PUBLIC HEALTH INFRASTRUCTURE:
A COMPARISON OF FOUR FRONTIER STATES

Prepared by the

Frontier Education Center
Ojo Sarco, New Mexico

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Executive Summary

The Office of Rural Health Policy requested information from the Frontier Education Center (the Center) about the status of public health programs in frontier communities. The Center is currently developing an Atlas of the Frontier Health Care System which, when completed, will include a look at a number of programs and services, including public health in all states which contain frontier areas.

For the purpose of this interim report, four states with large frontier areas were selected for comparison: Arizona, Idaho, Montana, and New Mexico. Information about the organization and delivery of public health services was requested from public health officials in these states and analyzed.

Findings:

- Public health systems vary greatly from state-to-state.

- The definition of "local" health department varies from state to state and ranges from referring to a single city, a county or large multi-county region within a state.

- Information is limited or unavailable from state, regional, and district public health offices about which programs and services are offered at all sites.

- Low population density and community isolation strongly correlates with a reduction or absence of public health services.

- State and local health agencies that have an active, on-going planning process are most likely to identify the needs and resources specific to their frontier communities.

Recommendations:

- Financial and technical assistance must be provided to conduct needs assessments and planning for the improvement of frontier public health programs.

- A comparison of the remaining frontier states needs to be conducted to create a strong advocacy and policy development voice for frontier public health.

Public Health Infrastructure:
A Comparison of Four Frontier States

Background

One of the most urgent issues for public health policy today is meeting the challenge of providing health services in frontier communities. Spread across more than fifty percent of the land area of the United States, fewer than nine million people live in the frontier. Frontier residents account for less than four percent of the U.S. population and live in the most remote and isolated areas of the nation.

The combination of sparse population and geographic isolation creates a unique set of challenges and barriers very different from those found in urban or even rural communities. The planning and delivery of public health services in frontier communities is further complicated by poor roads, seasonally hazardous driving conditions, and population fluctuations caused by both tourism and land use dependent on natural resources.

Variables which impact frontier health services delivery include:

- The type of frontier community – economic and social variable.
- The delineation of the service area – size and adjacency issues.
- The ability to develop an optimal infrastructure to meet the needs of the area.
- The presence or absence of planning activities and adequate financing necessary to ensure access to care.

Lack of Comparable Information Among States

The design of public health infrastructure and service delivery varies greatly from state to state, as do the structural relationships between state and local health agencies. Data describing the current situation is limited. This makes comparison among states difficult. Four states, Arizona, Idaho, Montana, and New Mexico were selected for analysis in this report. Each of these states contains large areas defined as

frontier; Arizona is 42% frontier, Idaho is 62% frontier, Montana is 81% frontier, and New Mexico is 52% frontier.[1]

Models and Concepts for Describing Public Health Systems

The Centers for Disease Control and Prevention (CDC) uses four categories to describe the types of relationships between local and state health departments; centralized, decentralized, mixed, and shared.

New Mexico has a centralized system - local health offices are operated by and are under the authority of the New Mexico Department of Health. Arizona, Idaho, and Montana have decentralized systems - local governments have direct authority over local health agencies. Mixed systems, found in Texas and California, provide services through a combination of the state agency, local governments, boards of health, and/or health departments. In shared systems, for example, Colorado, the state agency, local government, and local board of health all share authority.[2] While these categories are useful for making broad comparisons, significant variations were found within each category.

Variability in the definition of "local" by different agencies further complicates comparison. The National Association of County and City Health Officials (NACCHO) in its report, *National Profile of Local Health Departments (1992-1993),* defines a local health department as "an administrative or service unit of local or state government, concerned with health, and carrying some responsibility for the health of a jurisdiction smaller than a state." In one state, "local" may be defined as a county health office; in another, it may be a large regional district health center.

This report compares the four selected states by three categories: 1.) organization and administration, 2.) public health programs and services, and 3.) financing.

1. Organization and Administration of Public Health

Arizona

Arizona organizes public health programs through the counties. The Department of Health Services operates an Office of Local and Minority Health, which serves as a liaison to the county health departments. The state provides administration, contracts and consultation to the county health departments. Federal programs are often passed through the state to the counties.

Each of the 15 counties in the state has a county health department that operates at least one health office. Several counties operate one or more satellite offices around the county. County health departments operate independently of the State, and report to Boards of Health. All county health departments have a County Health Officer, Environmental Health Director, a Director of Nursing, and a Nutrition Director.

