

Matters of Health

Public Health: What's the *Public* got to do with it?

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Several thousand citizens gathered in Philadelphia this November to explore "Putting the Public Back into Public Health." This gathering was the 130th annual meeting of the American Public Health Association. Why this focus? As experts in public health, these people have to deal with three crucial facts about the health of the public. We make ourselves healthy (or sick). We make others healthy (or sick). We are not in control of everything that makes us healthy or sick.

So what is the public's role in public health? Sometimes the role is that of a grassroots agitator. Think of Mothers Against Drunk Driving (MADD) from a public health perspective. The initial energy grew out of personal tragedy shared among a handful of mothers. Their common experience of tragedy turned into outrage, then protest, then ultimately, into a large and effective social movement. MADD evolved from social protest to become an established institution for systematic influence in legislative process at the state and national level. Although it remains a private effort with a single-issue focus, it carries out a public health function of reducing risk in society. A growing sense of public health awareness is seen in the organization's decision in 1999 to broaden MADD's mission to include "preventing underage drinking."

However, today I am looking at the role of the public in relation to the formal institutions of public health—county health departments, state health departments, and the national Public Health Service. When it comes to health, the public is both agent and victim. The public health challenge is to maximize health-promoting actions and minimize health-damaging ones. A commitment to the common good challenges us to strike a balance among health and all the other valued aspects of social life, such as liberty, fairness, respect, and responsibility.

Some years ago, Dr. Harold Osterud, one of Oregon's most dedicated public health physicians, told OHSU medical students a story from his experience as a county public health officer. He was called to a family's rural home to investigate the death of a young child. It became clear after some time that the child died from dehydration resulting from salmonella infection caused by a special treat—a milkshake enriched with a raw egg from the farm's chickens. But Dr. Osterud's point was not to teach students about preventing salmonella infection. It was to illustrate the importance of using a public health perspective. He wanted them to understand that if a 911 emergency response system had been in place at that time, the boy's death could have been prevented. This tragedy didn't have a villain (like a drunk driver). Society itself was the villain.

Values

Articulating social values is a crucial part of the public's role in public health. Facts lead to public health interventions only when human values see them as social problems. We have to know what is important to us so we can distinguish among facts. Here are some health facts: A high level of lead in the environment causes neurological damage. Very loud noise in the environment damages hearing. High levels of stress in one's social life can lead to cardio-vascular damage and harmful

behavioral responses. Obesity leads to multiple health problems. Genetic structures predispose individuals and their offspring to specific diseases. Which of these facts become public health problems, and to what degree, depends on the interaction of social values and biological facts.

The community is the reservoir of public values. Its task is to articulate those values. That means getting values out on the table where they can be examined, challenged, balanced, and brought into dynamic relationships that permit social action. Health is an important, but not primary value in our society. In pursuit of other values we often take health risks. We cherish our liberty, so we accept health risks rather than impose stricter standards of clean air and water on ourselves. We value low prices for goods and services, so we accept health risks for our workers. We value private markets in healthcare services and accept the fact that millions of our fellow citizens remain without secure access to healthcare. As in many other aspects of our lives in society, we live with conflicting values. While we do value life, health, and safety, in many specific instances, we value liberty and the pursuit of happiness more.

The first task of public involvement is to articulate our values so we can work openly on finding a balance among them.

Facts

The facts that concern us come from research into risks of disease and injury developed by public health experts. The principal scientific tool of public health is epidemiology, the study of the distribution of disease in a population. Thus good public health programs require two essential ingredients: community values and expert information.

Health is a complex scientific reality. Systems to support and promote health are complex social structures.

Designing effective strategies requires considerable specialized expertise. Public involvement should not be seen as a substitute for expert design. Sometimes our health is damaged by what we do not know about causes of disease. We rely on researchers in the field of epidemiology to keep searching for associations between health status and exposure to specific behaviors or substances. We rely on them to hunt out causes at work in these associations.

The second task of public involvement is to learn the facts about health so we can relate them to our values and determine which facts should become “social problems.”

