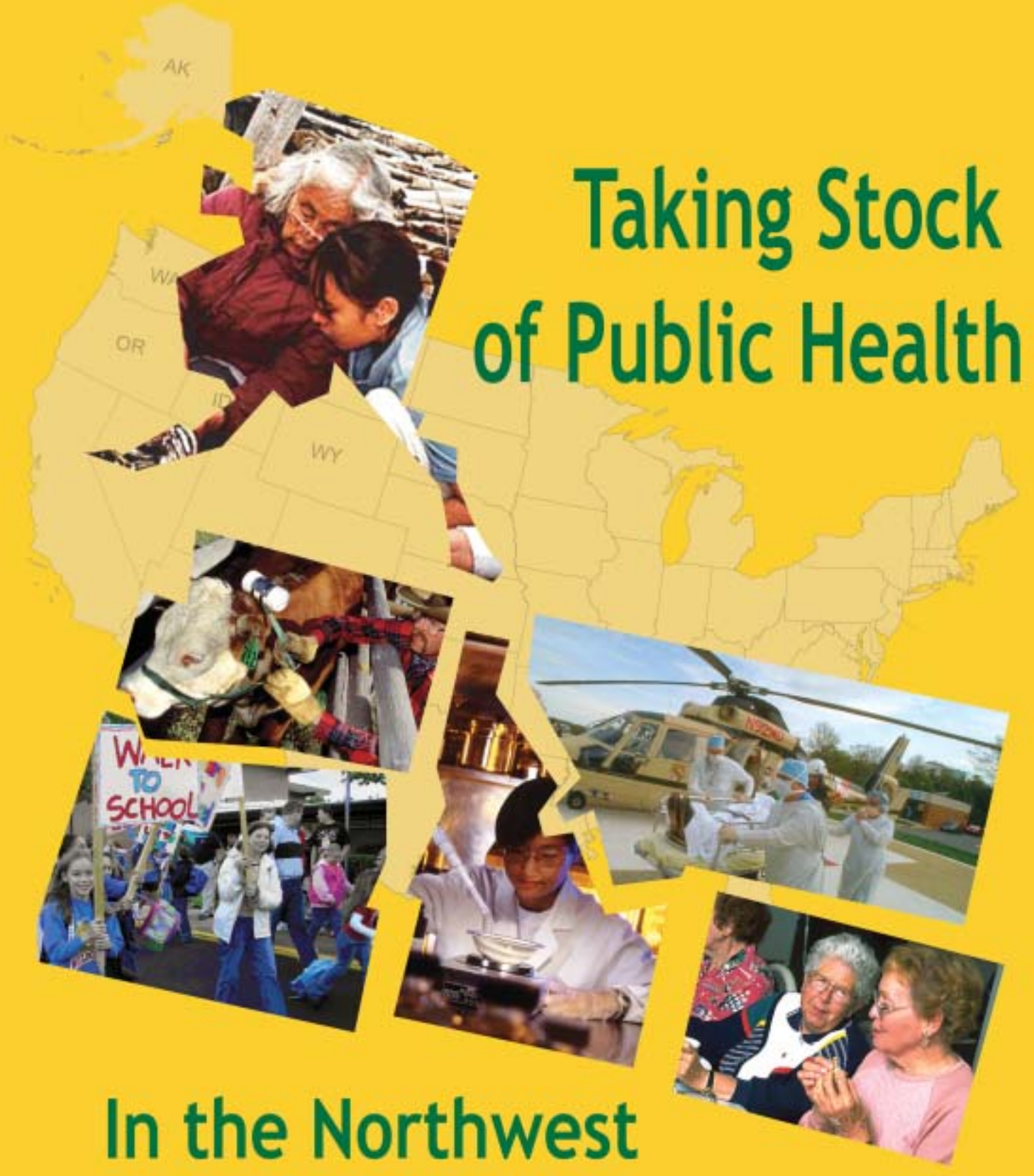

Taking Stock of Public Health In the Northwest

Editorial Board

Research Assistant

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Northwest Public Health

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Contents

Rising to the Workforce Challenge

A year ago in this space, I talked about the role of academia in public health workforce development. My comments focused on an Institute of Medicine (IOM) committee's recommendation that schools expand our approach to health and fill gaps in our curricula for educating public health professionals in today's world. We are actively responding to that IOM mandate. However, more must be done to address the looming crisis in our practice community posed by a rapidly aging workforce (average age 46.6 years) and retirement rates predicted to be as high as 45 percent over the next five years.

To interest young people in the field of public health and to increase awareness generally of public health issues, our School is engaged in a number of education and outreach programs. For instance, the Center for Ecogenetics and Environmental Health in the Department of Environmental and Occupational Health Sciences sponsors several creative programs to educate K-12 teachers and their students about environmental health concerns.

- *The Integrated Environmental Health Middle School Project* trains middle school teachers in Washington and New Mexico to help students identify and research environmental health issues in their own communities.
- *Health and Safety for Working Teens* educates students about preventing workplace injury and illness.
- *Youth Network for Healthy Communities*, through a statewide videoconference network, allows middle- and high-school students to work on community environmental health projects and to present their findings to experts.
- *Tox-in-a-Box* is a kit for public health professionals to use in outreach efforts to K-12 students and teachers.
- *Essentials of Cell Biology: Toxicology in Action* offers an interactive CD-ROM curriculum for use in high school and undergraduate college courses.
- *Project Greenskate* is a Web-based curriculum that introduces basic toxicology concepts through the hypothetical development of a city park on a contaminated site.

On another front, we are reaching out to community colleges through campus visits, fairs for transfer students, and brochure distribution. And our Department of Environmental and Occupational Health Sciences, in partnership with Bellevue Community College (BCC), has created a transferable course equivalent to our undergraduate-level *Introduction to Environmental Health.* It will be available at BCC starting this fall.

In undergraduate offerings at the UW, our School has long had a bachelor of science program in environmental health. It provides a solid grounding in the environmental health sciences, and graduates are in strong demand out in the field. We also have several newer degree options, which are increasingly popular with undergraduate students. For example, the bachelor of science in health information administration, offered through the UW Evening Degree Program, provides students with the skills necessary to administer information technology systems in the dynamic health care arena and does so through a combination of coursework and community-based internships.

Highly motivated students can major in public health through the General Studies program. This option allows specialization in an interdisciplinary area of study for which a UW major isn't available but can be created from existing courses. And then there's our own public health minor, where the range of required and elective courses gives undergraduates an opportunity to learn about regional, national, and international public health issues of major concern to society.

The state of public health will be deeply affected by these and other efforts to bring new professionals into the field and to provide lifelong learning opportunities throughout their careers. I welcome your input on how we can help our region's current and future workforce meet the complex public health challenges of the 21st century.

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

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From the Editor

I'm writing this note on Rosh Hashana, the Jewish New Year. Like all new years, Rosh Hashana is a time to reflect, take stock of the days past, and voice hope for the days ahead. This issue of *Northwest Public Health* does just that, with stories that give a sense of the health of public health in each of the six states and Indian country in our region. Taking stock is a good, but all too often rare, activity … our busy lives and demanding organizations offer little space to consider the wisdom of our decisions. The result is often misplaced priorities and misguided actions.

The stories you'll find in this issue, however, paint a picture of a field that has and continues to ponder its role, responsibilities, and programs in improving population health and well-being. (Is this propensity toward self-reflection in public health because its professionals are naturally introspective or a necessity forced by its status as the "poor stepchild" of the health system?) Consider Alaska, where tribal health authorities are no longer being viewed as separate and distinct, but as key to building a stronger public health system (Saylor, page 6). Or look at Wyoming, where public health is giving increased attention to older adult services in the face of projections that it is to become the "oldest" state in the nation (Morrow, page 18).

In his Viewpoint essay (page 4), Paul Wiesner recounts a slice of public health's history when public health nurses proudly made home and community visits and ministered to the sick, and wonders whether the current emphasis on "system improvement" will be as satisfying as those good old days. As if in answer, the reports from Idaho (Juntunen,Welcker, and Moehrle, page 10), Montana (Dunwell, et al., page 12), and Oregon (Rink, page 14) convey an excitement for the "new" public health that works through partnerships and coalitions that extend its ability to improve health. Likewise, the story from Washington (Van Buren and Adair, page 16) is about a successful collaboration among agencies that had not worked much together before.

I'll also take this opportunity to take stock. Last December I stepped down as director of the UW School of Public Health's Health Policy Analysis Program after 15 years. HPAP, as it has fondly been called, has served the health policy community in Washington, the Northwest, and nationally for 30 years with objective information and analysis about key policy issues in public health and medical care. This fall, a committee will deliver a report to Dean Wahl about how the School should strengthen its role in policy—in teaching, research, and service—in response to a strategic planning effort she initiated. At this writing, the report is still in draft form, but it will likely make two points. First, the funding environment for policy analysis has changed considerably, requiring the school to seek new approaches for its health policy work. Second, to strengthen UW's health policy portfolio, dissemination and translation activities need to be better integrated with the research enterprise. The committee will be recommending how this can be done, which will entail changes in how the School deploys and organizes its resources. Although it is likely that the HPAP name will end, I hope its legacy of service to policy makers will continue for years to come.

Aaron Katz, *Editor-in-Chief*
Director, UW Post-Program Initiatives

Reflection and Learning

Paul Wiesner

In early September I returned to Georgia to give a keynote at the annual meeting of the Georgia Public Health Association. I appreciated the opportunity to get away from the glare of the Northwest's fabled sun and re-moisturize via Savannah's humidity. At this stage of my public health career, people are asking me to reflect on one thing or another—on the "past" in Georgia or about "public health in the Northwest" in this editorial.

I recalled events during my three decades plus career with CDC and then the DeKalb County Board of Health. Then I checked my own fickle memory by having long and interesting phone conversations with eight DeKalb public health nurses. I was struck by the contrast between their insights gleaned from about 250 collective years of public health experience and the lessons I thought I had learned along the way.

In recent years many states have shifted public health in and out of super-agencies. A belief that underpinned one such reorganization in 1972 in Georgia was that those who were poor, or disadvantaged or who had specific needs because of their condition or stage of life would be best served by creating so-called "one-stop shops" for their service needs. The model chosen in Georgia had striking similarities to the primary care medical model, namely, that providing quality basic services to individuals would result in improved health of the public. In a real world of limited resources, should we apply these resources primarily to those most in need, or should we concentrate on those who would stand most to benefit when the population is considered as a whole? Debate around this question remains a major unsolved undercurrent in public health throughout the country, including the Northwest.

In a real world of limited resources, should we apply these resources primarily to those most in need, or should we concentrate on those who would stand most to benefit when the population is considered as a whole?

The authors of the Institute of Medicine's recent report, *The Future of the Public's Health in the 21st Century,* assert: "For nations to improve the health of their populations, some have cogently argued, they need to move beyond the clinical interventions with high risk groups. . . . Personal health care is only one, **and perhaps the least powerful** (my emphasis), of several types of determinants of health, among which are included genetic, behavioral, social, and environmental factors."

