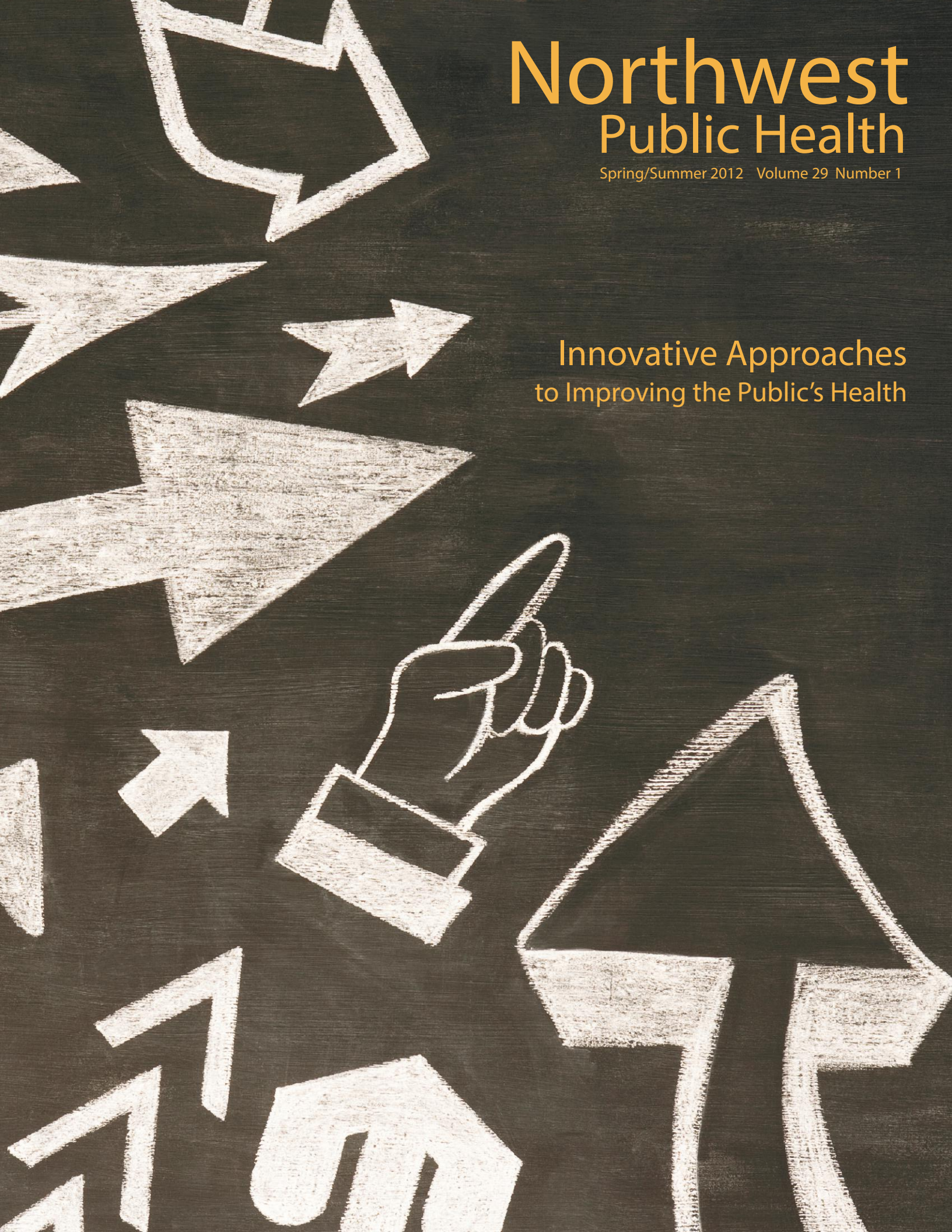

Northwest Public Health

Spring/Summer 2012 Volume 29 Number 1

Innovative Approaches to Improving the Public's Health

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Innovative Approaches to Improving the Public's Health

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An Issue of Innovation

This issue of *Northwest Public Health*, with its focus on innovation, could not be more timely. Every one of us has lived through almost unimaginable change in recent years: the evolution from phone booths to smartphones, the rise of Facebook and Twitter, instant access to infinite knowledge, and more.

We practice public health in a radically different world than did our teachers.

Communication and information represent only part of this radical change. Scientists have mapped the human genome. We are learning that adult disease can originate early in life and that many supposedly "non-infectious" diseases can originate with infections. The public we serve is older and more diverse than ever before. We confront a changing climate, and the limits of resources as diverse as fish, petroleum, and rare earth metals.

Some changes represent enormous opportunities, but others are ominous. Consider the erosion of civic engagement. In *The True Patriot* (2007), Seattle writers Eric Liu and Nick Hanauer dissect patriotism at its best—a shared moral framework built on service, stewardship, tolerance, moderation, respect, and equality of opportunity. Sadly, such values are under assault. For several decades, much of our nation's public discourse has favored individualism over collective solutions and ideology over pragmatism. The economic crisis has fueled this trend. With neither robust public support nor robust funding, public health faces enormous challenges.

Innovation is part of the answer, but so are enduring bedrock principles. We serve the public with dedication. We focus on populations, locally and globally. We ground our actions in sound science. We emphasize underserved and vulnerable populations, and we promote fair and equitable policies. These principles bear constant reinforcement.

At the same time, we need creative and innovative approaches. Innovation can be learned, according to Roberta Ness, Dean of the University of Texas School of Public Health. Her new book, *Innovation Generation* (2011), describes the mental processes that give rise to innovation, such as thinking by analogy, making assumptions explicit and expanding them, and deconstructing hard questions. Innovation can be promoted through encouragement, incentives, and rewards.

When times are tough, innovation is hard—but more necessary than ever. The recently adopted strategic plan for the UW School of Public Health sets out bold steps to meet the challenges of the 21st century. (See sph.washington.edu/strategicplan/). It balances "strengthening our core"—reinforcing the teaching, research, and service activities that have marked the School's success—with meeting six emerging challenges: Global Environmental Change and Human Health; Genomics and Public Health; Obesity, Food, Physical Activity, and Health; Health Policy and Health Systems; Public Health Implementation Science; and Social Determinants of Health. Each of these has a strong foundation in the School. For each, we plan ambitious growth. Throughout the Strategic Plan, we value innovation—doing what we've always done in new, more effective ways, and taking on new challenges.

This issue of *Northwest Public Health* reports on similarly ambitious, innovative efforts throughout our region—from emergency preparedness to immunization, from education to communication to clinical care. This is an inspiring portfolio of work, exemplifying the best of public health. I hope you enjoy this issue, and look forward to continued collaboration between UW School of Public Health and our valued partners as we work to advance public health.

Howard Frumkin, Dean
UW School of Public Health

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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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Innovation in Public Health

For our communities and our public health organizations, the current era is one of new or increased challenges and changes. While there are many aspects of the current situation that are unsettling, with reduced funding in many areas and questions about the legitimate role of government, this issue demonstrates the positive ways that many in public health organizations are responding with new ideas and innovative approaches. The theme for this issue of *Northwest Public Health*, "Innovative approaches to improving the public's health," was chosen to highlight the impressive work underway across the region and to encourage thought and discussion around the important topic of public health innovation.

A number of the articles in this issue describe innovative approaches by public health organizations to increase excellence and efficiency in response to constrained resources. An article by staff at the Montana Department of Public Health and Human Services describes a systematic approach to increase childhood immunization rates. Another article highlights a research project in eastern Washington that shows how telephone-based cognitive behavioral therapy can expand access to mental health services for rural Latino populations. Readers may also learn how Oregon public health has taken steps to make it easier to include climate change strategic planning in the work health departments already do. And Public Health - Seattle & King County contributed an article that describes important considerations for health departments exploring the use of texting technology to reach the public.

Another way public health in our region is responding with innovation is by expanding partnerships. Clark County Public Health in southwestern Washington has successfully transitioned its clinical services to a federally qualified health clinic, thereby increasing access and lowering health department costs. An article describes a multi-state research project that created a database from the data health departments routinely collect. Mutual Assistance Agreements between local public health jurisdictions and tribal governments are explored in another article. The theme of working across sectors is continued in an article from central Oregon that shows how that region has formed networks to improve population health and get ready to implement the Patient Protection and Affordable Care Act. Researchers in Oregon describe how they have used community-based participatory research to map a community's "age-friendliness."

Looking to the future for public health innovation, we include the perspective of the newest generation of public health workers with a student viewpoint article from a recently-graduated master's in public health (MPH) student who is looking for work. We also have a web-only special about undergraduate public health education. The lead writer of another web special on bystander CPR rates is a current MPH student.

To expand the discussion, our website includes references for the articles, web-only special articles, and the full archive of back issues. These can be found at www.nwpublichealth.org.

We look forward to continuing the exploration of how public health is responding to current challenges and evolving community concerns in future issues.

