

Northwest Public Health

Fall/Winter 2009 Volume 26 Number 1

Bridges to the Future

New Partners. New Tools.

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Public Health Remains Relevant: New Partners. New Tools.

Every day, news reports remind us of the continued relevance of basic public health. We are called upon to deal with new and re-emerging infectious diseases; respond to outbreaks of food-borne illness, influenza, and old foes like measles and chicken pox; and monitor the quality of our air and water, among many other mandates. But public health is a dynamic field that is using new tools, forming new coalitions, and moving into new areas of research and assessment.

I mentioned public health systems research in my last message for *Northwest Public Health*. This is an evolving field of particular interest to Susan Allan, Director of our Northwest Center for Public Health Practice and editor-in-chief of this journal. The aim of public health systems research is to get the most out of the services public health provides by analyzing how our agencies are structured and financed, reviewing how our services are delivered, assessing our effectiveness, and sharing best practices—all to benefit the populations we serve.

Here in Seattle we're also in the forefront of evaluating health systems and their performance on the global scale through our Institute for Health Metrics and Evaluation (IHME). Again, the goal is achieving optimal results with limited resources. IHME monitors health outcomes—mortality rates, causes of death, disease burdens—and collects objective evidence about what works and what doesn't, thereby helping policymakers and funders make the most progress possible in global health.

Still another tool is being used more and more often to evaluate the potential health effects of a policy or project before it is implemented. Health Impact Assessments (HIAs) are similar to Environmental Impact Assessments, but HIAs are voluntary as well as regulatory. They can be conducted on a fast track or over several months, and they can cover a wide variety of community health issues. HIAs tend to be a community process that inform public policy making. As health considerations become an integral part of decision making, all interested parties learn more about public health and the interaction between health and development.

HIAs have the added benefit of creating new partnerships and forming new coalitions. This issue of *Northwest Public Health* points out a number of innovative programs and alliances. And when we consider the role that public health can play in designing and building healthier places to live and work, the possibilities seem limitless. Health outcomes ranging from obesity to asthma to injuries are affected by the built environment, by transportation systems and urban development. HIAs have the potential to change the very determinants of health, which in turn could lead to improved health outcomes. In any case, HIAs build upon public health's inherently interdisciplinary nature. They promote broad participation and give us the opportunity to join with colleagues in other disciplines to work on real-world problems from a community health perspective.

Through our Community-Oriented Public Health Practice MPH program, our School trains students to work in teams on those real-world issues, using problem-based case studies and practicum experiences in the field. This is an intensive teaching and learning style; it is also preferred by a growing number of students. So that's yet another way we're looking at change—staying on top of the new tools and methods that will best train today's students to become tomorrow's public health practitioners.

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

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A handwritten signature in dark ink, reading "Patricia W. Wahl". The signature is fluid and cursive, with the first name "Patricia" being more prominent.

Patricia W. Wahl, Dean
UW School of Public Health

What's New in Public Health?

In recent public health meetings and conferences, I have heard people refer to “the new public health.” This is an intriguing statement, because at first glance, it isn’t obvious that much is new about public health. For most public health practitioners, the challenges they face aren’t that different from 10 years ago, or even 50 years ago. Except for the use of computers, most of the tools are substantially the same. Yet clearly something important is going on that is reflected in the changing conversations about public health. This edition of *Northwest Public Health* explores some of the emerging strategies, ideas and tools that are moving us to a new era in public health.

It is important to acknowledge that the discussions and activities presented in this edition are occurring against a background of difficult financial circumstances for most of the state, local and tribal health departments in our region and across the country. It is all the more striking that innovations presented in this edition are going on even as health departments struggle with cuts in programs and the loss of experienced staff. A few (unusually optimistic?) people have even suggested that the current budget crisis is helping stimulate fresh thinking about what public health priorities really should be.

Our last issue, on climate change, presented many ways in which public health is stretching outside its usual program boundaries, influencing areas where other professions have the primary role. This issue looks at new tools and new partners that move us into a new era.

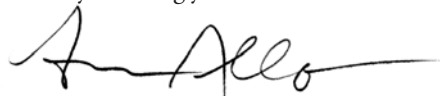
In this issue, Guest Editor Pat Libbey launches the discussion of “the new public health” by advocating nothing less than major change in the culture of public health – that practitioners become more visible, more assertive, and more critically analytic about the value and outcomes of public health activities.

Discussions about “the new public health” always mention the importance of partnerships, so for this issue we include three “viewpoint” pieces that describe opportunities for innovation. Thomas Aschenbrener, President of the Northwest Health Foundation, proposes partnerships with philanthropic organizations. State Representative Tina Kotek of Oregon gives her perspective on the role of “population health services” in health care reform. And I offer a brief overview of emerging activities promoting evidence-based public health practice.

In this issue we take a look at how public health practitioners are using social networking tools to reach new audiences. We then (appropriately!) continue this discussion online. The peer-reviewed articles in this issue fall into several broad themes:

- An increased emphasis on evaluation, using economic analysis of costs and benefits, with an example of a tobacco cessation program in Idaho
- New or expanded partnerships, with examples from Alaska and Washington
- Taking a fresh look at the environment not just to mitigate hazards (toxic exposures and injuries) but also as a way to promote good health, with examples of Health Impact Assessments from Alaska, Oregon, and Washington
- Rethinking our approaches to traditional problems, such as emergency communication, workforce retention, and public health education.

On the inside back cover, we launch a new way for you to share ideas. We envision the print journal as a springboard for an expanded discussion among the public health communities in our six states. Later this fall, we plan to add an Internet forum to the journal’s Web site. We welcome your ideas for better ways to bring you into the discussion.



Susan Allan, Editor-in-Chief
 Director, Northwest Center for Public Health Practice
 UW School of Public Health





Take the Path to New Opportunities

Take charge. Take care. Take credit. Take responsibility.

By Patrick Libbey

Recently I was discussing the national health reform legislation with a friend and public health colleague. We both decried the emerging use of the term “public health option” to describe the public sector plan and payment proposal for health care financing. We concluded, of course, that this isn’t really public health. Once again, the public and policy makers don’t really understand what public health truly is.

In short, we were having a conversation that is all-too-typical in public health circles. We fell into the easy tendency to make this a “we-them” issue with the “them” responsible for what the “we” see as a problem. I fear this approach of externalizing the problem has come to characterize public health.

How many times have we in public health – usually by ourselves – worked to define what we do, only to take it outside the public health world and not have it readily understood, much less embraced, by the public and policy makers? There has been little public acceptance or consciousness of the efforts we see as definitive cornerstones of public health practice. For example, think about how well the three core functions or the ten essential services are understood and accepted in the policy arena or by the public.

A state senator once told a group of us, “You public health people make it so easy to say no to you.” The senator, actually a friend to public health, described the

way we are seen by those in power: always equivocating, rarely decisive, always needing more information, unable to communicate clearly and concisely, and often publicly disagreeing among ourselves.

Too often, we react to such a perception, not so much by looking inward to change, but by blaming the “them”:

- They don’t understand....
- They don’t appreciate....
- They don’t care about....

Worse yet, over time we have begun to use this sense of not being understood or appreciated to become comfortable and complacent while waiting for others to change, rather than changing ourselves. Our response to the need for changing has drifted to:

- If only they would....

In addressing this edition’s theme “Bridges to the future: New partners. New tools,” we may well need to look first at how we as a discipline and a practice must change if, indeed, we are going to survive long enough to develop new tools.

Many of us are drawn to public health practice because we want to make a positive difference on a community-wide scale. We are proud of the collaborative approach we bring to our work. It’s a strong norm, a professional ethic, even, of bringing collaboration to our work and taking pride in our selflessness. In a sense, we see ourselves as givers – selfless givers.

Perhaps this hasn’t served us well or positioned us properly for changing times. I suggest it’s time to stop thinking and acting as selfless givers and start to be conscious takers in the service of our communities’ health. I think of four domains where we in

“You public health people make it so easy to say no to you.”

- State Senator

public health and the public we work for would be better served by thinking and acting more as takers. I will speak to three of these briefly and then go into more depth on the fourth – the one I see as a critical prerequisite to working effectively in these changing times with changing tools.

First, take charge. There are issues and threats to our communities' health that truly demand public health leadership. Our public health expertise is essential to decisions that need to be made. In retrospect, I think we have improved in our ability to take charge since 2002, with our emphasis on public health preparedness. We have become more comfortable and confident exercising authority in new arenas and making decisions outside of our usual style of deliberation, consensus building, and always needing more data. Our recent initial response to H1N1 influenza demonstrated our progress in stepping up and taking charge.