Politics

This essential ingredient should never be underestimated. The health of the population is a social product, not an individual achievement. Public health relies fundamentally on political decisions, not free markets, to allocate resources for health protecting programs. As a consequence, public health programs will always be in competition for other uses of collective resources and other values that determine social practices.

Cities, counties, states, nations, and international organizations are the social and political real world for public health. Funding for public health depends on society’s economic vigor and political ideology. It relies on the political skills of leaders to focus citizens’ willingness to invest in the general health status of the whole community. The public’s role in public health is to pay attention to the interplay between expert knowledge, political leadership, and community values.

The third task of public involvement is to mobilize our social energies in support of programs that show promise for achieving health outcomes that we consider most important for our community.

Examples from the Headlines

A few headlines in the August issue of *The Nation’s Health* (the American

Public Health Association’s newspaper) give ready examples of the need for public involvement. “Homeland Department Plan May Undermine Public Health.” Part of the homeland security effort involves response to potential for bioterrorism. Public health responsibilities focus on a wide range of threats to the public’s health far more widespread than those that might come from terrorists. How safe is safe enough? What other values are we, the public, ready to trade-off for greater security from terrorism?

Other headlines read, “White House Takes on U.S. Obesity Epidemic.” How much policing of our food intake are we willing to accept? How much public control of the market for food do we want? “American Infants not Breastfed Long Enough.” What kind of public health intervention into infant care and feeding fits our sense of family autonomy in childrearing? “EPA Proposes Rollback on Industrial Air Standards.” How do public values about the quality of our air line up with our desires for less costly energy and other products the generate air pollution? “Rhode Island Department of Health Tackles Uninsurance.” What do the public’s values tell us about the fact that one in six Americans are uninsured for healthcare? “Polluted Food, Water Killing Millions of Children Every Year.” What are the U.S. public’s values regarding the health of populations in other countries? Behind every one of these headlines there is a complex question of public values that need to be articulated, expert information that needs to be developed, and political action that needs to be taken.

The Public’s Role: Focus on Values, Partner with Experts, Be Politically Savvy

The Kellogg Foundation recently published a report on the results of a multi-million-dollar grant program to renew and energize public health in America. Called the “Turning Point” program, these grants came to 14 states and 41 local communities (two in Oregon). The



goal of the grants was to promote more intense community involvement in public health renewal across the country. A study of the impact of these grants concluded that engaging the public more directly in the process of setting goals and designing programs dramatically improves both efficiency and effectiveness in public health work.

Oregon has a strong tradition of citizen involvement in public policy. In recent years that tradition has been remarkably effective in the area of health. The Oregon Health Plan includes a statutory requirement to engage the public in dialogue to identify the values that should guide the process of setting priorities for health services. Oregon Health Decisions, a non-profit civic organization has conducted multiple programs to promote public engagement in health policy since 1983. In 2002, Oregon’s state public health agency included a vigorous public outreach activity in preparing a statewide genetics services plan. Commitment to the process of public involvement makes for the kind of public health efficiency and effectiveness the Kellogg Foundation praised.

What, then, does the public have to do with public health? The public has a crucial role to play. It must give voice to community values. It must pay attention to health facts. It must weigh political choices and consequences. It must invest its resources. It might even live long and prosper.

Dr. Garland has been active in the field of biomedical ethics since 1973 when he joined the Health

Policy Program at the University of California, San Francisco. He has published widely in the field of biomedical ethics with particular focus on ethical issues in the allocation of healthcare resources, social ethics education in health professions' curricula, ethics in human experimentation, ethical issues in withholding treatment from the terminal-ly ill, and the community's role in guiding ethical choices in health policy. He co-founded Oregon Health Decisions in 1983 to foster public participation in the development of state health policy. The organization has played a continuing role in maintaining public involvement in critical policy choices affecting the Oregon Health Plan.