While policy wonks analyzed such reports, the nurses were engaged in the actual transactions of caring for people. They, in fact, cite the decade of the 1970s as a time of empowerment and not "disarray" as described by the reports. No single topic lit up the voices of my nurse interviewees more than home and community visitations. Home visits provided a presence for health not only in the home but also in many other settings like schools, churches, and recreation centers. The nurses felt responsible for the whole family and even for specific census tracks within the community. Home visits provided specific health assessments but, as important, opened the door to solving social challenges facing the families they visited, like heating, food, and transportation.

Each of these nurses could recall specific problems that they detected early: finding a heart murmur in a child who needed cardiac surgery, arranging a diagnostic workup for a new mother who had headaches from an undetected pituitary tumor, or assisting a young man with a spinal cord injury who eventually graduated from college. And just as moving were the stories of multigenerational relationships built and sustained: mothers coming into a health center to proudly announce the one major milestone or another of a child first visited as an infant.

In the 1970s public health had figured out how to do its version of the medical model. The most casual conversation with these public health nurses revealed how satisfying and "effective" it is to help the sick, to monitor their progress, to affect their lives in sometimes dramatic ways. For them, this was when public health was at its finest. I hope that attempts to change the systems themselves will be as satisfying and effective in the long run.

It is almost sophomoric to state that 9/11 has changed our world. In fact, my greatest fear about 9/11 is that preparedness has become the big daddy of all categorical programs, replacing the medical model as the great distracter from our core mission.

Public health is more than the sum of its parts, more than all the programs operated by state and local health departments, and certainly more than the caring ministrations for individual patients. Rather our responsibility is to assure that each and every neighborhood is served by a responsive public health system, so all can achieve their dreams of healthy people living in healthy communities.

Public health must be the prickly conscience of the community that continually redefines through scientific measurement what is unacceptable. We must be the catalyst for population health strategies and system changes. The Northwest can lead the way.

Author

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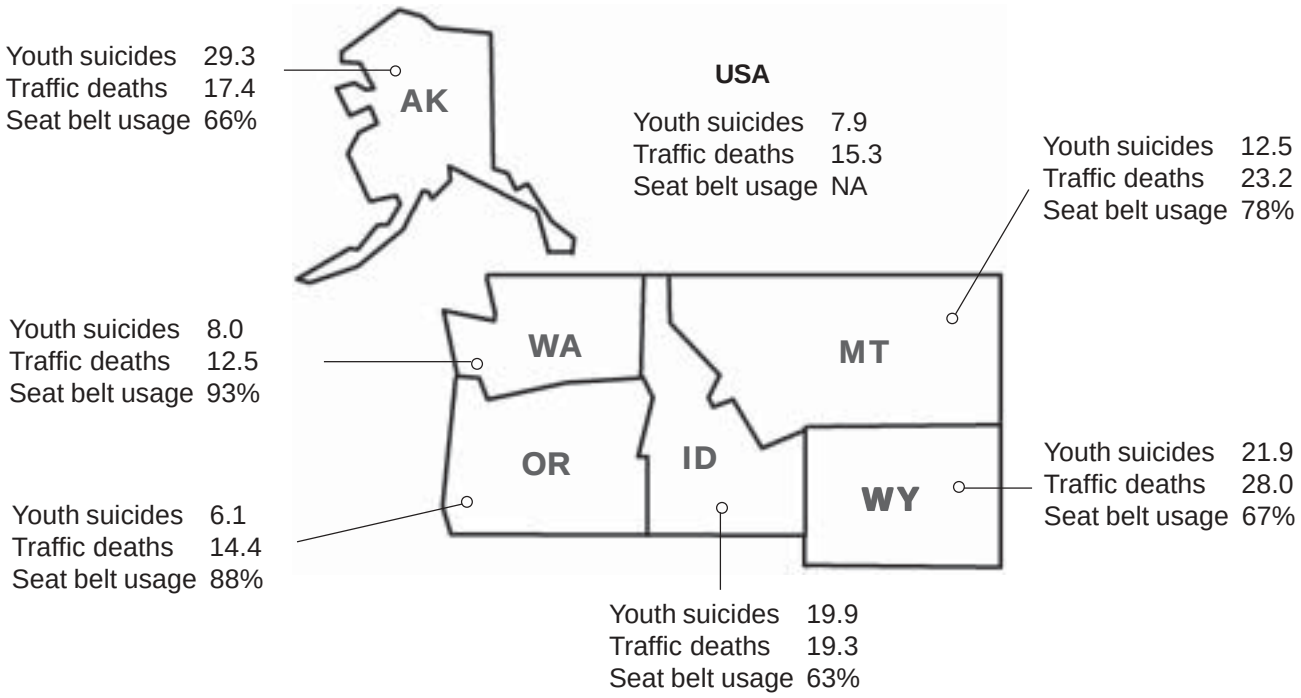
Northwest Region at a Glance

Selected Public Health Indicators



Notes: Youth suicides are for 15- to 19-year-olds per 100,000 population, 2001; Traffic accident deaths are per 100,000 population, 2001; seat belt usage data is for drivers and front-seat passengers, all ages, 2002. **Sources:** Youth suicides and traffic deaths: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention. Web-based Injury Statistics Query and Reporting System (WISQARS), 2003. www.cdc.gov/ncipc/wisqars (7/26/04); seat belt usage: National Center for Statistics and Analysis. DOT HS 809 587, May 2003. www-nrd.nhtsa.dot.gov/pdf/nrd-30/NCSA/RNotes/2003/809-587.pdf (8/10/04).

Ways to Look at How Public Health Is Doing

Indicator	Alaska	Idaho	Montana	Oregon	Washington	Wyoming	USA
Immunization coverage (4:3:1:3)[1]	81.4%	81.6%	84.6%	79.3%	79.7%	77.2%	77.5%
Low birth weight, percent of live births[2]	5.8%	6.1%	6.8%	5.6%	5.5%	NA	7.8%
Infant mortality, per/1,000 live births[3]	6.3	7.2	6.8	5.6	5.3	7.0	7.0
KIDS COUNT Child well-being rank[4]	40	23	33	25	17	24	
State per capita income[5]	$22,660	$17,841	$17,151	$20,940	$22,973	$19,134	$22,970
State rankings for per capita income[4]	14	41	46	23	12	36	
Percent below 125% poverty: 2002[6]	11.8%	16.3%	19.3%	16.2%	15.6%	13.2%	16.5%
Gini Ratio*[7]	0.402	0.427	0.436	0.438	0.436	0.428	0.463

***Gini Ratio**: "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." http://www.census.gov/hhes/income/histinc/state/state4.html.

Sources: [1]National Immunization Survey. Table 2. Estimated vaccination coverage levels, among children aged 19-35 months. US, 2003. MMWR, 7/30/04 53(29);658-661. www.cdc.gov/mmwr/preview/mmwrhtml/mm5329a3.htm#tab2; [2] National Vital Statistics Reports. Table 46. Percent low birthrate, 2002. 52:10, 12/17/03; [3] National Vital Statistics Reports. Table 1. Infant mortality rates, 1998-2000. 50:12, 8/28/02; [4] Annie E. Casey Foundation. Kids Count 2003. Table 2. State rankings on per capita income, and KIDS COUNT child well-being index 2000. www.kidscount.org; [5] US Census.Table P-1. Total CPS population and per capita money income: 1967 to 2001. www.census.gov/hhes/income/histinc/p01.html; [6] US Census Bureau. Annual demographic survey, poverty status by state, 2002; [7] US. Census. Table S4. Gini ratios by state 1969, 1979, 1989, 1999. www.census.gov/hhes/income/histinc/state/state4.html.

Research assistance: John Kobayashi, MD, and Ashley Opsahl.

Tribal Health Authorities Are Essential to Alaska's Public Health

Brian Saylor

Perhaps uniquely among the fifty states, most health care services in rural and frontier Alaska are provided through tribal health corporations managed by Alaska Native groups. The state is constitutionally responsible for basic public health services for all Alaskans regardless of residence or ethnicity. These services have historically been provided by the State of Alaska Department of Health and Social Services (DHHS), but some Native corporations are also beginning to provide basic public health services, including immunizations, health promotion, environmental sanitation, and public health nursing.

The rural Alaskan health care environment

The 2000 census counted about 630,000 Alaskans. Eighteen percent of Alaska's population, or 111,000 Alaskans, are Alaska Native or American Indian. Many Alaskan Natives reside in non-metropolitan areas of Alaska—defined as places with fewer than 2,500 residents or those living outside any community.

In Alaska Native villages throughout rural Alaska, as on Indian reservations in the rest of the United States, the Indian Health Service and tribes have borne the responsibility for the delivery of direct health services, in addition to providing and maintaining hospital and clinics and sanitation facilities. In some cases these providers represent a single tribe, but more often they carry out health programs on behalf of many tribes in their region.

The tribal organizations serving Alaska Natives fulfill much the same role as local health departments in much of the rest of the United States, providing most of the prevention and treatment services available in rural Alaska. As tribal organizations, the nonprofit corporations are quasi-governmental organizations. Since they operate under authority of tribal and federal law to carry out programs of the Indian Health Service, their focus is on the health of Alaska Native people, and they are governed by Alaska Natives.

The role of Alaska Native regional health corporations appears to be changing from an exclusive focus on the needs of Alaska Native people to a broader mission to serve the entire region, regardless of ethnicity or beneficiary status. This evolution is evident in the increased focus of some regional corporations on basic public health services and the emergence of Native-sponsored community health ("330") centers.

Region-wide primary care services are also being provided by regional health corporations. Funding for community health centers, for example, has been awarded to a regional health corporation for primary care clinic operations in Haines, a primarily non-tribal community. Services are available to all people in the region regardless of ethnicity or beneficiary status.

Issues in tribal delivery of public health

Authority for Providing Primary Care in Rural Alaska. Discussion continues about who has the authority and responsibility to provide basic primary care services in rural Alaska. The regional health corporations and the state are working to clarify this situation. An example of the complexity is a recent memo sent by the Tanana Chiefs Conference (TCC)—a tribal corporation serving Alaska's rural interior communities—to their 22 rural health clinics in the Alaska interior saying that except for emergencies, they can treat only beneficiaries of the Indian Health Service. The TCC leadership soon retracted the statement after non-Natives living in rural communities served by TCC facilities voiced concern. This change, together with the emergence of tribally sponsored 330 clinics, signals a major shift in the traditional role of Alaska Native regional health corporations.

Legal Authority to Provide Public Health Services in Rural Alaska. Despite the state's responsibility to protect the public's health, regional health corporations have been called *de facto* public health departments. This designa-

tion, although still informal, begins to recognize the central role the corporations play in rural Alaska's health care system. Two corporations serving the people of northwest Alaska have been routinely awarded funds from the DHHS to support the provision of basic public health services. Neither corporation has legal authority to provide emergency services, but this funding makes them similar to the two formally recognized local health departments in the Municipality of Anchorage and the North Slope Borough.

Accountability of Regional Health Corporations for Contractual Public Health Responsibilities. Although the Alaska Native regional health corporations provide basic public health services on behalf of the state, the state retains the legal responsibility for maintaining the public health. For example, the Maniilaq Corporation serving people in the northwest Arctic communities of Alaska has had a long-standing contract with the state to provide basic public health services aimed at controlling communicable diseases and promoting health and wellness for all residents in Maniilaq's service area.