But it can't just be about emergencies; we need go further and see how we can insert ourselves in other areas where decisions are being made, and where we can improve community health, both short- and long-term. For example, chronic disease burden and health inequities have deep roots in venues such as land use, housing, transportation, and education, demanding our engagement. Tools and tactics include health impact assessments, introducing health into other policy approaches, and intervening in regulations addressing tobacco use or obesity. In these ways, public health can take charge, using its expertise to protect and improve the health of communities.

People have to know what
public health is.

Second, take care. Being selfless is too often seen by others as being a martyr. I have had the opportunity over the past several years to meet with public health practitioners all over the country and I am concerned about their well being. The pace, pressures, demands and disappointments of the past several years are taking a toll. Literature is replete with information on the negative effects – personally, professionally and organizationally – of unrelieved stress. We must re-establish a sense of joy in our work and purpose. Externally, it doesn't serve us well tactically to be thought of by others as dour, hand-wringing, and humorless. Internally, we need to see ourselves as key public health assets, needing to be well managed, developed and taken care of; the very antithesis of selflessness. We must make the work of public health rewarding and renewing for our own well-being and as a key for recruiting the future workforce.

And we have to
deliver that message.

Third, take credit. How many times have we heard or said "It doesn't matter who gets the credit as long as it gets done"? Toiling in anonymity hasn't served us all that well. Too often our selflessness hides our value. The people we serve need to know what we do and why it matters to them. There will never be an effective public health constituency until people understand what we do and expect – or even demand – it be done. As a colleague of mine from the midwest continually points out "Being out of sight, out of mind usually means being out of the budget as well."

In order for public policy makers to understand and support public health beyond definitions, statutes and lists of services, they need to know what we have done, in real, concrete terms. And they need to hear this repeatedly, not just from those of us in practice, but from other sectors in the community as well. We must tell our stories in ways that are meaningful (devoid of our technical jargon and qualifiers) to those we serve, taking credit for our contributions and accomplishments. Taking credit doesn't necessarily mean excluding partners, but it does mean taking conscious action to promote the work, role, and benefits of public health. We must not make the mistake of confusing health promotion with promoting public health. Both are critical to the health and well being of our communities.



Washington State Public Health Association

This "What is Public Health?" campaign was developed by the Association of Schools of Public Health.

Fourth, take responsibility. The hard one is taking responsibility. When describing a new public health for America, Dr. Risa Lavizzo-Mourey, president and chief executive officer of the Robert Wood Johnson Foundation, used that term, “the hard one,” for what she described as “...letting the public see behind the curtain.” Perhaps aided by our anonymity, others’ lack of understanding of what public health does, funding mechanisms, and the like, it has been relatively easy to avoid being fully accountable or evaluated for how we perform. It may well be that our sense of selflessness and the nature of our mission – combined with what we think of as chronic underfunding – has helped create a self-belief that the value of what we do is (or should be) evident to all.

It is time to be fully accountable and to be measured for how we perform. We need to be answerable to our policy makers and to the public we serve in ways they can readily understand and value. Moving toward performance standards and measures, accreditation, increased focus on evidence-based program development, and even credentialing are indicators of the increasing need for public accountability. We need to measure and report on our performance in order to understand where we are performing well, where we need to improve, and to be able to inform others of the gaps and what it will take to fill them. It’s the right and the strategic thing to do.

Taking responsibility by being accountable in an open and transparent fashion is difficult, especially so in the current policy and economic environment. Yet at the same time, in that same environment, we are clearly being challenged by policy makers and the public to demonstrate the value of public health. The questions are deceptively simple:

- Does it work/does it make a difference?
- Can we prove it?
- At what cost and with what return on investment?

We are well past the point of simply responding with the slogan “prevention saves.” Nor is it acceptable any longer to argue the benefits of population-based prevention are too multi-factored or too long-term to be effectively measured. In these extraordinarily tight fiscal times, where the notion of fiscal offsets is increasingly the key to program funding, we’ve done very little to demonstrate the value – in terms of economic or return on investment – of population-based public health.

An exception here is the multi-organization July 2008 report, *Prevention for a Healthier America: Investments in Disease Prevention Yield Significant Savings, Stronger Communities*, which showed a positive return on investment from certain community-based, population-based programs addressing physical activity, nutrition, and tobacco use. More work of this nature is needed, along with the modification of our traditional evaluation and reporting mechanisms to begin addressing these fiscal value questions.

At the same time, we haven’t been particularly effective in creating a cogent rationale to use in advocating for – or even measuring – key noncategorical public health constructs such public health infrastructure. Trust for America’s Health’s October 2008 *Blueprint for a Healthier America* (a study that appears to be influencing policy thinking on the role for public health in health reform) calls for increased public health accountability and resource management through the use of more rigorous outcome and performance measurements.

Overall there is too little outcome-based evaluation. Our ability to answer and quantify the questions “Does it work?” and “Does it make a difference?” is not operationally ingrained in the public health system. Instead, we have traditionally relied on occasional special studies (often by outside or academic organizations) for such reviews. In its April 2009 report, *Beyond Healthcare: New Directions for a Healthier America*, the Commission to Build a Healthier America recognized the importance of accountability by making this one of just ten recommendations in the entire report:

Ensure that decision-makers in all sectors have the evidence they need to build health into public and private policies.

The Commission further noted that, even after decades of experience in a wide range of social and health programs, too little is known of their effect on health and health improvements because these programs are not traditionally measured.

These four notions of taking – charge, care, credit and responsibility – are not really discrete. They won’t take place in isolation from one another. And with conscious application, they can interact, influence, and hopefully potentiate one another as a collective positive force for public health. The idea of taking rather than giving and of rethinking the notion of selflessness doesn’t mean changing the values and sense of purpose that brought people to public health. Rather, think of it as a challenge to see how we might better move those values forward and address our shared public health purpose. ■

Author

Patrick Libbey was Executive Director of the National Association of County and City Health Officials (NACCHO) from 2002 to 2009. He served as the national voice for 3,000 local public health agencies nationwide. Before that, he was director of the Thurston County Public Health and Social Services Department in Olympia, Washington.

The Value of Public Health from a Philanthropy Perspective

By Thomas Aschenbrener

Sometimes it seems that our public health departments are under siege. From anti-government rhetoric by defenders of the status quo to the medical industrial complex convincing us that health is only about medical care, we've heard plenty.

Despite all this (and as a perpetual optimist) I see a renewed emphasis on improving the health of our communities, coming from the innovative work of our state, county, and local health departments.

One positive sign is the growing focus on our common good as the prevailing social goal, replacing the era of personal wealth accumulation. This is particularly encouraging in the upcoming generation of young leaders. These "millennials" demonstrate commitment to social change, social justice, and community service, and maybe those of us who have been around awhile should have the wisdom to give this generation room to move.

A close relationship between public health departments and philanthropic organizations helps strengthen this social change movement. Health-focused foundations have a longstanding appreciation for the role of local public health departments. As Risa Lavizzo-Mourey, president and CEO of the Robert Wood Johnson Foundation, said in 2008, "We think you are all-American heroes. We see how you put everything you have into the good health, safety and well-being of all Americans (and) we know that you do it...propped up by an infrastructure that is too fragile."

The philanthropic community is here as a partner. Northwest Health Foundation, for example, provides supplemental funding for prevention and health promoting programs. We have partnered with Multnomah County Health Department in Portland and Oregon's Public Health Division on special projects. We support new work, such as an advocacy arm in Coos County, an assessment of community public health measures in Deschutes County, and succession planning in Hood River. We also contract for polling and opinion research, and what we hear from the public is generally positive.

For example, Northwest Health Foundation commissioned a statewide poll of Oregonians asking people how important it is that their local public health department provides "more" among a list of

specific services. We were delighted to find out that 73% said it was urgent or important to provide more funding to investigate health hazards in the community.

In that same poll, 72% said it was urgent or important to do more to "assure a competent public health work force" and 72% said it was urgent or important to provide more "information and education on health issues to the public." These numbers grow even larger when you add those who believe these services to be "somewhat important."

According to these polls, Northwest voters support taxes that help recover the true costs of tobacco. In a May 2009 poll, 67% of Oregonians supported an additional 60-cent tax on cigarettes. When asked their reasons for adding a tax to cigarettes, an astounding 84% said that "preventing tobacco can help lower the cost of healthcare for everyone."