Research in Complimentary and Alternative Medicine

By Carlo Calabrese, ND, MPH for Oregon's Future

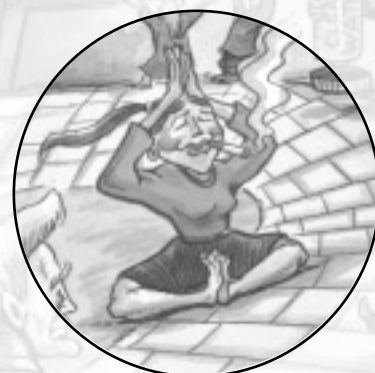
Complementary and alternative medicine (CAM) has been invoked as a possible solution to the rising prevalence of chronic disease, behaviorally modifiable illnesses, incompletely effective conventional medical treatment, drug side effects, burgeoning healthcare costs and general dissatisfaction with corporation-managed healthcare. Indeed there is a great deal of evidence supportive of specific elements of CAM in the scientific literature and more is emerging. At the same time the media has frequently cited the dangers and disappointments of unregulated practices and non-standard products. Despite uncertainty, the public's use of CAM continues to grow. In the past 10 years, this tendency has been illuminated by the publication of David Eisenberg's nationwide surveys showing the enormous magnitude of CAM use.

Oregon has been a relatively congenial home to CAM compared to the antagonisms more common among the healthcare professions in other states throughout the last century. Oregon was one of the earliest states to provide for the regulation of naturopathic and chiropractic physicians and continues to be a state where they have a relatively wide scope of practice. Portland is the only U.S. city to have schools of all major CAM professions. Consequently, there is a high density of CAM practitioners here. Oregon College of Oriental Medicine, Oregon School of Massage, National College of Naturopathic Medicine, and Western States Chiropractic College are nationally prominent among their sister institutions. Even Oregon Health & Sciences University School of Medicine has spawned originators of popular CAM practices such as the low fat diet and essential fatty acids for multiple sclerosis developed by Roy Swank, M.D. and DMSO for inflammatory conditions developed by Stanley Jacobs, M.D.

Though CAM practices by both professionals and use by the public have been widespread, their overall impact on public health have not, as yet, been extensively studied. The CAM professions have not enjoyed the public funding for their investigation available to their more orthodox colleagues. Recently however, research has been spurred by the establishment of the National Institutes of Health National Center for CAM (NCCAM), which currently funds over \$100 million per year of research in this field, representing a substantial increase in rigorous evaluation and exploration. Still, this is less than 1/2 of 1% of the budget of the NIH for an extremely diverse field. For example, there are about 5000 herbs in the world's botanical pharmacopoeia and hundreds of dietary regimes and manipulative practices that might be fit subjects of study. In addition, the application of the model of pharmaceutical research in which most medical studies are conducted is not always appropriate for

CAM. Thus, there is a dearth of researchers who understand both the authentic content and approaches of the CAM professions.

Oregon is likely to play a prominent role in the elucidation of CAM. Portland is the only city with two of the fourteen CAM research centers funded by the NCCAM: the Oregon Center for Complementary and Alternative Medicine in Neurological Diseases (ORCCAMIND) led by Barry Oken, M.D. at OHSU and the Oregon Center for CAM in craniofacial disorders led by Alex White, D.D.S., Dr.P.H. at the Kaiser Permanente Center for Health Research. Each of these centers collaborates with the other as well as with all of the local CAM professional academic institutions. In addition, these collaborations have already spurred the developing research capacities of the CAM schools. Some agents are providing enticing leads in early work, such as that of Dennis Bourdette, M.D. with alpha lipoic acid in MS. The synergy among local institutions has led to initiatives that involve all levels of CAM interventions, including single botanical agents or nutrients, combinations and regimens, and even the study of whole practices and their economic and social impact. Some researchers believe that it is in these more complex studies where the greatest benefit of CAM will be found. Oregon is well positioned to provide leadership along this expanding frontier.



Medical Liability Insurance

By Jim Kronenberg,
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The cost and availability of medical liability insurance in Oregon has been an issue for more than 30 years. While a variety of factors have influenced premium rates and market competition over the years, only one event has materially decreased cost and increased market availability: a cap on non-economic damages passed by the 1987 Legislature.

Until the late 1960s liability insurance was of little concern to physicians. For example, in 1968, \$100,000 limit insurance cost \$800 per year if you did surgery, \$400 if you didn't. Things began to change about 1970, as both claims and awards assessed by juries increased. By 1975 surgeons, obstetricians and anesthesiologists were paying more than \$10,000 a year for \$1 million dollar limits.