The state routinely monitors the agreement with the Maniilaq Corporation for basic public health services to ensure that Maniilaq provides a level of service consistent with standards for state-provided public health services offered in other parts of the state.

Routine public health and financial data are essential management tools in contract management. Maintaining basic public health data can present problems to regional health corporations, which have broad service portfolios, weak data collection systems, and high turnover in administrative staff. As a result, in some instances the nature and extent of public health services have fallen below the standards of service set by the state. In response to one situation in which the state believed that a corporation had performed below standard, the state assigned senior representatives to the region to help improve the level of service provision.

Finances supporting these public health contracts must also be monitored. Regional health corporations, accountable to a board of directors of sovereign entities, may decide that it is in their best interests to spend contract funds on nonessential public health services. These decisions might place them in violation of the contract and obligate the state to bring in additional resources for basic public health.

Implementation of Emergency Police Powers During Public Health Emergencies. The terrorist events of 2001 raised national awareness of the need for major reforms in U.S. public health law. The 1988 and 2002 Institute of Medicine reports also found that state public health laws were seriously outdated, and recommended that states review and revise public health statutes. The initial report made little mention of the role of tribal governments. However, tribal governments must be included in public health law reform discussions, especially in Alaska where they are a crucial component of the public health system.

The Model State Emergency Health Powers Act, developed under the Turning Point Initiative, helped specify the emergency powers required to effectively address public health disasters. These special powers are typically overseen by political subdivisions of the state. The subdivisions have elected representatives who oversee administrative functions and provide accountability to the public for actions taken during a public health emergency. Alaska Native regional health corporations, although not governed by a body elected by the general population, can serve the same function. Limited state infrastructure obligates public health decision makers to rely on the Alaska Native health care infrastructure as first responders to any public health emergency.

In summary, Alaska Native regional health corporations have made significant gains in their ability to serve all rural residents, but some important issues remain unresolved. Collaborative agreements between states and tribes appear to be the key to finding solutions for many of these issues. Provisions for such collaborative arrangements have already been drafted in the Model Public Health Statute. Indian tribes, whether they are located on reservations or operate through autonomous urban Indian groups or Alaska Native regional health corporations, should actively participate in the development of agreements to ensure tribal sovereignty and develop methods for effectively addressing public health emergencies and public health service delivery.

Collaborative agreements between states and tribes appear to be the key to finding solutions.

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Health Disparities Challenge Public Health Among Native Americans

Jim Roberts
Joshua D. Jones

In the Northwest, as in the US as a whole, American Indians and Alaska Natives (AI/ANs) have some of the highest rates of disease and poorest health status of any ethnic group. In the 2000 US census, 4.1 million Americans identified themselves as partly or fully American Indian or Alaska Native (AI/AN). This number represents 1.5 percent of the entire US population, but in the Northwest states AI/ANs make up 3.7 percent of the population. In the first half of the twentieth century, AI/ANs had a much shorter life expectancy than the general population and routinely suffered from markedly higher rates of such diseases as tuberculosis and rheumatic fever.

With advances in medical care and public health measures over the past 50 years, the AI/AN population has transitioned along with the US general population from the era of infectious disease pandemics to the era of degenerative and lifestyle disease. This transition has brought with it an increasing recognition of the health disparities faced by AI/AN communities from noninfectious conditions such as diabetes and cardiovascular disease, cancer, and alcohol/drug abuse.

Although epidemiologic data for the AI/AN population is often incomplete and subject to inaccuracies (due to racial mis-classification on official documentation), some of the comparisons with the non-Native population are dramatic. For example, among AI/AN adults using Indian Health Service (IHS) facilities nationally in 2002, the age-adjusted prevalence of diabetes was estimated at 15.3 percent, significantly higher than the 7.3 percent prevalence rate among all US adults (rates among Alaska Natives are closer to the non-Native population). Heart disease rates have historically been lower in most Native populations than among whites, but this trend appears to be reversing; heart disease is now the leading cause of death among AI/ANs. Deaths from unintentional injuries and violence are a particular problem in Native communities. For the years 1996-98, the age-adjusted death rates from both suicide and homicide among AI/ANs nationally were almost twice that of the US population of all races, and the death rate for all unintentional injuries was more than three times that of US all races. Cancer incidence and mortality is still lower for AI/ANs nationally than for the general US population. However, in Alaska and the Northern Plains (which include Montana and Wyoming), AI/ANs have a higher mortality rate from all cancers than the US all race rate, and AI/ANs nationally have higher death rates from stomach, renal, and liver cancers.

Lifestyle factors tied to low socioeconomic status clearly play a role in many of these higher disease burdens among AI/ANs. Native communities have some of the highest levels of cardiovascular risk factors of any ethnic group. The REACH 2010 Risk Factor Survey, for example, found that rates of obesity, current smoking, hypertension, hyperlipidemia, and diabetes were each markedly higher among AI/ANs than among blacks, Latinos, and Asians. AI/AN are also more likely than non-AI/ANs to engage in regular binge drinking and heavy alcohol use, which may account, in part, for a national age-adjusted alcohol-related death rate among AI/ANs that in 1998 was over seven times higher than that of the US all races population.

Despite a federal obligation to provide for the health care of AI/ANs, inadequacies in the available health care and social services contribute to the poor health status of AI/AN communities. The federal responsibility to provide health care to AI/AN people grew out of the unique relationship between sovereign Indian tribes and the United States government. Many tribes entered into treaties that guaranteed that health care, including the building of hospitals and clinics, would be provided to the tribe, and that the US government would take responsibility for the health status of tribal members. For many AI/AN people, this federal trust responsibility is the basis of a deeply held conviction that health care is not provided to them for free, but in exchange for the vast lands ceded to the US government.

Health care delivery system

The Indian Health Service (an operating division of the US Department of Health and Human Services) is the federal agency charged with the responsibility to provide health care to all enrolled members of the more than 550 federally recognized Indian tribes, bands, and Alaska Native villages in the US.

The AI/AN population in Northwest states

Alaska	119,241	19.0%
Idaho	27,237	2.1%
Montana	66,320	7.4%
Oregon	85,667	2.5%
Washington	158,940	2.7%
Wyoming	15,012	3.0%

Source: US Census 2000. Includes AI/AN in combination with other races.

The AI/AN health care delivery system consists of approximately 594 health care facilities across the country, including 49 hospitals, 545 ambulatory facilities (231 health centers, five school-based health centers, 133 health stations, and 176 Alaska Native village clinics). These health care facilities can be grouped into three categories: those operated directly by IHS, those operated by the tribes through a Tribal Health Authority (THA) by contract or compact with IHS, and those providing services to urban AI/ANs (individuals not residing on or near an Indian reservation).

Along with ambulatory primary care services, facilities may offer inpatient care, medical specialties, traditional healing practices, dental care, mental health care, eye care, and substance abuse treatment programs. Many tribes are also served by community health (e.g., childhood immunizations, home visits) and environmental health (e.g., sanitation, injury prevention) programs, which may be administered by IHS or the THA. Specialty services and types of medical care that are not available at a given facility are often purchased from providers in the private sector through a contract health service (CHS) program. The IHS and THAs apply stringent eligibility criteria to determine which patients qualify for CHS funding. The severely limited pool of CHS dollars also means that most CHS programs limit reimbursement to those diagnostic or therapeutic services that are needed to prevent the immediate death or serious impairment of the health of the patient. Among other problems, this results in reduced access to screening services and contributes to increased cancer mortality; for example, access to breast cancer screening is a particular problem for Native women, with only 52 percent in 2000 reporting a mammogram in the past two years.

Core funding of most of the health services (including CHS) derives from IHS; however, many programs are also dependent on grant funding, tribal revenue, and collections from third-party payers (including state Medicaid programs) to remain financially viable. More than 36 percent of AI/AN families making less than 200 percent of the federal poverty level had no health insurance, a percentage second only to Latinos.

Along with the community health programs associated with the health care facilities in each community, an increasing number of tribes are taking an active role in public health practice and research in their community. These activities include grant-funded collaborations with academic researchers and federal agencies (such as a population-based BRFSS specific to tribal communities) and active collaborations with state and county health departments in such areas as increasing access to childhood immunizations. In addition, the last decade has seen a move toward increasing epidemiologic capacity within tribally run organizations. In the Northwest, three tribally operated epidemiology centers have been founded with funding from IHS and sustained by grant-funded activities: the Northwest Tribal Epidemiology Center at the Northwest Portland Area Indian Health Board, serving the 43 federally-recognized tribes in Idaho, Oregon, and Washington (www.npaihb.org); the Alaska Native Epidemiology Center at the Alaska Native Health Board (www.anhb.org); and the Urban Indian Health Institute at the Seattle Indian Health Board, which focuses on urban Indians nationally (www.uihi.org). The work of these tribal organizations has made progress in documenting the dramatic health problems that face Native communities in the Northwest.

Although the health care system serving the AI/AN population may seem comprehensive, the provision of adequate health care to AI/ANs is hampered by chronic underfunding of IHS by the US Congress. The lack of adequate funding to both CHS programs and the direct services provided by IHS and tribal facilities means that universal access to care for AI/ANs is far from a reality. It is estimated that the IHS is funded at only 50 percent of its level of need; some programs, such as mental health, are funded at as low as 30 percent. The relationship between chronic underfunding and increasing health disparities has been outlined in two recent reports from the U.S. Commission on Civil Rights. The reports conclude that the state of health care delivery to the AI/AN population is in a state of crisis. It seems likely that as access to care becomes even more limited due to inadequate funding, health status disparities between Native people and the general US population will continue to widen, and AI/ANs will continue to be denied opportunities for building healthier communities.

Although the health care system serving the AI/AN population may seem comprehensive, the provision of adequate health care to AI/ANs is hampered by chronic underfunding of IHS by the US Congress.

Authors

Jim Roberts is the policy analyst for the NW Portland Area Indian Health Board, and Joshua D. Jones, MD, is the area physician epidemiologist for the Portland area office of the Indian Health Services.

Resources

Indian Health Service. *Regional Differences in Indian Health 2000-2001*. http://www.ihs.gov/NonMedicalPrograms/IHS_Stats/Region2001.asp.

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Transforming Public Health in Idaho

Cheryl Juntunen
Maureen Welcker
Carol Moehrle

In Idaho, as in states throughout the Northwest and the nation, public health continues to face many challenges. Rising to meet these challenges, Idaho's state and local public health agencies are transforming how they promote health and prevent disease, moving from the traditional provision of do-it-alone direct services to a multidisciplinary, standards- and competencies-based model focused on population health. The transformation has required efforts to improve Idaho's public health workforce competencies in the areas of visionary leadership, communication, information management, assessment, planning and evaluation, and partnership and collaboration.

A public health nurse with a mother and her children during a developmental screening. This is an example of the Community Alliance for Young Children screenings that currently take place instead of the previous medical exams.

Idaho is fortunate to have a highly efficient and effective public health infrastructure. At the state level is the Idaho Division of Health. At the local level seven local health districts cover the state's 44 counties. They are autonomous, governed by local boards of health appointed by the county commissions, and funded jointly by the counties and state general fund as well as contracts and fees.

The need to focus on core public health competencies has become more apparent as Idaho's local health districts have moved from direct and technical services to more population-based approaches, requiring the public health workforce to function differently. Much of this change has not been an intentional, strategic shift, but has happened as a result of changes in contracts with state and federal agencies and in community expectations. As a result both staff and managers have felt the need to re-examine their responsibilities and competencies to better meet the essential public health services and the evolving view of our role in our communities.

