

Rural Public Health: Issues and Considerations

A Report to the Secretary
U.S. Dept. of Health and Human Services

**The National Advisory
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Project Consultant and Primary Author

Rhonda Johnson

Research Associate

North Carolina Rural Health Research and Policy Analysis Program

The Cecil G. Sheps Center for Health Services Research

The University of North Carolina at Chapel Hill

Contributing Editor

Thomas F. Morris

Policy Coordinator

Federal Office of Rural Health Policy

Health Resources and Services Administration

U.S. Department of Health & Human Services

Rockville, MD 20857

The National Advisory Committee on Rural Health

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Health Resources and Services Administration
U.S. Department of Health & Human Services
Rockville, MD 20857

Preface

As the American health care system continues through dramatic change, there has been a renewed focus on how to ensure the continued viability of the public health system. In particular, the concern has been centered on what might best be defined as the public health infrastructure. This catch-all term, for the purpose of this report, refers to a wide range of connected issues related to public health from the training and education needs to the funding streams that sustain it. These concerns are being felt across the public health spectrum but are particularly pronounced in rural areas, where the local health departments are often isolated and understaffed. In September of 1998, the National Advisory Committee on Rural Health decided to examine the impact of these changes on the rural public health infrastructure. This report, which is the product of that effort, is intended to bring a rural focus to a larger national issue and frame some of the crucial issues that specifically affect the viability of the rural public health infrastructure. Further, it serves as a resource for the Committee should it choose to make any recommendations to the Secretary on ways to improve the rural public health infrastructure.

Public Health Overview: A Time of Transition

Public health is often referred to as the foundation of the health care system, but many signs point to emerging structural problems. Recent reports document the steady deterioration of the national public health system. Health departments are closing. Technology and information systems are outmoded. Emerging and drug-resistant diseases threaten to overwhelm resources and serious training inadequacies threaten the capacity of the public health workforce to address new threats and adapt to changes in the health care market. (Medicine and Health Perspectives, 1998).

Despite these concerns, there is little consistent public outcry from the public to fix a system that often isn't missed until it's gone. The consequences of a continued weakening of the public health system, however, aren't as easy to explain away. Public health professionals say they could lead to more widespread outbreaks of infectious diseases and slower response times by health care professionals to emerging threats.

The perceived instability of the public health infrastructure is part of the larger debate and persistent ambiguity about the appropriate roles and responsibilities of 'public health.' More than ten years ago, the Institute of Medicine released a paper on *The Future of Public Health* that identified the mission of public health as 'assuring conditions in which people can be healthy,' and conceptualized three core public health functions: assessment, assurance and policy development. (IOM, 1988).

The move toward local implementation of these public health functions, as well as the rapid expansion of managed care have forced a change in the traditional roles of local health

Core Public Health Functions

ASSESSMENT: The regular systematic collection, assembly, analysis and dissemination of information on the health of the community.

Assessment practices are specifically to:

- **ASSESS** the health needs of the community,
- **INVESTIGATE** the occurrence of health effects and health hazards in the Community, and
- **ANALYZE** the determinants of identified health needs.

POLICY DEVELOPMENT: The development of comprehensive public health policies by promoting the use of scientific knowledge base in decision-making. Policy development practices are specifically to:

- **ADVOCATE FOR PUBLIC HEALTH**, build constituencies and identify resources in the community,
- **SET PRIORITIES** among health needs, and
- **DEVELOP PLANS** and policies to address priority health needs.

ASSURANCE: Assure constituents that services necessary to achieve agreed-upon goals are provided by encouraging actions of others (private or public), requiring action through regulation, or providing services directly. Assurance practices are specifically to:

- **MANAGE RESOURCES** and develop organizational structure,
- **IMPLEMENT** programs,
- **EVALUATE** programs and provide quality assurance, and
- **INFORM AND EDUCATE** the public.
(Dyal, 1991; Turnock and Handler, 1992)

departments in rural areas (Moscovice, et al, 1998). Yet the challenges faced by such departments are just part of the larger picture of public health infrastructure instability.

Diminished funding, and fragmentation of public health responsibilities have all contributed to this instability. Between 1990 and 1993, the percentage of the nation's health care dollars spent on public health declined from 2.7% to 1%. With expansion of managed care, devolution of governmental responsibilities, and restructuring of state agencies, public health agencies have had to rethink many of their traditional roles and responsibilities.

Health departments have long played a key role in shoring up the health care safety net, that group of private and public providers that disproportionately care for the poor and uninsured. Now, these health departments are also being asked to refocus on the traditional core public health activities.

Ten Essential Public Health Services

1. Monitor health status to identify community health problems
1. Diagnose and investigate health problems and health hazards in community
1. Inform, educate, and empower people about health issues
1. Mobilize community partnerships to identify and solve health problems
1. Develop policies and plans that support individual and community health efforts
1. Enforce laws and regulations that protect health and ensure safety
1. Link people to needed personal health services and assure the provision of health care when otherwise unavailable
1. Assure a competent public health and personal health workforce
1. Evaluate effectiveness, accessibility, and quality of personal and population-based health services
1. Research for new insights and innovative solutions to health problems

(Public Health in America, PHFSC)

This is problematic because health departments have become more involved in direct clinical care during the past 20 years, particularly for Medicaid beneficiaries. These clinical reimbursement dollars became very important to the overall support of the agencies. This strategy was particularly attractive to state and local funding entities because Medicaid payments include large proportions of federal funds, which lessened state funding pressure. In those areas where Medicaid was paid on an actual cost-basis, the health departments were able to include many of their administrative costs in their clinical care budgets.

These dollars helped subsidize core public health activities and, in some cases eventually largely supplanted existing funding sources for core public health functions. States only began to worry when they started seeing growing Medicaid expenditures. Many moved their Medicaid populations into managed care plans, which did not contract with health departments to continue providing those services. That meant the loss of Medicaid revenues for the health departments and fewer dollars to cover traditional public health duties.

Funding shortfalls are only part of the problem for the deteriorating public health infrastructure, though. The Public Health Foundation reports that only 15 percent of the nation's public health workforce has received academic education in public health. That creates a significant workforce challenge for local health departments given the call for a return to core public health activities called for by the IOM. Recruitment and retention of qualified public health workers continues to be a problem, particularly in rural areas. And

while technology and distance learning offer great potential possibilities, the rural areas in most need of these services are the least equipped to take advantage of them.