In 1971 CNA Insurance became the Oregon Medical Association's (OMA) group insurance carrier. CNA, along with Northwest Physicians Mutual, a Salem-based policyholder-owned company formed in 1982, has dominated the Oregon market since then.

OMA again went to the legislature with a "tort reform" legislative package like the California "MICRA" statute. The 1975 legislature didn't respond to the need for tort reform, but the public debate did have a salutary effect on the medical liability market. So did the fact that a growing state was finding doctors hard to come by, particularly in rural areas. Small town juries supported the local doctor in most cases.

While premiums didn't increase they didn't go down either.

In the early 1980s frequency and severity trends again began to rise. By 1985, when OMA again unsuccessfully proposed a tort reform bill, premiums were again climbing precipitously. In 1985 OMA again unsuccessfully advocated another tort reform bill.

By 1987 availability and cost of liability insurance had reached crisis proportions, not only for physicians, but also for business, non-profit organizations and municipalities. A large coalition led by OMA proposed a comprehensive tort reform package to the 1987 legislature. After seven months and on the last day of the session, the bill passed.

The key element, a cap on non-economic damages, had immediate effect. Mal-practice insurance premium rates began to decline and soon were about half what they had been in 1987. Over the next twelve years more coverage options became available to Oregon physicians.

In 1999 an Oregon Supreme Court decision (Lakin) had an immediate and dramatic effect on a stable and competitive professional liability insurance market by declaring the cap on non-economic damages unconstitutional. OMA convinced the legislature to refer a constitutional amendment intended to reverse the Supreme Court's opinion, but a campaign to pass the measure in May 2000 was unsuccessful.

Since Lakin judgments of more than \$1 million have become commonplace, ranging as high as \$10 million. Naturally, settlements also increased dramatically. In the 18 months beginning in January 2001, premiums have increased 100%. Three insurers have left the market entirely; those remaining are likely to drop physicians with claims histories. NPM has lost money for three consecutive years and has concerns about its long-term viability. For the moment CNA appears committed to Oregon, but if either company withdraws from the market there would be a disaster.

As was the case in 1985, the situation simply cannot be allowed to worsen indefinitely or Oregon's healthcare system will be in shambles.



Health Disparities Between Ethnic Groups

by Katherine J. Riley, EdD

Racial/ethnic classification has taken many forms during the history of the United States. In previous eras, people of Italian and Irish heritage were classified as minorities and were treated far differently than "mainstream" European-Americans. Native Americans were required to be classified in the Daws rolls (a census of Native Americans taken to determine rights to reservation land) according to their percentage of Native heritage. As times have changed and more mixing of races has occurred, it has become common to misclassify people by relying solely on appearance. A recent linkage of cancer records with Native American tribal enrollees in the western states has found that approximately 47% of the Native Americans were misclassified as non-Indian. In addition, classifications in the census

have asked people to self-identify into broad categories that may not be meaningful culturally. For example, the classification "Hispanic" includes people from Puerto Rico, Guatemala, and Mexico where diverse cultures and local dialects may not be understood by many citizens of these countries. In the 2000 census, for the first time people were given the option of selecting multiple categories of self-identification, which resulted in approximately 2.4% choosing more than one group.

If we take a look at genetic differences among racial/ethnic groups, we find that it is difficult to match them to health outcomes (Graves, 2001). Geneticists have found that human beings around the world share approximately 86% of their genes; sharing of genes is not consistent with racial classification. African Americans are estimated to have about 17-20% of European and up to 10% Indian heritage. Less than 1% of differences in health outcomes can be attributed to genetics. For example, variations in hypertension do not match variations in genetic makeup.