These are messages that we all must deliver any chance we get. Unfortunately, however, they don't always seem to be getting through to the city commissioners, state legislators, and other policy makers who can put them to good use.

At NWHF, we examine funding proposals through a social justice lens. It is here that public health has an opportunity to be counted. For those of us who care about correcting economic and social disparities, public health is a central vehicle for making those corrections.

Everyone involved in, and affected by, public health — which is everyone across the socioeconomic spectrum — can be more effective in communicating these messages. Foundations must make the point that, while their investments are important, they are no substitute for responsible public policy promoting health. Public health departments can look to foundations for ideas on innovative and effective investments in community health. And all parties — foundations, nonprofits, and health workers everywhere — must make it clear that health is important, public health leads to better health, and the people are behind us 100%. Or at least 73%. ■



73%

of Oregonians say it is urgent or important to provide more public health funding.

Author

Thomas Aschenbrener is President of the Northwest Health Foundation, which serves the communities of Oregon and Southwest Washington through grantmaking and health advocacy. He is also chair of the Oregon Governor's Public Health Advisory Board.



Putting the Public's Health into the Health Care Reform Debate

By State Representative Tina Kotek

The current debate about national health care reform has been fascinating to watch. The variety of discourse and the energy around it, both positive and negative, really has people talking about their health. Good things will eventually come out of this public conversation. For instance, there is now a tremendous opportunity for the public health community to make its case. If people are talking reform, let's really talk about health. After all, what is more cost-effective than true primary prevention?

Your advocacy in the public policy arena is absolutely essential to influencing this landscape. Legislative action is a powerful way to improve public health. Laws can limit smoking, keep our air and water clean, and move people to change their eating habits. By cultivating public health allies among your state and federal legislators, you can influence the current health reform debate and beyond.

The challenge to successfully making a case for new investments and innovations in public health is the unrelenting focus on health insurance reform and health care delivery improvements. Don't get me wrong – I'm a strong proponent of primary care medicine. We need to make the front-end of the delivery system a higher priority than expensive specialty and hospital care. But the remedy for improving the health of our country cannot rest solely on making sure more people get their annual checkups or visit their primary care doctor before they get really sick.

True prevention focuses on keeping people healthy. That's what you do, in the public health community. The health care system is complex. Anyone who has been seriously ill or had a sick family member can tell you that in unending detail. So it's no surprise that clearly communicating the intricacies of reforming the system to people who are not immersed in the topic is daunting. Public health is a lot simpler to explain. People understand that helping people to stop smoking, be more active, eat better, get their vaccinations, drink safe water, and breathe clean air is the way to go.

As health (reform) advocates, you need to consistently frame the conversation around improving people's health, not just talking about what their health insurance coverage could look like. While the debate about the "public option" is

all the rage, why not encourage a solution-oriented discussion about what options are best for the public?

Let's translate the energy from the health care reform conversation into substantive public health policy changes. As a legislator, I depend on the public health community to be my eyes and ears on the front lines of improving the health of individuals and their neighborhoods. During the 2009 Oregon legislative session, I worked alongside advocates to pass a statewide menu labeling bill that will provide consumers with the nutritional information they need to make healthier choices when eating out at chain restaurants. My motivation to champion this legislation was rooted in evidence about people's behaviors and choices. A study in New York City found that fast food customers who saw calorie information when ordering purchased 52 fewer calories on average than those who did not. Since cutting only 100 calories per day could prevent weight gain in the majority of the population, that difference means better health – and lower health care costs – for all of us.

The need for creative community-based prevention strategies will continue to exist, regardless of what national health care reform looks like. The key for the public health community is to use the momentum from national health care reform to form strategic coalitions that successfully push for innovative public health legislation at local, state and national levels. And don't be afraid to get political or push back on entrenched constituencies. When insurance companies, hospitals, and health care providers are in the driver's seat, we all lose because the fundamental benefits of true primary prevention get left along the side of the road. So, dust yourself off, hitch a ride on the reform bandwagon, and bring the public's health back into the fray. ■

Author

Oregon State Representative Tina Kotek co-chairs the Ways and Means Subcommittee on Human Services and serves on the Health Care Committee in the Oregon House of Representatives.

Times are tough.

Around the region in fiscal year 2009.

Compiled by the Association of State and Territorial Health Officials

	Alaska	Idaho	Montana*	Oregon	Washington	Wyoming
Cut Budgets		✓		✓	✓	
Laid off Workers		✓			✓	
Lost Staff to Attrition	15	4			30	8
Eliminated Programs	✓	✓			✓	
Reduced Services	✓	✓		✓	✓	
Furloughs		✓		✓		
Hiring Freeze	✓	✓		✓	✓	✓
Delayed Hires	✓	✓	✓		✓	
Travel Restrictions	✓	✓	✓		✓	✓
FY10 Budget	Same	Less	Greater	Less	Less	Less

*These responses apply to the Public Health & Safety Division of the Montana Department of Public Health & Human Services, rather than the entire agency. The Public Health & Safety Division includes the state's major public health programs, and is one of 11 Divisions within the agency.

Alaska

Had to eliminate its arthritis program, reduce public health nursing services such as family planning and community outreach, and reduce the frequency of other services.

Idaho

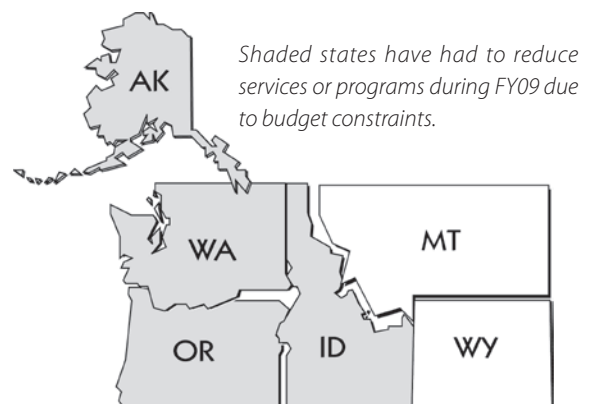
Had to eliminate the chemistry radiation program at state laboratories, eliminate the STD media campaign, and suspend adult cystic fibrosis services after 9 months.

Oregon

Had to reduce services in tobacco prevention and education, and reduce frequency of some other services.

Washington

Had to eliminate the development of an electronic prescription monitoring program and a healthcare adverse event reporting program, as well as reduce technical assistance in the drinking water program; reduce surveillance activities in zoonotic diseases; reduce monitoring of shellfish for *Vibrio parahaemolyticus*; reduce capacity to assess the impact on the public of noninfectious conditions such as cancer, heart disease, and diabetes; and reduce tobacco prevention activities. Most of these reductions were done through reducing frequency or limiting scope.



New Tools for Public Health

Public health librarian Laura Larsson has compiled a guide to new tools. View her online resource at www.nwpublichealth.org

Public health professionals are constantly needing to share information and engage others. We need to give effective presentations, run meetings, and work with the professional media, not to mention the importance of communicating with legislators, the public, and the health care community. How do we use modern communications technologies to be more effective?

What means should be used to reach diverse audiences?

The need	e-mail, listservs	teleconference, Web conference	Web site	blogs, Twitter	Facebook, MySpace
information distribution	✓	✓	✓	✓	✓
asynchronous interaction	✓		✓	✓	✓
bits of information & interaction	✓			✓	✓
thoughtful, not immediate, discussion	✓		✓		

With so many new ways of reaching different audiences, it's easy to confuse the intention of different means; it's also easy to try to do too much. Although many of these new tools of communication are "free,"

Taken from a week-long course at the Northwest Center for Public Health Practice's 18th Annual Summer Institute in August.

www.nwcphp.org/si

they do consume personnel time and, therefore, resources. It's important to consider how you are going to use each tool, how frequently, and what this might mean in terms of time consumption. It's also important to realize that not all methods are functional for every organizational structure.

One common discussion revolving around social media, like Twitter and Facebook, regards timeliness.

These are tremendous tools for dissemination of short bits of information, but the question becomes: how frequently do you have little bits of information to disseminate? And, in the case of something like Facebook, how quickly would you respond?

Much of "social media" involves two-way communication. Sure, they disseminate, but they also make organizations more accessible by encouraging comments and questions. Most of us would agree that increasing our accessibility is a positive outcome, but we want to make sure that we maximize that accessibility instead of being trapped by it.