All of these influences have created an increasingly fragile infrastructure during a time of great change. Both the states and the Federal governments find themselves dealing with budget surpluses for first time in many years, but few extra dollars are being committed to public health concerns. A recent survey of state health agencies demonstrated limited progress and much room for continued effort and improvement in implementation of IOM recommendations (Scutchfield, Beversdorf, Hiltabiddle, and Violante, 1997). One core function, policy development, had actually declined in some agencies since 1989.

As expected, professional associations are expressing concern about basic infrastructure issues. In 1994, the American Public Health Association (APHA) picked the enhancement of the federal, state, and local public health infrastructure as one of its two priorities for legislative action, and also lobbied for expansion of both medical care services and public health programs to improve the nation's overall health status (Trevino and Jacobs, 1994).

Chapter 7 and 14 of the draft Healthy People 2010 report is exclusively devoted to supporting a strong and responsive public health system as a critical foundation for all other objectives. In fact, the infrastructure goals and objectives described in the report drive the ability to support the other 25 priority areas. Yet calls to support the infrastructure often fall on deaf ears. At the same time, there is no corresponding cry for help from the general public, which has trouble relating to a service that is largely invisible to the masses.

Any attempt to address these core infrastructure issues is made even more difficult by the fragmented nature of our current public health system. At least six different federal agencies (The U.S. Department of Agriculture, the Centers for Disease Control, the National Institutes of Health, the Administration for Children and Families, and the Health Resources and Services Administration, and the Environmental Protection Agency) all have major funding responsibility for various public health activities. Each of the 50 states also devote significant financial resources to public health as do

Did You Know...

- About 3000 local public health agencies, boards and departments make up the heart of the public health system; 2/3 of these are in small towns with populations of less than 50,000. (National Association of County and City Health Officials)
- In 1996, a survey by the National Governor's Association (NGA) found that 27 out of 49 states planned to redirect resources from direct provision of services (medical) to performance of core public health functions. Michigan and Oregon no longer provide any direct services.
- In 1995, the Committee for the Improvement of Public Health in Montana conducted a survey of local public health agencies, and found that most agencies had the ability to perform fewer than half of six core public health functions and services. (Frontier Education Center, 1999).
- Less than half of the public health workforce have had training in public health. Less than half of the nation's local public health agencies have the capacity to provide the essential public health services. (U.S. Department of Health and Human Services, Draft Document, 1998)

individual counties. These myriad funding sources create a confusing minefield of different priorities and guidelines that must be navigated by local health departments.

Rural public health departments feel the same strains as their urban counterparts. In many ways, however, these issues are even more challenging in rural areas. This is because rural public health departments face the added challenge of having even fewer resources coupled with geographic isolation and a lack of educational and training support. While there has been a fair amount of research and discussion about general public health infrastructure issues, there has been little attention given to the rural dimensions of this topic.

This paper will attempt to bring a rural focus to some of these key public health infrastructure issues and to provide the background material to the Committee should it decide to make any recommendations to the Secretary. Specifically, the report will focus on the rural aspects of the following issues:

- Leadership:
- Workforce Preparedness
- The Safety Net:
- Impact of Managed Care:
- Telecommunications:
- Funding:

Leadership

A void in public health leadership on rural issues may be exacerbating current problems.

There are few real rural voices taking part in the policy discussions and decision-making processes that shape the public health infrastructure. This is often true at both the state and Federal level and there are several factors at work that are responsible for this situation. One is the changing demographics of our communities. As rural areas continue to lose population relative to the urban and suburban areas, there is also a corresponding loss of political power in state legislatures. Many state governing bodies used to be dominated by their rural members. These rural voting blocks held great sway in many states and ensured that rural communities had a place at the decision-making table. As the voting power has shifted toward urban and suburban-areas, rural communities have lost political power.

At the same time, there has been no effective lobbying organization devoted solely to rural public health. Larger national organizations such as the American Public Health Association (APHA), the Association of State and Territorial Health Officers (ASTHO) and the National Association of City and County Health Officials (NACCHO) must appeal to a much broader public health constituency. This is not to suggest that these organizations are insensitive to rural concerns, but only that they must be balanced with the overall concerns of the larger public health community. The National Rural Health Association has been successful at pushing selected rural public health issues but also has had to balance these concerns with the other general health care concerns of its constituency, which is made up of health care providers, administrators, educators, policy experts, and consumers.

The ongoing perception that public health is largely a service for poor people is another factor, albeit on a more general level. This misunderstanding of the importance and purpose of public health makes it hard to win the support of the middle and upper class. As a result, the general public is rarely engaged in the discussion of issues regarding the public health infrastructure.

Public Health Resources

- Turning Point, a program of the WK Kellogg Foundation and the Robert Wood Johnson Foundation is designed to transform and strengthen the public health infrastructure in the US. Concurrently, up to 60 local public health partnerships in those states receive funding for capacity-building, planning, and leadership activities for up to three years. Contact information: Bobbie Berkowitz, National Program Director. Tel: 206-543-8410 Fax: 206-616-8466 gomenn@u.washington.edu.
- Institute of Medicine, (1996). *Healthy Communities: New Partnerships for the Future of Public Health*. Washington, DC. National Academy Press. This follow up report to the Future of Public Health addresses two additional critical public issues: 1) the relationship between public health agencies and managed care organizations, and 2) the role of the public health agency in the community. (IOM, 1988)

A greater awareness of rural concerns at the Federal and state levels would help to empower rural public health departments and there are some tools available to make this happen. Since 1991, there has been a state office of rural health within each of the 50 states. These offices are uniquely positioned to link rural communities to state and federal resources. Funded through a matching grant program from the Federal Office of Rural Health Policy, most of these offices are located in the state health departments, but nine are university based. They are quite variable in scope, staffing and access to resources. One-person offices are not uncommon. A recent survey of the state offices by ASTHO confirmed that variability. The survey found that while 41 of the responding states said their state holds a periodic meeting or conference on public health issues, only 33 said the event included any formal discussion of rural-specific issues.