When we look at groupings of health data, we find disturbing differences in health status among self-identified racial peoples (Council of Economic Advisors, 1998) that cannot be accounted for by racial genetic differences. While the United States has a higher rate of infant mortality than most industrialized countries, the infant mortality rates for African Americans and American Indians are even higher than for other racial groups. Although rates for infant mortality have decreased and life expectancy has increased in the past half of the last century, the differences between whites and African Americans have persisted. Childhood illnesses and resulting deaths have decreased through the use of vaccines; yet many poor minority children do not receive vaccinations at the recommended early age. Unintentional injuries, particularly due to motor vehicle crashes, are more likely to occur with adolescents and young adults; however,

American Indians have higher suicide rates and African Americans have higher homicide rates than any other group. Death rates due to HIV are also higher among African American and Hispanic young adults. Chronic diseases such as heart disease and cancer are more likely to cause premature deaths among adults between the ages of 45 to 64 than other factors such as injuries and often the underlying cause is smoking. All groups have shown a reduction in smoking prevalence, particularly African Americans, though whites are still more likely to smoke than those in other groups. Asians have lower death rates for cancer and heart disease, whereas the rates for African Americans account for a most of the disparity in living to age 65 between whites and African Americans in this age group. This is possibly partially a result of previously higher smoking prevalence for African Americans prior to the mid-1980s, as well as such factors as high rates of unintentional injuries.

When researchers investigate possible reasons for these differences, it is clear that socio-economic status has a large influence. White Americans are more likely to have better access to healthy environments and lifestyles, as well as to health insurance. People from minority racial groups tend to be in the lowest income levels. But it is not the sole reason these differences exist. A recent Institute of Medicine study found that when socio-economic status was held constant, minority people still received lower quality of care and had poorer health outcomes (Nelson 2002).

What are the implications for these differences? Does it mean that doctors and other healthcare workers are treating minority members poorly simply because they classify them according to their own perception of people who look like them? Does it mean that the people/clients themselves classify themselves into a negative outlook, thereby creating a self-fulfilling prophecy? Does it mean that people who are treated with prejudice or who perceive their membership in a group as excluding them from certain life

chances are under such stress that their very lives are threatened? Long-term, large-scale epidemiological studies may provide the answers.



Oregon Medication Education Program

By Yves Vimignon, MD

The Problem

Medication mismanagement and subsequent adverse outcomes are becoming a serious public health problem in the U.S. A recent American Society of Health System Pharmacy's survey (January 2001) found that nearly 10% of respondents do not inform hospital personnel about medications they are taking. Yet, as early as 1994, medication-related mortality had become the 4th leading cause of death in the U.S. Apart from hospital medication errors, many people, especially older patients, consciously or unconsciously, have medication use patterns that are detrimental to the health benefits they are trying to obtain from their medications. Physicians are often not aware of all the different products (over-the-counter medications, and herbs) their patients are taking. They are also not always aware of how their patients are managing their prescribed medications.

Estimates suggest that over 50% of the prescriptions dispensed in the United States are incorrectly taken. As a result, 17% of all hospital admissions, 25% of all nursing home admissions, 25% of all malpractice suits, 50% of all therapeutic failures, and 2.5 million medical emergencies per year are attributable to incorrect medication use. Drug-related morbidity and mortality have been estimated to cost \$76.6 billion in the ambulatory setting in the United States; most of this cost is associated with drug-related hospitalizations.

The Solution

The Oregon Medication Education Program is a Portland-based medication management screening and education project intended to enhance safe and beneficial use of medications by seniors and caregivers in Oregon. Growing out of the Northwest Parish Nurses Ministries, OMEP staff and volunteers will broaden the base of contact by reaching out to seniors and caregivers in churches, senior centers, retirement residences, assisted living facilities, and hospitals' community education programs.

Our services include an intervention entitled "You and Your Medications" and follow-up services. "You and Your Medications" is a three-part intervention with:

1. A 45-minute lecture on medication management with PowerPoint visual aids and printed materials.
2. Discussions in smaller groups after the lecture.
3. One-on-one private consultations regarding medication use aimed at detecting inappropriate use and potential therapeutic problems.

OMEP follow-up services include:

1. Immediate phone call to the patient's regular healthcare provider when an identified problem requires an urgent attention.
1. Two routine phone calls to the individual patients themselves: the first in 2. 3 months to encourage them to maintain the medication

management behavior learned at the intervention, and the second to evaluate the medication use behavioral change.

