

**Local Public Health
at the Crossroads:
The Structure of Health
Departments in Rural Areas**

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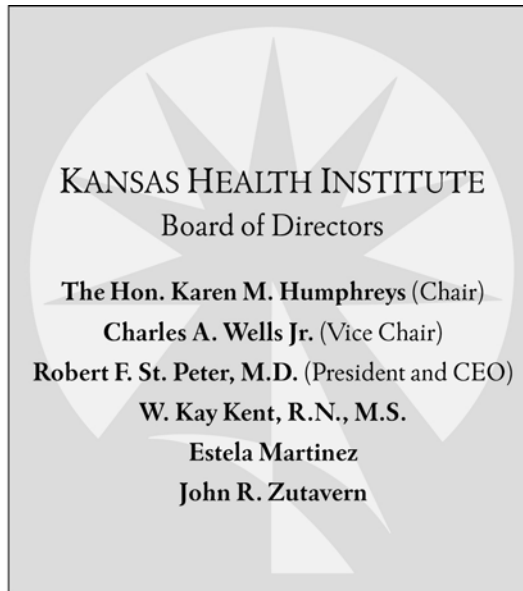
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EXECUTIVE SUMMARY

Roughly one-half of all local public health departments in the United States are both small and rural. Sixty percent of local health departments that responded to a survey in 2000 said they were located in a non-metropolitan area, the designation for “rural” developed by the Office of Management and Budget and used for policy purposes by agencies such as the Center for Medicare and Medicaid Services.¹ Forty-eight percent of local public health departments were categorized as “rural” in 2002 using a more refined definition, Rural-Urban Commuting Area Codes.² One-half of local health departments responding to the 2000 survey served populations of fewer than 25,000 people, and 69 percent served populations of fewer than 50,000 people.

The Centers for Disease Control and Prevention reported in 2001 that significant disparities exist between urban and rural areas in regard to risk factors and health outcomes, with rural areas performing less well than urban areas.³ Some rural areas face additional environmental health challenges from such sources as agriculture-related pollution and unsafe mining and logging practices. Although wide variations in local public health structures exist across the country, problems of infrastructure development are especially pronounced in many rural areas, where access to human and material resources is hampered by low population and isolation. As a consequence, many local health departments in rural areas are called upon to do more to protect the health of the people they serve, relative to urban health departments, but with substantially fewer assets.

THE STUDY

With funding from the Health Resources and Services Administration’s (HRSA) Office of Rural Health Policy, we studied the structure of local health departments in rural areas. We conducted site visits to six geographically disparate states (Arizona, Georgia, Kansas, Louisiana, Pennsylvania, and Washington) and 12 rural counties within the states to obtain qualitative information about the structure of local health departments in rural areas. The local health department is but one piece of the public health puzzle and, depending on the state in which the department is located, local risk factors, and the community infrastructure available to support public health, the importance of a local health department to the final picture fluctuates greatly. The site visits conducted for the study provided an opportunity to examine a number of local

public health systems and to make some observations and recommendations about the state of public health structure in rural areas.

OBSERVATIONS

Although the information obtained during the visits is not generalizable to all rural health departments, we believe that certain themes appeared with such regularity that it is worth bringing them to the attention of policymakers.

- **The structure of local public health departments in rural areas is extremely diverse.** The structure of local public health departments varies according to the prescriptions of state law, the services provided locally by state agencies, the health risk factors of the community, and the community infrastructure able to support public health activities. Consequently, focusing on *the community*, rather than health department, may be a more fitting unit of analysis for evaluation and research: What public health services are available to the community? How are those services provided? What services are needed and not available?
- **Local public health governing boards in rural areas are largely ineffective.** Only 25 percent of the local health departments we visited were governed by a local board of health. The rest were governed by county commissioners or had no local governance. While county commissioners may be broadly representative of the community, the governance decisions they make use decision rules that may be contrary to the population's health. Boards of health, on the other hand, may be easily co-opted by local health department administrators and physician health officers. There was little opportunity for broad-based public input into public health governance under any of the governance schemes we saw during our site visits.
- **Rural public health services areas based on existing administrative boundaries may not promote the development of sound public health infrastructure.** Some states have organized public health service delivery into regions or districts to partially address the problem of insufficient public health capacity in rural areas. In these arrangements, local health departments share the resources of state health agencies and rely on regional partners across local jurisdictions. None of the sites we visited had developed public health regions independently of state government, despite the favorable experience of hospitals, physicians, and other providers in rural areas in overcoming some of their environmental weaknesses through greater voluntary collaboration.
- **Inadequate investment in public health system development has taken place at all levels of government.** Among the primary reasons why most rural communities have not formed a local public health system are the lack of leadership and an organizational home for collaborative efforts. Grants often serve as a catalyst for both leadership and agency development. The various components of a public health system exist in most rural