Similarly, attention to rural public health issues at the Federal level is also variable. While the Federal Office of Rural Health Policy is positioned to be the voice of rural health within the larger U.S. Department of Health and Human Services, it would be hard pressed to become the focal point for rural public health issues on anything more than a general basis. Currently, the office has responsibility for reviewing all Medicare and Medicaid regulations that affect rural health care delivery while also administering five national grant programs. The fragmentation of public health programs across different agencies also makes coordination of efforts and attention to specific issues such as rural health a difficult task.

Additional Resources

- The National Rural Health Association (NRHA) with funding through a three-year grant from the WK Kellogg Foundation, recently launched Rural Community Leadership Development Initiative. This initiative aims to create a cadre of rural leaders to provide key input regarding their communities real needs. Contact: Robert Quick, NRHA special assistant to the executive vice president. Tel: 816-756-3140. Quick@nrharural.org.
- The Public Health Practice Program Office (PHPPO) of the Centers for Disease Control and Prevention (CDC) recently prepared a free booklet called **Principles of Community Engagement** to improve communication, promote common understanding and strengthen community partnerships to fulfill shared public health goals. Contact: Michael T. Hatcher (Chair), through <http://www.phppo.cdc.gov/>

Ultimately, solutions to the leadership void for rural public health will have to come from a number of sources. One potential model for improving leadership at the state and local level is the new Management Academy for Public Health, jointly funded by CDC, HRSA and the WK Kellogg and the Robert Wood Johnson Foundations. The Academy—a joint effort of the University of North Carolina School of Public Health and the Kenan-Flagler Business School—will strengthen the management skills of 600 senior-and mid-level managers in local and state health departments across Georgia, North Carolina, South Carolina and Virginia. Participants will come in teams to Chapel Hill, NC for Phase I of the academy, a one-week intensive management training program covering financial management, civic entrepreneurship, human resources and strategic management. Managers then graduate to Phase II, returning home for the next nine months with continuing course study over the internet, and during two regional seminars. Finally, Academy participants return to Chapel Hill for Phase III, a wrap-up session. According to program organizers, Academy teams will

produce integrated business plans at the end of their 10-month training to be implemented in their home agencies to improve service delivery and effective collaboration with others. Rural communities must be pro-active in seeking participation in such innovative strategies to link expertise with need, and federal programs should support such rural participation.

Other solutions, undoubtedly, will have to come from rural communities through new and innovative partnerships. Some communities have already taken the lead. County extension agents in Georgia are helping communities to empower themselves and strengthen community infrastructure (Jenkins, 1991). Over the last few years, several rural communities have shored up their local health systems and staved off potential hospital closures by taking part in a planning called Community-Initiated Decision Making. This decision-making method gets local citizens engaged in learning about the importance of the local health care system on both an economic and a clinical basis, identifying problems and working together to come up with solutions. The CDC pushes a similar process called the Apex Model, which is a tool used by the local health department that includes local citizen participation as a key part of the process. As communities work their way through this process, some rural advocates are urging communities to consider placing their health departments inside the local hospital to take advantage of critical mass and become more of a one-stop shop for clients. Rural public health departments could benefit from developing partnerships with their local hospitals and taking part in these community-oriented planning processes.

Some native American tribes have also taken control of their own public health decision making, thanks to the Indian Self-Determination Act. This law allows tribes to contract for their health care services through entities other than the Indian Health Service. In Alaska, for example, nearly all the health care programs traditionally administered by the Indian Health Service have been steadily transferred to 13 Alaska Native regional corporations over the past two decades. Local tribal agencies and officials are becoming increasingly important decision-makers in the provision of public health services in many rural communities.

Ultimately, the issue of increasing the leadership on rural public health issues has two distinct challenges. One lies in bringing more awareness of critical rural concerns within the context of the larger public health debate. The other lies in encouraging the development of local leaders at the community level who can develop and implement the innovative ideas needed to ensure the continued viability of the rural public health infrastructure.

Empowering Local Communities

The Community Based-Public Health Initiative (CBPH), funded by the WK Kellogg Foundation in 1991, was one of the earliest efforts to encourage collaboration between communities, local health departments and academia to improve public health. Its specific objectives included building the capacity of communities to become equal partners in efforts to improve the community's health, enabling teaching, research and service to be more reflective of diversity and pluralism, and increasing multicultural competency among students, faculty, agency personnel and community members.

Rural health departments face a continuing problem attracting and retaining the proper mix of public health professionals. Further, there is a growing need to improve continuing education opportunities to deal with new and emerging threats.

Recruitment, training, placement and retention of some health professionals are familiar headaches to rural health advocates and policy makers. These difficulties occur within the public health arena as well, and in fact may be exacerbated by the greater demand for, and even more limited pool of appropriately-trained public health practitioners. More than four out of every five public health employees nationwide – more than 400,000 people – have no degree, certificate or formal education in public health. The one exception to this rule may be nursing. Nurses traditionally receive a block of instruction in public health in nursing school, but they are only one facet of full complement of public health employees. That means other members of the local health department team must learn essential skills on the job. This disparity points out a dramatic weakness in our public health infrastructure.

It is exacerbated in rural areas that may not be located near the educational institutions that can help workers get the training they need. Filling other needs in the areas of soil and water assessment, epidemiology, and food inspection also can be more difficult in some rural areas. This is in part because of difficulty in paying the salary of these professionals in more remote areas and also because the volume of work for these professionals may not be enough to warrant a full-time presence at the local level.

Maintaining the needed diverse skill mix of public health professionals, however, presents further challenges. As mentioned earlier, local health departments used to be able to depend on Medicaid dollars raised from providing personal health services to fund some population-based services, such as assuring clean water supplies and safe-food preparation at restaurants. As local health departments shift from an emphasis on personal services to more community-focused efforts, there may be a corresponding loss of Medicaid dollars available to cover those costs. Because these ‘public health’ services have long been invisible to the general

Training Resources

- The National Laboratory Training Network has reached over 8,000 individuals through its seven regional training centers, providing state of the art public health laboratory methods. For more info: <http://www.phppo.cdc.gov/about/>
- Burke, T, Tran, N, and Shalauta, N. (1995). Identification of state environmental services: a profile of the state infrastructure for environmental health and protection: a final report. Rockville, MD: Contract No. 240-92-0046.
- The Pew Health Professions Commission, in its 1995 report entitled *Critical Challenges: Revitalizing the Health Professions for the Twenty First Century*, concluded that the demand-driven system in health care and health professions practice will result in surplus of 100-150,000 physicians in the next century. However, the same study concluded that the demand for **public health professionals** will increase substantially.

public, their gradual erosion and eventual disappearance in some sites has not yet engendered public outcry.