3. Medication management/alert information card two times a year to all program recipients.

"You and Your Medications" and the follow-up services are free of charge and facilitated by concerned professional volunteers including pharmacists, nurses, parish nurses, and pharmacy interns. To increase volunteer resources and raise visibility of the program, OMEP anticipates involving medical residents and medical students from all Oregon colleges and universities with health-related curriculum.

OMEP's Program

OMEP's vision is to serve the entire state of Oregon with an ongoing medication management program for seniors and caregivers. Through the venues listed above, seniors and caregivers will receive OMEP's services free of charge. It is expected that over the next three years, OMEP will provide services to 5,760 seniors and caregivers in Portland and other cities in Western Oregon.

OMEP is designed to address the problem of inappropriate and unsafe medication management issues that account for the increase of the rates of therapeutic failures, unscheduled doctor visits, and emergency room admissions. Within the next six months, OMEP will seek individual and foundation support for an intensive capacity building effort which will produce funds to:

1. Administer the statewide program operation,
2. Coordinate local service delivery areas, and
3. Conduct behavioral and pharmacoeconomic research that will benefit patients and healthcare providers as well.

Recently, volunteer directors and others have begun conversations to establish

our partnerships with AARP Oregon, Area Agencies on Aging, The Urban League, Loaves & Fishes, Northwest Parish Nurse Ministries (NPNM), and hospitals throughout the state.

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Community Health Workers: Bridges to a Healthy Future for Oregon

by Noel Wiggins, MSPH, Manager, Community Capacitation Center, Multnomah County Health Department

In 1985, Teresa Rios came to Oregon from Mexico to join her husband Román. She brought with her 8-year-old Sareni, 4-year-old Angel, and baby Jairo. The first years were hard. All three children suffered from asthma and needed frequent medical visits.

But Teresa was unfamiliar with the medical system in the U.S. Most healthcare providers spoke only English. Services were costly and Teresa's family did not qualify for Medicaid.

Then Teresa found La Clínica del Cariño, a migrant and community health center in Hood River. There, she met providers like Tina Castañares, who did speak Spanish and who understood so much more about her culture. But many Hood River farm workers were unfamiliar with preventive care and reticent about sharing personal issues even with the most approachable of providers. Both Teresa and her providers knew that a vital link was missing.

To fill this gap, providers at La Clínica requested funding to hire *promotores de salud* (health promoters), trained community members who act as bridges between the community and the healthcare system. In 1988, Teresa became part of the first group of *promotores*. Today, Teresa is the Chair of the Community Health Worker (CHW) Special Primary Interest Group of the American Public Health Association, and a leader of an emerging health profession.

Community Health Workers (CHWs) like Teresa have been vital members of U.S. healthcare teams for more than 30 years. Some of the earliest CHW programs included the Indian Health Service's Community Health Representative Program and urban programs like one established by Kaiser Permanente in Portland in the 1960s. But until recently, language and cultural barriers, geographic distance, and the plethora of titles used in CHW programs have hindered CHWs from coming together to gain greater recognition for their profession.

When CHWs did begin to meet at national conferences in the early 1990s, one of their first actions was to select (at least provisionally) "Community Health Worker" as the umbrella title

for their profession. In their communities, CHWs continue to use the titles that have greatest historical and cultural significance.

What essential qualities unite this diverse and far-flung group of health professionals? Recent policy research studies have confirmed conclusions drawn from experience in CHW programs around the world. Effective CHWs are member of the communities in which they work. Community membership can mean different things in different programs. In a promoter program in rural Oregon, Latino ethnicity and experience as a farm worker may be the defining characteristics of community membership. In a program serving IV drug users in urban Boston, being a recovered drug user may provide essential credibility and life experience.

But community membership is only the first essential quality of an effective CHW. CHWs interviewed for the National Community Health Advisor Study (Annie E. Casey Foundation, 1998) emphasized that effective CHWs need a strong internal desire to improve health in their communities, as well as a constellation of personal qualities that include patience, open-mindedness, non-judgmentalness, and a willingness to grow, change and learn. Effective CHW programs seek out these qualities when they recruit CHWs, and then build on existing knowledge during initial and on-going training programs.