Shifting to a multidisciplinary approach

The evolution of well child clinics at North Central District Health Department in Lewiston, Idaho, is one example of the transition from direct service to a multidisciplinary population focus. During the 1970s and 1980s, North Central District Health Department had well child clinics that delivered physical exams, gave immunizations, conducted nurse-administered Denver Developmental Screening Tests, and provided parental education. Participating families were recruited primarily from other health department programs, and nurses worked independently with the families, with minimal interaction with other agencies.

The well child clinics have since evolved into a multidisciplinary, multi-agency program, the Community Alliance for Young Children (CAYC). The program includes such community partners as child care providers, Head Start, school district, probation and parole, hospital rehabilitation, private medical practice, YWCA, children's mental health, the infant-toddler program, and others. The partners work together to plan outreach and community education around children's issues.

The transition from a stand-alone model to the collaborative CAYC program has been very successful. Several community-wide projects that increase parenting skills and child development awareness have had their origins in this program. CAYC also has monthly multidisciplinary developmental screenings open to anyone in the community. In the past, well child clinics relied on the expertise of public health nurses, served only a few children and families, and had a limited referral system. Today, CAYC's collaborative process allows not only for direct service to many families, but also promotes creative ideas, mutual assistance, program evaluation, and enhanced community education.

Although the health district participates in this new population-based approach, the need for a change was originally identified and led by a community partner, the school district. This intervention by an outside agency demonstrates the need for Idaho public health districts to improve both their organizational and individual competencies in delivering essential public health services.

Focusing on competencies

Successful programs such as CAYC demonstrate the importance of focusing strategic

planning efforts on the essential public health services and improving the public health competencies of staff. National interest in performance standards, accreditation, and credentialing has also contributed to Idaho's readiness to focus on the improvement of staff and agency public health competencies. In 2001, when the National Association of County and City Health Officials distributed *The Public Health Competency Handbook: Optimizing Individual and Organizational Performance for the Public's Health*, the health district directors realized that the core competencies in the handbook seemed a useful, systematic way to cross disciplines and job functions.

Although the health districts are independent from the Division of Health, they all use the same personnel system as the state—the Idaho Personnel System—which uses common categories, or class descriptions, to define position responsibilities and minimum qualifications. As a result, regardless of the public health field, at both state and local levels, all public health workers use the same pay grade for similar positions and responsibility.

Idaho got a head start on its efforts to implement competencies because of its previous work on systematizing and updating public health job descriptions. Every few years, directors from the health districts review their commonly used class descriptions for relevance to current job responsibilities and equity among public health disciplines. Within the last three years, the review team, using group consensus to identify the minimum qualifications and competencies, has modified class descriptions for nursing, environmental health, nutrition, and health education disciplines to ensure consistent descriptions at staff and senior levels. The team also established three public health manager levels that can be used by all disciplines.

Idaho had previously focused its class descriptions on traditional discipline qualifications including academic background, licensure, and experience. The job responsibilities were heavily weighted on individual service delivery with some attention to program coordination or management. The core public health competencies, on the other hand, clarify the new observable behaviors that will be expected of the future public health workforce. They more clearly identify the knowledge and experience needed for positions, based on the functions of the ten essential public health services.

In an effort to begin moving toward the use of the new competencies for public health class descriptions, three health districts—North Central (Lewiston), Central (Boise), and South Central (Twin Falls)—piloted public health competency implementation in their agencies. By the end of August 2004, they had surveyed their staffs and held a leadership training session for district and state senior managers on essential services and their relationship to core competencies.

The survey results, besides indicating a need to focus on educating staff on the importance and value of the competencies and essential services, also highlighted the need to identify available trainings, continue to modify job descriptions to fit the competencies, and manage organizational change to support the essential services and competencies.

The group anticipates the organizational improvements, education of staff, and modification of job descriptions in the pilot districts will take about two years. This timeframe should fit well with the routine statewide review of class descriptions, scheduled to take place in a few years.

The modification of the Idaho public health class descriptions to include the core public health competencies at all levels of public health will result in improvements in the performance of staff and managers delivering essential public health services. Managers, in particular, will be able to target recruitment, orientation, training, and performance planning to the specific competencies needed by each position.

Perhaps, just as important, though, public health workers at all levels and in various disciplines will receive consistent and equitable treatment related to their work expectations.

The core public health competencies, on the other hand, clarify the new observable behaviors that will be expected of the future public health workforce.

Authors

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Resources

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Improvement Runs Through Montana's Public Health System

Big Sky Country is vast enough to encompass mountains and plains, ranchers and entrepreneurs, tranquil small towns and vibrant cities. So, when it comes to public health in Montana, one size does not fit all.

Mary Ann Dunwell
Melanie Reynolds
Jane Smilie
Gayle Shirley

Preparedness is *public health.*

In a state that spans the Continental Divide and measures 500 miles from east to west, Montana's 56 local and 7 tribal health departments form the backbone of its public health system. Montana's public health system begins at the community level, where local boards of health govern, and public health nurses, sanitarians, and other professionals ply their professions. These local public health agencies can range from frontier and rural, staffed by a part-time public health nurse, to relatively urban, with as many as 200 people on staff. Yet, local departments of all types and sizes share a broad range of challenges—from preparing for potential biological, chemical, and radiological terrorism or emerging infectious diseases such as West Nile virus and SARS to reducing rates of chronic diseases.

Montana's public health system improvement effort has been underway for a number of years, but the Montana Department of Public Health and Human Services (DPHHS) has recently placed greater emphasis on building its system. The new Public Health System Improvement and Preparedness Bureau of the DPHHS is charged with continuing to improve the system, developing the public health workforce, ensuring public health emergency preparedness, and connecting the state's local and tribal jurisdictions.

System improvement is an evolving, synergistic work in progress. And, it is not just about individual local health departments. In large part, it is about building relationships and providing coordination among all the players—state and local health departments, community-based organizations, hospitals, EMTs, police, fire, and other emergency responders—so we can share and stretch as efficiently as possible the resources that the players bring to the table.

Montana has taken the recent influx of public health emergency preparedness funds as an opportunity to rebuild its long-neglected system. These funds have provided much needed public health training, which has enhanced our abilities in disease surveillance and control, laboratory services, and communicating about health risks. Our information technology systems are also much more current now. We are better prepared, on both sides of the Continental Divide, to do our work every day, and not just during an emergency.

Public health on the frontier

Richland County is frontier country, the "badlands," with fewer than five people per square mile. "If you've ever seen an old western you've seen the badlands," says Judy LaPan, health administrator for the Richland County Health Department in northeastern Montana. "Just think of John Wayne and rugged individualists. People don't realize they need public health out here. It is amazing to me how many people don't understand that we have the same issues as big cities. Teen pregnancy, methamphetamine and other drug use, poverty, low literacy, high drop-out rate, and lower average income all factor into a lower health status for our county," says LaPan.

LaPan's health department, housed in the old hospital building in Sidney, the county seat, employs a staff of 19 people and serves a population of 10,000 tops. About six years ago, the department offered a number of individual health care services, such as maternal and child health care, immunizations, a home-visiting program for infants, well child and adult clinics, limited home visiting for seniors, senior screening, and foot care. Now, LaPan's department partners with the local hospital to provide many of those services. "We don't need to deliver individual health care services, such as home health services, but we do need to provide access to the services that the hospital provides." LaPan considers partnerships with the hospital and other community organizations, such as the Boys and Girls Club, as key to protecting the public health and safety of her community. "When you put partners together, you get more bang for your buck," she adds.

In recent years, the Richland County Health Department has focused on providing more population-based services, such as disease surveillance, preparedness, and prevention. Her department is now organized into four teams: health assurance, prevention, chronic disease management, and volunteer services. "Surveil-

lance and disease control and public health preparedness planning are things we do every day. Preparedness *is* public health."

Although LaPan is a full-time administrator, two-thirds of Montana's local health jurisdictions serve fewer than 10,000 residents and operate without a full-time administrator. Some departments function without any full-time staff, and the part-time public health nurse has to close the office just to attend trainings. As a result, rural public health workers welcome the increasing number of distance-learning opportunities via satellite broadcast, video, and webcast.

Urban cowboys and public health

Although small agencies make up the majority of Montana's health departments, a handful of larger health departments serve 60 percent of Montana's population. Health Officer Ellen Leahy leads the Missoula City-County Health Department, the state's second-largest health jurisdiction serving the second-highest county population in the state—92,000 people. For Montana, that's urban, and Missoula's a big city. "We serve a large geographical area," says Leahy. "It's larger than the state of Delaware, and the outskirts of this area are very rural and sparsely populated. So, in comparison to other urban health jurisdictions in the U.S., we are often considered rural."

Leahy works with the state and other local health departments to strengthen public health efforts across Montana. The relationship between state and local health departments (including the state's seven tribal health departments), which she describes as collegial, not competitive, is largely contractual. Although the tribes are sovereign nations, they have the same state contract requirements to advance preparedness and system improvement as the local health departments. All are considered local health jurisdictions instead of differentiating between local and tribal health departments.

Leahy believes that Missoula's large proportion of the state population (10 percent) probably accounts for its influence on public health in Montana. "I hope our leadership and failures are useful for other jurisdictions and to form state policy. For example, Missoula has led the way in air pollution control during the last two decades. But we're also fortunate to have borrowed from other local jurisdictions, such as Billings, in creating a community health center, and from Butte in developing a lead-abatement program," says Leahy.

In public health system improvement, Leahy says DPHHS, and collaboratives such as the Public Health Improvement Task Force and the UW Northwest Center for Public Health Practice, are the engines for this improvement, and workforce development fuels the engines. "Public health, unlike many public services, relies primarily on people, not capital projects," says Leahy. "To improve the public health system, you have to improve the workforce—we are the capital."

At a recent emergency preparedness training, public health nurses learned side-by-side with emergency responders about topics such as weapons of mass destruction. These community partners train, plan, and work together to prepare for emergencies and unified response. "We can't use police power, taxes, technical fixes, or simple cause-effect thinking to combat today's public health problems," says Leahy. "We need various sectors of the community to be right at the table, and we need to get invited onto others' turf, too."

In the midst of reform, Montana's public health system grapples with staff turnover and an aging workforce, which threaten to rob Montana of an adequate cadre of experienced public health practitioners to take leadership positions. Some public health departments are adding high-school and college students to their work force by participating in programs that promote public health as a career choice. Fresh, young faces, some new to public health and some just exploring public health as a possible career, joined more experienced public health professionals at the 2004 Montana Public Health Summer Institute to learn about new developments in public health.

Like the work of a Montana rancher, that of a public health professional is a way of life that doesn't stop at 5 o'clock. "What I like about my work is that I do not have typical days—every day is different. Just the wide scope of public health practice in Missoula is in itself compelling and interesting," says Leahy. "I suppose my day is much like that of any other local health department in that it includes largely unplanned responses to budget crises, citizen forums, fulfilling moments hearing from a staff member who completed a project or handled a problem, and the guaranteed report of a communicable disease cluster occurring in a food service facility at 4:45 every Friday," says Leahy.