The loss of community disease surveillance capacity, lack of oversight over local sanitation, and inadequate assurance of safe food and water supplies are behind many of the recent, nationally publicized outbreaks of preventable disease, such as Hepatitis A and *E coli*-induced food poisoning and new outbreaks of tuberculosis. The growing prevalence of hepatitis C has put a further burden on public health agencies as the number of people affected continue to multiply and practitioners struggle with both diagnosing and treating the disease. Since 1987, the National Academy of Science's Institute of Medicine (IOM) has published three reports that identified erosion of the public health infrastructure among the factors contributing to new and reemerging infectious diseases (Satcher, 1995).

In recognition of these issues, the Centers for Disease Control and Prevention's (CDC) calls for increased laboratory-based surveillance, better communication networks and improvements in the public health infrastructure as cornerstones to combat emerging microbial threats to health. Attempts to deal with new and emerging threats such as this point to another critical problem facing rural public health providers: continuing education. The existing base of rural public health workers will need ongoing training to respond to the new and emerging public health crises identified by the CDC.

Many rural public health departments may need to recruit new personnel to fill these roles and to plug gaps in their personnel so they can more adequately address emerging public health needs. Experts agree that community health needs are too complex to be managed solely by our individualistic medical care delivery system. Yet incentives to attract a diverse team to rural areas are even more inadequate than the few incentives available to attract general clinicians to rural areas. Adapting existing recruitment and retention strategies to include public health personnel is a potential, relatively painless strategy. One model that might be particularly appropriate for rural public health providers is the Triple R Network (or the Rural Recruitment and Retention Network). This recruitment service, which is operated by the Wisconsin Office of Rural Health, seeks to match physicians interested in rural practice with rural communities in need of a clinician. The network is made up of 46 state-based organizations such as State Offices of Rural Health, Area Health Education Centers, (AHECs) and State Primary Care Associations who work together to share and coordinate information between those seeking physicians and those providers looking for places to practice.

What is needed right away, though, is a broad-based strategy for improving the skills of the current public health workforce. Training programs that take advantage of telecommunication strategies such as internet-based instruction and interactive distance learning programs are a viable alternative and are discussed in a subsequent section in this report. Rural communities would also benefit from innovative partnerships with local community colleges, schools of medicine, nursing and public health. Most land-grant colleges and universities and other state educational institutions have a service responsibility to their communities. Rural public health departments would benefit from these resources as well as any available Federal, state or foundation money that supplements training efforts.

Safety-Net Provider Support

Rural Public Health Providers have long been a critical part of the safety net but changes in the health care market may be undermining that role.

Public health is one of the key elements of the safety net that provides care for the most vulnerable members of the community. The rural safety net includes both public and private professionals and institutions that provide a disproportionate share of care to the poor and the uninsured. It also includes the federal government through multiple, and longstanding treaty obligations to tribal governments and their communities.

This traditional role, however, has been under increasing pressure as the public health community struggles to survive and define itself in an era where cost-effectiveness and the bottom line in health care delivery are priorities. As a result, the importance of public health efforts may be minimized and that contributes to the destabilization of the rural public health infrastructure. The frequently conflicting demands placed upon rural public health providers—to shift from personal to population-based services while simultaneously assuring the continuity and stability of the safety net—are increasing in a time of scarce resources. This coincides with the continued ambivalence regarding the appropriate roles and responsibilities of public health regarding focusing on population-based services or individual health services.

There appears to be a philosophical divide within the public health community. There are those who favor continuing the role of providing personal health services for both the indigent and those enrolled in Medicaid. Others, though, believe that approach is inconsistent with recent developments in the health care system and believe public health agencies should focus on the population-based services that serve the entire community. This conflict has yet to be addressed effectively at the federal, state or local level. Different funding strategies provide competing incentives

Safety Net Vs. Population Services

“The vitality of the public health system has been undermined in the last two decades by escalating pressures on state and local governments to provide medical care for the poor and uninsured.”
1994 statement in *JAMA* by a group led by officials from the Centers for Disease Control and Prevention.

“However necessary, “support for indigent medical care has exacted a huge toll in lost opportunities for preventing morbidity and mortality in vulnerable populations and for promoting optimal health conditions for the entire community.”
(*Medicine and Health Perspectives*, Nov. 23, 1998).

Rural Health Care Safety Net is...

“a complex web of organizations, individuals, and obligations that depend on the explicit support of public funds as well as the tacit cross-subsidization of services’...and unlike urban systems, cannot depend on teaching hospitals and professional educational programs which deliver care almost as a byproduct of their training programs. Rural systems rarely have access to such resources, and depend more heavily on publicly subsidized community health centers or clinics, supplemented by private practitioners, some of whom receive bonus payments and other federally-supported incentives to provide unreimbursed care to the poor.”

Ricketts, Slifkin and Silberman, 1998

for both roles. What is also clear is that an inadequately prepared and financed public health infrastructure is increasingly accountable for both types of services, particularly in rural areas, where private resources that might supplement this mission may be even more scarce than in urban areas.

Recent transformations in our public health systems with particular implications for the survival of the safety net are detailed in a recent article in *Health Affairs* (Hall, 1998). According to this review, personal health services still consume the largest share of the average local health department's staffing and funds, but in most places, that is rapidly changing. Some health services provided to individuals, such as immunizations, sexually transmitted disease identification and control, and tuberculosis services, have obvious positive implications for the community at large because they are targeted at communicable diseases.

Other personal health services, such as family planning, mental health services, and chronic disease monitoring, have less obvious impact on the community's overall health and are likely to be eliminated first. Comprehensive primary care services are not commonly delivered by most health departments, but in truly remote areas, and historically in the South, such services have been considered central to the health department mission because of the shortage of private providers. In such areas, the shift from personal to population-based services may actually eliminate the safety net for the most vulnerable members of the community.