It's important to have a plan in place to respond. Slow or incorrect responses will weaken our connection rather than strengthen it. The informal and constant nature of the communication poses unique public health challenges. ■

Developing an Evidence Base

By Susan Allan

It is striking how greatly health departments vary, both in their activities and in their structures. Most public health practices are based on general principles associated with improvements in the health of populations. And most public health programs are to some extent “data driven” because they are based on information about their communities and may even include some outcome evaluation and quality improvement analysis. Yet the real “evidence base” for public health practices is limited. There have been few rigorous studies to demonstrate either the absolute effectiveness or the comparative effectiveness of the specific programs, activities, and services that are basic to most health departments.

There is increasing attention to the need for a stronger evidence base for public health. This is driven by several factors.

- Demand for increased “accountability” from governmental services
- Limited resources
- Few accreditation standards depend on measures of excellence in public health practices and systems.

A number of promising activities currently underway will help develop better evidence for public health practices, and plus develop skills, methods and systems that are necessary for advancing this field of inquiry. Some of the key activities include:

Public Health Systems and Services Research (PHSSR). This recently emerging field examines the organization, financing, and delivery of public health services, and the impact of these services on public health.

PHSSR research funded by Robert Wood Johnson Foundation. Robert Wood Johnson Foundation has been an important promoter and funder of PHSSR activities. RWJF periodically issues calls for proposals for PHSSR, and has funded projects since 2006.

Preparedness and Emergency Response Research Centers (PERRCs). These seven centers were

established by COTPER at CDC (Coordinating Office for Terrorism Preparedness and Emergency Response) in October 2008 to evaluate the structure, capabilities, and performance of public health systems for preparedness and emergency response. The Northwest PERRC is housed in the Northwest Center for Public Health Practice at the University of Washington School of Public Health. Two additional PERRCs will be funded in October 2009.

Public Health Practice Based Research Networks (PBRNs). Another Johnson Foundation program is the development of Public Health Practice Based Research Networks. Five were funded in early 2009, including the Washington PBRN. A public health PBRN is a group of public health agencies that collaborate with public health research centers to identify ways of improving the organization, financing, and delivery of public health services.



Author

Susan Allan, MD, JD, MPH, is the Director of the Northwest Center for Public Health Practice at the University of Washington School of Public Health, and is an Associate Professor in the Department of Health Services.

“The WA PBRN’s top research priority is assessing the impact of funding cuts on health outcomes. To what extent are evidence-based practices prioritized?”

— Karen Hartfield, WA PBRN Coordinator

Advanced Practice Centers (APCs). The Advanced Practice Centers (APC) Program is a network of local health departments that develop tools and resources for public health preparedness and response which are subject to continuous and independent evaluation. The program, which began in 2004, is sponsored by the National Association of County and City Health Officials and funded by CDC/COTPER. Two of the APCs funded for the upcoming year are in the Pacific Northwest: Public Health - Seattle & King County (WA), and the Multnomah County Health Department (OR).

For further reading, see the annotated bibliography at www.nwpublichealth.org

Health Impact Assessment: Promoting Health Across Sectors

By Andrew Dannenberg

In recent years, there has been increasing recognition in the US that land use and transportation planning decisions can have a substantial impact on the public's health. With this growing recognition has come increased use of Health Impact Assessment (HIA), a set of methods that have been used in Europe and elsewhere for many years.

An HIA is a tool to help decision-makers recognize the health consequences of their decisions and thereby contribute to healthier living environments. HIAs are modeled in part on environmental impact statements that focus on environmental issues such as air and water quality, while HIAs focus on issues such as physical activity, respiratory disease, injury, mental health, social capital, and environmental justice.

HIAs are used to objectively evaluate the potential health effects of a policy, program, or project before it

is implemented. HIAs can have a long-lasting effect by improving communication between planners and public health officials and encouraging projects and policies that promote health.

Public health professionals in Alaska, California, Oregon, and Washington are among the leaders in the US in conducting HIAs. Reports in this issue describe the use of HIAs to reduce vehicle miles traveled in Oregon, improve pedestrian facilities in Spokane, incorporate health impacts into natural resource development projects in Alaska, and examine community impacts of a rebuilt or replaced floating bridge between Seattle and its eastside suburbs.

About 60 HIAs have been completed in the US, and many are described in databases for the US (www.ph.ucla.edu/hs/hiacllc) and in Europe and elsewhere (www.hiagateway.org.uk).

The steps in conducting an HIA include screening to identify projects or policies for which an HIA would be useful, scoping to identify which health effects to consider, risk assessment to identify who may be affected and how, developing recommendations to promote positive or mitigate adverse health effects associated with the proposal, reporting the results to decision makers, and evaluating the impacts of the HIA on the decision process. Community involvement, especially during the scoping and risk assessment steps, can increase community buy-in to a project, reveal community concerns not otherwise considered during project planning, and help address social equity issues.

Some HIAs have directly affected policy, program, and project decisions, while others have had relatively little impact. Recommendations from HIAs are more likely to affect decisions if the HIA is timely, if decision makers accept the concept that health impacts should be a part of their decision-making process, and if the recommendations are practical in terms of time and resources required. At the least, most HIAs result in increased awareness of

Building bridges.
Literally & figuratively.



Seattle Municipal Archives Photograph Collection

Some HIAs in the United States

Adapted from Dannenberg 2008 and Collins 2009

Living wage ordinance, San Francisco, 1999

HIA contributed to passage of the living wage ordinance and to passage of a subsequent citywide minimum wage increase.

Trinity Plaza housing redevelopment, San Francisco, 2003

HIA findings and subsequent city decisions led to the developer providing replacement housing for low income residents being displaced by the project.

Northeast National Petroleum Reserve oil and gas leasing program, Alaska, 2007

HIA contributed to the Bureau of Land Management's decision to withdraw from leasing some land for which oil and gas development would have adversely impacted the health of native populations; on a larger scale, multiple federal agencies are now accepting health considerations in the environmental impact statement process for natural resource development in Alaska (see page 16).

Lowry Corridor redevelopment, Minneapolis, 2007

HIA recommendations helped the project manager obtain pedestrian and bicycle improvements for this low-income urban corridor.

Taylor Energy Center coal-fired power plant, Florida, 2007

The development authority accepted HIA recommendations about hiring minorities and providing health benefits; the project was later cancelled due to climate change concerns.

BeltLine transit, trails, and parks project, Atlanta, 2007

The project funding advisory committee approved using assessment of health impacts as a factor in selecting proposals for specific components of this \$2.8 billion project.

State Route 520 bridge replacement, Seattle, 2008

HIA recommendations were endorsed by the project mediation team and by the Seattle City Council; impact on final project plans is pending (see page 14).



Brian Clifford

Downtown San Francisco in 2009.



Seattle Municipal Archives Photograph Collection

Skagit Valley, Washington.

health issues among decision-makers.

HIAs for projects and policies may be required as part of an environmental impact assessment or under other laws or regulations, or may be conducted on a voluntary basis. Experience in Alaska and California has documented that HIAs can be successfully conducted within the environmental assessment required by the National Environmental Policy Act or corresponding state environmental regulations.

The first legally required HIA in the US, completed in 2008, was initiated when the Washington State Legislature mandated that Public Health - Seattle & King County conduct an HIA for the proposed State Route 520 bridge replacement (see page 14). Most HIAs in the US have been voluntary, led by academic researchers, health departments, transportation

planners, or advocacy groups. But voluntary HIAs are unlikely to be conducted in many projects or policies for which they would be useful, due to a lack of incentives, resources, and technical capacity.

More work is needed to identify best practices, build capacity, and increase funding sources for conducting HIAs. Bills encouraging or requiring the use of HIAs have been introduced at the federal level and in several states. The Robert Wood Johnson Foundation and the Pew Charitable Trusts plan to launch a national initiative this fall that will help advance the field of HIAs. ■

Author

Andrew L. Dannenberg, MD, MPH is Team Lead of the Healthy Community Design Initiative at the National Center for Environmental Health at the Centers for Disease Control and Prevention.

Three Northwest HIAs

Please visit our Web site, www.nwpublichealth.org, to read full papers about how Health Impact Assessments have been used in Spokane, Washington and Oregon.

Spokane

A partnership of The Lands Council (a local nonprofit organization), the City of Spokane, and Spokane Regional Health District performed a Rapid HIA, or Health Impact Assessment, on the pedestrian portion of the multimodal transportation strategy in the *Fast Forward Spokane: Downtown Plan Update*. This economic development project included strategies for promoting active transportation, environmental stewardship, and a healthy “built environment.”