LaPan echoes Leahy's sentiments, "You may physically leave the building, but you are working all the time. The other constant is that most people in a small community know who you are, and you become a resource person for just about anything."

Public health professionals are resource persons and protectors of the public's health. And in Montana, system improvement and preparedness run through public health, continually building collective capacity among our diverse health jurisdictions and meeting the challenge to keep Montanans healthy and safe in an ever-changing world.

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Oregon's Public Health Builds on Coalitions

Elizabeth Rink

The state of public health in the Northwest is changing. We are faced with many challenges, such as balancing budgets, planning for bioterrorism, addressing obesity, providing health care to a growing medically underserved population, and implementing public health programs to meet the needs of our changing demographics, particularly in rural areas of the Northwest.

In Oregon dramatic changes in demographics, economy, and community level health indicators have severely affected the state's public health system. For example, Oregon has seen a dramatic increase in its Hispanic population. In some counties the Hispanic growth rate since 1990 has been 254 percent, and in others it has more than doubled. In 2003 the Oregon Legislature cut millions of dollars from Oregon's Tobacco Prevention and Education Program, despite the fact that tobacco-related health problems cost Oregon $1.8 billion annually in expenses and lost productivity. Oregon is one of only four states west of the Rocky Mountains with adult obesity rates over 20 percent. According to the United Health Foundation, Oregon ranks 48th in the United States in support of public health and spends less than 2.4 percent of its gross state product on health care.

At the core of Benton County's successful public health process are coalitions.

Benton County's success in addressing these challenges over the past several years are due not just to the work of public health professionals but, in a large part, to local community-based coalitions, which challenge us to provide public health services, support the Benton County Health Department's decisions and initiatives, and hold the bar high for what they want to see accomplished in our community.

Located in the heart of Oregon's Willamette Valley, Benton County is the smallest county in the state, encompassing only 679 square miles. Corvallis is the county seat and largest city in the county, with other smaller towns scattered through the county's rural areas. The economy depends primarily on agriculture and forestry in the rural areas. In the Corvallis metropolitan area, Hewlett Packard is the largest employer, closely followed by Oregon State University. Other major employers include Samaritan Health Services, the Corvallis School District, and smaller industries in timber, manufacturing, tourism, and agriculture. Visitors to Benton County may gaze on Corvallis's tree-lined streets, stroll along the Willamette River and the newly developed waterfront park, frequent the county's bountiful nurseries and well-maintained natural areas and parks, and perceive Benton County as a community with no problems.

Yet in 2003, Benton County was designated a medically underserved community. The 2001 census estimated that 14.6 percent of the county residents lived below the 100 percent federal poverty level, compared with 11.6 percent in Oregon. Approximately 60 percent of the clients at the Benton County Health Department report having no insurance, 32 percent report having public medical assistance as the primary insurance coverage, and 8 percent report having private insurance coverage. Key health indicators in Benton County include an 8.5 per 100,000 infant mortality rate compared to 5.8 per 100,000 in Oregon, 7.5 per 100,000 suicide rate among adolescents compared to 6.1 per 100,000 statewide, and a death rate of children between 1 to 14 years of age of 23.4 per 100,000 compared to 20.3 per 100,000 in Oregon. In addition 35 percent of Benton County residents are overweight, and 14 percent are obese. Chlamydia is rampant among our 13- to 25-year-olds. During its first year of operation, the Benton County Harm Reduction Program exchanged 30,000 needles. Indeed, there are problems in Benton County.

Coalitions create solutions

Benton County's public health system is flourishing, despite budget cuts and staff reductions over the past three years. At the core of Benton County's successful public health process are coalitions. Where we are involved in public health in Benton County, we are involved in at least one coalition. The strength of the many coalitions working with the Benton County Health Department is the ability of their diverse members to find common ground in the context of their diversity.

The eight coalitions and three advisory groups working with the Benton County Health Department (*see box for a list of the coalitions*) vary in how long they have been in existence, what they work on, how they work on their coalition activities, and how frequently they meet. The four coalitions described below demonstrate the range of focus and activities.

Due in large part to the work of our **Safety**

Net Provider Committee, a coalition of organizations and medical providers, the Benton County Health Department became a federally qualified health center in the spring of 2004 in order to begin providing primary care to the county's medically underserved residents. The planning effort for the health center was community-based, emphasizing assessment of the county's migrant and seasonal farm worker population as well as the wider community population. The Benton County Health Department and the Safety Net Committee have conducted two planning sessions and 22 bimonthly meetings since spring 2002 and held other meetings involving the Benton County Health Department management team and Benton County commissioners. The planning process included a study of the health care market, the local resources, and needs and services gaps.

In 1993 the **Benton County Tobacco Free Coalition** was founded and has been at the forefront of tobacco control and prevention throughout the state of Oregon for the past 11 years. Corvallis and Philomath are two of only three cities in the state that have smoke-free workplace ordinances. Philomath School District has received the gold standard award in tobacco prevention education and policy implementation from Oregon Health Services Chronic Disease Prevention Program. The Tobacco Free Coalition is so strong that the group's advocacy and testimony to local elected officials enabled the health department's tobacco prevention program to remain in place, despite the state cuts to tobacco prevention funding. The Coalition is made up of five to six core coalition members, with another five to six members who come to coalition meetings once or twice a year. It has met every month for 11 years.

The **Benton County Breast and Cervical Cancer Coalition** began in 1998 and has produced two booklets of breast cancer survivor stories—the *Unexpected Challenge* and *Transitions*—sponsored local events such as Pink Ribbon Teas and the showing of *Rachel's Daughters*, assisted in the implementation of breast cancer prevention programs for Hispanic and Asian/Asian Pacific Islander women, and raised $11,000 for mammography vouchers for women who cannot afford breast screenings. Virtually all of the Breast and Cervical Cancer Coalition work gets done outside coalition meetings. This coalition of 20 active professional women, providers, community volunteers, and cancer survivors meets every other month.

In 2002 a group of retired school personnel, local gym owners, physical activity specialists, dieticians, doctors, and nurses came together to form the **Benton County Healthy Weight and Lifestyles Coalition** in response to the growing obesity epidemic in Oregon. This Coalition was the first of its kind in Oregon. Its perspective on obesity prevention varies from focusing on portion size to encouraging people to bike to work. With a small grant from the Erikkla Foundation, in 2004 the group produced a resource guide on local resources for low- or no-cost physical activity in Benton County. Other projects include implementing a Walk-to-School-Day with the Benton County school districts and promoting the 5-A-Day campaign and pedometer programs in local businesses. And slowly but surely the group is beginning to address vendors and food sales in the schools.

In order to adapt to the dynamic landscape of public health, public health practitioners at the state and local level must look to coalitions as resources for advocacy in the political arena as well as for developing and implementing collaborative public health programs. The benefit of developing and maintaining coalitions to work with state and local health departments on issues is that they enhance the public health system's ability to identify issues, mobilize action on them, and address the overall health of the community. Coalition work, and the dedication of the community members who serve on coalitions, will continue to help improve the state of public health in Oregon.

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Benton County Health Department Coalitions and Advisory Committees

Breast and Cervical Cancer Coalition
- Mammography voucher program
- Community-based education projects

Diabetes Project
- Diabetes prevention education
- Self-Management

Healthy Weight and Lifestyles Coalition
- Walk-to-School-Day
- Advocacy in county school districts for healthy food choices
- Active community environments

Benton County Tobacco Free Coalition
- Tobacco-free environments
- Tobacco prevention and control policies and programs

HIV Prevention and Care Planning Committee
- Community planning and advocacy for HIV prevention and care

Asian-Pacific Islander Health Council
- Promotes Asian health and wellness through a lay advisors program

Biomedical Planning Team
- Public health emergency planning

Family Planning Advisory Committee
- MARS (Male Advocates for Responsible Sexuality)
- STARS (Students Today Aren't Ready for Sex)
- Oversight of federally funded family planning

Emergency Medical Advisory Committee
- Emergency medical services oversight

Public Health Advisory Committee
- Public health strategic planning
- Public health policy advisement
- Community advocacy for public health

Washington Partners Respond to a Food Safety Emergency

Two days before Christmas in 2003, when many state and local public health workers were enjoying the holidays with friends and family away from the office, Washingtonians learned that a cow in Washington State had tested positive for bovine spongiform encephalopathy, known as BSE or Mad Cow Disease.

Jude Van Buren
Janice Adair

The U.S. Department of Agriculture's (USDA) immediate concern about finding the first BSE-positive cow in the United States was the potential economic blow to the approximately 9,600 family farms and ranches in Washington involved in beef production and the state's 750 dairy farms. (Dairy products are the second largest commodity in Washington, and beef is fourth.) The effect on the food supply was also a concern, so the first call made from Governor Gary Locke's office, on notification by the USDA, was to the Washington State Department of Agriculture (AGR). AGR is the cabinet-level state agency that manages programs that support the agricultural community and promote consumer and environmental protection.

Even though BSE is considered an animal disease, the governor's office also recognized its potential effect on public health as a consumer food safety issue. So, the Washington State Department of Health (DOH) was the second call. DOH, also a cabinet-level agency, provides resources, technical assistance, and consultation in a variety of areas, including food safety, epidemiology, risk assessment, and technical and laboratory support.

They had to find a way to balance the economic risk to farms against the potential risk to human health and the environment.

Since the BSE event occurred in Yakima County, DOH quickly involved the Yakima Health District, which is one of 35 local health jurisdictions (LHJs)—county health departments, city-county health departments, and multiple county health districts—covering Washington's 39 counties. The LHJs provide frontline public health services and are major sources of public health information for their communities.

As events developed, more than 700 cows were killed and tested for BSE. Although none were found to be positive for the disease, the environmental threat from disposing of a large number of carcasses became clear, and the State Department of Ecology (Ecology) was called in. Ecology is Washington's principal environmental management agency, focusing on preventing and cleaning up pollution and supporting sustainable communities and natural resources.

The local health departments routinely partner with DOH, but although DOH had previously partnered with AGR and Ecology to address health concerns, this was a complex issue with unclear health ramifications and potentially enormous economic ramifications. Despite the mutual focus on dealing with the infected cow, each agency brought competing values and organizational styles to the partnership. They had to find a way to balance the economic risk to farms against the potential risk to human health and the environment. Lack of clear federal communications and guidelines complicated the partnership's work.

The December holidays put food on everyone's mind, and as news reports about the BSE-infected cow continued, public concern reached an all-time high. Response to a health emergency, such as the BSE event, is usually handled by the Centers for Disease Control and Prevention, but in this case the USDA assumed the prime authority for response. As a result, AGR, now also in the lead at the state level, had to field questions from an anxious public about the risk to humans from eating beef. Was beef safe to eat and milk safe to drink? AGR turned to DOH for assistance, support, and coordinated information.

A Joint Information Center was established in Olympia at AGR, and staff was recruited from AGR, Ecology, and DOH to be relocated near the site or provide updates and communication from their normal locations. Local health officials were briefed and asked to provide public health information, with guidance from DOH's Division of Environmental Health, the Office of Communicable Disease Epidemiology, and the DOH Communications Office.

The three state agencies—and other entities when their input and guidance or decision making were needed—held daily coordinated phone conferences over the holidays and throughout the early weeks of January.