For More Information On The Rural Safety Net:

Ricketts, T, Slifkin, R, and Silberman, P. (1998) *The Changing Market, Managed Care and the Future Viability of Safety Net Providers-Special Issues for Rural Providers*. Background Paper for the Institute of Medicine. November 11, 1998.

The problem facing rural communities is the creation of a possible void in the safety net as rural public health departments move to population-based services and decrease their provision of personal health services to the poor. The rural safety net is stretched thinner than in urban areas, where there are a higher number of large public hospitals, academic medical centers and Federally qualified health centers that provide outlets for caring for the uninsured. In rural areas, the safety net is smaller and more intertwined among the few health care entities that exist, whether it's a small rural hospital, a private practitioner, a rural health clinic or the local health department. The loss of safety net services at the health department will only shift the burden over to the other community providers, which may or may not have the capacity to handle this new responsibility. Given this transition, there would seem to be a need for Federal and state support for maintaining the viability of the safety net in these communities. Direct subsidies to community and migrant health clinics, and indirect subsidies (via Medicare) to both the private and non-profit sectors to encourage continued care to the poor will become increasingly essential, as will assuring continued adequate and appropriate funding for provision of public health services to Native American communities.

Impact of Managed Care

While managed care penetration in rural areas remains variable, the overall impact of managed care has the potential for undermining rural public health systems by altering existing funding mechanisms.

Managed care is no longer a small player in either rural communities or public health discussions. As of May 1997, 57% of rural counties participated in some form of Medicaid managed care programs (Slifkin, et al, 1998). The impact of managed care on the rural public health infrastructure is closely related to the earlier discussion of the fragility of the rural safety net. Insofar as the infrastructure has responsibility as a provider of last resort for vulnerable members of the community, changes in the financing and delivery of traditional health care services are important to public health activities.

Inclusion of all public health agencies and private providers in managed care organizational networks is far from guaranteed, so the potential

development of a fragmented and two-tiered health delivery system must be considered. In fact, some public health departments and other rural safety net providers may not be able to enter easily into contracts with managed care organizations due to different cultures and misunderstandings about their respective roles. If they are unable to reach contract agreements, public health agencies may find themselves cut out of the funding stream as the dollars that used to pay for personal health services are now going to the managed care. This is particularly troubling when the client base and the uninsured continue to seek personal care services through the public health agency rather than the managed care organization.

The recent ascendance of payers willing only to cover costs associated with insured individuals within specific plans threatens the cost-shifting that allowed both the provision of population-based services and the absorption by both private and public safety net providers

Additional Resources on Managed Care and Public Health

- *Local Public Health Agencies and Managed Care Organizations in Rural Areas: Opportunities and Challenges. (1998)* By Ira Moscovice, Rural Health Research Center, Institute for Health Services Research, School of Medicine, University of Minnesota. Supported by Robert Wood Johnson Foundation. For more info: Tel: 612-627-4411. Fax: 612-627-4415.
- *Rural Impact of Changes in Public Health, (1999)*, report in progress by Rebecca Slifkin and Pam Silberman, University of North Carolina, Chapel Hill, funded by Federal Office of Rural Health Policy. Anticipated completion Oct 1999. The study will use several state case studies to answer the questions: 1) to what extent are rural public health departments increasing or decreasing their direct patient services? What factors are associated with this change?, 2) Have recent changes in the health care system affected the ability of local health departments to fulfill their traditional public health functions?, and 3) In rural areas where public health departments no longer offer direct patient care services, has this function been assumed by private providers, or has access to services for rural populations diminished?

of uncompensated costs of care to the poor and uninsured. Rural advocates are concerned about where the funding and coverage decisions of the managed care organizations take place. While Medicaid managed care has moved into rural areas, the companies providing these services are often located in urban areas and may have little understanding of the fragility of the rural safety net and the local health department's role in that arrangement.

The decisions made about managed care are also part of a larger public debate about the appropriate role of private sector policies applied to the public provision of health services (Rice, 1998). The interplay of managed care and public health has been the focus of a significant amount of recent attention.

A 1999 report from the U.S. Department of Health and Human Services Office of the Inspector General also focuses on the interplay and dynamics the managed care-public health relationship. The report indicates that while there is a conceptual alignment between managed care and public health concepts of prevention-oriented health services, managed care goals do not translate easily into public health goals. Further, the report points out that managed care operational decisions and activities are affected by multiple stakeholders, such as medical providers and private health purchasers, but these groups are often absent in planning and implementing the collaborations. The issue should garner additional attention with the Fall, 1999 release of a similar report from the Institute of Medicine. This study examines the impact of managed care on the safety net. Both of these studies, as well as other papers and studies point to potential conflicts between maintaining the strength of the public health in a health care sector that continues to be dominated by managed care.

These studies show that effective collaboration between public health agencies and managed care organizations in rural areas is likely to require a high degree of negotiation and communication between parties. Whether that happens remains to be seen. Historically, the health care system has tended to focus on one-size-fits-all approaches that are usually very problematic for rural areas. While managed care penetration is increasing in all areas of the country, delivery systems that are appropriate in urban areas may be inappropriate and particularly difficult to implement in rural areas (Slifkin, et al, 1998). The 1997 Balanced Budget Act, which required states to make supplemental payments to FQHCs and RHCs during a five-year transition period, is another important but temporary form of support.

Clearly, it may be too early to see the full effect of managed care on the public health sector. What is known at this point is that the move to managed care will bring some dramatic changes and it is creating some anxiety among public health advocates, state health departments and other interested parties. A recent qualitative survey of State Office of Rural Health Directors specifically investigated the public health capacity and infrastructure in rural areas and confirmed that many policy makers are concerned that managed care may have a negative impact on rural access to public health services (ASTHO, 1999). Most states had not yet established any provisions (either legislative or regulatory) to require Medicaid managed care organizations to contract with local health departments for public health services. The vast majority of states also do not provide direct funding to local health departments in rural areas to compensate for the loss of funding through Medicaid managed care for core public health functions (ASTHO, 1999). Much as federal direction and

subsidies helped shape the current organization of existing delivery systems, it may fall to Federal policy makers to determine the structure and capacity of future public health systems.