Susan Allan, Editor-in-Chief
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Transitioning Public Health Clinic Services

to a Federally Qualified Health Center

By Marni Storey and Alan Melnick

Over the past decade, local public health departments have struggled with defining core public health services while facing significant reductions to revenue. In response, the priority for local health departments has been to honor commitments to their communities. This article describes how Clark County Public Health (CCPH) transitioned clinical services, including successes, challenges, and lessons learned.

In 2006, over 40,000 low-income residents in Clark County, Washington had no health insurance, and many providers were not accepting Medicaid. CCPH provided categorical clinical services to a small portion of the population. Services included refugee health, family planning, immunizations, and STD clinical services. CCPH served 7,744 clients with in approximately 13,500 visits (Table 1). These services required $627,000 of county general funds per biennium in addition to state and federal grants.

Table 1

	Number of Visits	Percent of Total Visits
Immunizations	6,495	47.9%
Refugee	1,689	12.5%
Reproductive Health	3,619	26.7%
STD	1,779	13.1%
TB	756	5.6%
Refugee TB	223	1.6%

In 2006, CCPH faced decreased revenue and increased staff and program costs. For example, the Department received $250,000 less in annual General Fund contribution in the 2005-06 biennium compared to the 2003-04 biennium. In addition, regulatory changes to the Family Planning Take Charge Medicaid program resulted in revenue shrinking from $30,000 per month to $30,000 per quarter, a 67 percent reduction that caused an additional annual $240,000 loss. In response, CCPH identified health policy as an important area of focus that could improve health outcomes for Clark County and fit within current resource levels. CCPH also recognized the necessity of transitioning out of direct care provision. To do this in a considered manner, CCPH worked with community partners to identify an innovative, cost effective service delivery model that would not only maintain current access levels for low-income residents but exceed them.

Community-Based Methodology

Based on review of the literature and expert consultation, CCPH identified the chronic care model, with primary care integrated with behavioral health services as the best way to improve access, health outcomes, and cost control.

CCPH hired an expert on Medicaid reimbursement for primary care clinics, Federally Qualified Health Care (FQHC) clinics, and behavioral health services. CCPH proposed a medical home provided directly and through coordination of care with other community health professionals. This home would offer services based on the National Council for Community Behavioral Healthcare Four-Quadrant Mental Health/Substance Abuse (MH/SU) model which provides services for patients with both low and high physical and behavioral health needs. Behavioral health services would include screening, assessment, medication treatment, care coordination, and on-site psychotherapy and would foster collaborative relationships between behavioral health and primary care providers.

Stakeholder Engagement

The next step was to engage stakeholders, including managed care plans, providers, the local FQHC, and the Regional Support Network (RSN). In April 2007, CCPH facilitated a community meeting to describe the access problem, introduce the four-quadrant chronic care model, obtain feedback, and gauge partner interest. Based on financial modeling, including FQHC reimbursement rates, stakeholders agreed that expanding access while implementing the chronic care model would require contracting with a FQHC.

Consequently, CCPH and the RSN issued separate requests for proposals (RFP) to support expansion of a FQHC. The CCPH RFP described service requirements and staffing. The contract deliverables identified three goals: financial sustainability, implementation of the chronic care and integrated behavioral health models, and increased access. To evaluate sustainability, the quarterly reporting requirements included quantitative information such as number of clients, number of visits, payer mix, and provider recruitment and retention.

CCPH provided technical assistance and funding, including a base amount to support the start-up cost until the provider could establish financial viability, as FQHC expansion funds were not available.

Successes

The Vancouver Sea Mar Community Health Clinic successfully responded to the RFP. The resulting transition of clinical services increased access to comprehensive care for low-income clients in Clark County. Before the transition, CCPH provided categorical services to 7,744 clients through 13,500 encounters (Table 1). In the first year of operation, Sea Mar provided comprehensive primary care, including preventive services, integrated with behavioral health, to over 8,100 clients in more than 15,000 encounters. In addition, Clark County saved over half a million general fund dollars, which CCPH reinvested in population services and strategies to influence systems, policies, and environments.

Challenges

Although the transition was successful, CCPH faced three significant issues: (1) developing a contractual relationship with the FQHC, (2) managing change within the department, and (3) facilitating workforce development.

CCPH worked through contract issues by articulating clear expectations, providing technical support, and communicating directly and frequently. Transparency was essential because the transition resulted in a reduction of 14 staff filling 13.5 FTE positions.

Even with transparency, the transition understandably created a morale challenge for staff.

To communicate, CCPH leadership used memos, e-mail updates, team meetings, all-staff meetings, and individual meetings. Department managers from all levels, including the Director of CCPH, John Wiesman, provided consistent messaging and made sure that union representatives were included and well informed.

CCPH brought in employee assistance for teams and individuals, provided workforce skills training for staff facing layoffs, and provided information from human resources on unemployment, retirement, and benefit impacts. To reduce the impact of layoffs, CCPH negotiated that Sea Mar would provide public health staff interview opportunities and give them preference over outside candidates.

CCPH ensured that remaining department staff who transitioned to new community-based roles learned new skills. Staff members have embraced their new roles and support CCPH leadership in influencing important local health policy issues, such as smoke-free work environments and access to outdoor spaces and healthy food.

Conclusion

This example demonstrates that local public health agencies with diminishing resources can leverage community partnerships to increase access to health care. Low-income residents in Clark County now have increased access to integrated behavioral health and primary care. The partnership between CCPH and Sea Mar Community Health Clinic demonstrated to county policy makers the importance of public health's role in responding to new opportunities to shape access to care through the Patient Protection and Affordable Care Act. ■

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Additional resources at
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Taking the Lead:

Central Oregon Regional Health Council

By Muriel DeLaVergne-Brown

In organizations, real power and energy is generated through relationships. The pattern of relationships and the capacities to form them are more important than task, functions, roles, and positions.

— Margaret Wheatley, EdD

Extraordinary changes are underway in central Oregon. These changes are driven by the Patient Protection and Affordable Care Act (PPACA) and a shared desire to unify public and private health sectors to improve the public's health.

Building a Foundation

Even before passage of PPACA, work was started in Oregon to coordinate across health-related organizations and agencies. In 2009, the Oregon State Legislature created the opportunity for regions to band together in pursuit of a single point of fiscal accountability for health plans and programs serving low income populations.

In response, three central Oregon counties mobilized. With participants from Deschutes, Crook, and Jefferson counties, an advisory council formed, led by staff from St. Charles Health System. The advisory council included local public health and mental health directors, Medicaid payers, safety-net clinics, and the Central Oregon Independent Practice Association.

Central Oregon Health Council

Initially, the advisory council formed to address coordination of behavioral health and primary care, but as health care reform developed, the group's scope expanded, and implemented pilot programs through St. Charles Health System, Mosaic Medical, and various partners. Examples of these pilots included emergency room diversion, patient-centered medical homes, and a community health worker program.

In 2009, partners formed a transitional board called the Central Oregon Health Authority that included a county commissioner from each of the three counties, Pacific Source (a managed care organization), St. Charles Health System, and various medical providers to oversee the development of the work and create a framework for health care reform in central Oregon. The advisory council supported the work of the transitional board and the pilot projects.

Central Oregon Health Council

In July 2011, Oregon Governor John Kitzhaber signed SB204 that created the Central Oregon Health Council (COHC), changing the transitional board into a permanent entity. The COHC is a unique, collaborative initiative made up of central Oregon stakeholders. COHC oversees, evaluates, and guides the planning, coordination, and development of population health initiatives including community health assessment, regional health improvement planning, and development of the Coordinated Care Organization in central Oregon.

COHC will carry out a number of strategic objectives over the next four years. The COHC is the oversight body for all regional health planning and policy. It is not a service provider. Rather, its purpose is to serve as the home for a regional health improvement plan. This plan will inform and guide the development and implementation of public and private health care services throughout central Oregon.

In February of 2012, the Oregon Legislature approved SB1580, the Coordinated Care Organization Implementation Proposal. Coordinated Care Organizations (CCOs) in Oregon are local health entities that deliver health care to Medicaid patients and focus on community-level accountability, elimination of health disparities, and integrated care. CCOs are governed by community partnerships and are meant to be equivalent to the accountable care organizations identified in PPACA. These partnerships are among care providers, community members, and health systems stakeholders. CCO governance includes county commissioners who represent local public health. CCOs must have community advisory councils in place to ensure that the health care needs of consumers and communities are being addressed. In central Oregon, COHC will serve in the role of community advisory council for the CCOs in central Oregon.

In these efforts, local public health has had several important roles to play.

First Role: Community Assessment

Local public health has the ability to bring partners together and lead the community assessment process. In central Oregon, local public health, working within the COHC structure, led a year-long process that gathered data for the region, identified gaps in services, and proposed a structure for the regional health improvement plan. The St. Charles Health System was a key partner in this process and provided funding, technical expertise, and staff support. During this experience, partners evaluated various community assessment tools and chose the Health Community Institute tool. The community assessment process helped to

- promote development of the community health assessment partnership;
- build technical skills of community partners;
- use data for program and policy decisions in the region; and
- engage community residents in assessment, local planning, and evaluation.