Managing public health issues

Public health concerns abounded. The effect on Latino communities, in particular, was a

serious challenge, since they have a tradition of preparing and eating brains and organ meats during the holidays. Public health communicators relied on their experience in working with Latino populations who had been exposed to other types of infectious agents, such as in homemade *queso fresco* (farm fresh cheese), to develop public health risk communication messages in Spanish. DOH staff worked with local public health staff and communications office staff from the state and local agencies to coordinate these public health and safety messages.

Another public health concern involved the disposal of the carcasses. Finding an environmentally safe disposal site brought Ecology into a leading role for recommending solutions and for coordination. Little scientifically valid information exists on the fate of prions (abnormally folded proteins) in the environment, and the agencies held many discussions about the relative merits—from both public health and environmental perspectives—of burial versus burning. USDA, on the strong recommendation of Ecology, DOH, county officials, and the Yakima LHJ, decided to dispose of the carcasses in a state-of-the-art landfill located in an isolated site that met the environmental requirements for protection of the air, land, and water.

The owners and operators of the beef and dairy farms in the area bore the brunt of the economic effects of the event, although as time passed other areas around the state were also suspected of BSE contamination. Besides the economic effects on the farmers, they suffered psychologically, as a result of losing so many animals and being the center of media attention. Stress has well-known effects on health and is one of the public health concerns that must be considered in a health emergency such as this one.

The basic theme of the Institute of Medicine's report *The Future of the Public's Health in the 21st Century* is that ensuring the public's health requires action beyond the traditional public health agency. The report argues that to approach health from a broad perspective, public health must take into account the potential effects of many different factors—social, economic, natural, political—that can and do affect health. The success of the public health system depends on collaboration among all levels of government.

The response of Washington's public health and other state agencies to the BSE event demonstrates the power of this expansive model of modern public health, in which nontraditional partners work together, crossing boundaries of perspective, scientific discipline, and cultural norms to address emerging public health concerns. The groundwork laid in cross-departmental teamwork is a model the whole Washington public health system is embracing, as it prepares to meet the next unknown, but not unexpected, health emergency.

Authors

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Resources

Animal Health. Washington State Department of Agriculture. http://agr.wa.gov/FoodAnimal/AnimalFeed/BSE.htm.

For more BSE resources see the online resources at www.nwcphp.org/nph/.

Background on BSE

Bovine spongiform encephalopathy (BSE) is a progressive, fatal neurologic disorder that occurs in cattle. Related diseases (know as transmissible spongiform encephalopathies (TSEs) occur as scrapie in sheep and chronic wasting disease in deer (*Odocoileus* species) and Rocky Mountain elk (*Cervus elaphus nelsoni*). These diseases in animals and humans are believed to be caused by infectious agents called prions. Transmission in animals primarily occurs by eating feed contaminated with prion-infected tissues from other animals or from a mother to calf during pregnancy.

Prion diseases also affect humans, and the classic human TSE is Creutzfeldt-Jakob Disease (CJD). Creutzfeldt-Jakob Disease is extremely rare (one case per million people annually) and has several forms, including sporadic (exact cause is unknown), familial (hereditary), and iatrogenic (following exposure to contaminated equipment for brain surgery or tissue transplants from infected donors). Recently, a new human TSE has been recognized in countries affected by BSE and is believed to be related to eating meat contaminated with the BSE agent. This disease is known as variant CJD, or vCJD.

Surveillance for Human TSEs

In March 1996, a United Kingdom advisory committee concluded that BSE had likely spread to humans, following the recognition of 10 people with newly described variant CJD. Surveillance in the United States began in 1996 when the Centers for Disease Control and Prevention (CDC) asked state and local public health agencies to begin looking for human TSEs through review of death certificates and investigation of suspected cases of TSE. As of August 2004, 150 people have died of definite or probable vCJD worldwide, most in the United Kingdom and France but with one case each in Canada and the United States. The vCJD cases in Canada and the US were long-term residents of the United Kingdom and are believed to have been exposed to BSE while residing there. The number of vCJD cases reported to date is relatively small compared with an estimated one million or more cattle infected with BSE in the United Kingdom alone, indicating that a species barrier may provide some protection for humans against vCJD.

Surveillance for human TSEs is being enhanced in Washington by educating health care providers and encouraging them to report suspected cases of human TSE, including CJD, to their local health jurisdiction. These diseases are difficult to detect, and an autopsy is usually required to obtain brain tissue for diagnosis. DOH, CDC, and the National Prion Disease Pathology Surveillance Center at Case Western University are working to improve the detection of TSEs by asking providers to discuss the possibility of an autopsy with family members of patients suspected of having a TSE.

Wyoming's Graying Population Compels Rethinking the Role of Public Health

Older people move in. Younger people move out. By addition and subtraction Wyoming is on track to becoming the "oldest" state in the country.

Beverly Morrow

Here's a look in the crystal ball. A recent study by AARP forecasts that by the year 2020, Wyoming will have the nation's highest percentage of residents between 65 and 74 years of age. It is likely that one out of four state residents will be over the age of 60 by then.

For public health officials preparing for the shift, the looming question is this: How will small-town Wyoming respond to the emerging public health needs of so many senior citizens? In many ways, the face of public health in Wyoming looks similar to other states, but in other ways its approach to public health services is tied to its demographics and its conservative, independent traditions.

The Wyoming Department of Health (WDH) encompasses the bulk of public health programming, including six main divisions that all affect the older population: aging, community and family health, developmental disabilities, mental health, preventive health and safety, and substance abuse. The agency also includes the offices of Medicaid, rural health, pharmacy, and health facilities. One of the public health challenges for WDH is to integrate appropriate and effective programming geared toward older adults in each of these divisions and offices.

At the state level, food safety inspections are a function of the Department of Agriculture, and other environmental health issues are the shared responsibility of the Department of Environmental Quality and the Department of Health. Public health is present in each of Wyoming's 23 counties, but the size of that presence might seem unimaginably small in more populous states. Wyoming has only four major public health offices with staff from various disciplines. The rest of the counties have offices staffed by only a handful of public health nurses who wear many hats and handle up to 34 separate programs.

In years past, the public health offices provided comprehensive home health services for the elderly and disabled in most areas of the state. Over the past several years, that effort has steadily dwindled, as more private home health agencies have emerged. Only one public health office continues to provide full home health services in the state; the others have moved toward services for children and families.

Today, the main services provided for the elderly by public health offices are flu and pneumonia vaccinations, assessments for Medicaid home- and community-based waiver programs, and Adult Health Maintenance, a program that provides nursing oversight and limited assistance for at-risk adults. There is limited time, or money, for wellness and health promotion initiatives.

Changing demographics

The challenges ahead are daunting for this large state with a small population that is spread out and often isolated. Wyoming is the least populous state, with a little over 500,000 people inhabiting almost 100,000 square miles. The vast majority of the state is classified as *frontier*, meaning fewer than seven people per square mile. The state's population has not changed significantly for years and will probably continue to see minimal net growth, as seniors simply replace the young people who leave the state in search of better opportunities.

A sizable number of baby boomers arrived in Wyoming in the early 1980s to work in the burgeoning mineral industry, and many of them, now retired or near retirement, still live here—having ridden out the bust/boom cycles for a quarter century. More recently, senior boomers began relocating from out of state to enjoy retirement in such places as the beautiful mountainous, northern areas of Jackson, Sheridan, Cody, and Buffalo.

These relocating seniors may, in fact, be the ones who are accelerating the graying of the state. Wyoming saw a 22 percent increase in its population aged 65 and older in the 1990s. That's ten percentage points higher than the national average growth rate.

Part of the attraction for retirees moving to Wyoming is probably the low cost of living. The state has no income tax, and real estate is relatively inexpensive compared to other states. AARP Wyoming spokeswoman, Joanne Bowlby, said the Cowboy State's great outdoors also appeals to a new breed of older adults who don't intend to retire like their parents. "Boomers want to be involved and active," she said. The addition of healthy, financially flush 60- to 70-year-olds is very appealing—particularly in light

of the brain drain of young Wyomingites. Yet some health officials wonder what this demographic impact will mean for Wyoming's public health resources, especially as our graying population gets very old.

Changing public health services

Twenty or thirty years down the road, a burgeoning population of less well-off, less healthy 85- to 100-year-olds will present imposing public health questions. Most older people have at least one chronic condition, and many have multiple chronic conditions, including Alzheimer's and other dementias. In fact, the oldest residents require an increasingly large and disproportionate share of special services and public support. The oldest of the old are more likely to be women, to be in poor health, to live alone, and to be financially poor.

For Wyoming's public health system, the financial situation could become very serious. Geriatric spending currently is roughly one-quarter of the state's Medicaid budget. This includes nursing home, home- and community-based care, Medicare premium assistance, prescription drugs, and many other health care services used by seniors. The rapidly rising prescription drug costs just add to the growing fiscal concerns. "States everywhere are grappling with this rising cost of Medicaid," said department of health director, Dr. Deborah Fleming.

Wyoming has always had a "bare-bones" Medicaid program that provides little assistance for adults with no children. But one of the biggest cost drivers of the ever-expanding Medicaid budget is services provided to elderly and disabled people, including expensive institutional care and prescription drugs. The state is already experiencing a great demand for the long-term care home- and community-based waiver program and has a waiting list for the limited assisted living facility waiver program.

Fleming said the bigger problem in Wyoming may become not the availability of state monetary resources, but shortage of workforce to meet the needs. "It comes down to more people needing and using resources, but fewer people willing or able to do what needs to be done," she said. "We can have all of the appropriate funding and programs in place, but it won't mean a thing if we don't have trained professionals and support staff to make it work."

The average age of public health nursing staff in Wyoming is over 50. Out of 117 people working in local public health offices, only 9 are under the age of 40. Within the next five years, one-quarter of the nurses will be eligible for retirement, and not enough younger nurses are stepping up to fill the gaps.

An additional concern is that large segments of Wyoming are federally designated as health professional shortage areas or medically underserved areas. Virtually the entire state is underserved for mental health, with only two geriatric psychiatrists available, and few practicing geriatricians.

The remarkable shift in Wyoming's demographics will also have an effect on the availability of caregivers, including direct service providers, such as certified nursing aides, home care givers, and case managers. In the past three years alone, the number of young people aged 5 to 17 fell by 8 percent, and those of parenting age fell by 2 percent. With the number of young people declining, we will continue to lose potential support service workers. All of these factors will likely place additional stresses on family caregivers, who often rely on a variety of community-based services to help them cope.

Admittedly, planning for these future public health needs can seem an overwhelming task, but Fleming said it is also an opportunity to take a hard, objective look at the state's resources to determine how to have the greatest effect on the most pressing needs of the senior population. This requires an adjustment in attitude and approach, from the community level all the way to the legislative level. Older adult services will have to become a public health priority, and increased attention to prevention and wellness is critical.

There are many opportunities within the public health system to coordinate services more effectively and to promote an intersection of efforts and mechanisms among various agencies and programs. Aging services need to become an integral part of mental health, substance abuse, disease management, and prevention and wellness initiatives, as well as efforts on behalf of older, developmentally disabled persons.

In the past, Wyoming's services to the elderly have been regarded as a "social model" effort. Increasingly, the need for a strong public health model that encompasses medical, environmental, and behavioral aspects of health is becoming apparent.