Telecommunications

Many rural communities that are most in need of recent advances in the field of telecommunications technology may be least equipped to take advantage of it.

The telecommunications revolution has had significant implications for health care providers as a way to bridge the gap of time, distance, and isolation. Much of the attention to date has focused on the clinical applications under the catch-all term,

“Telemedicine,” with an emphasis on the remote delivery of clinical care. For many public health care providers, however, the term telehealth more effectively encompasses the full range of health care uses for this technology. Many public health advocates are already taking advantage of videoconferencing and regional “continuing Education” activities that support professional development for

isolated staff. This technology has the potential for effectively supporting recruitment and in-house retention of competent personnel in local health departments.

Telehealth can also bring the expertise of essential public health professionals to rural areas on an “as needed basis,” making the use of such specialized knowledge economically feasible for communities whose need for such services may be both sporadic and immediate. Dealing with the outbreak of the Hanta virus and crafting an effective local emergency response to the derailments of trains carrying toxic wastes are just two examples of situations where telehealth can help make a modest infrastructure sufficient. In fact, in the wake of recent concerns regarding the public health implications for biological terrorism, telehealth becomes an essential component of local “first response” capabilities. The ever increasing base of medical knowledge coincident with the increasing global mobility of our population makes the rapid deployment of new clinical guidelines and standards of practice critical both to maintaining the competence of isolated professionals and the safety of the public. Of particular note is CDC’s new bioterrorism budget initiative, which received approximately \$121 million in fiscal year 1999 and has a strong telecommunications component. Some of the grant funds will be used to create Health Alert Networks (HANs) to work towards creating a nationwide system to provide information, electronic linkages, and resources for improving organizational competence and capacity when responding to bioterrorist acts.

Creating an Public Health Information Infrastructure on the Utah Frontier

Until recently, the rural and frontier county health departments of Southern Utah were isolated by more than just distance. With few computers or telecommunications resources, county health officials had no way to take advantage of new communication technologies that would link them to the State health department in Salt Lake City. Now, the Utah State Department of Health is using telecommunications to reach out to its most remote offices in the southern part of the state to create the Utah Public Health Information Network.

The network has put e-mail, document transfer, and Internet access within reach of its most isolated branches. Now, these offices can share and access information such as state immunization records or information on Medicaid eligibility rules and other regulations pending at both the state and federal level. The project also provided training for state health workers so they could take advantage of the new technology. Some offices are also working on developing electronic surveillance tracking.

Rural health departments may have to deal for the first time with malaria and/or resistant TB in recent immigrants while also being prepared for routine immunizations. The ability to share new knowledge and quickly train workers through distance learning may be a critical need for local health departments. Telehealth technology may provide a useful tool for accomplishing this goal by linking local public health workers with the expertise of universities, schools of public health, the state health department and the CDC a smoother diffusion of innovations in practice. For example, telecommunications allowed the fairly easy recent distribution of new federal guidelines on management of Hepatitis C to public health agencies with the capability to participate in such networks of knowledge exchange.

The emerging field of public health informatics is yet another use of this versatile tool. Data transfer is particularly important when trying to understand and manage the health of populations rather than individuals. Telehealth also has the potential for stretching scarce resources. Small rural public health departments that may not have enough resources to hire a full-time epidemiologist can use a telecommunications link to the state health department to get these services on an as-needed basis.

While the potential of telehealth is readily apparent, the reality of applying this technology is still developing. The development of clinical telemedicine systems has been driven by regional medical centers in search of referrals. No such interest has yet materialized to support development of public health networks. In fact, the isolated rural areas that may benefit the most from this technology often lack the infrastructure needed to take advantage of it. Consider these numbers:

- Less than half of the state and local public health agencies have adequate communications and information systems.
- One recent Hawaiian study indicated that although 85% of rural health workers had access to computers, only a small minority (30%) had modems, and even fewer used online resources, or could access the free electronic databases at public and university libraries (Lundeen, Tenopir and Wermager, 1994)

The unreliability or absence of even the most basic communication systems in many remote areas of the country reinforces the notion that stabilizing the public health infrastructure with telecommunications must start at a very basic level. Even seemingly simple tools such as personal computers and modems can dramatically improve public health capabilities at the local level.

A Resource for Public Health

The Public Health Training Network (PHTN) is a distance learning system that takes training to the learner. PHTN uses a variety of instructional media ranging from print-based to videotape and multimedia to meet the training needs of the public health workforce. Since 1993, PHTN has successfully trained over 300,000 public health professionals. Key to its effectiveness is the pivotal role played by 50 State Distance Learning Coordinators who ensure state and local health workers are able to access PHTN programs. For more info: <http://www.cdc.gov/phtn/>.

Public health advocates and policymakers alike see telecommunications as one of the key tools for reinforcing the public health infrastructure. They point to the need to link local public health agencies with state health departments for data collection and evaluation and to provide core public health training to areas. Such links are not without problems, though. There are concerns about costs of this technology. The rapid expansion of technology makes equipment purchasing difficult since much of the off-the-shelf computer equipment for this technology quickly becomes obsolete. Further, the high telecommunication costs of linking rural health departments to urban partners can also be prohibitively expensive. Consequently, some public health departments have relied on state and Federal support to offset some of the fixed costs. Across the country, states have built telecommunication networks that can help support these activities. Federal agencies such as the Health Resources and Services Administration (HRSA), the Centers for Disease Control (CDC), the National Library of Medicine (NLM), the Department of Commerce and the Department of Agriculture have provided millions of dollars in grant funds for telehealth projects that included public health functions.

Improving the Practice of Public Health

The Information Network for Public Health Officials (INPHO) was initiated by CDC in 1992 as part of its strategy to improve information exchange and thus strengthen the public health infrastructure. Twenty one states currently participate in this effort to make public health practice more effective. For more info: <http://www.phppo.cdc.gov/inpho/>

The Office for the Advancement of Telehealth (OAT) in HRSA, which has funded telehealth network projects since 1994, has found that its most successful projects are those that incorporate a range of uses on their network system. This often results in systems that serve a variety of functions from specific clinical applications such as specialty consultations to more public health oriented activities such as distance education and health information sharing.