communities, but they lack coordination among the parts and intentionality, a purpose or goal that frames the coordinated action.

POLICY RECOMMENDATIONS

- **The federal government should define “local public health agency.”** Local variation among public health agencies is desirable, but organizational variation can also impede public policies that seek to integrate health and social services. From a policy perspective it is necessary to have uniform expectations of local health departments from community to community. This does not mean that they all have to look alike and that there is no room for variation. Institutional providers of services to Medicare patients, for example, have to meet conditions of participation to receive payments. The conditions of participation for hospitals are so elastic that they can be stretched to cover a 1,200-bed university medical center or the smallest rural hospital. The conditions of participation create a common definition of a hospital with basic structural features that are recognized across the country. Following the example of Medicare, the federal government could require local health departments to comply with a common definition of local health departments as a condition for receiving grant money.
- **Institute governmental incentives to restructure the delivery of local public health services in rural areas to enhance the availability of technical resources to local health departments and to promote broad-based community governance.** One way to enhance the availability of technical resources made available to local health departments is through regionalization. Regionalization can be accomplished from the top down, by state government dividing the state into administrative regions and providing services to counties from a decentralized hub. Alternatively, local health departments can be encouraged to develop networks in which they share needed resources across counties. Regardless of the method for better obtaining technical resources, it is important for rural communities to develop (or maintain) a source of efficient, broad-based community governance of public health.
- **Invest in rural public health systems development at the local level.** It is clear that the local public health department alone cannot, and should not, be solely responsible for improving the health of the community. To date, the federal government and most state governments have not invested in programs to create public health systems that include all community partners. Creation and maintenance of these systems are relatively low cost. Communities, individuals, employers, and government at all levels will reap the benefits of these investments for years to come.

¹ National Association of County and City Health Officials. (2001). *Local Public Health Department Infrastructure: A Chartbook*. Washington, D.C.

² National Rural Health Association. (2004). *NRHA Policy Statement: Rural Public Health*. Kansas City, MO.

³ Centers for Disease Control and Prevention. (2001). *Health, United States 2001, With Rural Urban Health Chartbook*. Hyattsville, MD.

LOCAL PUBLIC HEALTH AT THE CROSSROADS: THE STRUCTURE OF HEALTH DEPARTMENTS IN RURAL AREAS

In 2001, the Centers for Disease Control and Prevention released an *Urban Rural Health Chartbook* as part of its annual report on the health status of the nation. For the first time on a national basis, the report described differences in population characteristics, health risk factors, and access to health care services across levels of urbanization. Generally speaking, rural counties and central city counties in metropolitan areas of one million or more residents had greater risk factors and poorer access to services than their counterparts in counties in large metropolitan areas that border the central city and counties in small (less than one million population) metropolitan areas. Many factors are likely responsible for these differences including demographic, economic, environmental, and social characteristics of the counties. The number of children in families, the proportion of elderly (and the probability that they will live alone), economic resources, health-related behaviors, environmental and occupational exposures, and the availability and use of health services all vary with urbanization.¹ These determinants of health contribute to poorer health status for residents of rural and large central city counties.

Local public health departments are charged with the duty of improving the health of their communities. Public health services in the United States began in large central cities to combat infectious diseases, and their structures are long established, highly visible, and well documented. On the contrary, little is known about the structure of rural public health departments.² This gap in knowledge is noteworthy because approximately one-half of all local public health departments in the United States are both small and rural.