Applying public health resources to the needs of this expanding elderly population will become the major challenge of federal and state health systems in the next decade, outstripping the current efforts in all-hazard emergency preparedness. This challenge will involve shifting the will of policy makers and adjusting attitudes regarding how we go about delivering public health services and using public dollars to do so. "Elders are the keepers of our values," Fleming said. "We must protect and treasure them."

Within the next five years, one-quarter of the nurses will be eligible for retirement.

Author

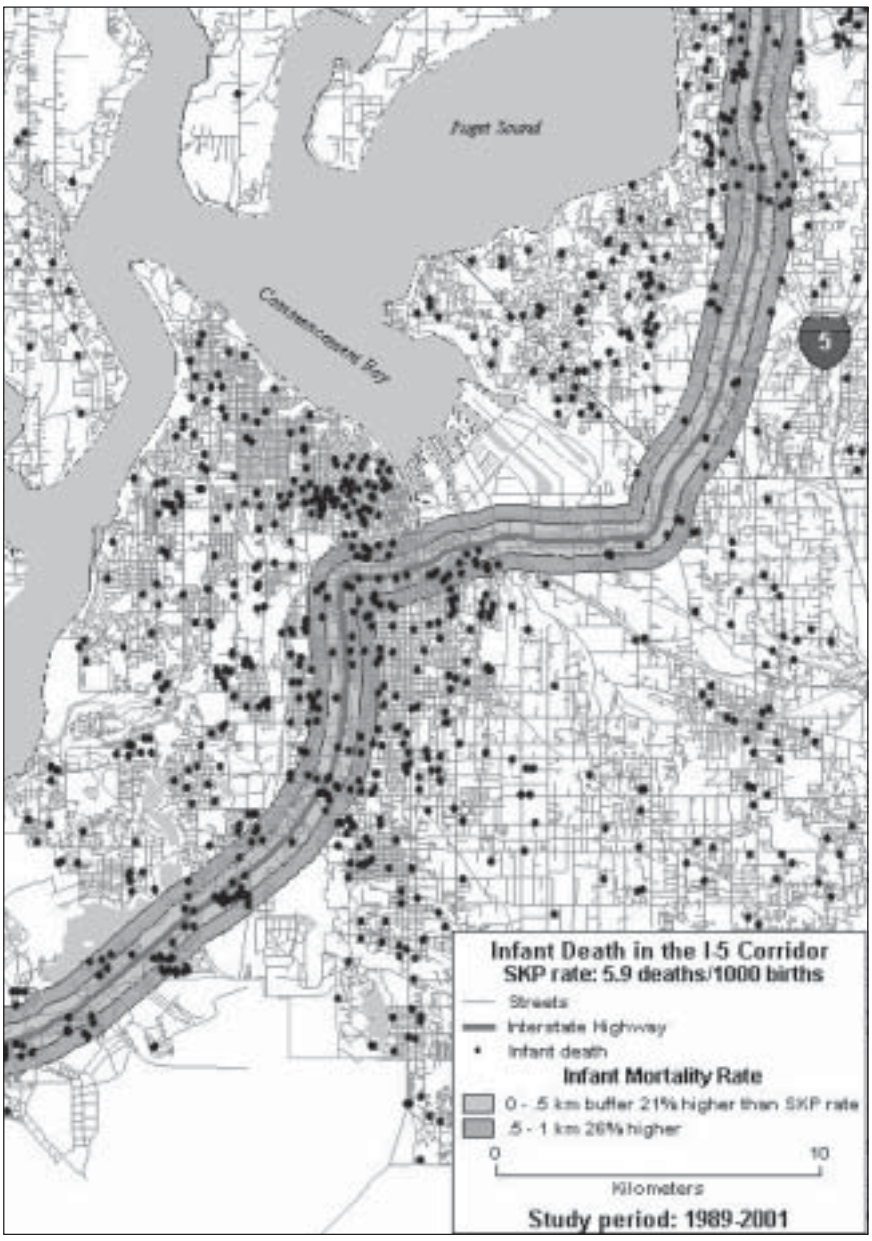
Beverly J. Morrow, BS, MPA, is administrator of the Aging Division at Wyoming Department of Health.

Putting Where *Back into Epidemiology*

Richard Hoskins

All epidemiology courses teach the obvious threesome about a disease investigation or study: who, when, and where. Epidemiology students proceed through the famous John Snow and cholera outbreak in London, 1854, which led to the locking of the Broad Street pump and the immediate decline in cholera incidence. Snow had no idea about the *what* with regard to cholera, as bacteria (in this case, *Vibrio cholerae)* had not been discovered. This story remains a marvelous piece of detective work that saved lives and resulted in a methodological advance that revolutionized public health. It became clear that the miasma (bad air), the famous London fog, was not responsible for the disease. Clearly, sewage-contaminated water was somehow in the causal pathway.

Snow definitely collected the *who*, *when*, and *where.* His famous map of cholera cases clustered around the Broad Street pump is an icon for public health practitioners. Until recently the *where* in epidemiology has languished and even, to a great degree, disappeared from general public health practice except for some outbreak investigations made with some pins and a paper map from the public works department.



GIS makes mapping easy

But that neglect of *where* has all changed. Geographic information systems (GIS) now allow ordinary public health folks to routinely make maps and carry out a descriptive spatial analysis at any scale appropriate for their problem: nation, state, county, a census region, or street. The limitation is, as with all studies, data availability and quality. Increasingly, health departments are geocoding their data (turning addresses into longitude and latitude). These data, with strict rules about their use, are becoming available to the public health community. All the census data and most geographic features can be found for no cost on the Internet or one's local spatial data center, which all states and most counties have.

The following example illustrates how a GIS analysis may offer some insight into what geographic information may contribute to understanding the incidence of infant death. Let's start with a question: Is there any relationship between residential proximity to Interstate 5 and infant death rates? Earlier studies indicate that there might be. This is a "John Snow map" problem. The Broad Street pump in this study is I-5.

The map on the left shows a portion of the Interstate 5 corridor through Tacoma, which is in the study area—Snohomish, King, and Pierce (SKP) counties. The infant death rate for SKP for 1989-2001 was 5.92 per 1,000 live births. We'll take this figure as the comparison rate. Using a GIS, we'll build in two ½ kilometer-wide bands, or buffers, on each side of I-5. On the map, I-5 runs through the middle of the buffer zone. Using the geocoded birth data (not shown on the map), we count the number of births in each band; the total number of births is the denominator. Then using the geocoded, linked birth-death records (shown on the map), we count the number of infant death cases; the total number of infant deaths is the numerator (total infant deaths/total births=death rate). When we calculate and map the rate, we find that the inner buffer rate is 21% higher than the comparison rate (SKP rate) and the outer buffer, 26% higher. Both rates are statistically significant; in this case the likelihood that the measured rates are due to chance is less than 5%.

This preliminary result appears compelling and might support other studies indicating that proximity to high volume traffic is a health hazard for children. However, here is where the complications start. For one thing, using all infant deaths is too broad. Most infant deaths occur in the neonatal period (first 28 days) and most of those in the perinatal period (first week). It is not clear how traffic volume would affect those children. After 28 days, sudden infant death syndrome (SIDS) is the most prevalent cause of death. Since it is easy to make a map of selected causes of death, we could refine the original question and "ask the map" for more specific information.

Proceeding from the map, which represents just the beginning of formulating a question and is still far removed from framing a hypothesis, we wonder: is the location near I-5 just a proxy for some other risk factor such as low or high maternal age, or limited access to prenatal care, or is it a spatial factor (confounder) that distorts the association between I-5 and infant mortality? In other words, is location getting in the way of understanding something else that is going on? Or perhaps proximity to I-5, with the resulting air pollution, really is a risk to infants.

This example shows that, with just the linked infant birth-death, live birth records, and GIS technology, in a matter of just an hour (after the data is geocoded) an investigator can get a description of what is occurring near I-5. As always with a descriptive study, more questions appear than do answers. Notice the concentration of infant deaths just northwest of the center of the map. Are there just a lot of births there or is there really a cluster?

Careful thinking still required

It is possible to do a similar analysis around other, or all, highways, toxic waste sites, power lines, or specific industrial sites. However, making maps so easily should be considered with caution. Public health data that appears with tables and charts has always required clear and careful thinking to develop a valid conclusion or useful study. Throwing maps into the mix adds another dimension of complexity. Now we need clear and careful *geographic* thinking, too.

Throwing maps into the mix adds another dimension of complexity.

This preliminary analysis, which puts the *where* back into epidemiology here in Washington State, now comes full circle from London, 1854, updated with GIS, but the thinking required to understand what a map tells us is still the same.

Author

Richard Hoskins is the state public health geographer and a senior epidemiologist in the Office of the Assistant Secretary for Epidemiology, Health Statistics and Public Health Laboratories in the Washington State Department of Health. He is also on the clinical faculty in the Department of Epidemiology at the UW SPHCM.

Resources

Maptitude (2004). V 4.7. Caliper Corporation, 1172 Beacon Street, Newton MA 02461.

Frerichs, R. R. (2004). The real John Snow, http://www.ph.ucla.edu/epi/snow.html.

Wilhelm M, and Ritz B. (2003). "Residential proximity to traffic and adverse birth outcomes in Los Angeles County, California, 1994-1996." *Environmental Health Perspectives* 111(2): 207-216.

Resources for Creating Public Health Maps, Centers for Disease Control and Prevention. www.cdc.gov/epiinfo/maps.htm.

Tracking Infectious Disease Across Borders

Lessons learned from the 2003 SARS epidemic highlight our need for effective working relationships and systems that cross all borders — local, state, provincial, and international. In the age of terrorism, it is essential to have the ability to track and quickly respond to infectious disease outbreaks whether from bioterrorism or natural emerging pathogen events. Such events do not recognize borders, so we must closely coordinate with our cross-border public health partners to navigate the maze of different governments, laws, and organizational structures—a task that is often easier said than done.

Recognizing this need, the Washington State Department of Health, funded by US Department of Health and Human Services (HHS), held a workshop in August 2004 in Bellingham, Washington, entitled *Emerging Public Health Threats: Tracking Infectious Disease Across Borders*. The goal was to begin establishing a seamless, cross-jurisdictional public health infectious disease surveillance network. This network must quickly and efficiently track acts of bioterrorism and emerging pathogen threats across local, state, provincial, and the United States/Canada international borders. More than 200 professionals in the fields of epidemiology, public health laboratories, emergency management, and law came from Alaska, Alberta, British Columbia, Idaho, Montana, North Dakota, Oregon, Washington, Yukon Territories, and tribes. Speakers provided attendees with insights into the many challenges of preparedness and the need for compatible detection and response efforts within the Northwest.

This was truly a working conference. Participants were charged with: 1) building and strengthening strong professional relationships across our borders; 2) developing a framework for formal agreements in tracking infectious disease across borders; and 3) developing a work plan that describes next steps to complete and execute the agreements. Using two separate tabletop exercises, participants helped identify policy issues that are critical for successfully developing cross-border infectious disease tracking. The leading five priority issues identified at the workshop were communication (initial and ongoing), jurisdictional issues, surveillance system compatibility, resources (human and material), and legal issues. Frameworks for future memoranda of understanding to help guide this work among partners were also developed.