Idaho

Public health in Idaho is organized as a decentralized system. Services in Idaho's 44 counties are provided through seven multi-county public health districts. Each district has a central office; 42 of the 44 counties also have satellite offices. These districts were established in 1970 by the state legislature to assure that public health services are available to all citizens throughout the state. The Districts operate and are recognized not as state agencies or departments, but as independent entities authorized by the state as single purpose districts. State officials believe that the unique needs of each district are best served through this decentralized organization of public health services.

District Health Departments in Idaho are governed by a Board of Health composed of seven to eight members appointed by the county commissioners from that District. The Board members serve staggered five-year terms. Each Board of Health appoints a Director to administer and manage the day-to-day activities of the District. Although each District functions independently, they are all connected

under the umbrella of the Idaho Conference of Public Health Districts.

Montana
Montana also has a decentralized system. This decentralized public health system in Montana is operated by either county, city-county, or multi-county district agencies that are administratively independent of state government. More sparsely populated counties are often organized into multi-county districts; most counties containing a municipality have city-county districts. Each district has it own Board of Health. Liaison between the state's 51 local agencies and the State Department of Public Health and Human Services (DPHHS) is facilitated by the DPHHS's Community Health Development Section within the Health Policy and Services Division. In addition to working with the DPHHS, district public health agencies work in collaboration with the State Department of Environmental Quality.

New Mexico
The State of New Mexico has a large Department of Health, including a Public Health Division that operates four large health service districts for 33 counties. Unlike most other states, New Mexico has a separate Environment Department although the Department of Health has retained some traditional population-based environmental health functions. Other public health functions (i.e. behavioral health and community health/primary care) are carried out within the Department of Health by separate divisions outside of the Public Health Division.

All counties have at least one Public Health Office, although many have ore than one. Most counties provide no direct funding, and have no jurisdiction over the office. State statute requires counties to provide only a facility, utilities, and insurance for the facility. Each of New Mexico's four Public Health Districts has a District Director, as well as a Director of Nursing Services.

2. Public Health Programs and Services

In all states, local public health services are organized around categorical federal funding. The availability of data about specific services available at local sites within states varies greatly from state to state. For example, in Idaho (a decentralized model), public health services are available uniformly at all district and satellite offices. In Arizona, also a decentralized model, services vary dramatically from one county health office to the other. Comparison is difficult because a "local" site may be, for example, a large regional health district office for which data is available (Idaho), or, alternately, the small satellite of a county health department where data is not available (Arizona). In all states, very specific information, such as the days and times when WIC services are provided at a satellite clinic is available only by contacting the site.

Arizona
Services vary dramatically from county to county. A broad range of services is provided through 50 different programs, and some or all of these are available from the 15 County Health Departments. In some counties all 50 programs are available, in others, only a few. Each individual County Health Department in conjunction with their Board of Health decides which services to provide. Population of a county, along with issues around recruitment and retention of qualified personnel to administer and staff programs impact the number and type of services available in a county.

Idaho
Health Districts provide services to a broad range of clients through multiple programs. The main emphasis is on environmental health (food quality, solid waste, septic systems, swimming pools, and public water systems) and physical health (immunizations, diabetes programs, injury prevention, risk reduction, WIC, family planning, children's health, communicable disease prevention and control, AIDS education and prevention, STD prevention and treatment, and TB control). All services are available at all offices. One exception is family planning services. These services require a nurse and are not available at every site, every day, but rather only those times when a nurse is at the satellite.

Montana
The ability of local health districts in Montana to provide public health to a very small and extremely dispersed population is varied. An inventory of services and programs at local health offices is not yet available, but the need for such an inventory has been identified as a priority in the State's recently completed Public Health Improvement Plan. However, the Committee for the Improvement of Public Health in Montana conducted a survey of local public health agencies in 1995, and found that most agencies had the ability to perform fewer than half of six core public health functions and services. Those agencies with the least resources had little or no ability to perform any of them.

These six core functions of public health in Montana are defined as:

- Assessment of health status, trends, risks, and resources.
- Health promotion.
- Protection from health risks.
- Assurance of health service availability and quality.
- Policy development.
- Leadership, technical expertise, and administration.[3]

New Mexico
New Mexico has a centralized system, where employees from the state Department of Health operate both district and local health offices. New Mexico was the only state which, despite numerous telephone calls (by two individuals working on this report), was unable to provide information to assist in the development of this report. Neither the state Department of Health nor district health offices was able to provide information on specific services and programs available at a district level, let alone in the local health offices.