Sixty percent of local health departments that responded to a survey in 2000 said they were located in a non-metropolitan area, the designation for “rural” developed by the Office of Management and Budget and used for policy purposes by agencies such as the Center for Medicare and Medicaid Services.³ (Forty-eight percent of local public health departments were categorized as “rural” in 2002 using a more refined definition, Rural-Urban Commuting Area Codes.²) One-half of local health departments responding to the 2000 survey served populations of fewer than 25,000 people, and 69 percent served populations of fewer than 50,000 people.³

Although wide variations in local public health structure exist across the country, problems of infrastructure development are especially pronounced in many rural areas, where access to human and material resources is hampered by low population and isolation. As a consequence, many local health departments in rural areas are called upon to do more to protect the health of the people they serve, relative to urban health departments, but with substantially fewer assets. The purpose of this study, funded by the Health Resources and Services Administration's Office of Rural Health Policy, is to begin to explore the structure of rural public health departments as one step along the path to improving their performance.

STUDY: LOCAL PUBLIC HEALTH DEPARTMENT STRUCTURE

The chief aim of the study was to explore whether structural elements of local public health departments (e.g., financing and staffing) were similar enough across the country to allow a survey of organizational structure in rural areas to be conducted. If so, structural variables would then be modeled against various community health outcomes to determine whether certain local public health structures were predictive of desirable health outcomes.

To judge whether local health departments had enough similar structures to warrant a subsequent survey, we conducted site visits to 12 local health departments in six geographically diverse states: Pennsylvania, Georgia, Kansas, Louisiana, Washington, and Arizona. The selection of states stressed geographic diversity and the range of state-local health relations.* Within each state, two counties that differed substantially from one another in terms of demographics, economic development, and geography were selected for site visits. The site visits counties were La Paz and Mohave counties, Arizona; Laurens and Telfair counties,

* Four types of state-local public health department relationships have been identified:

- **Centralized system:** The local health department is operated by the state health agency or state board of health.
- **Decentralized system:** Local governments have direct authority over the local health department, with or without a local board of health.
- **Mixed system:** Local health services are provided by a combination of the state agency, local government, boards of health, or health departments in other jurisdictions.
- **Shared system:** The local health department is operated under the shared authority of the state health agency, local government, and a board of health (Fraser, 1998).⁴

We combined mixed and shared system and selected states representing one centralized (Louisiana), two decentralized (Kansas and Washington), and three shared/mixed models (Arizona, Georgia, and Pennsylvania). This distribution approximates the distribution of state-local public health department relationships types found across the country.

Georgia; Crawford and Gove counties, Kansas; La Salle and Vermillion parishes, Louisiana; and Grays Harbor and Kittitas counties, Washington. All of the counties were considered non-metropolitan counties (i.e., rural) prior to the Office of Management and Budget adoption of standards defining Micropolitan Statistical Areas (December 27, 2000). Under those standards, Adams, Crawford, Grays Harbor, Kittitas, Laurens, and Mohave counties are considered Micropolitan Areas because the county has an “urban cluster” with a population of at least 10,000 but less than 50,000.

In each state, we interviewed state department of health personnel responsible for state–local health relations; local health department personnel; governing board members in two counties; and the hospital administrator of the largest hospital in each of the counties visited. The remainder of this report highlights observations resulting from the visits and suggests recommendations for improving the delivery of public health services in rural areas. A complete copy of the report including methods, findings, and case studies is available upon request.

OBSERVATIONS FROM THE CASE STUDIES

The most obvious finding from the study is that considerable variation exists among local public health departments both within states and across states. They vary along every dimension of structure we examined: size (geographic area and population served), governance, funding, facilities, staffing, services, system development, planning, and evaluation. One primary determinant of variation is the state–local relationship. In states where the public health relationship between the state department of health and the local health department is centralized, shared, or mixed, there is often a regional or district office interposed between the two levels. The regional or district office typically has jurisdiction over a number of counties and is staffed by a physician, who serves as the medical director or health officer for each of the counties, and a cadre of topical nurse specialists who consult with county-level nurses or provide services directly. These regional or district staff members, in turn, communicate local needs and challenges to the state health agency.