CHWs' ability to respond creatively to the unique needs of their communities is one of the principal reasons for the success of the CHW model. But these diverse responses also make it difficult to answer the question, what do CHWs do? The National Community Health Advisor Study sought to answer this question in a way that would facilitate explanation of the model, while not sapping it of its unique strength. Based on focus groups, interviews and surveys with CHWs and CHW supervisors, the Study identified seven core roles

of CHWs:

- Cultural mediation
- Health education
- Building capacity
- Social support
- Advocacy
- Connection to resources
- Direct service
(screenings and material aid)

Demonstrated outcomes of CHW programs include improved utilization management; increased access to preventive care; improved compliance with prescribed care; preventive health education and behavior change; successful chronic disease management; reduced costs of care; and community and individual mobilization and empowerment.

While these results are impressive, they fail to fully convey what CHWs and CHW programs can contribute to building a healthy future for the residents of Oregon.

Although resource allocations do not yet reflect it, there is by now widespread agreement that further advances in medical technology will not markedly decrease health disparities. The remaining disparities in health status that separate Oregon's communities are the result of unequal environmental, economic and social conditions. As community members knowledgeable about health issues and the healthcare system, CHWs are well placed to work with community members identify and address these underlying determinants of health.

Eliminating health disparities also depends on increasing the cultural diversity and competence of the healthcare system. When rigorously sought and applied, CHWs' knowledge of health beliefs and cultural norms in their communities can vastly improve our ability to work with communities in ways that are respectful and cultur-

ally appropriate. Similarly, CHWs' evolving understanding of pressing health issues can serve as an on-going community assessment.

The primary benefits for communities of effective CHW programs are improved health status and enhanced community organization. But when CHWs are paid equitably for their work, CHW programs also become important sources of living wage jobs and promote community economic development. CHW programs that support the enhancement of leadership skills increase the pool of effective community leaders. And while some CHWs choose community health work as their career, for others it serves as an accessible entry point into a variety of other health professions.

Acting as bridges between their communities and the healthcare system, Community Health Workers have produced tangible improvements in health status and community empowerment. They have the potential for even greater contributions. But like all bridges, CHWs' success depends largely on being firmly supported on both sides. Policies that affirm CHWs' role as "integral members of the healthcare workforce" (Witmer, AJP, 1995) strengthen their ability to play that role, and thus promote the health of the communities they serve.

Hepatitis C: A Public Health Issue in Oregon

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Hepatitis C is currently the most common blood-borne infection. It is estimated that worldwide 170 million people have been infected with the virus. According to the National Health and Nutrition Examination Survey (NHANES) of 1988-1994, 1.8% of the U.S. population has been infected with hepatitis C at one time, and 2.7 million Americans are chronically infected, meaning they will carry the infection for the rest of their lives if untreated¹. Among African-Americans the prevalence is even greater at 3.2%. Based on data from the NHANES, it is estimated that 60,000 Oregonians have been infected. Studies done in correctional facilities in Oregon and in Multnomah County's hepatitis C testing program suggest that 55%-60% of injection drug users are infected, while sexual transmission plays only a minor role.

Tracking and controlling the epidemic pose significant challenges. Public health officials rely on physicians or laboratories to report patients with diseases of public health importance, like measles or meningitis. This report typically triggers further investigation by the local health department and implementation of control measures, such as immunizing the contacts of affected individuals. However, most people have no symptoms when they first acquire hepatitis C and do not seek medical care, making it difficult to estimate the number of new infec-

tions that occur each year in the state. And there are no vaccines or medications that can prevent further spread of the virus among persons who may have been exposed to someone with hepatitis C, as there are with measles or meningitis.

The natural course of chronic hepatitis C infection can be variable. In most individuals the disease progresses slowly over a 30-year period. Usually silent through the first two decades, ongoing inflammation of the liver eventually leads to the development of fibrosis. By the third decade about 20% of individuals will develop cirrhosis, some of whom will develop liver cancer; either condition may require liver transplantation². However, drinking alcohol accelerates the liver damage and in this case, cirrhosis can develop within 10 years.

Despite this variability and slow progression, chronic hepatitis C infection is the primary reason for liver transplantation in the country and Oregon. It has been estimated that by 2008 the need for liver transplantation in the US will increase by 528%, liver-related deaths will increase by 223%, and cancer of the liver will increase by 68% because of hepatitis C³.