3. Financing

Arizona
County Health Departments derive their funding from a combination of federal, state, and local funding, the mix of which varies from county to county. Although County Health Departments operate independent of the state, the State Health Department does have data on the expenditures of each of the 15 counties.

Idaho
Public Health Districts in Idaho are funded through a partnership approach and, on average, receive 14% of their funding from the counties, 19% from state general funds appropriations, 38% from federal, state and private contracts, and 29% from fees, donations, and receipts from client services. State officials believe that the joint funding from the county property tax and state general funds creates a partnership to benefit all citizens.

Montana
Public health in Montana is funded by a combination of local, State and Federal funding. While some local agencies have responded to reduced state funding and reduced flexibility in Federal funding by increasing local public health funds, most have been forced to cut back services. Service and support activities provided by the State are organized around Federal funding categories, and the integration of these activities into local public health services varies greatly throughout the State. In many instances, the local public health agency does not have the personnel or resources necessary to participate in state activities or services, even those which directly support local public health programs.

New Mexico
Attempts to obtain information for this report from New Mexico's Division of Public Health regarding funding and services were unsuccessful.

Conclusions

This report demonstrates that there is a great need for further data and analysis in order to provide a clear picture of the status of public health in frontier communities. This lack of information is a critical barrier to the development of public health policy, programming, and financing on a national level. However, based on information gathered for this report, the following observations and conclusions can be made:

- States that have a dedicated office or staff person who provides a liaison function between the state and local health agencies have more information about programs and services.
- State and local health agencies that have an ongoing and active planning process are more likely to have identified needs and resources specific to the frontier communities in the state.
- Public health services delivery systems vary greatly even in states that share similar models of organization.
- Information is needed about the structure, programs, and services available at the local level, the site where an individual actually receives public health services.
- State and Federal categorical funding priorities too often determine which programs and services are provided, rather than specific public health needs and priorities identified within a given community.
- Low population density and community isolation strongly correlate with diminished or even non-existent, public health services.
- Local funding accounts for only a small portion of public health financing. Local agencies often must direct limited resources to address the most severe or immediate public health needs. This often leaves important public health needs of a community unmet.
- Local offices often to not have adequate staff to secure funding, to deliver services, or even to provide information and data about the programs and services that are, or are not, available.

Recommendations

The federal government should play a greater role in guaranteeing that public health services – at a minimum – are available in frontier communities. Several actions are needed which will result in a strengthening of the frontier public health system. It is critical to bear in mind that in many frontier communities, public health services are the only health services available.

- Financial and technical assistance must be provided to conduct needs assessments and planning for the improvement of frontier public health programs.
- A comparison of the remaining frontier states needs to be conducted to create a strong advocacy and policy development voice for frontier public health.

Key Features of Public Health Infrastructure and Organization in Four Frontier States

	State-Local Relationship	Entity Defined as "Local"	Data Available on Local Services	Jurisdiction of Board of Health	Public Health Planning Process In Place	County Health Profiles
Arizona	Decentralized	15 County Health Deparments with satellite offices in select counties	Yes	County Boards of Health	• Healthy People 2010 • Turning Point	Yes
Idaho	Decentralized	7 Public Health District Offices in 42 of 44 counties	Yes	District Boards of Health	• Id's 7 Public Health Districts' Strategic Plan • Turning Point	Yes
Montana	Decentralized	51 County, City-County and Multi-County District Agencies	No	District Boards of Health	• MT Health Agenda • The MT Public Health Improvement Plan • Turning Point • MT Healthy Communities	Yes
New Mexico	Centralized	4 Public Health Districts w/ one or more offices in each of the 33 counties	No	No Board of Health	• Turning Point	Yes

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[1] While this report uses the 'Consensus Model' developed by the Frontier Education Center, the percentages used in this example uses ≤ 6 persons per square mile. National Rural Health Association (1994). Health Care in Frontier America: A Time For Change. Rockville, MD: Office of Rural Health Policy.

[2] Frazer, M. (1998, December). State and Local Health Department Structures. Transformations in Public Health, 1(4) 1-2.

[3] These core public health functions were identified in 1994 during a conference of Montana State and local public health officials, *The Role of Public Health in Health Care Reform.*