Local health departments operating under this condition typically have smaller staffs, but they also have more timely access to greater resources through the regional office than public

health departments serving similar sized populations and operating more autonomously. While specific public health subject expertise is greater under this model, it is not uncommon for the nuances of community context to be lost on regional office staff. One would expect local nurse supervisors to provide the proper context, but due to small staff size, the local nurse supervisor, who is often a home-grown first-among-equals, has little unclaimed time available to serve as the community specialist. Local public health departments operating under regional direction may also offer a smaller array of services than independent departments. This is because the state department of health (or state law) determines the set of services that will be delivered at the local level, and there may not be an opportunity for local variation or a means of financing local choices. To arrive at a statewide set of services to be implemented locally, state departments of health select those that are needed by all populations. This lowest-common-denominator approach to health planning necessarily narrows the scope of services offered.

In states where public health services are decentralized, local health departments typically have fewer expert resources, but somewhat larger staffs relative to their population, than local health departments that report to regional or district offices. Decentralized local public health departments usually have a public health manager, who may or may not be a registered nurse and who devotes most of her or his time to administration. These health departments typically have a contractual relationship with a physician in private practice in the community. The engagement of the physician in the activities of the local public health department varies widely, but in most communities in which the model is employed, the contract physician serves as a conduit from the department to both the medical community and the local hospital. Decentralized local health departments usually offer a wider array of services than departments supervised by regional offices. Many of the services provided by regionally controlled local health departments are funded by the state pass-through of federal categorical grants. These grants are virtually identical from state to state (e.g., WIC, tobacco cessation, bioterrorism preparedness). Therefore, decentralized local health departments have access to the same programs and sources of funding as regionally controlled departments. In addition, because they are locally controlled and, in part, locally financed, the decentralized departments can also offer other services needed by the community. Because decentralized local health departments are more dependent on the good will of the community for legitimacy and resources, they are more aggressive in pursuing alternative

sources of income—such as government and private foundation grants—to fulfill identified health needs.

The regionally controlled departments tend to have dense business documentation systems — policies, procedures, forms, and so on—to aid in organizational and clinical decision making. These business documentation systems do not vary from site to site, but are used uniformly across the entire state, subject to the state department of health’s control. Decentralized local health departments are less adept at documenting policies and procedures, relying instead on custom and an apprentice-like form of staff orientation and training. Those that have documented their business and clinical systems are of widely varying quality, dependent both upon the clinical expertise of the writer and the technical writing ability of the clinician. As local health departments more frequently become subject to internally and externally imposed standards, accreditation, and licensing, the need for business documentation among decentralized health departments will grow. Smaller and weaker independent local health departments will likely have the greatest problem meeting national performance standards. These local health departments might find it difficult to remedy documented deficiencies, given their limited financial and human resources.

Clearly, both organizational types of state–local relations have something to offer the people they serve. From a purely organizational standpoint, it seems possible to combine the benefits of regionalization—access to specialists and improved business documentation—with the benefits of decentralized departments—local control and programmatic variation. However, in our limited survey of health departments that report to a regional office, we found no examples of organizational models that offer the local health departments substantial autonomy within a regional framework. We found only the most tentative examples of voluntary regionalization among decentralized health departments. The failure to date to search for a middle way between prescriptive regionalization and unassisted autonomy of local health departments in rural areas appears to be a missed opportunity.

One commonality that spans the local public health departments studied is the longevity of staff. There is very little turnover among the staffs of the departments we visited. This is

desirable according to several department directors we interviewed because of the difficulty of recruiting qualified staff to fill vacancies. As a group, the staffs appear to be loyal to their communities and departments and dedicated to the practice of public health as they understand it. Registered nurses employed by local health departments typically earn less than nurses employed at the local hospital. Health department nurses, unlike hospital nurses, work only Monday through Friday and only on the day shift.