Although the workshop represented a solid starting point for this effort, attendees recognized that much work remains to be done. To maintain their momentum, participants committed to five immediate initiatives: 1) formalizing workgroups and timelines; 2) developing a 24/7 contact list/directory; 3) planning and executing cross-border exercises, joint training, and systems of continuous improvement; 4) advocating for public health preparedness at appropriate policy levels; and 5) planning the next annual conference on cross-border preparedness. Attendees then signed on to actively participate in these initiatives, and the group is working to assure follow-through over the next several months. Additional funding from HHS has been earmarked for the Washington State Department of Health to continue strengthening cross-border infectious disease collaboration.

Authors

Wayne Turnberg, RS, MSPH, is cross-border surveillance workshop coordinator in the Washington State Department of Health, and Paul Wiesner, MD, is assistant clinical professor at the Northwest Center for Public Health Practice and senior associate with Milne and Associates, LLC.

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New Environmental Health Training Module Now Available

A training module on essential services of environmental health, developed by Carl Osaki and pilot tested during the past year, is now available on CD-ROM from the Northwest Center for Public Health Practice. The module can be used by local health departments to increase their staff's understanding of how the ten essential services apply to the practice of environmental health, as well as how to write performance standards relevant to local projects for each of the essential services.

The CD contains a fully narrated version of the training presentations and a customizable PowerPoint version, with an instructor's manual and supporting training materials. For more information about the module or to order the CD-ROM, see www.nwcphp.org/edu/eseh or call 206-685-1130.

Hot Topics in Preparedness

New from the Northwest Center for Public Health Practice is a monthly interactive online forum. Past topics include: preparing for SARS, current issues in West Nile virus infection, mental health and preparedness, mass dispensing, children, and pandemic influenza. The past forums are archived at www.nwcphp.org/htip/.

Topics in this Issue

Laura Larsson and Yuki Durham

Native Americans

American Indian/Alaska Native Health Resource Sampler. http://nnlm.gov/pnr/samplers/natamer.html. List of resources relating to American Indian/Alaska Native health compiled by the National Network of Libraries of Medicine, Pacific Northwest Region staff. Resources are organized under general and cultural resources, government resources, some traditional medicine resources, other resources, Native American mailing lists, and information resources from the National Library of Medicine.

Health and Nonprofit Corporations. http://health.hss.state.ak.us/dph/targets/ha2010/volume3/native.htm#health. A listing of the various health and nonprofit corporations in Alaska.

Workforce Improvement

Core Competencies for Public Health Professionals (Tool). http://trainingfinder.org/competencies/. This Web page links to work done on the Competencies Feedback Project by the Council on Linkages Between Academia and Public Health Practice. Includes the most recent list of Core Competencies for public health professionals, revised early in 2004.

The Guidebook for Performance Measurement. Patricia Lichiello. Turning Point Project. December 1999. www.turningpointprogram.org/Pages/pmc_guide.pdf. This excellent publication describes what performance measurement is, discusses why it is important to measure performance, lists the key components required to design an effective performance measurement process, and outlines how to report results.

The Public Health Workforce Enumeration 2000. ftp://ftp.hrsa.gov/bhpr/nationalcenter/phworforce2000.pdf. This document, prepared for the Health Resources and Services Administration by the Center for Health Policy at the Columbia University School of Nursing, is a valuable resource for providing a best estimate of the size and composition of the public health workforce at the local, state, and national levels. It includes workers in official agencies and voluntary organizations.

Bovine Spongiform Encephalopathy

Animal Health. Washington State Department of Agriculture. http://agr.wa.gov/FoodAnimal/AnimalFeed/BSE.htm. The Washington State Department of Agriculture created this site to answer the public's questions about BSE. Topics include a description of BSE, preventing its spread, food safety, BSE and livestock feed, BSE and human health, BSE in Canada, protecting pets from BSE, and links to related resources.

Bovine Spongiform Encephalopathy in Washington State: Information and Updates. www.fas.usda.gov/bse04.htm. Statements, technical briefings, press releases, and other documents relevant to BSE in Washington State.

Community Coalition Building

Mobilizing for Action through Planning and Partnerships (MAPP) (NACCHO). http://mapp.naccho.org/MAPP_Home.asp. Registered public health professionals can obtain access to the MAPP protocol for use in their health departments to improve the health of their communities.

Building and Maintaining Community Coalitions on Behalf of Children, Youth, and Families. Joanne Keith, et al. March 1998. http://crs.uvm.edu/nnco/collab/buildcoal1.html. This project report was written for the Community Coalitions in Action, Institute for Children, Youth and Families, Michigan State University. The report documents examples of collaborative efforts in Michigan that addressed the needs of children and youth in the late 1980s and early 1990s. A framework for understanding community collaborations is described and an in-depth review of thirteen collaborations is provided as they demonstrate best practices.

Strength in Numbers: A Guide to Building Coalitions. August 2003. www.communitycatalyst.org/acrobat/Guide-Building-Coalitions.pdf. Community Catalyst "is a national advocacy organization that builds consumer and community participation in the shaping of our health system to ensure quality, affordable health care for all." Three major sections in this 24-page PDF document are: 1. Introduction to Community Coalitions; 2. Organizing a Community Coalition; and 3. Factors that Affect Coalition.

Geographic Information Systems

Public Health GIS News and Information. www.cdc.gov/nchs/about/otheract/gis/gis_publichealthinfo.htm. Public Health GIS News and Information is a bimonthly, electronic report on disease control and prevention through the use of Geographic Information Systems (GIS) technology. The report, which began in 1994, "provides timely information on a variety of GIS topics, including technical and outreach assistance; notification of relevant professional meetings, events, and conferences; communication from GIS users; Web developments; and public health GIS literature."

Geriatrics and Aging

AgeSource Worldwide. http://research.aarp.org/general/agesource_home.html. AgeSource Worldwide is a new online database produced by AARP. Search it for information on clearinghouses, databases, libraries, directories, statistical resources, bibliographies and reading lists, texts, and Web "metasites" focusing on aging or closely allied subjects. Topics covered range from Alzheimer's disease to wills and estate planning.

More Resources Online

For a list of more annotated resources, see our Web site at www.nwcphp.org/nph/f2004/.

Authors

Laura Larsson, MLS, is on the clinical faculty of the Health Services department; Yuki Durham,. MLS, is a librarian; both are in the University of Washington School of Public Health and Community Medicine.

Letter to the Editor

Public Health Needs to Address Drug Use

Dear Editor,

I read with interest your article "Public Health Tackles Emerging Diseases" [Spring/Summer 2004]. Indeed, I read with interest most editions of *Northwest Public Health* and commend the efforts of all contributors.

I'm writing you, today, because of a question/comment I have. It is my opinion that one of the greatest public health issues facing our state has to do with the issues around chemical dependency. I realize I'm not familiar with hard data to support this contention, but if I'm correct, the fact that the issue is discussed rather uncommonly in public health circles is striking. In the past I've been aware of educational efforts toward nicotine dependency and secondhand smoke. Also, I recall some educational efforts regarding driving while under the influence of alcohol.

My overall impression is that the chemical dependency problem appears to be almost entirely off of the public health radar screen. I recognize that this is an area of health where, historically, public health has played a minor role. If, however, I am correct as to the enormity of the public health consequences, why is there amongst us such little study and discussion of the problem?

James K. Rotchford, MD, MPH
Port Townsend, Washington

Northwest Public Health welcomes your letters. Send letters to: Editor, *Northwest Public Health*, c/o Health Policy Analysis Program, 1107 NE 45th St., Ste. 400, Seattle, WA 98105, or e-mail nph@u.washington.edu. Please include your name and a daytime phone number. Letters may be edited for length and clarity.

Find resources at *Northwest Public Health Online!*

Look for the journal at www.nwcphp.org/nph/, where you'll find resources on topics in this issue, as well as from previous issues.

Dates to Note

Send notices for the calendar to the editor at nph@u.washington.edu

October 4-6, 2004
WSPHA Joint Conference on Health.
Wenatchee, WA
www.wspha.org

October 27, 2004
Idaho Public Health Association Annual Meeting.
Pocatello, ID
Lee Hannah, 208-585-6544

November 5-7, 2004
Society for Public Health Education Annual Meeting.
Washington, DC
http://sophe.org/calendar/conference/conf_meet.html

November 6-10, 2004
APHA 2004 Annual Meeting.
Washington, DC
www.apha.org/meetings/

November 29-December 1, 2004
2004 Alaska Health Summit.
Anchorage, AK
www.alaskapublichealth.org/healthsummit.htm

December 14, 2004
HPAP Washington Health Legislative Conference.
SeaTac, WA
206-543-3670
www.hpap.washington.edu

March 24-25, 2005
18th Annual NW Regional Rural Health Conference.
Spokane, WA
Cathi Lamoreaux, 509-358-7640, lamoreaux@wsu.edu

April 4-10, 2005
National Public Health Week.
www.nphw.org

UW School of Public Health & Community Medicine
NW Center for Occupational Health and Safety
Selected 2003-2004 Programs

October 20, 2004
Wood Smoke: Burning Health Issues

April 1, 2005
Controversies and Advances in Children's Environmental Health

April 12, 2005
Ergonomics IS Good Economics

All programs are held in Seattle, Washington. For information, call 800-326-7568, 206-543-1069, or visit the Web site at http://depts.washington.edu/ehce/

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Major articles in *Northwest Public Health* are peer-reviewed. If you are interested in becoming a peer reviewer, please contact the editors by mail, e-mail, phone, or fax. Include your contact information, areas of expertise or interest, and relevant experience.

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University of Washington

School of Public Health and Community Medicine

The UW School of Public Health and Community Medicine (SPHCM) has five departments–Biostatistics, Environmental Health, Epidemiology, Health Services, and Pathobiology–and multiple interdisciplinary programs, centers, and institutions. The School's emphasis is on strong academic programs in the public health disciplines and extensive multidisciplinary collaboration. The combination of discipline-oriented academic programs, strong interdisciplinary research, and community-based public health activities provides a setting for faculty and students to apply in-depth expertise to important public health problems.

Web site: sphcm.washington.edu/

UW SPHCM Departments

Biostatistics:	ww.biostat.washington.edu/biostat/
Environmental & Occupational Health:	depts.washington.edu/envhlth/
Epidemiology:	depts.washington.edu/epidem
Health Services:	depts.washington.edu/hserv
Pathobiology:	depts.washington.edu/pathobio/

Find UW SPHCM research center Web sites at:

Northwest Center for Public Health Practice

The Northwest Center for Public Health Practice was established in 1991 to coordinate outreach activities for the UW School of Public Health and Community Medicine. The Center has expanded significantly in response to community needs throughout the Northwest. Its activities are geared to enhancing public health workforce development and practice-based research through partnerships that encompass teaching, research, and service in the public health community.

Web site: www./nwcphp.org/

Regional Contacts

State Departments of Health

Alaska:	www.hss.state.ak.us/dph/
Idaho:	www2.state.id.us/dhw/
Oregon:	www.dhs.state.or.us/
Montana:	www.dphhs.state.mt.us/
Washington:	www.doh.wa.gov/
Wyoming:	wdhfs.state.wy.us/

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