Hepatitis C's silent onset and variable natural history complicate diagnosis, evaluation and treatment. Currently the Centers for Disease Control and Prevention recommends testing anyone who received blood products or a solid organ transplant before July 1992, ever received long term kidney dialysis, has persistently abnormal liver function tests, or ever injected illegal drugs. In addition, the U.S. Public Health Service recommends that individuals with HIV disease also undergo hepatitis C testing.

Since hepatitis C is a blood-borne pathogen, the following measures can prevent transmission. Patients with hepatitis C should not share personal care items such as toothbrushes and razors. The risk of transmission by sexual contact is low if one is in a long-



term monogamous relationship. There is a potential for transmission through tattooing or body piercing if the tools used have someone else's blood, or the artist or piercer does not follow good health practices such as hand washing and using disposable gloves. Hepatitis C is not spread by breastfeeding, hugging, sneezing/coughing, sharing eating utensils/drinking glasses, food/water, or casual contact.

The current FDA-approved medical treatment for hepatitis C is interferon given by injection (a long-acting form is now available) with Ribavirin (an oral antiviral drug that works only in conjunction with interferon). Success of treatment with 6-12 months of therapy ranges from 40-80%. The success of treatment is determined by two factors: the subtype (also known as the genotype) an individual carries and their viral load (the amount of virus circulating in the bloodstream). Genotype 1 (about two-thirds of the U.S. population has this type) and 4 are the most difficult genotypes to treat, while genotype 2 and 3 respond well to treatment. Patients are also more likely to respond to medication if they have a low viral load (<800,000 IU/mL).

Unfortunately, treatment comes at a price. Interferon-based therapies for one year cost between \$15,000 to \$30,000. The therapy is given for at least six months and usually for a full year. Nationwide, approximately \$15 billion is spent annually for the medical costs of untreated hepatitis C patients. Although it is estimated that every \$1.00 spent on curative hepatitis C treatment can result in about \$4.00

Helping Those with Hepatitis C

There are other types of treatment that can and should be offered to all individuals who have hepatitis C:

- Vaccinations for hepatitis A and B
- Treatment for any addictive behaviors, especially alcohol abuse.
- Education about hepatitis C for the individual plus family members and loved ones.
- Access to stabilizing social services (housing for example) to make any type of regular treatments possible.

Therefore, everyone with hepatitis C should be offered "treatment" of some kind. In Multnomah County the Hepatitis C Community Planning Group has been formed to make recommendations on how our community can better serve individuals with hepatitis C.

The Planning Group's mission statement summarizes the direction Oregon should take regarding hepatitis C:

"...to develop a comprehensive, culturally competent, collaborative approach to the prevention of hepatitis C and to support people affected by the disease through:"

- Harm reduction approaches;
- Advocacy for full and equal access to information and community health services;
- Education to reduce stigma; and
- Coordination of information, resources and services.

of medical costs savings⁴, therapy is not appropriate for everyone.

Therapy can produce debilitating flu-like symptoms, anemia, increased susceptibility to infections, thyroid dysfunction, and depression to name just a few side effects. Factors such as safety, impact on quality of life, degree of liver damage, and timing need to be addressed prior to the initiation of interferon-based therapy. But, there are some treatments that can and should be offered to all hepatitis C patients (see box above).

References

1. Alter MJ, Kruszon-Moran D, Nainan O, et al. The Prevalence of Hepatitis C Virus in the United States, 1988-1994. *New Engl J of Med.* 1999;341:556-562.
2. Alter H. Transfusion Service, National Institutes of Health.
3. Davis GL. *Hepatology.* 1998;28(4, part 2): 390a.
4. Milliman & Robertson, Inc., "Hepatitis C Epidemic: Looking at the Tip of the Iceberg" 2002.

Good websites:

www.hcrf.org
The Hepatitis C Research Foundation

www.hepnet.com
The Hepatitis Information Network

www.hepcan.org
The Hepatitis C Advocate Network

www.liverfoundation.org
American Liver Foundation

www.cdc.org
The Centers for Disease Control