While model type is a key determinant of structural variation, there is also considerable variation within the four types. Interested readers are urged to consult the findings and case studies in the appendices. In the next sections, we will discuss specific elements of structure from the perspective of our case study findings.

Population Served

While all 12 of the local public health departments studied served only one county, the populations of the counties and the geographic size of the counties varied considerably. The largest county geographically, Mojave County, Arizona, also had the largest population, 171,367 people. A population of that size in an average-sized county would surely push it to the metropolitan side of the ledger, but Mojave County has a population density of only 12.9 persons per square mile. Gove County, Kansas, has the smallest population of any of the sites visited. Its population is 2,910; it has a population density of 2.7 persons per square mile. Gove County (1,072 square miles) is more than twice the size of Adams County, Pennsylvania (520 square miles), the county with the greatest population density in our study, 185.5 persons per square mile. The geographic size of a county, the population, and its density all affect other aspects of public health department structure.

At least one-third of the counties we visited had unstable populations that swell and decline over periods of time as short as a weekend and as long as one or two seasons. La Paz County, Arizona, is the most extreme example from the study sites, but other sites could also illustrate the point. La Paz County has fewer than 20,000 permanent residents, but during a three-month period each year, two million additional people pass through the county to attend one or more of eight international gem and mineral shows. At any time from January through March, the largest

community in the county is the virtual city of recreational vehicles and tents that dot the desert floor outside of Quartzite, Arizona, the home of the gem shows. The local public health department provides population-based services not only to the permanent residents of the county, but also to the highly mobile visitors to the county by inspecting each of a battalion of itinerant food vendors who set up shop to feed the temporary residents, and by offering flu vaccines to high-risk elderly visitors from northern climes who are away from their medical homes. Standard population estimates, as reported by the Census Bureau, may not tell the full story relevant to public health in rural counties that are popular tourism and recreational destinations.

With limited success, we attempted to minimize the variation in population among the study counties by expressing population in terms of the number of people served per public health department full-time equivalent employee. Because some of the services in shared, mixed, and centralized local jurisdictions are provided by regional office staff, state health department staff, and other non-health state agency staff, and because no methods exist for allocating the effort expended in providing these shared services to the local health departments, the population-to-staff ratios of shared, mixed, and centralized local health departments are much larger than those of decentralized local health departments. Consequently, comparisons were not useful.

Facilities

Most of the local health departments studied were located in facilities provided by county government. Although the square footage of the sites varied, the space provided was reported to be adequate in all of the departments but one. Space in the health departments studied was used similarly, divided into waiting areas, examination rooms, offices, conference areas, bathrooms, and space for record and supply storage. Most health departments did not have laboratories. Difficulty complying with Clinical Laboratory Improvement Act regulations was cited as a primary reason. Departments that provided a greater number of primary care services, such as the health departments in Georgia, had more examination rooms than ones that did not. Some of the departments had access to county-owned auditoriums or larger meeting halls where group meetings could take place.

Almost all of the health departments visited provided services at other locations, such as senior centers, schools, shopping malls, and county office buildings, but few had permanent satellite facilities or mobile facilities. Departments that used mobile facilities tended to share them with another entity, such as a private provider or a health department in another county. Clinical staff and health promotion staff typically occupied different areas of the department. In departments where additional space was needed, health promotion, disaster preparedness, and environmental health staff were spun off to additional rented space. Clinical services and administration remained in the space designated and advertised by signage as the county health department.

Governance

Governance of local public health departments often falls to the primary elected governmental entity in the county, a board typically composed of three individuals. When county boards provide the governance for local health departments, they normally do so at regular county board meetings where the business of public health is but one agenda item. Although the public health department administrator, and often the contracted medical director, attend county board meetings and make reports to the board members, public health issues do not consume large portions of the agenda. County board members tend to take a more active role in public health when a constituent makes a complaint; when a regulatory action by the health department threatens the normal business activity of a local firm; when an event causes the health department to spend money beyond the annual budget allocation; and when the public's health is susceptible to some clear and present danger. Otherwise, interest in public health is simply a matter of county finances as epitomized by budget preparation. During budget preparation, health department administrators often come before the county board to explain their programs and justify their expenses.