This project used the rapid HIA model and looked at policy statements supporting multimodal transportation, specifically bike and pedestrian connections. Rapid HIAs can be carried out in days to weeks with minimal resources. This one focused on pedestrian issues.

It took about six weeks to complete the rapid HIA on the pedestrian portion of *Fast Forward*. The partners presented two recommendations to the Spokane City Council: a new pedestrian zone in a select area of downtown Spokane during the weekends, and prioritized pedestrian improvements near transit stops and other pedestrian-dense areas, including large employers. These could encourage physical activity, induce public transit demand, and improve – among other elements – air quality and social equity.

The online article describes what went well and what the partners would do differently next time. ■

Authors

Kat Hall is with The Lands Council and Elizabeth Wallace and Heleen Dewey are with the Spokane Regional Health District.

SR 520:

The first mandated HIA in the United States.



As Dr. Dannenberg mentioned in the previous article (pages 12 & 13), the first legally required Health Impact Assessment (HIA) in the US was for the proposed State Route 520 bridge replacement linking Seattle with its eastside suburbs.

In 2007, Governor Chris Gregoire signed Senate Bill 6099, a legislative directive to use mediation to resolve the impasse over choosing a safer, reliable replacement for the SR 520 Bridge across Lake Washington. The directive also asked Public Health - Seattle & King County and the Puget Sound Clean Air Agency to conduct a Health Impact Assessment of the project, focusing on air quality, greenhouse gas emissions, and other public health issues.

Through the lens of the HIA, the SR 520 project was seen as a means to support alternatives to the automobile, reduce emissions that cause pollution, create community connections, provide amenities that improve mental well-being, and contribute to a visually stimulating environment.

Just as transportation needs have changed since the bridge was built in 1963, health concerns shifted to an emphasis on physical, mental and social well-being, not merely the absence of disease or infirmity.

Among the recommendations were landscaped lids and green spaces, transit improvements, pedestrian and bicycling amenities, design improvements, and noise reduction strategies. The HIA and background material are at www.kingcounty.gov/healthservices/health/ehs/hia.aspx

Oregon

When Oregon Governor Ted Kulongoski proposed targets for reducing vehicle miles driven in the state's six metropolitan areas as part of a greenhouse gas initiative, Upstream Public Health, a health advocacy non profit, commissioned the first-ever Health Impact Assessment (HIA) on a climate-change-related policy. The goal was to study how this policy proposal would affect Oregonians' health.

The analysis was conducted by researchers at Oregon Health and Science University and several partners, guided by a 12-person advisory committee of technical experts and community groups. Partners included the state public health division, metropolitan planning organizations, land use and planning organizations, public health non profits, academic healthcare organizations, and bicycle and pedestrian non profits.

The HIA looked at how three policy areas that reduce driving – land-use planning, public transit, and driving-related fees – would affect physical activity, air pollution, and car collision rates. Eleven specific policy proposals were examined, chosen by the advisory committee, including street connectivity, mixed-use neighborhoods, access to public transit,

and driving-related fees such as employee parking fees. The study, which found that a combination of these policies is the most effective way to promote positive health benefits, is a critical analysis that decision makers can use to develop healthier urban land-use and transportation policies at the local level. The results were shared with state legislators, mayors, and metropolitan governmental bodies, leading to increased consideration of health impacts in local and state transportation and land use planning.

The online article expands on these concepts, presenting the study's results and conclusions. ■

Authors

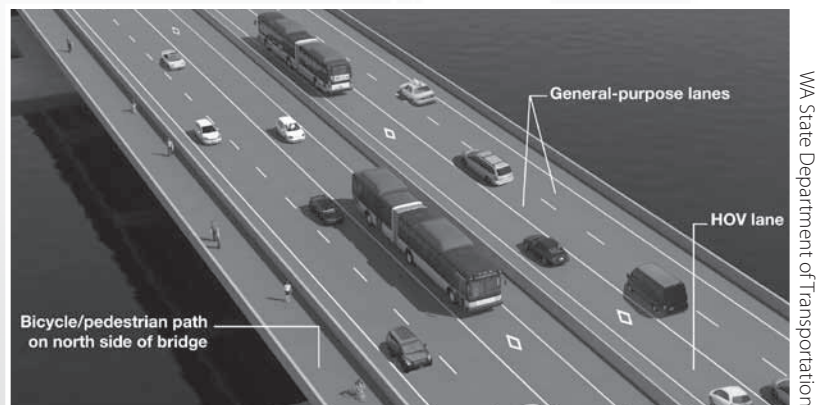
Mel Rader, MS, MS, is project director at Upstream Public Health in Portland; Yvonne Michael, ScD, and Leslie Perdue, MPH, were in the Department of Public Health and Preventive Medicine at Oregon Health and Science University when the research was completed.

Read the full articles **online....**

www.nwpublichealth.org

Goals of State Route 520 HIA:

1. Assess the SR 520 Replacement Bridge and High Occupancy Vehicle (HOV) Lanes' impact on air quality, carbon emissions and other public health issues.
2. Protect public health by raising awareness among decision makers of the relationship between health and the physical, social, and economic environment, thereby ensuring that they include a consideration of health consequences in their deliberations.
3. Make recommendations to enhance the positive impacts and to remove or minimize any negative impacts on health.



Rendering of proposed SR 520 bridge

Both photos on left and underlay of the current SR 520 bridge courtesy Seattle Municipal Archives Photograph Collection taken during an inspection tour in July 2005.

Author

Barbara Wright is Deputy Director of the Environmental Health Division at Public Health - Seattle & King County.

Building a Statewide Health Impact Assessment Program: A Case Study from Alaska

By Aaron Wernham

Natural resource development projects in Alaska (such as oil and gas projects and large mines) must balance environmental costs against economic benefits. Both sides of the equation carry important implications for public health, yet historically health has not been explicitly factored into the evaluation and permitting process. Over the past five years, Alaska Native communities, health departments, and their partners have developed an innovative approach to integrating public health concerns into environmental planning and regulation.

The Inupiat community of Nuiqsut, previously isolated far from the nearest road on Alaska's North Slope, now lies only a few miles away from a major oil development project, the Arctic oilfield. Nuiqsut was established near a traditional site used by the villagers' ancestors generations earlier. Today, subsistence activities – hunting, fishing, and whaling – continue to provide a large portion of the diet, and the center of the village's social structure.

North Slope communities have typically supported oil development in the region: revenues provide jobs, fund a full spectrum of municipal services and infrastructure, and provide family income in an area where economic development was minimal a few decades ago. Yet as industrial activity expanded to encircle part of the town, residents began to voice concerns. At hearings for planned expansion of leasing and development, people raised health issues ranging from asthma, related to nearby gas flaring, to social problems such as drug and alcohol use related to an influx of non-resident workers. The mayor of the North Slope Borough put it this way:

The benefits of oil development are clear – I don't deny that for a moment. The negative impacts are more subtle. They're also more widespread and more costly than most people realize. We know the human impacts of development are significant and

long-term. So far, we've been left to deal with them on our own. They show up in our health statistics, alcohol treatment programs, emergency service needs, police responses – you name it.

There has been little evaluation of these concerns, despite a 2003 National Academy of Sciences report that highlighted human health effects as a research priority for the region. Even more problematic, despite compelling public testimony over nearly a decade, the environmental impact statements (EISs) at the heart of the federal approval process for these projects never addressed these concerns.

The National Environmental Policy Act of 1969 (NEPA) established the EIS process as the foundation of environmental regulation in the US. While NEPA requires federal agencies to evaluate and publicly disclose the likely consequences of any federal decision with a potential for "significant effects on the human environment," historically, this has not included a systematic analysis of potential health effects.

To address this problem, I partnered with tribal communities on the North Slope to use Health Impact Assessment (HIA) for several oil and gas leasing proposals in the region. With a coalition of North Slope Borough (NSB) and tribal representatives, I approached the Bureau of Land Management (BLM) and Minerals Management Service (MMS) regarding three oil and gas leasing EISs that were being developed.

We presented three arguments for including a more robust health analysis in the documents: NEPA and related statutes require the analysis of health effects (these requirements are discussed in greater depth in a 2008 paper by Bhatia and Wernham in *Environmental Health Perspectives*); including health effects would strengthen these EISs by relating environmental impacts to the concerns voiced by the communities; and HIA – a relatively new practice in the US – provides a way to include health effects in EIS analysis that is compatible with the legal requirements of NEPA. These discussions culminated in collaboration between the BLM and the NSB to complete the first integrated HIA/EIS reported in the US.