While the assessment process was challenged by the number of time-intensive meetings it required with multiple stakeholders, the COHC reached consensus and prepared to move forward with the creation of a regional health improvement plan.

Second Role: Regional Health Improvement Plan

The second role for local public health has been to assist the COHC in the planning and development of the regional health improvement plan based on the community assessment process. For this plan, input from the St. Charles Health System, private providers, managed care, and citizens has been critical. The regional health plan was guided by the following goals:

- Equity and access
- Health improvement
- Care and service delivery improvement
- Cost reduction and cost effectiveness
- Health integration and collaboration
- Excellence
- Organizational improvement through regional efforts
- Health policy

These goals are consistent with the Institute of Healthcare Improvement's triple aim of improved population health, enhanced patient experience of care, and controlled cost. The plan's vision is to transform the health of the region's residents through community alignment in all areas of health care including local public health.

Also, the development of a community health assessment and a regional health improvement plan are prerequisites for national public health accreditation. As health care reform moves forward in Oregon so does the opportunity to improve public health.

Regional Coordination of Public Health Programs

Through COHC partnerships, coordination of public health services in central Oregon is improving. As a result, the counties combine efforts for Nurse Family Partnership, chronic disease programming, teen pregnancy prevention, and public health accreditation. One of the many positive lessons learned is how to engage county commissioners whose leadership will be essential to health care reform. As supporters of public health, they are well positioned to promote community-based prevention efforts in their counties.

This work is exciting and has given hope in the region for new initiatives to improve health. The partnerships formed in central Oregon capitalize on shared values to form a robust network dedicated to organizing and sustaining efforts to improve population health. With public-private partnerships, local public health can engage the private sector and community representatives in building a healthier future. ■

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Additional resources at
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Protecting Health:
Government to Government

By Thomas Locke

Author
Thomas Locke MD, MPH, is the Health Officer for Clallam and Jefferson Counties.

In January 2010, the elected representatives of seven federally recognized American Indian tribes and three Washington State county public health jurisdictions (see sidebar) entered into a historic public health agreement. This agreement created a detailed framework for sharing resources and expertise in a public health emergency.

Early Efforts

In 1994, Washington State published the first of its biennial Public Health Improvement Plans (PHIP) as part of a fundamental reorganization of its public health system. The plan envisioned three types of public health jurisdictions: state, local, and tribal. There was broad agreement that tribes, as sovereign governments, had the same public health authority and responsibility as neighboring county governments. Yet early efforts to turn the vision of fully functioning tribal health jurisdictions into reality were hampered by a number of unresolved issues. These issues included the applicability of state and local public health codes within tribal jurisdictions, resolution of disputes between county and tribal governments, and mechanisms for dealing with financial and professional liability concerns.

Since 2001, the capacity of public health to respond to a bioterrorist event, global pandemic, or other large-scale health emergency has become a national priority. Multi-year appropriations have allowed a significant expansion in the ability of state, local, and tribal governments to improve their response capabilities. This investment in public health capacity has created new opportunities for partnership building with tribal governments.

MAA Members:

- Hoh Tribe
- Jamestown S'Klallam Tribe
- Lower Elwha Klallam Tribe
- Makah Tribe
- Port Gamble S'Klallam Tribe
- Quileute Tribe
- Suquamish Tribe
- Kitsap County Public Health District
- Clallam County Department of Health and Human Services
- Jefferson County Public Health

A Partnership Begins

In 2008, the health officers of Region 2 (Clallam, Jefferson, and Kitsap Counties) of Washington State's Public Health Emergency Preparedness and Response system decided the time was right for a major effort to engage the seven tribes that shared boundaries with their respective counties. The health officers submitted a proposal to develop a first-of-its-kind mutual assistance agreement (MAA) involving tribes and local governments. The project was approved with facilitation support from the Washington State Department of Health and funding from the US Department of Health and Human Services Assistant Secretary for Preparedness and Response as well as the Centers for Disease Control and Prevention.

To start, project leaders recruited a skilled facilitator with experience in developing county-to-county mutual assistance agreements. The next step was to contact each tribal chairperson and seek his or her support for the project. The strong support of tribal leaders and the appointments of trusted tribal representatives to negotiate the agreement were essential to the success of the project. It was also important that county commissioners and local boards of health supported the project. To remove any logistical obstacles to participation, MAA partners received direct support from grant funds to pay for staff time, travel, and other costs associated with the effort.

Another key strategy was to identify legal issues that had derailed past partnerships. The MAA partners agreed that the worst time to resolve questions of authority, financial responsibility, and legal liability would be during an actual emergency. The need for advance clarity about these issues helped to guide the drafting of the MAA.

The drafting process took most of a year. Meeting sites rotated among the facilities of the participating organizations, including the remote tribal villages of LaPush and Neah Bay. Once the core agreement took form, tribal and county attorneys were invited to comment on key provisions of the draft agreement.

Key Issues

Among the issues the MAA addressed was the question of how public health officials would exercise necessary emergency authority within a neighboring tribal health jurisdiction. This authority could include isolation and quarantine, testing and treatment of certain communicable diseases, and supervision of health care workers. While tribes were encouraged to develop public health expertise, the group agreed that in a major public health emergency, it would be desirable to access the expertise of county health officers from neighboring jurisdictions.

For tribes with a public health code, the tribal council would grant the local health officer of the neighboring county the authority to enforce those regulations. For tribes that lacked a public health code, the tribal council was given the option of adopting relevant federal, state, or local public health laws during the emergency.

To address potential future disputes that might occur during or after an emergency response, the MAA created a dispute resolution process based on direct communication, mediation, and binding arbitration. This binding arbitration would be enforceable by tribal, state, or federal courts. In adopting this dispute resolution framework, tribes signing the MAA agreed to a limited waiver of sovereign immunity.

During the fall of 2009, the agreement was presented to tribal councils, local boards of health, and county commissioners. Support for the goals of the agreement was unanimous, and participating public health jurisdictions signed onto the agreement.

The MAA in Action

In the summer of 2010, the Makah tribe hosted an event known as Tribal Journeys. At this event, thousands of tribal members from Washington State and British Columbia travelled by canoe to the small coastal village of Neah Bay to take part in a week of traditional activities. The dramatic population increase this caused had the potential to overwhelm the fragile sanitation infrastructure of the village. The Makah tribe responded to this potential health threat by setting up an incident command system and activating the recently adopted MAA with neighboring Clallam County. A public health nurse and two environmental health specialists from Clallam County were dispatched to assist the tribe identify and rapidly respond to public health threats. The local health jurisdictions of Jefferson and Kitsap County were also on call to contribute resources should a large scale outbreak response be needed. Tribal Journeys 2010 went off without a hitch. Participants stayed healthy and tribal and local health jurisdictions gained valuable experience in government-to-government cooperation. In addition to this initial activation of the MAA, tabletop exercises were conducted at four of the participating tribal reservations to practice implementation of the agreement during a simulated measles outbreak.

A young participant during Tribal Journeys, hosted by the Makah tribe in 2010. Photo courtesy of Dan Elvrum.

Future Challenges

The concept of a fully functional tribal health jurisdiction continues to evolve, and with this evolution will come new challenges and opportunities. In addition, local and state governments are profoundly shaped by ongoing budget crises and significant workforce layoffs. As public health jurisdictions reorganize for an uncertain future, the case for expanded multi-jurisdictional partnerships grows more compelling and urgent. It is hoped that the MAA forged by the 10 public health jurisdictions of northwestern Washington will serve as a model for other tribal and county governments as they struggle to maintain their capacity to respond to public health emergencies. ■

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engAGE in Community

By Deborah John and Kathy Gunter

By 2025, one in four Oregonians will be 65 years or older, giving Oregon the fourth highest proportion of "seniors" in the nation. Recent projections indicate that Clackamas County, a rural county that includes a portion of the Portland metropolitan area, is one of nine Oregon Counties where the population of adults aged 75 and older is expected to at least double by 2040.

The majority of older adults want to age in-place. They report a desire to continue living in their own residences and communities, a preference that may burden the resources of families and municipalities.

engAGE in Community is a "campus-community" action partnership among Oregon State University's (OSU) Extension Family and Community Health, Clackamas County Social Services, and AARP Oregon. engAGE was formed with the aim of creating an "age-friendly" Clackamas County.

The concept of "age-friendly" originated from the World Health Organization's (WHO) 2007 Global Age-Friendly Cities project. The initial research for this project took place in urban cities and involved significant discussion with older urban residents, including those from Portland, Oregon. The resultant model operationalized the definition of an age-friendly community as a place where "service providers, public officials, community leaders, faith leaders, business people, and citizens recognize the great diversity among older persons, promote their inclusion and contribution in all areas of community life, respect their decisions and lifestyle choices, and anticipate and respond flexibly to aging-related needs and preferences" through focused physical, social, and service environmental supports.