While the early results are promising, telehealth technology will not be a panacea for the rural public health infrastructure. Rather, most advocates point to it as another tool that can be used to target specific education and information-sharing needs.

Improving Communication

In September, 1997, the American Public Health Association (APHA) held a workshop on "Effective Communication of Public Health Data and Information: Skills for a Changing Public Health Environment." The workshop was a collaborative effort among APHA, the University of Pittsburgh Graduate School of Public Health, the Association of Schools of Public Health and the Pennsylvania Public Health Association, and was supported by APHA's Public Health Innovations Project, a cooperative agreement funded by CDC.

Funding Issues

The fragmented layers of Federal, state and local funding of public health activities creates a confusing financial patchwork. These funding lines often have conflicting guidelines and lack the flexibility to respond to community public health needs

One of the underlying reasons for the current instability across the public health landscape lies with the complex and ever-shifting funding sources for these services. Part of this equation, the impact of managed care, has already been discussed. The other public health funding streams, however, are just as variable since most public health agencies are funded by a patchwork of Federal, state and local sources. Much of the money starts at the Federal level before being sent to the states in the form of large block grants. The Women, Infants and Children (WIC) nutrition program and other USDA nutrition funds account for the largest share of state health departments' budgets while the Maternal and Child Health block grant (Title V) is a distant second. Other federal public health grants include family planning (Title X) and the preventive services block grant (Wall, 1998).

How those dollars break down often depends on how public health is defined and the extent to which it varies state to state. For example, according to Public Health Foundation estimates, in FY 1995, expenditures by state health agencies totaled \$13.2 billion. Of that amount, approximately 66.8% funded direct delivery of medical and related services (e.g. primary care and health promotion). The remaining 33.2% was used as follows:

- 15.8% for environmental health, health resources and regulation, technical and support services, vital records and health statistics (e.g., licensing, inspection, quality assurance, public health engineering, EMS development).
- 12.2% for the operation and regulation of state hospitals, residential facilities, home health and skilled nursing agencies.

Unexpected Cases Cut Deep

The Pamlico (N.C.) County Health Department has treated 28 people for rabies in the past two years and it can ill afford any more.

As state and federal public health block grants have been cut in recent years, there's precious little money left over to handle unforeseen emergencies. But in rural areas like this coastal county of North Carolina, rabies outbreaks do happen and it's the local public health agency that has to handle it. "An average eight-year old child, it costs me \$800 to treat that child," says Jenny Lassiter, the Pamlico County Health Director. "The state Medicaid reimburses me \$400."

During the first rabies outbreak in 1998, Lassiter's agency spent \$7,000 on vaccines and treatment. While two of the 11 people treated qualified for a state indigent care rabies program, the rest were listed as self-pay. So far, the health department has collected \$1,200 of its fees. The local residents in this poor, underserved community don't have the money. And there's little flexibility in either the Federal or state funding to cover these costs. That means Lassiter must pull dollars from somewhere else to cover the shortfall.

"It's coming out of your pocket either way," Lassiter said, "and I do not have a good answer other than the fact that there has got to be some kind of block grant money that has to be established to address local issues and problems."

- 2.7% for operation of public laboratories and services (medical examiner) and regulation of others.
- 2.5% for “general support of local health departments.”

Since federal dollars, usually in the form of block or categorical grants, still make up a substantial portion of most states’ public health budgets (50-85%), these programs are key determinants of the fiscal capacity of the public health infrastructure. Often, those dollars come with strings attached. That means the availability of federal dollars often dictates the activities of state public health agencies. For example, Texas and Colorado support few public health programs that do not draw federal dollars. Likewise, state support of public health dollars differs with each state.

Local funding for public health agencies, particularly rural public health agencies, is often dependent on local tax revenues

This confusing patchwork of existing financial mechanisms often exacerbates the instability and inefficiency of the rural public health infrastructure. One local health director interviewed by the National Advisory Committee on Rural Health for this report indicated that he routinely managed more than eighty distinct funding streams in the course of his annual work. The associated red tape and complexity of these funding streams have prompted some rural public health advocates to favor more streamlined and flexible funding mechanisms. Yet alternatives provided to date have not always exceeded, or even met the achievements of the older, categorical funding streams. Both block and categorical funding mechanisms often lack the flexibility needed to respond appropriately to local emergencies. Health officials frequently describe the frustration of having minimal or no “untargeted” funds to address even well-recognized, or predictable local needs, which do not fall into simple budget categories.

The Association of Schools of Public Health supports the following FY2000 funding recommendations for programs of primary concern to the public health community:

Centers for Disease Control and Prevention

- Prevention Centers: \$30 million
- Prevention Research: \$100 million
- NIOSH Training: \$20 million
- Environmental Research \$8 million
- Injury Control: \$20 million
- NCHS: \$110 million

Health Resources and Services Administration

- Public Health, Preventive Medicine, Dental Public Health: \$ 20 million
- MCH Training: \$ 20 million
- Health Professions: \$316 million
- MCH Block Grant: \$800 million
- HRSA Program Mgmt \$136 million

The devolution of responsibility for social and health services from the federal to the state governments has dominated almost two decades of public policy. In such traditional public health programs as Maternal Child Health, such transfer of power has also been accompanied by the significant growth of block grants and a decrease in traditional categorical funding streams. The Maternal and Child Health Services Block Grant (MCHSBG), passed in 1981, provides direct health services to women, infants, children and youth, and consolidated eight categorical programs into a single, reduced federal block grant to the states.

The Block Grant formula (which considers both number of low income individuals and poor health indicators) theoretically targets resources to needy populations in both rural and urban

areas. But the formulas (last reviewed in 1982) have been outdated for years, and may no longer reflect true demographics.

The devolution of federal power to the states may have had additional negative impacts upon the efficacy of this and other block grants. First, power and funds shifted to state legislatures that may have little institutional memory, particularly for those funds previously administered at the federal level. Second, some state legislatures might be less likely than their federal counterparts to contain strong public health or rural advocates.

Rural populations served by multiple agencies (local, county, state, federal, including tribal and military) create an even more complicated funding picture. In the absence of concerted coordination efforts, some rural populations may be ‘over-served’ and others virtually ignored. Some public health advocates have called on the Federal government to take the lead in rewarding inter-agency collaboration in its distribution of federal funds and providing technical resources to facilitate such essential coordination.