Above and at right: The Red Dog Mine, an open pit zinc mine in Northwest Alaska. Both photos courtesy Alaska Native Tribal Health Consortium.

With those efforts as a start, a collaborative multi-agency effort has evolved, bringing together tribal and municipal health agencies, the state department of health and social services, and state and federal environmental regulators. This group is working to institutionalize the use of HIA as a part of the permitting and regulation of natural resource development projects.

Since these initial HIAs, interest and participation have grown, and collaboration between tribal, state, and federal health and regulatory agencies is leading toward a well-established practice of HIA for natural resource development proposals in Alaska. Moreover, the efforts in Alaska have begun to change NEPA practice in other states, and these early efforts highlight the promise of the EIS process as powerful tool to address environmental public health concerns. The President's Council on Environmental Quality – charged with overseeing NEPA's implementation – invited me to present on HIA as a tool to incorporate health into federal EIS work at the Federal NEPA Contacts, a gathering of high-level NEPA staff for more than 50 federal agencies. Since then, the Environmental Protection Agency (EPA) contracted with the Alaska Native Tribal Health Consortium to perform an HIA as part of an EIS for a large new coal project (the first contract of its kind in the US). In reviewing other agencies' EIS practice, EPA has now called for HIAs of a number of projects in other states.

The practice of integrated HIA/EIS is at an early stage, and will evolve. The requirements of NEPA support the inclusion of health in the EIS process, and this may be an important venue for environmental health efforts in other states. Based on Alaska's early experiences, we offer three important lessons that may help inform similar efforts elsewhere:

First is the recognition that the EIS process is

an important venue for public health. NEPA applies to a broad suite of activity, including transportation projects, large housing developments, fuel economy standards, and agricultural policies. These projects and policies have broad implications for public health and well being.

Secondly, even when NEPA or a related law does not apply, HIA provides a structured approach that allows public health agencies to evaluate a proposal and provide useful recommendations. Alaska lacks any legal requirement to implement HIA, but has chosen to begin developing an HIA program voluntarily. The state's Large Project Permitting team often develops agreements with industry to address site-specific issues that fall outside of any specific regulation, and there is latitude for the state and industry to agree on site-specific mitigation measures.

Finally, mitigation for public health effects is not always enforceable under existing regulations. The EIS can be seen as a planning document; it provides an opportunity for stakeholders to consider the potential effects of a proposed action and suggest alternatives. According to the Council on Environmental Quality, which oversees NEPA implementation, the EIS should evaluate and disclose all potential mitigation measures, because doing so will "alert agencies or officials who can implement these extra measures, and will encourage them to do so." In practice, aside from federal regulations, mitigation can be implemented through new local, state, or tribal requirements; new monitoring or preventive initiatives initiated by public health; or voluntary agreements with industry. ■

Author

Aaron Wernham, MD, MS is a family physician and health policy specialist. Until recently he was the program manager of the Alaska Native Tribal Health Consortium's Health Impact Assessment project.

The work reported on in this article was funded by a grant from the Robert Wood Johnson Foundation.



Saving \$2.4 Million:

The Idaho Tobacco Program

By Lee Hannah, Kathryn Quinn, and Kallie Penchansky

Many smokers have tried to quit, but only about 3 to 5 percent succeed in going “cold turkey.” An Idaho tobacco cessation program has achieved a 35 percent quit rate at 6 months and saved the state nearly \$2.4 million per year (less approximately \$494,000 in program costs), confirming that in-person cessation programs can be effective. Yet cost-effectiveness may not be a strong enough argument in this era of state budget deficits.

The Millennium Tobacco Cessation program, facilitated by Idaho’s seven public health districts, has counseled nearly 15,000 Idahoans in its eight years of operation. The program succeeded at its goals for 2008 and for its eight-year term, based upon both process and outcome monitoring. Overall, the program successfully met its four main objectives:

1. Each district would offer cessation that fit standardized criteria for best practices from the American Cancer Society, Idaho Prenatal Smoking Cessation Program (IPSCP), the Centers for Disease Control and Prevention, the American Heart Association, the American Lung Association, and others.

Result: all seven health districts offered direct services, and they hired 23 subcontractors, including hospitals, schools, churches, county court services, and independent health promotion counselors.

2. At least one tobacco cessation program would be offered in at least half of the counties in each district.

Result: Services were provided in 27 of Idaho’s 44 counties (61 percent) in 2008. These reached residents of 38 counties (86 percent).

3. Services would be specifically designed for pregnant women and teens.

Result: In 2008, 13 percent of the participants were pregnant women and 31 percent were youth under 18.

4. Each public health district would be free to determine the program(s) offered and to recruit instructors.

Result: The health districts were allowed to tailor the programs.

Not only were the four objectives met, but the evaluation protocol was robust enough to allow

	Total Participants	Completed Program	Quit Smoking	Reduced Cigarettes Used
FY 2001	1,477	855 (58%)	351 (24%)	414 (28%)
FY 2002	2,099	1,366 (64%)	718 (34%)	778 (37%)
FY 2003	1,747	1,141 (65%)	622 (36%)	720 (41%)
FY 2004	1,743	1,163 (67%)	572 (33%)	715 (41%)
FY 2005	2,097	1,289 (61%)	810 (39%)	783 (37%)
FY 2006	1,457	922 (63%)	532 (37%)	590 (40%)
FY 2007	2,227	1,477 (65%)	810 (36%)	895 (40%)
FY 2008	2,045	1,423 (70%)	744 (36%)	854 (42%)
Total	14,892	9,576 (64%)	5,159 (35%)	5,749 (39%)

Comparison of program outcomes for FY 2001 - 2008 participants



National Numbers

8.6 million people have at least **one serious illness** caused by smoking

Annual prevalence of smoking from 1965 to 1990 **dropped 40%**

In 1990, almost **45%** of women smoked **during pregnancy**

In 2005, **10.7%** of women smoked **during pregnancy**

judgments about the outcomes of the cessation program.

More than 2,000 people started a health district tobacco cessation program in fiscal year (FY) 2008, and 70 percent completed it. Completion rates were 73 percent for adults, 72 percent for teens, and 51 percent for pregnant women. Completion of a program was defined as attending a minimum of four sessions.

The program was effective from both health and cost-effectiveness standpoints. Thirty-six percent of those who began the program quit smoking in 2008, including 29 percent for adults, 54 percent for youth, and 29 percent for pregnant women. A range of services contributed to the success of the program, including a primary focus on group counseling and teen-specific courses, and limited access to individual counseling and financial support for nicotine replacement therapy (NRT). It is important to note that though funding for NRT was limited during FY 2008, participants were able to readily obtain prescriptions for such therapies.

According to data compiled by Idaho District Public Health Departments, benefits of the Idaho Millennium Tobacco Cessation program outweigh costs. Recent research illuminating lifetime costs associated with tobacco use suggest that the health care system in Idaho will realize an average of \$7 saved in perinatal costs per dollar spent for every pregnant woman who has stopped smoking. The

state also saved an average of \$3,390 for each teen or adult who stopped smoking. The total expenditure for the program was \$241 per client, for a total statewide budget of nearly half a million dollars in FY 2008. The anticipated aggregate savings in health care and other economic costs achieved by successful tobacco cessation through FY 2008 are as follows:

75 pregnant women (quitters) and their infant children	\$126,525
669 teen and adult quitters	\$2,267,910
Total anticipated one-year savings	\$2,394,435
Total anticipated program savings since 2001	\$16,949,948

While they continued to smoke, another 42 percent of participants reduced the amount of tobacco used. Half of all adults cut back, as did 31 percent of the teens, and 34 percent of the pregnant women. On average, participants had attempted to quit between 1 and 2 times in the past. Literature suggests that most smokers make several quit attempts before they successfully break the habit.

Program evaluation consisted of two-month and six-month telephone follow-ups. At two months, 36 percent of those who began the program within the eight years of program administration were not using tobacco (follow-up interviews were completed with 3,568 clients). Six months after completing the program, 35 percent were not using tobacco (follow-up interviews with 2,544 clients). Those who were unavailable for follow-up evaluation were assumed to be relapsed or ongoing tobacco users, and self-reports were not validated.