The WHO's age-friendly model is the theoretical framework for engAGE in Community. The WHO model categorizes the topical features of age-friendly places into eight observable focus areas: transportation, housing, outdoor spaces and buildings, social participation, respect and inclusion, civic engagement and employment, community and health services, and communications and information. The research team organized these eight focus areas into three environmental categories—physical, social, and service—and gathered information from Clackamas County residents about the environmental attributes of their local communities that support or hinder older adults' lifestyle choices and participation in all aspects of community life.

Mapping Attributes: Participatory Photographic Surveys (MAPPS)

To collect information about actual community features, researchers recruited, trained, and deployed middle-aged and older adult residents as well as representatives from sectors that included transportation, housing, and health. The local engAGE MAPPS teams were trained to map attributes of their community using participatory photographic surveys. The MAPPS method integrates community participatory photomapping using global positioning system (GPS) technology and photography with residents' voiced experiences of their community environments to explore, understand, and improve community livability. MAPPS is an engagement, assessment, and action tool that can be applied to a variety of public health problems where understanding the interaction of people and places is essential to developing locally relevant solutions.

engAGE MAPPS Factors and Findings

For a year, five Clackamas County communities —Hoodland, Canby, Wilsonville, Oregon City, and Damascus—participated in engAGE MAPPS projects. From these communities, 53 volunteers contributed to MAPPS assessments by individually photographing and geocoding (i.e. mapping) the features of their communities perceived as either supporting or hindering place-based aging for community residents.

More than 530 community features were photomapped. Qualitative data from all sources were analyzed, organized according to an "age-friendly" model, and provided back to each community in the form of a report that identified areas for improvements and resident-informed solutions. Approximately 185 older and middle-aged adult residents and sector stakeholders participated in public conversations about the physical, social, and service attributes of their community places within Clackamas County. MAPPS activities led to local consensus building, coalition development, advocacy, and action planning to improve the county's age-friendliness.

Physical Environment

The physical environment in Clackamas County is rich with natural and built amenities that both support and challenge age-friendliness. During community conversations, the most frequently discussed built environment features were transportation and housing. In these areas, perceived barriers outweighed supports. Walkability, including pedestrian safety and accessibility, was the most frequently discussed concern related to outdoor spaces and buildings.

Across Clackamas County, the resident-generated maps reflected a strong dependence on personal automobiles to access healthy aging resources. Some communities had active transportation (e.g., walking/bicycling) and/or public transit options but with gaps in connectivity and/or low use. When faced with the inability to drive one's self, older residents encountered less-than-optimal choices or a lack of viable transportation options.

The lack of transit options makes aging in-place more difficult in Clackamas County. While a large majority of older residents live in their own homes, participants agreed that accessible and affordable housing and assisted living options are important community features. A shared perception was that inadequate housing options negatively influenced livability and "disturbed" family connections and social networks for the resident with changing housing requirements. Community conversations revealed a common desire to improve accessibility of outdoor spaces and walkability to promote active aging and personal mobility, social and cultural participation, and community vitality.

Sociocultural and Service Environments

Though community members expressed a desire to have more social opportunities, Clackamas County is supported with adult community centers, restaurants, theaters, faith groups, and music venues. While "community" emerged as a strong supporting attribute for age-friendliness, respectful, inclusive, and intergenerational social and cultural participation and civic engagement opportunities were frequently identified as areas needing improvement. With regard to the service environment (i.e. community and health services, communications and information), Clackamas County seems adequately resourced. However, people in smaller, rural communities and unincorporated areas of the county exposed critical gaps in availability of community services to support health and independent living and acknowledged more barriers than supports for aging-in-place compared to residents living in non-rural places and municipalities.

Why engAGE MAPPS?

engAGE MAPPS was designed to help people explore and strengthen their healthy aging networks, environments and policies, as well as to communicate diverse perspectives and experiences among community members and key decision-makers. MAPPS helped residents to uncover the environmental supports and barriers they encounter as they navigate community life and enact their activities of daily living. Engaging local people in open dialogue raised awareness of different perceptions of their community as age-friendly. MAPPS made public people's personal experience of interacting with community features, involved community members in the process from beginning to end, publicized the issues, and promoted the use of findings to effect change. ■

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Improving Immunization Rates in Montana

By Lisa Underwood and James S. Murphy

From 2004 to 2008, Montana ranked in the lowest quintile for children 19 to 35 months of age who were up-to-date on their immunizations. This situation was a public health urgency, as low immunization rates are associated with outbreaks of vaccine-preventable diseases, disability, and rarely, death. In response, the Montana Department of Public Health and Human Services (DPHHS) Immunization Program developed a strategic approach to improve immunization rates.

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State-Generated Recall Letters

The Task Force on Community Preventive Services, a non-federal and independent panel, recommends immunization reminder/recall systems as an evidence-based method for increasing immunization rates. Reminder/recall systems alert parents that their children are due (reminder) or overdue (recall) for immunizations. Before 2011, the DPHHS Immunization Program had not used an immunization reminder/recall system, instead relying on vaccine providers to remind their patients.

Children ages 19 through 23 months by December 1, 2010 enrolled in the Montana Medicaid program who were not known to have been up-to-date on the recommended immunizations were eligible for study participation. Eligibility was determined based on data from Medicaid billing records and Montana's immunization registry, "WIZRD." Researchers reviewed 1,865 records and found that 878 children (47 percent) met the criteria. Nearly 90 percent of partcipants lived in rural or frontier counties.

Half of the study group was randomly assigned to an intervention condition in which parents received a one-time mailed letter reminding them to visit their child's health care provider to receive the missing vaccines. The second group did not receive a recall letter. Three months after the mailing, researchers re-assessed each child's vaccination status.

Researchers found no significant difference between study groups in the percentage of those children who received any immunizations during the three-month study period. There was also no significant difference in the proportion of children in either group who were up-to-date on all immunizations at the end of the three-month period, even after excluding those with letters returned undeliverable.

This study emphasizes the importance of individual health care providers and local health departments using reminder/recall systems for rural children enrolled in Medicaid as a one-time state-generated recall letter will likely not improve immunization rates.

Enforcement of Immunization Requirements

A second strategy to increase childhood immunizations focused not on parents, but on childcare providers. In 2010, the DPHHS Immunization Program collaborated with the DPHHS Quality Assurance Division (QAD), the agency responsible for licensing Montana childcare facilities. The Administrative Rules of Montana (ARM) require all childcare facility attendees to have received certain vaccines. Prior to 2010, the administrative rules were not consistently enforced. In 2011, the DPHHS Immunization Program began requiring local health departments to increase inspection of licensed childcare facilities.

The Immunization Program, with assistance from QAD, created a memorandum of understanding (MOU) that clarified authority granted to public health nurses to review immunization records at all Montana-licensed childcare facilities. Local health officers may exclude children who do not meet the childcare facility immunization requirements. In 2011, over 600 (53 percent) of 1,139 childcare facilities were visited by public health nursing staff. These staff reviewed 16,755 immunization records. This compares with 109 facilities visited and 1,100 records reviewed for the entire year of 2009.

Ninety-two percent of immunization records reviewed by public health nurses were up-to-date per ARM compared with approximately 35 percent in 2009. This substantial increase in the percentage of childcare attendees who were up-to-date on their immunizations is likely the result of tougher enforcement by local health departments.

Medical Exemption Review Panel

A child attending a childcare facility in Montana can be exempted from the required immunization(s) if, in the judgment of their treating physician, a valid medical contraindication exists. This authority is interpreted broadly, and a small number of physicians grant medical exemptions because of parents' fear of autism, unsubstantiated allergies, and other reasons that are not based on medical evidence.

Children receiving care from these physicians often share childcare facilities. When public health nurses discover children enrolled in childcare settings who have been granted medical exemptions to immunization(s) for which the documented evidence seems insufficient, these nurses alert the State Medical Officer.

Since 2010, the State Medical Officer has received 44 medical exemptions thought to lack sufficient evidence. A review panel, formed in June 2011, advises the State Medical Officer on these medical exemptions. The panel currently consists of two family medicine physicians, two pediatricians, and two infectious disease physicians. If the review panel finds more evidence is required to justify the exemption, the State Medical Officer then sends a certified letter to the physician of record requesting the needed information. If additional information is not provided, the medical exemption is voided.

This use of the medical exemption review panel is unlikely to improve Montana's childhood immunization rates substantially, yet the panel's role in preventing dangerous outbreaks in facilities where groups of under-immunized children are enrolled should not be minimized.

Immunization Information System

An Immunization Information System (IIS) is a population-based electronic information system that manages immunization data. An IIS consolidates immunization-related data among multiple health care providers, generates reminder/recall notices, and assesses immunization coverage. In 2010, the Task Force on Community Preventive Services began recommending the use of these systems.

The National Vaccine Advisory Council (NVAC) recommends that a state-based IIS fulfill 12 minimum functional standards. In 2009, Montana participated in the Centers for Disease Control and Prevention Enhanced Technical Assistance Project and undertook a comprehensive review and analysis of Montana's IIS "WIZRD." The review determined that WIZRD did not meet the 12 NVAC recommended minimum functional standards. Consequently, the DPHHS Immunization Program began the process of replacing WIZRD with a highly functional IIS called imMTrax.