Conclusions

The instability of the rural public health infrastructure presents a daunting challenge for rural health advocates, policymakers, elected officials and public health workers. While much work remains to be done, it is important to understand that there is also an opportunity for positive change. Despite current problems, however, it is worth noting there has been dramatic improvement in public health in the past 100 years. In observance of National Public Health Week 1999, the Centers for Disease Control and Prevention identified “Ten Great Public Health Achievements in the 20th Century,” which are listed below:

- Vaccination
- Motor vehicle safety
- Safer workplaces
- Control of infectious diseases
- Decline in deaths from coronary heart disease and stroke
- Safer and healthier foods
- Healthier mothers and babies
- Family planning
- Fluoridation of drinking water, and
- Recognition of tobacco use as a health hazard

None of these achievements would have been possible without a capable public health infrastructure and several of them have not yet fully reached rural communities. The next set of improvements may prove a more daunting challenge, especially for rural areas.

This report has briefly identified and reviewed six salient threats to the rural public health infrastructure: leadership, workforce preparedness, safety-net provider support, the impact of managed care, telecommunications and funding. It has also tried to identify resources and emerging “best practices” that may be of benefit to rural communities and to identify federal options to help stabilize the rural public health infrastructure. The challenge comes in deciding where the most pressing problems are and what are the best ways to bring about needed change.

Recommendations

At the close of its September 1999 meeting, the Committee sent two public health recommendations to Donna Shalala, the Secretary of the U.S. Department of Health and Human Services. They are listed on the following pages:

NATIONAL ADVISORY COMMITTEE ON RURAL HEALTH
FISCAL YEAR 2000 RECOMMENDATION

Recommendation Title: Improved Coordination of Federal Public Health Activities

Current Law: (Not applicable, falls within the Secretary's authority)

Proposal: The National Advisory Committee urges the Secretary to seek an Executive Order for the creation of a Federal Interagency Public Health Coordination Committee comprised of senior representatives from the various public health agencies and federal departments. The committee would produce an annual report (the first of which would be produced within 12 months of the establishment of the Committee). The Committee would study current efforts by each of the Federal Agencies involved in public health activities overall while evaluating ways to integrate funding streams to benefit rural communities in the areas of leadership development, workforce development, viability of the safety net, impact of managed care, and telecommunications. This committee would include appointed representatives from the Department of Health and Human Services, the Department of Agriculture, the Environmental Protection Agency, the Department of Commerce, the Department of Veteran Affairs, the Department of Labor, the Department of Education, the Department of Housing and Urban Development, the Department of Transportation, the Department of Defense and any other relevant Federal agencies.

Rationale: Currently, public health funding is spread across several Federal agencies with little or no coordination of how these dollars are targeted. The result is a patchwork of Federal programs that leads to confusion and conflicting intents at the State and local level. Creation of a Federal inter-agency coordinating committee could go a long way toward helping improve interaction among these agencies and the subsequent use of these funds at the local level. Ensuring coordination at the Federal level will only serve to improve implementation of public health efforts at the community level. This initiative would prevent parallel and disconnected activities by different agencies and programs while improving evaluation of Federal public health efforts. The further attention to rural public health issues would recognize the fact that the majority of local health departments are small entities located in rural areas.

This committee would build upon the efforts of the Public Health Function Steering Committee within the Department of Health and Human Services. By expanding to all of the cabinet-level agencies, this committee would better ensure coordination of federal public health efforts, particularly as they relate to rural areas. Furthermore, this coordinating committee could serve as a powerful force for change and improvement at crucial time in the evolution of the public health system. Recent changes in the health care system, the impact of managed care and continued devolution of Federal responsibility to the states have created a great deal of uncertainty over the goals and mission of public health activities. This initiative could help provide needed guidance to public health activities and create a framework for

addressing these challenges. Improved coordination of Federal public health activities could help avoid programmatic duplication and improve efforts at strategic planning related to public health. This, in turn, would provide assistance to agencies as they comply with the Government Performance Results Act (GPRA).

Effect on Population: Better coordination of Federal public health activities would improve delivery of public health services nationwide.

Cost: (in millions) To be determined by the Secretary

<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>
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Effective Date: To Be Determined

NATIONAL ADVISORY COMMITTEE ON RURAL HEALTH
FISCAL YEAR 2000 RECOMMENDATION

Recommendation Title: Creation of a Dedicated Funding Stream for Public Health Activities

Current Law: Public Health Service Act (42CFR)

Proposal: The Committee urges the Secretary to support the development of a dedicated funding stream for public health infrastructure activities with assurances that funding is equitably distributed among rural and urban health departments at the local level.

Rationale: One of the underlying reasons for the current instability across the public health landscape lies with the complex and ever-shifting funding sources for these services and the rigid nature of the funding requirements. Since federal dollars, usually in the form of block or categorical grants, still make up a substantial portion of most states' public health budgets (50-85%), these programs are key determinants of the fiscal capacity of the public health infrastructure. Often, those dollars come with strings attached. That means the availability of federal dollars often dictates the activities of state public health agencies and their local health departments. That leaves public health departments with no funding source to help them adapt to the myriad changes now taking place. Public health departments face immediate challenges in a number of areas. The growing influence of managed care has had a significant impact on public health funding and upon the health care safety net. Studies also indicate that less than half of the nation's public health workforce has had training in public health. The expansion of telecommunications technologies holds great promise for use in the field of public health both in sharing data and information but also for increasing training opportunities. Unfortunately, local health departments have been unable to take advantage of these new technologies. These issues and others directly affect the continued viability of public health. Federal categorical and programmatic funding has not kept pace. Public health departments do not have a direct funding line for responding to the changing environment in their respective states and communities. Creation of a dedicated and flexible funding stream for public health would improve quality, stability, and accessibility of public local health resources. Further, ensuring an equitable distribution between rural and urban health departments would ensure that the needed funding gets to the local level.

Effect on Rural Residents: The provision would ensure that a dedicated funding source would be available to address key issues related to the support of the rural public health infrastructure that is not tied to categorical constraints.

Cost: (in millions): To be determined by the Secretary

<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>
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Effective Date: Upon implementation

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