This evaluation was partly designed to provide data for public health districts and the legislature to make cost-effectiveness decisions. Given the severity of the state budget shortfall, the tobacco cessation program saw its funding cut by 48 percent for FY 2010. Despite the inherent value of ongoing program evaluation to assess impacts of changes to program delivery and to identify the primary needs of target populations, funding will no longer be available for evaluation processes. Though program evaluation is widely considered to be a component of best-practice, Idaho policy makers determined that continued provision of health interventions is the greatest priority in Idaho. ■

CDC resources, smoking, and tobacco use at:
www.cdc.gov/tobacco/

Authors

Lee Hannah, DVM, MS, MPH, a medical epidemiologist at Boise State University, is principal investigator for the Millennium Tobacco Control Program evaluation, funded by the Idaho Health Districts. Katherine Quinn, MHS, is a health education specialist at Idaho's Central District Health Department. Kallie Penchansky, MHS, is a graduate research assistant at Boise State University.



All Hands On Deck:

The Alaska Multi Agency Coordination Group

By Michael Bradley

Huge pieces of ice began to pile up downriver from the village. Water and more ice backed up, spilling over the bank. Pushed by more water and ice, massive pieces of ice, some as large as trucks, tore through the village. Within hours the community was destroyed. Local residents described it as a “glacier on steroids” and “the day of the killer ice cubes.”

Farther south, a wildland fire was closing in on several communities. The terrain was rugged with steep gullies that hindered fire fighting efforts and seemed to help the fire spread more rapidly. Fire retardant dropped from aircraft was the only effective way to slow the spread. But air crews were distracted by the 9,000 foot peak to their south. It was an active volcano that erupted periodically over the last four months and could erupt again. Aircraft caught in an ash cloud would go down from engine failure.

Ash wasn't the only hazard. The volcano threatened a huge crude oil holding facility. Should those storage tanks rupture, a crude oil spill would cause a massive environmental catastrophe.

Reports of the new epidemic strain spread fast. First reports were hundreds, then thousands of cases with hundreds of deaths. Soon it crossed borders and then continents. The question was not if but when would it reach our state.

Is all of this in the new summer blockbuster disaster movie playing at most theaters? No, this was all going on in Alaska in May 2009. Flooding along the Yukon River was disastrous. The historic village of Eagle was destroyed by massive ice chunks that were driven through the 100-year-old community. The wildland fire on the Kenai Peninsula threatened

recall a time when so many significant disasters and emergencies hit the state all at the same time. Fortunately all of these crises were handled quite effectively because of partnerships among state agencies and other organizations that had evolved over the last few years.

The effort began in 2006 with formation of the Pandemic Flu Multi Agency Coordination Group, or MAC. The Pan Flu MAC group was a partnership of Alaska agencies and entities working closely together to respond to disasters and emergencies. The rationale for this partnership was that a pandemic could easily overwhelm health and public health resources in the state. If we had constructive partnerships to help support health and public health efforts we would be in a better position to manage a pandemic.

A year ago, the MAC started a shift away from pandemic flu to an all hazards focus. The timing was fortunate because when the disasters of May 2009 hit, the state was ready. The MAC shifted to a unified command concept that provided coordination, guidance and oversight to the multiple responses going on. Fortunately a number of exercises had been held using the unified command concept so roles and responsibilities were familiar to participants.

Lead partners were the Alaska Divisions of Health and Social Services and Homeland Security and Emergency Management. Other state agencies also partnered, along with entities such as the state Hospital Association, and the Tribal Health System.

Leadership was shared between the Alaska Divisions of Homeland Security and Emergency Preparedness and Health and Social Services. Incident Commander responsibilities were shared

between the Public Health Preparedness Director in the Alaska Division of Health and Social Services

and the Chief of Operations in the Alaska Division of Homeland Security and Emergency Management. From the perspective of those managing the response, the lines between public health and emergency management did not exist.

The unified command team worked out of the State Emergency Coordination Center that operated

Never, in 50 years of state history, had so many significant disasters and emergencies hit the state at the same time.

communities along Kachemak Bay. Mt. Redoubt had been erupting since January, spewing ash over thousands of miles, disrupting air traffic for weeks and threatening the crude oil tank farm along Cook Inlet. Then in late April, the H1N1 swine flu strain emerged as the new pandemic candidate.

In the 50 years of State history, no one could

24/7. The Alaska Division of Health and Social Services also established their Emergency Operations Center. This EOC served to coordinate all health functions during the response. Communication and coordination between the two control centers went smoothly in large part because of the exercises that had been conducted previously.

Incident Management Teams were formed and deployed to communities hit by floods. These IMTs managed evacuations and procurement and transportation of supplies and equipment. IMT members included personnel from different agencies and tribal health organizations. Health issues were delegated to the Health and Social Services EOC for resolution. They managed receipt, staging and shipping of anti-viral medications and personal protective equipment to cope with the new flu strain. They deployed additional health care and behavioral health professionals to areas hit by the disaster. And they dealt with potential health hazards such as extensive diesel fuel contamination in Eagle.

Logistics supported these partnerships. An extensive Tribal Health logistics system supported disaster operations throughout the State. This is a robust logistics system that ships to 200 tribal clinics and seven tribal hospitals and was readily expandable to support the entire State.

Communication and coordination are keys to successful management of all disasters. A joint information center or JIC was formed to develop, coordinate and disseminate information. Both EOCs provided daily situation reports that covered status and response actions for all disasters. Teams also held twice-daily teleconferences; one for communities and the other for health care entities. Presenters gave timely updates and allowed abundant time for questions and discussion of issues. Information put out by the JIC and information and the opportunity for discussions and questions during



Carl Stapler / National Park Service

The Old Customs House with Front Street in the background in Eagle, Alaska, with ice from the flooding Yukon River.

the teleconferences helped ensure information was consistent and not contradictory.

Alaska faces more potential disasters than probably any place on earth. These include floods, extreme weather, volcanoes, tsunamis, avalanches, wildland fires, landslides, hazardous material spills, transportation accidents, and infectious disease outbreaks. However, the new partnerships between state agencies and entities like the tribal health system have created a responsive, effective capacity to serve our population during disasters. ■

Author

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Lok-It-Up: Partnering for Safety

By Tony Gomez

Author

Tony Gomez, BS, RS, is the manager of Violence and Injury Prevention, Chronic Disease and Injury Prevention Section, Prevention Division, Public Health - Seattle & King County and a clinical faculty instructor in the Department of Health Services, UW School of Public Health.

Firearms – in the wrong hands – are a public health concern. Tragic consequences include suicides, homicides, threats in schools and other public venues, and unintentional shootings.

Firearm owners worry about having their guns stolen, but they also want quick and easy access in case of an intruder. There are devices on the market that provide quick access and yet meet requirements for security, but many gun owners may not know about them. This led to a partnership – now 12 years old – between Public Health and several large retailers in Seattle and Western Washington.

In 1997, the Safe Storage coalition (later named the Lok-It-Up coalition) was established by the Harborview Injury Prevention and Research Center. The Washington State Department of Health and Public Health - Seattle & King County now staff the coalition.

The Fred Meyer Corporation was the first to offer discounts on safe storage lockboxes. Now other businesses continue the partnership.

Public Health - Seattle & King County approached the Costco Corporation to inquire about expanding promotion of the lock box Fred Meyer had sold, which Costco was selling as a “dorm safe.” They discussed the violence prevention benefits of keeping firearms away from youth. After consideration by corporate leadership and running the numbers, Costco expanded promotion and sales of the approved device, and later added several other lines, including high-end safes and vaults. Costco indicated to Public Health that, in addition to the potential market-driven benefits of this work, it was the right thing to do since its leaders support violence prevention. The warehouse chain reported tremendous success, mostly through online sales.

Including the work with Costco, the following elements of Lok-It-Up were highly successful:

- Tracking sales of safe storage devices through partnerships with businesses, including gun dealers

- Training health care providers on how to speak with clients about safe storage
- Updating the Lok-It-Up Web site (www.lokitup.org), which provides information and received 209,000 hits in 2008
- Developing an interactive display used at firing ranges, gun dealers, and health conferences to illustrate safe storage options
- Working with news media on stories about safe gun storage.

Sales of approved devices have been tracked with Costco and Sportco, a retail and wholesale sporting good store and supplier. Sportco last reported \$1.4 million in annual sales of firearm security devices. Costco reported annual sales of 9,500 safe storage devices in 2007, a huge increase from the 50 lock boxes sold the first year. Sales of all approved security devices through Costco ran into the millions of dollars, with sales of security devices throughout the world.

According to the CDC-Behavioral Risk Factor Survey for King County, from 1996 through 2002, the proportion of children in households where firearms are both loaded and unlocked has declined significantly. Despite these improvements, risk of adverse firearms-related outcomes persist. Information from the 2004 Healthy Youth Survey found an estimated 8,200 students statewide in grades eight, ten and twelve carried a firearm at least once during the last 30 days. Outcomes of the easy availability of firearms to youth contribute on average to 22 deaths and 23 hospitalizations per year in Washington State.