DPHHS began using imMTrax as Montana's new IIS in November 2011. The capabilities of imMTtrax include a reminder/recall system and a forecasting algorithm. The forecasting algorithm enables prediction of a child's missing immunizations with greater accuracy. This in turn can lead to more strategic use of reminder/recall systems. Montana also received funding from CDC to work with immunization providers to exchange data electronically between the health care providers' electronic health records and imMTrax. In the near future, the DPHHS Immunization Program will begin assessing the effect of imMTrax on Montana's immunization rates.

Child immunization rates in Montana are low and must be improved. Since 2010, the DPHHS Immunization program has launched many initiatives to improve low immunization rates. While data supporting these initiatives are limited, preliminary data suggest small gains. It is too early to determine if strategic initiatives led to these modest improvements, but improvement is happening. ■

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Tracking Local Public Health Services to Inform Decision Making

By Betty Bekemeier

Public health systems are awash in data regarding the delivery of their services, population health surveillance activities, and financial revenue and expenditures. At the same time, the field lacks the infrastructure and systems for putting these data effectively to use in measuring the performance of public health systems so that effective approaches to prevention and health improvement can be identified, expanded upon, replicated, and better supported.

The Institute of Medicine's (IOM) 2011 report "For the Public's Health: The Role of Measurement in Action and Accountability" decries the lack of a rational and consistent system for assessing local and state "efforts and investments" in the public's health and for measuring the outcomes and performance of the nation's public health system. A primary recommendation from this report urges the development of systems to measure the "inputs contributed" by local- and state-level public and private sector organizations. Systems that better measure and make use of data related to public health service activities would give practice leaders and policy makers a means with which to assure accountability to their stakeholders, make difficult programmatic decisions in the face of severe budget cuts, and gather the evidence needed to effectively reduce health disparities and improve population health.

Public health systems are awash in data. At the same time, the field lacks the infrastructure to measure performance.

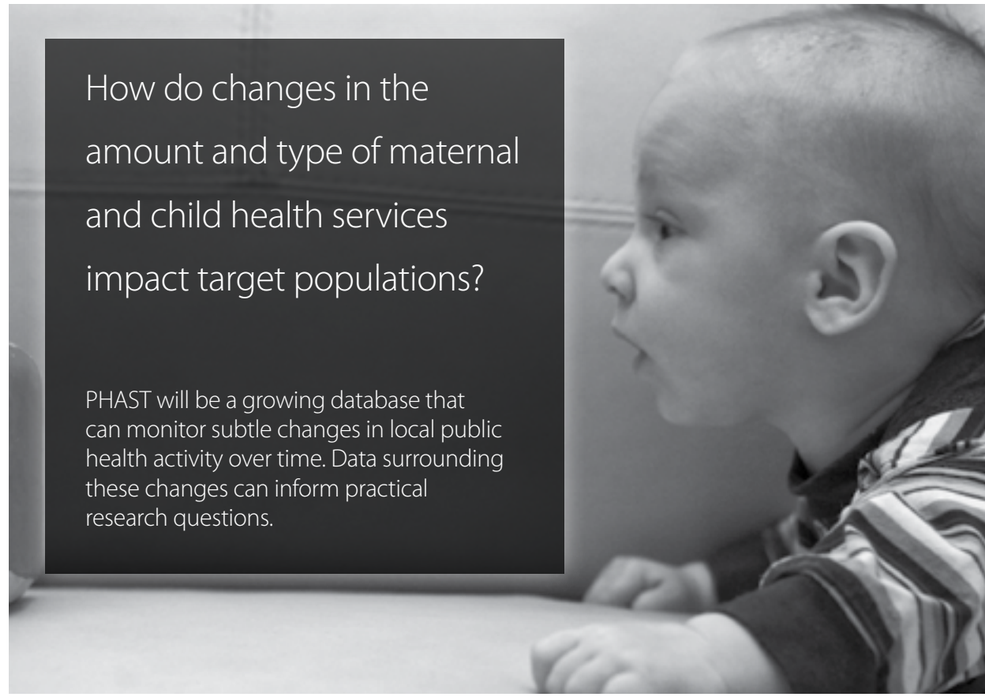
Data Sources

One source of data for public health leaders and researchers has been the National Association of County and City Health Officials' (NACCHO) Profile Surveys. Studies that have been conducted using the NACCHO Profile Surveys have been valuable in advancing the science of Public Health Systems and Services Research (PHSSR). Important NACCHO service-related data, however, provide mostly gross measures of public health service availability and investments and therefore have various limitations for studying issues such as how *much* of a service is being provided or is needed and what *type of a population* is being served or might most effectively benefit from a specific public health activity. Service statistics, detailed expenditures, and other data maintained by local and state health departments often do provide these more nuanced measures of what types of populations are being served and to what degree, but inconsistent systems make these data difficult to compare across organizations. The resulting lack of evidence upon which to set policy, make programmatic decisions, assure accountability, and monitor performance has contributed to unnecessary variation in local public health services that is likely leading to system inefficiencies that impede public health system improvement.

Practice-Based Research Networks

The advent of Robert Wood Johnson Foundation (RWJF)-funded public health Practice-Based Research Networks (PBRNs), however, is making the potential for obtaining and comparing meaningful data across local and state public health systems more possible, as public health practice and research partners participate together in the collection and understanding of public health services data. *Clinically*-oriented PBRNs have existed in the United States for over 20 years and have been successful in bridging the "disconnect" between research that is not easily translated to clinical practice and the under-studied research needs of practitioners. These clinically-focused PBRN "bench to bedside" initiatives focus on patient care with little emphasis on public health and community settings.

Since their formal inception in 2008, public health PBRN partnerships between public health practice leaders and academic researchers have modeled themselves after clinical PBRNs and are considered new critical "links in the chain of research translation" to better understand public health service delivery with evidence that practice leaders can directly apply. In the context of the growing science of PHSSR, the fledgling national network of 12 initial state-wide public health PBRNs, and the backing of the IOM, the Public Health Activities and Services Tracking (PHAST) Study was launched.



PHAST

The first PHAST funding was provided through the RWJF Nurse Faculty Scholars Program to support the preliminary development of a multi-state PBRN database. This growing database will monitor subtle changes in local public health activity over time—changes and variation in volume, intensity, or the population-focus of a service. Data reflecting these changes can then be used by practice-based researchers and their colleagues in practice settings to investigate practical research questions, such as how do changes in the amount and type of maternal and child health services provided by local health departments impact the health of the populations the activities were intended to reach? And how does the presence of other local providers factor into these outcomes? Does variation across health departments in the amount of a specific maternal and child health service delivered reflect a corresponding local need in individual communities for that service? The answers to research questions like these can then provide a better evidence base for public health practice and decision making.

Data Waiting To Be Used

In terms of data that measure local public health activity, PBRN partners that have contributed local health department (LHD) services data to the PHAST database have sometimes found what they describe as an "astonishing" amount of LHD service data that already exists—data useful for practice-based research. The detective work undertaken to identify data at the state level that depicts annual amounts of selected types of LHD services has also been a valuable awareness-building exercise among some state partners. One PHAST Study PBRN practice partner stated, "This study has been a really good opportunity to look across the [state health] department and see all [the data] that we have that

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we haven't been using. For example, [a lot of data are] reported by local health departments annually. But at the state level, it's just aggregated for reporting to the feds. Nothing more has been done with individual local health department data." State records like these can be disaggregated and used to depict changes over time at the local health department level and can show how changes and variations in service are related to specific health outcomes.

A Team Effort

PBRN members have been critical to the successful initiation of PHAST and the growth of this enterprise. They have also been remarkably engaged in PHAST-related database development and research. This engagement is particularly remarkable in light of the decreasing data management support among many state health departments and data entry investments among local health departments. Decreasing support due to budget cuts to local public health systems is perhaps further increasing the interest and urgency among public health practitioners toward utilizing these valuable existing data for informing practice and toward promoting the importance of these data for developing practical evidence. PBRN practice partners have also provided insights and ongoing background information regarding underlying causes of local variation and changes to practice. These insights inform how findings are interpreted and can be used. Practice partners are able to identify additional factors that may need examining. PBRN partnerships and the thoughtful establishment of PHAST's complex data management system are making it feasible to develop this practice-driven approach to building evidence for practice.

Going Forward

The PHAST Study involves a unique partnership of state and local public health practitioners and PBRN teams across the United States, along with a rich mix of researchers from the public health, nursing, and geographic sciences. The process of obtaining, managing, and analyzing data has already led researchers and participating PBRNs to more actively engage with one another around existing data. Going forward, practical studies will use these rich local data to improve the public's health. ■

Additional resources at
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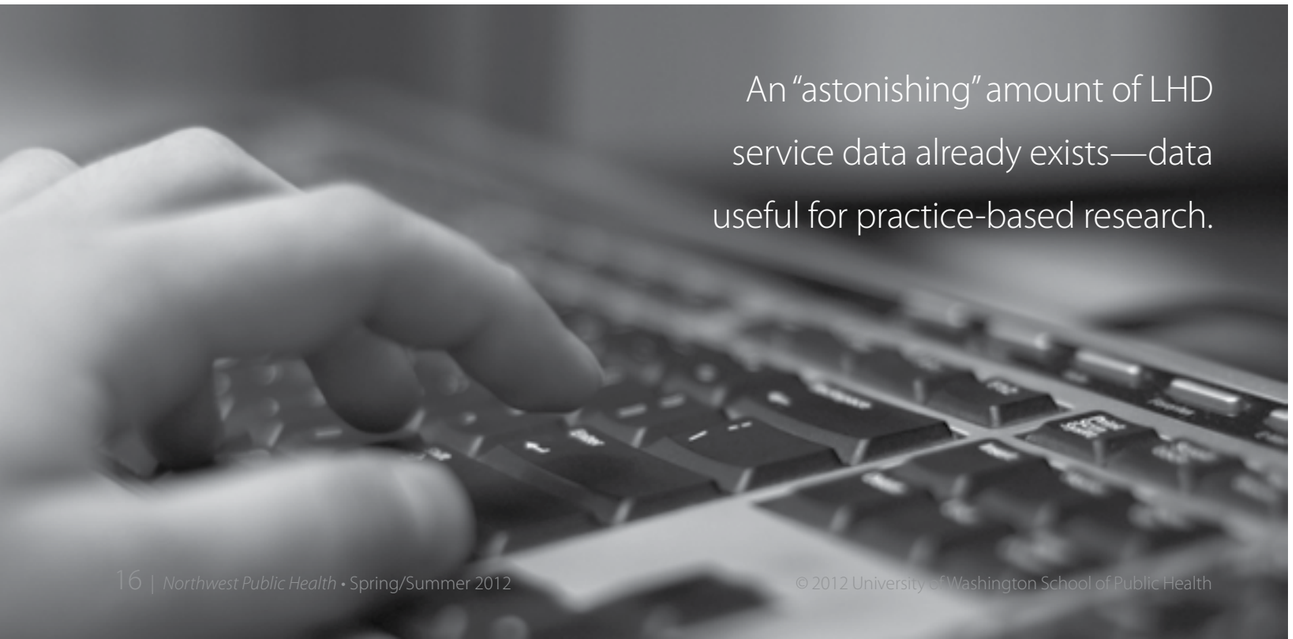

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Information-Sharing Partnerships

Protect Health

By Katherine Sabourin

Electronic System	Alaska	Idaho	Montana	Oregon	Washington	Wyoming	Percent of Northwest States	Percent of US States
Electronic Syndromic Surveillance	—	—	—	—	X*	X	33.3	81.6
Electronic Communicable Disease Reporting	—	X	X	X	X	X	83.3	91.7
Mandatory Electronic Cancer Registry	X*	X	X	X	X*	X	100.0	85.4
Receives in real time, electronic laboratory communicable disease reports	—	X	—	X	X	X	66.7	61.7

*Surveillance system/registry has bidirectional reporting and exchange capability.
Data for table provided by ASTHO 2010 State and Territorial Public Health Survey

In 2009, the Health Information Technology for Economic and Clinical Health (HITECH) Act was passed with the goal of advancing health IT systems in public health departments and promoting the use of electronic health records across the country. The Northwest region, under the HITECH Act, is now involved in several health information technology projects that will help make data sharing within and among states an efficient reality. According to the Office of the National Coordinator for Health Information Technology, in 2010, six states within the Northwest region received over $41 million to build health information exchange capabilities through the State Health Information Exchange Cooperative Agreement Program.

The HITECH Act also provides support for the adoption of electronic health records and health information technologies by health care providers and hospitals. In the Northwest region, four Regional Extension Centers were set up under the Health Information Technology Extension Program to supply medical care providers with training and technical assistance to switch from paper to electronic medical records.

Many public health departments are connected to electronic surveillance systems. One system, the National Electronic Disease Surveillance System (NEDSS) was first implemented in 2001 with the goal of creating a nationally integrated web-based surveillance system framework that allows for data sharing in real time. To implement NEDSS, state and local health departments can choose to adopt systems created by the Centers for Disease Control and Prevention and commercial vendors or develop their own compatible systems. Alaska and Washington are in the process of system development, and Idaho, Montana, Oregon, and Wyoming are in the planning stages of system activation. ■

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Climate and Health:

Oregon's Public Health Response

By Jae Douglas, Mandy Green, Andrea Hamberg, and Stacy Vynne

Imagine a story like this on your local news feed in 2035:

After last week's record-breaking rains and melting snowpack sent rivers rushing over their banks, volunteers piled up sandbags to keep central Oregon schools, business districts, and homes dry. Health officials and emergency managers warned residents to stay away from flood-stricken areas and issued fact sheets about drinking water quality and mold. "This is the worst flooding we've seen in the past 10 years," one volunteer reported.

As reported in *Northwest Public Health's* special issue on climate change and public health in 2008, the earth's changing climate is likely to impact the public's health in new and unprecedented ways. The contributors to the special issue called for health department engagement in surveillance, emergency planning and preparedness, and land use mitigations. The Oregon Public Health Division's Climate and Health Program capacity-building project, described in this article, is one answer to that call.

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State and local public health departments need to be ready to respond and to represent the health perspective in climate change planning with colleagues from other sectors. Oregon is fortunate to have a history of successful state and local health department contribution to climate change planning. Public health has played a role in the following:

- Oregon Climate Change Research Institute's 2010 Oregon Climate Assessment Report health chapter, co-authored by state health department staff;
- Oregon's State Agency Climate Change Adaptation Plan, released in December 2010, collaboratively developed with state health department staff;
- Multnomah County and the City of Portland's joint Climate Action Plan, adopted in 2009, collaboratively developed with county health department staff; and
- The City of Eugene's Community Climate Energy and Action Plan, accepted in 2010, engaged topic experts on climate and health.

Rural Planning

Public health contributes to climate response plans designed for large municipalities, but collaboration in rural communities is equally important. Working with systems already in place in rural counties, an emerging practice of including climate change impacts in natural hazards mitigation plans or other preparedness planning may be the most feasible means of addressing health impacts in the absence of other planning efforts specific to climate change. For example, Crook County, a small rural county in central Oregon, has included information on climate and health impacts in its 2011 Natural Hazards Mitigation Plan.

Climate Leadership Initiative Survey

In December 2008, the Oregon Coalition of Local Health Officials and the Climate Leadership Initiative (CLI), a regional nonprofit organization, conducted a survey to assess local health department knowledge of health risks associated with climate change. The survey also asked health departments to identify if they needed assistance in preparing for the health impacts of climate change.

The survey found that climate change health impacts were a major concern for local health departments in Oregon, and there was a need for additional resources, technical trainings, and community collaboration to more adequately prepare for and adapt to health risks related to climate change.

In 2010, the Oregon Health Authority, Public Health Division (OHA), began a project to build climate change capacity at the state and local level with funding from the National Center for Environmental Health at the Centers for Disease Control and Prevention. OHA partnered with CLI and Multnomah County Health Department to deliver a series of regional trainings to local health jurisdictions, both county and tribal, across the state. The trainings were designed to provide an overview of climate change trends, consequences for the public's health, and potential tools and resources. Sixty-eight participants completed the training, representing 62 percent of Oregon's local health departments, three cities, and three tribal communities within Oregon.

Climate Change Planning Grants

For OHA and CLI, the trainings were a first step in a multi-year program. Jurisdictions and tribal governments that participated were eligible to apply for a climate change planning grant in 2011. Jurisdictions were selected through a competitive request for proposal process. Funds were allocated for five county and tribal governments to develop climate change and public health capacity building tools, including assessment of potential local health impacts. The grantees (Benton County, Crook County, Jackson County, Multnomah County, and North Central Health District of Wasco, Sherman, and Gilliam counties) will work collaboratively through 2013 with OHA and CLI to develop, test, and refine climate adaptation tools that can be used by other local health departments.

The departments selected for the planning grants represent three of four major climate regions in Oregon. The plans will be based on local conditions, such as vulnerable population demographics, the likelihood and magnitude of health outcomes, and available resources. Despite a focus on different health impacts and adaptation strategies within each jurisdiction, the process is designed to support the work of the cohort as a whole. Utilizing the same tools at a similar pace will allow the cohort to collaboratively investigate available tools and resources. By the end of the project, health departments, working closely with colleagues in emergency preparedness, will have developed climate change public health adaptation plans and tools to protect the health of their communities. These resources will be available in 2013 for review, adaptation, and use by others.

Technical Assistance

In tandem with these efforts, OHA's Climate and Health program is working to support these local health departments in their efforts by tracking potential health impacts of climate change, collaborating with state colleagues in preparedness and other sectors, and developing toolkits for response to the extreme weather events that are anticipated to become more frequent and severe. For example, OHA has completed analysis about the health impacts of heat in Oregon and has developed heat wave toolkits for use by local health departments.