The program was funded until 2007 through Preventive Health and Health Services block grants from the Centers for Disease Control and Prevention. Since then, other state public health dollars have continued the work, but at a reduced level. Because of cuts in local public health funding, some cities and counties around the state have lost their violence prevention staff. On a positive note, the City of Seattle hired a new firearms prevention lead, who is working with the other partner organizations, Washington State Department of Health, Public Health - Seattle & King County, the State Youth Suicide Prevention Program, and a statewide firearms violence prevention group. ■



Lok-It-Up Safe.

Satisfaction Up, Numbers Down

Rural Public Health Nurses Needed

By Sandra Cole, Karen Ouzts, and Mary Beth Stepan

Wyoming and other rural states face a critical shortage of public health nurses. This could hurt the public health system's ability to respond to emergencies and safeguard the public's health unless we develop systematic, evidence-based recruitment and retention efforts.

Overall, rural communities find recruitment and retention of nurses challenging because of lower compensation, lack of trained and qualified public health nurses locally, and difficulty in recruitment of nurses from more urban settings. An additional concern is that our rural and frontier areas generally experience a lack of registered nurses prepared with baccalaureate degrees. In order to respond to future public health challenges, efforts to recruit, train and retain public health nurses (PHNs) must take priority now. The Wyoming Department of Employment projects that large numbers of PHNs will retire within the next five years.

Job satisfaction is intimately related to successful recruitment and retention, and we conducted a recent study that highlights the job factors that nurses find most satisfying. Our findings can be integrated into recruitment campaigns. PHNs frequently cite great working environment, autonomy, and work hours as reasons they remain in their positions. Measuring nurse satisfaction is a way to evaluate retention efforts of PHNs. Our study found high levels of job satisfaction among Wyoming's PHN managers and staff nurses. We used a job satisfaction survey that measured 12 categories: achievement, communication, influence, interpersonal relationships, job importance, job mechanics/competencies, job security, organizational policies, recognition, salary and benefits, supervision, and working conditions.

Autonomy, working relationships, and shared decision-making are common indicators of nurse satisfaction across health care settings. More importantly, these factors contribute to quality patient care. Autonomy, self-governance, and relationships of nursing staff also inform the journey hospital systems take toward earning Magnet Certification. Magnet certification directly relates to nursing satisfaction, innovations in professional nursing practice, and quality patient care (www.nursecredentialing.org). Public health nurses are some of the most satisfied nurses in Wyoming, according to a recent study by the Wyoming Department of Employment, where the same factors of autonomy of practice, satisfying working relationships, and shared governance were found. This could explain the longevity of PHNs in Wyoming and why it is important to consider satisfaction as critical to any recruitment and retention efforts.

We found that both staff nurses and managers were satisfied in their positions overall. In the subcategories of "influence" and "interpersonal relationships," managers were less satisfied than the staff nurses. This finding is consistent with other researchers who indicate that power or influence is important for effective patient care and for satisfaction among staff members. This finding supports the idea that management should evaluate nurses' responsibility versus authority to determine whether a disparity exists. Efforts to increase shared governance will increase satisfaction. Efforts to solicit managers' participation in the process of considering and implementing program changes will also increase nurses' feelings of power and influence. Because public health nurses frequently understand the problems in their own communities, their perceptions should be built into program development.

Rural communities are experiencing a critical shortage of qualified public health nurses, and this shortage will affect the way agencies can mobilize to combat public health emergencies. An evidence-based approach should guide recruitment and retention efforts. Our study provides an example of how systematic evaluation of job satisfaction can lead to ways of improving the job satisfaction of public health managers in the realm of influence and interpersonal relationships. ■



Suzanne Gillette administers free blood pressure checks in a church basement as a community health nurse.

Authors

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Obstacles & Opportunities: Future for Public Health Students

By Janessa M. Graves

In 1997, Barry S. Levy, then-president of the American Public Health Association, presented nearly a dozen current or anticipated trends in public health, calling them “dangers and opportunities”—serious dangers for the health of the public, and serious opportunities for us to improve the health of the public. He described changes in financing and organization of health care, information and communications, biotechnology and genetics, and changes in the economy and population. Levy wrote that while “we have the capabilities to create the future we want in our society.... [we] need to understand some major trends that are occurring and will continue to occur which will have a profound impact on the future of public health as we create it with all of society.” In the 12 years since, new issues have emerged, adding new risks and concerns to Levy’s list and creating a complex combination of challenges and opportunities, both new and old, facing today’s public health students.

Pandemic influenza. Escalating health care costs. Terrorism. Technology. These issues now grace the headlines of major newspapers, providing evidence of their emerging significance in today’s world. From SARS to avian influenza and the H1N1 novel virus, public health departments around the US have faced threats of new infectious diseases, spreading rapidly – consequences of our globalizing world. Current discussions of health care reform highlight the rising cost of health care for patients, providers, insurers, and employers. The economic downturn may lead to growing numbers of under- or uninsured populations as workers lose jobs, coverage, and their ability to pay for care. As safety nets, public health departments face a growing patient population with limited funding.

Yet, despite these difficulties and the uncertainties that lie ahead, opportunities abound in public health today. With the advancement of new technologies, health care is more efficient and safe. Geographic Information Systems (GIS) aid in effective disease surveillance, and new, efficacious medical treatments save countless lives.

Levy’s list, along with today’s new trends, is both intimidating and exhilarating to public health students. In a short time, one year for some, we must gain the skills and knowledge necessary to contribute to the changing face of public health in our country. In the classroom, we develop a tool kit of skills and theories little tested beyond the ivory towers. Once out of the classroom, we enter a dynamic field of growing knowledge and expanding technology with the responsibility of maintaining and improving the health of populations. This process is intimidating because we may not feel fully prepared. Yet these challenges are also exciting and invigorating, as they serve as a call to arms to tangibly help our communities.

The havoc raised by Hurricane Katrina resulted in extreme hardships for vulnerable communities and the public health sector. Subsequent rebuilding efforts generated valuable lessons and improvements that will be applied to future events. Now, public health officials are using these lessons preemptively to develop new programs for hospital management, systems for infectious disease control, and plans to better reach vulnerable communities during an evacuation. While Hurricane Katrina is a single event and not representative of all challenges faced by public health professionals in the US, if we students can function as “problem solvers,” engaged in critical thinking and innovative situational analyses, our future public health career holds great promise.

The field of public health is dynamic and interdisciplinary, which allows us to draw from and apply theories and tools innovatively and collaboratively to solve future problems. It is up to us to approach the field with sound values, a clear vision, and dedicated leadership. We have to face today’s and yesterday’s “dangers” and “opportunities” with confidence and optimism. The future may look intimidating, but it is exhilarating to walk forward armed with the courage to problem-solve and the willingness to gain perspective and insight from the past. ■

Suggested reading: Levy BS. Creating the Future of Public Health: Values, Vision, and Leadership. *Am J Public Health*. 1998; 88(2):188-192.



Janessa Graves visits a local classroom to discuss public health.

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- www.ethnomed.org

Participants in the Northwest Center for Public Health Practice's Summer Institute this August requested more information to better connect with diverse communities. One valuable tool is: www.ethnomed.org

www.ethnomed.org provides public health providers with information about different cultures in relation to typical health problems. It has been developed and is maintained by the Harborview International Clinic at the University of Washington and therefore targets many populations specific to that area, including Amharic, Cambodian, Chinese, Eritrean, Ethiopian, Hispanic, Hmong, Karen, Oromo, Somali, Tigrean, and Vietnamese. All articles on this site are peer reviewed. They are vetted scientifically and by a member of the targeted cultural community. You are welcome to submit material to this site and build upon an important resource.

- http://healthlinks.washington.edu/public_health

HealthLinks, the Health Sciences Library at the University of Washington, has built a public health toolkit that features databases, directories, journals, and other resources. Some resources are limited to those with a UW NetID, but most are open for public access. Recent additions include H1N1 Flu (Swine Flu) Information, an Emergency Preparedness Resource Inventory, and Partners in Information Access for the Public Health Workforce, a collaboration of US government agencies, public health organizations, and health sciences libraries.

Links to these resources are included online at www.nwpublichealth.org

Recommended Training:

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The Northwest Center for Public Health Practice is about to release a new free online course: *Data Collection for Program Evaluation*.

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