Health Impact Assessments

The public health infrastructure is an important resource for climate and health response planning, but substantial work is needed to engage and impact larger systems. Efforts are underway to better integrate public health considerations into sectors not traditionally accustomed to working with public health. An example of this integration is the use of Health Impact Assessments (HIA). OHA is working to increase capacity for state and local public health staff to conduct HIAs on a variety of projects, including those that have direct impact on climate adaptation planning.

Climate adaptation planning and health impact assessment are proactive approaches to integrating health into planning that addresses climate change risks and consequences. ■

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A climate and health regional training in Hillsboro, Oregon. Photo courtesy The Resource Innovation Group.

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Investing in a Text Messaging System:

A Comparison of Three Solutions

By Hilary Karasz and Sharon Bogan

Authors

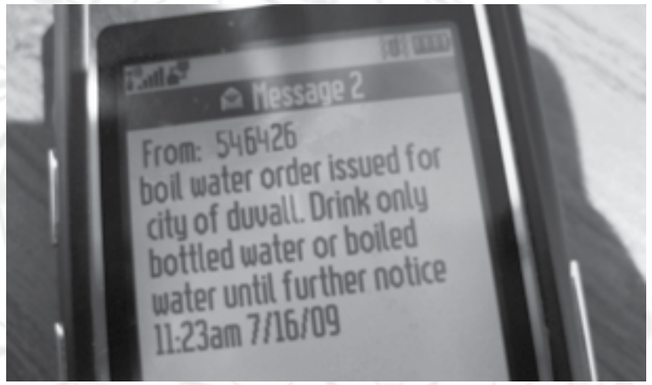
Hilary Karasz, PhD, is Public Information Officer for Public Health - Seattle & King County. Sharon Bogan, MPH, is Program Manager at Public Health - Seattle & King County.

Two trillion text messages are sent each year in the United States, yet public health departments are only just beginning to take advantage of Short Message Service (SMS) to support promotion, provision, and protection of health.

Health departments can use texting systems to provide reminders for appointments and tests, emergency alerts, and prompts that promote healthy choices. Evaluated programs are beginning to provide evidence that SMS technology has the potential to improve health across populations, including ethnic minorities and lower income communities who use the technology at higher rates than affluent whites do.

Before investing in a texting system, health departments should understand the various options available and which option fits program needs best. At Public Health - Seattle & King County (PHSKC), the communications team is currently piloting, or in the planning phases of three texting programs: (1) PHSKC employee emergency alerts, (2) influenza vaccine booster reminders, and (3) targeted health promotion messages.

To evaluate the alternatives for their texting needs, the PHSKC communications team conducted a business case analysis. They studied the features of a vendor-hosted SMS model as well as two additional models.



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Vendor-Hosted Solution

To evaluate this model, the PHSKC communications team contracted with three different vendors, all of whom provided "hosted solutions" in which the vendor maintained a database of messages and subscriber numbers and managed the transfer of messages to the cell-phone carriers. (A subscriber is an end-user who signs up for the service, electing to receive text communications from the health department.) Each vendor provided a password-protected interface into which phone numbers were entered, either by public health program staff or by subscribers. Subscribers were grouped according to specific needs. For example, employees in the emergency alert program were organized by work location.

The vendor performed all functions other than writing the text message(s) and pushing "send." For PHSKC's vaccine booster reminder, each subscriber was given a proxy ID so that protected client names were not stored on the vendors' servers.

Hosted solutions are easy to use, and it is typically easy to migrate from one vendor to another. Disadvantages of hosted solutions include limited customization, uneven customer service, and ongoing fees. Security concerns are another limitation of using hosted vendors, and extra precautions, such as the use of the proxy ID mentioned above, should be used to secure clients' private information.

Commercial Off-the-Shelf Option

A second approach is to buy a commercial off-the-shelf (COTS) application and then use IT staff to customize the user interface. Unlike a vendor-hosted solution, the database used is in-house. The IT department works with the COTS vendor to access the underlying application code, and the COTS vendor continues to work directly with an aggregator to get the messages to the right carrier. One important consideration is that using a COTS application requires on-going relationships with the COTS vendor to ensure that the IT department adapts the COTS application when the vendor upgrades its system.

In-House Applications

A third approach is to develop the application completely in-house. In this scenario, a health department invests in the development of the application, the infrastructure, and the database. The department works directly with an aggregator, bypassing the SMS vendor. This solution provides the most customized functionality, the most control over the data, and allows the agency to apply its security policy and practices to the application. It also requires increased technical resources, expertise, and on-going maintenance.

Costs

A high quality, fully-hosted solution, in which a few thousand texts are sent each month can cost as much as $1,200 a month and many thousands more if the agency wants to reach more residents across its jurisdiction. The PHSKC communications team found that over a five year life-cycle, the vendor-hosted solution was the cheapest, with the COTS and the in-house application costing roughly 20 percent more, including all costs from IT programming, development, maintenance, and vendor fees. A key assumption in the analysis, however, was that costs were based on a ten-thousand text message per month volume for a single program. Once text messaging is used by multiple programs within the same agency, the cost of a hosted solution rises due to multiple set-up and customization fees.

Moving Forward

A hosted solution is preferred for fast, cost-effective set-up for a single public health program where limited functionality is adequate and the volume of messages is limited. However, for multi-program or multi-agency considerations, the costs of either a customized COTS application or software developed "in-house" might be less when spread over five years or more. Also, costs could be saved if several agencies across a region combine forces and develop a customized solution together. More than 80% of adults text, and text messaging is potentially an effective means of improving and protecting population health. Now is a good time to start sharing our experiences and resources to employ the most cost effective solutions to reach our populations. ■

A highly functional texting system will

Support unique, and multiple, user accounts for different staff to access the interface.
Support combining end users into groups for sending SMS text messages.
Support accented characters for writing in Roman-based languages.
Support alphabet character sets for writing non-Roman-based languages.
Receive SMS text responses.
Support multiple billing structures so that different departments within a single agency can be billed separately for their activities.
Provide options supporting agency-paid SMS text message with no cost to the end user.
Provide customizable (ad hoc) fields/attributes (location, age, gender, zip code, city, etc.).
Provide ability to insert contents from database into SMS text message. (E.g., name, to personalize the message)
Receive confirmation/notification of SMS message (delivered and/or read receipt).
Provide technical administrator account (super-user).
Provide definable levels of rights/permissions.
Assure user log-in to administrative interface is authenticated.
Provide end user web-portal access so that end users can subscribe to texting programs using a web interface.
Offer password administration.
Allow remote (web portal) access so administrators can log on to the system and send text messages remotely.
Allow the use of short codes and customized key words in SMS.
Provide for database security and protection and assure privacy of phone numbers and other sensitive information.
Provide record of SMS text messages sent and received for public disclosure or other needs.
Allow ad hoc reporting capabilities.
Allow recipients to opt in to receiving messages using website or short-code.
Provide for growth in programming and messaging capacity.
As technology evolves, provide for flexibility and increased functionality.

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Connecting by Telephone:

Depression Care for Rural Latinos

By Karla Griffin

"Hi Luis, I'm glad talking by phone on a Saturday afternoon works well for you. Were you able to try any of the activities you planned last week when we talked?" asked the counselor.

"Yes I did," said Luis. "I felt better and could stop thinking about the same upsetting things over and over—at least for awhile."

This example of a telephone-based cognitive-behavioral therapy (CBT) session is similar to actual conversations that took place in a study designed to test the effectiveness of telephone-based CBT for rural Latino patients in eastern Washington. Cognitive-behavioral therapy is a form of counseling which teaches techniques designed to change how people think and act in an effort to lessen symptoms associated with a mental disorder.

Seeking care for depression can be a challenge for many patients, but add the barriers of work schedules, transportation costs, cultural stigmas, and language differences that many rural Latino patients face, and the situation can seem impossible. In recognition of these barriers, a randomized pilot study funded by the National Institute of Mental Health was conducted by University of Washington researchers from 2008 to 2010 in partnership with the Yakima Valley Farm Workers Clinic (YVFWC) Family Medical Center in Walla Walla, Washington. The purpose of this study was to evaluate the effectiveness of culturally tailored, telephone-based therapy for Latino primary care patients battling depression.

YVFWC Family Medical Center serves about 8,300 medical patients a year, with 59 percent listing their ethnicity as Hispanic. Eighty-two percent of that group indicate that Spanish is their preferred language.

Other research has shown that while Latino patients express a preference for therapy over medication, fewer than one in 11 with a diagnosable mental health disorder will contact a mental health specialist. Among recent Latino immigrants, only one in 20 will seek help from a mental health specialist. Among Latinos who do seek mental health services, more than 70 percent do not return following their first visit.

Additional resources at
www.nwpublichealth.org

The study sought to determine if patients would respond to CBT if provided over the phone following an initial face-to-face session. Before starting the study, researchers established that a cultural adaptation of a CBT manual originally developed by Evette Ludman, Greg Simon, and Steve Tutty at Group Health Cooperative in Seattle, Washington was successful. Testing the session manual, the *Nueva Vista Workbook*, researchers determined that the Spanish-language material, designed to be relevant to the rural Latino population, was useful for patients.

Study Protocols

Patients for the study were selected from waiting room screenings provided by the study therapists and through referrals from medical providers. Researchers notified each primary care provider that his or her patient was now enrolled in the study. A cohort of 101 patients enrolled in the study. Participants were randomly assigned to either the telephone-based CBT or the "usual care" group. Fifty-one patients were assigned to usual care and 50 received telephone-based CBT sessions. Patients with suicidal ideation or who were bipolar were ruled out of the study.

The study was designed for eight weeks but was tailored to fit patient needs with some patients participating for as long as 16 weeks. Telephone-based CBT sessions took place when it was convenient for the participants. Patients' depression symptoms were measured at baseline, six weeks, three months, and six months. All participants and providers took part in a qualitative exit interview six months after the start of the intervention. Two standardized measures of evaluating depression were used: the Patient Health Questionnaire (PHQ-9) and the Symptom Checklist (SCL).

Study therapists offered to meet face-to-face with the patient for the first meeting. Then the remaining sessions were conducted over the telephone following the protocols in the *Nueva Vista Workbook.* Throughout the study, weekly review sessions were held with the counselors, YVFWC behavioral health services clinical services manager Mary O'Brien, MSW, LHMC, and UW researchers calling in from around the state.

During the study, there were approximately 12 instances when the PHQ responses indicated that intervention was needed. When this occurred, the lead researcher, Eugene Aisenberg, PhD, was notified, and he would immediately contact the patient. During these interventions, Aisenberg found that the trust earned by YVFWC Family Medical Center extended to him because of his project's affiliation with the clinic.

Outcomes

The study's results showed evidence that those who received telephone-based CBT had greater improvement over time in the severity of depressive symptoms and were more satisfied with their depression care than those in the study who did not receive telephone-based CBT therapy.

Within four or five sessions, researchers documented a decrease in depressive symptoms in patients participating in the telephone-based CBT care. This was tracked over a six month period in which the CBT patients' PHQ-9 and SCL scores experienced a greater reduction compared to the scores of patients in the usual care group. Of the 50 CBT patients who started therapy, 42 completed six-month assessments compared to 35 of the 51 original usual care patients.

An unexpected finding from the study was that participation in the initial face-to-face session offered to the patients was not as important as expected in determining the patient's connection to the therapist. Fewer than half of the study's participants within the telephone-based CBT group opted to have initial face-to-face sessions. Within the CBT group, researchers found no difference in outcomes between those who had the face-to-face sessions and those who did not.

Another unforeseen finding was the patients' willingness to tell family members about their therapy sessions. While among Latinos, psychotherapy is preferred to medication for mental health issues, the approach the study used wasn't thought of as psychotherapy by the patients. Instead, the patients viewed themselves as taking classes.

Because rural Latino patients who are depressed are more likely to complain of physical ailments instead of admitting that they are depressed, when depression does occur in this population, it is usually more advanced. Most rural clinics that treat Latinos diagnosed with depression can only offer medication as a treatment option. As mentioned previously, medication is a less-preferred treatment option among the Latino population, and many patients do not take their anti-depressant medications as prescribed. All of the doctors with patients in the study reported that any approach that could lessen the need for prescribing medication would be beneficial to the populations they served.

Staff of YVFWC, along with their research partners, are currently exploring other grants to fund ongoing training of rural mental health care workers. The hope is that expanded access to telephone-based CBT for rural areas will improve depression treatment for those who have previously found it difficult to get help. ■

Author
Karla Griffin, BA, is a Communications Specialist for the Yakima Valley Farm Workers Clinic.

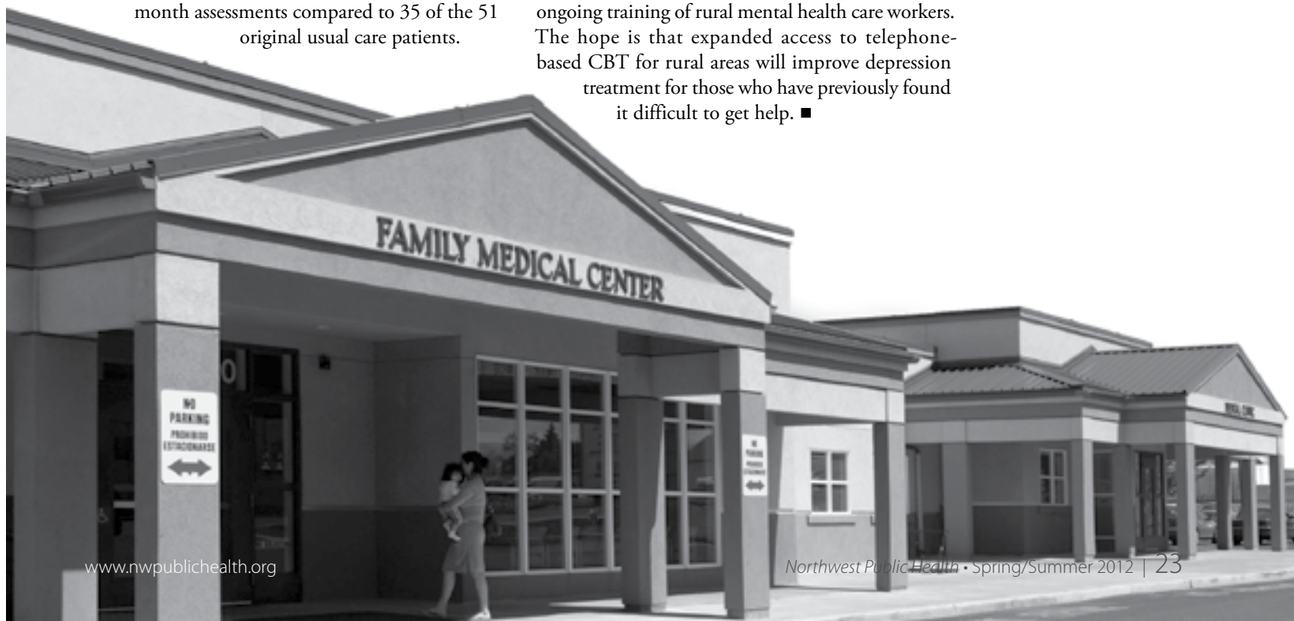

Photo courtesy Yakima Valley Farm Workers Clinic.

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Looking for Work
in Dynamic Times

By Emily Koebnick

It is an exciting time to be entering the field of public health. I write this as someone who finished her MPH and MPA degrees in March 2012. Several months before finishing school, I began applying for work. So far, I have applied for 50 positions and have had four phone interviews. I haven't found a job yet, but I am not discouraged. I didn't expect the job search to be easy. If anything, I have been pleasantly surprised to find that hundreds of agencies and organizations working in public health are hiring.

As someone who is surveying the field of public health as both a job seeker and a member of Generation Y, I offer two observations. One, new public health professionals seem to be looking for employment opportunities in public health, not necessarily life-long careers. Gone are the days when young graduates accepted positions that came with near-guaranteed life-long employment. Today's graduates expect lay-offs and budget cuts. Yet being a young professional during a time of economic hardship is not necessarily negative. It is potentially quite exciting.

Author
Emily Koebnick MPH, MPA, recently graduated from the University of Washington. She is currently looking for work.

I am not discouraged. I didn't expect the job search to be easy. I have many hopes for my future career in public health.

The reality of today's public health is that it is undergoing a profound transformation. Ten years from now, priorities and funding streams will be different than they are today. My belief is that the new generation entering the public health workforce is well suited to enjoy the dynamism of today's public health. The second way I see my generation contributing to public health is with technology. We now have endless tools to help us create solutions for complex problems. For example, the Internet facilitates easier and cost-less dissemination of successful programs and policies. Databases are forming as go-to places to find solutions for local public health problems. It is easier now than ever to locate a successful public health program and then e-mail the program manager to learn more. In a matter of minutes, important, useful information can be exchanged and the mission of public health carried forward. In my experience, the field of public health is a highly collaborative field. Technology can harness our collaborative energies and increase their reach.

I have many hopes for my future career in public health. I want to improve community health. I want to make "the healthy choice the easy choice." The good news is that many organizations are already doing this. I simply have to find my place at one. In my future workplace, I hope to clear up misperceptions about public health among the general public. When the public has a limited or an incorrect idea of what public health does, I want to help change perceptions. I want people to feel safe walking around their neighborhoods and have easy access to mental health care clinics. Finally, I want to become a public health professional whom future graduate students can call on for informational interviews. In my own search for work, I have found that people in public health are generous with their professional networks and advice. Someday, I hope to return this generosity and help the generations after me find their place within the dynamic and important field of public health. ■

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