The second most common form of governance among the 12 counties we visited was governance by a board of health. In Georgia, state law prescribes the composition of a seven-member board of health that is broadly representative of various interests in the county. Washington, the only other state we visited that permitted governance of county health departments by local boards of health, allowed two options. Either the county commissioners can

choose to sit as a board of health or the commissioners can elect to augment their numbers by selecting two community members. In the first case, county commissioners often gavel themselves out of commission meetings and into board of health meetings to conduct health department business. This practice is virtually indistinguishable from merely conducting public health business as a regular county commission meeting agenda item. Some county commissioners in Washington, however, take their board of health responsibilities more seriously and meet as a board of health separate from the time of county commission meetings. Those county commissions *cum* boards of health that feature expanded membership almost always meet independently of other county government business.

One-third of the counties we visited had no local governance. Governance was provided by the state and administered by regional or district offices. Under such an organizational arrangement, one might expect there to be an active local advisory committee showering the local department and the regional or district office with recommendations for improving community health. That expectation was not fulfilled: None of the counties in our study that lacked local governance sought community input through the vehicle of local public health advisory committees. The failure to do so is a lost opportunity. A local advisory committee might be the fulcrum by which community members are induced to begin to form a true public health system within a community.

Budget and Finance

Sources of local health department financing did not vary greatly among the 12 sites we visited. All received funding from state government. Typically, the funding came in two forms. One form was a grant or a contract to fulfill certain public health obligations of the state. The extent to which state obligations were passed to local jurisdictions varies from state to state. The other form of state funding was support for categorical programs, such as tobacco cessation, WIC, and bioterrorism preparedness. Technically, these are not state monies at all, but federal funds that are passed through the state to the local departments. Unless local health departments apply for and are awarded competitive grants by federal agencies such as the CDC or HRSA, most do not receive federal funding directly.

Counties also provide funding to local health departments. In some cases, county governments are expected to make up the cost difference between the state's contribution and the full cost of providing prescribed services. In other cases, county government enlarges the scope of services and pays for them—wholly or in part—out of county revenues. Examples of program expansions might be care to indigents or county prisoners, or both, and non-emergency medical transportation. Some services provided to individual patients are provided on a fee-for-service basis. Fees for primary care health services, vital records, and environmental health inspections are a source of funding for these services. The degree to which local health departments rely on fee income depends on numerous variables, including the range of services offered, alternative methods in the community for obtaining the services, and the ability of the clientele to pay for the services.

The final source of income for local health departments is money from donations, gifts, and grants. Decentralized local health departments are more aggressive than ones controlled by regional offices in seeking donations, gifts, and grants from private and public grant-making organizations. As suggested previously, decentralized health departments are more attuned to the needs of their communities and feel more accountable to them than do health departments that are not decentralized. Because many of the additional services that decentralized health departments make available to the community are not fee-based (even if they are individual health services), the departments must seek alternative funding to operate them. Grant funds are a way of planning for and establishing new programs, but few grant funders will make awards to sustain routine operations. This is where corporate and individual giving comes into play. Although some of the health departments we profiled accepted gifts and donations (both property and cash), none had an active fund-raising program.

Organizational Structure and Personnel

Most of the organizational structures of local health departments are relatively flat, as befits their size. In most, an administrator has two or three subordinates reporting directly to him or her. As mentioned previously, clinical services and disease prevention services often are separate. This organizational feature divides individual health care services from population health care services. Immunizations, sexually transmitted diseases and HIV/AIDS clinics,

tuberculosis services, and the like fall on the clinical side of the organization. Personnel engaged in disease surveillance and investigation, health promotion, and assessment and planning activities report to the person in charge of population-based services. Local health departments with an environmental health component usually organize it as a separate division within the department with a division supervisor who reports directly to the health department administrator. Although environmental health is a cornerstone of public health, environmental health staff rarely report to the person responsible for other population health activities. New functions that are externally imposed upon local health departments, such as bioterrorism coordination, sometimes have a difficult time finding an organizational home. In our site visits, we saw that the person hired for bioterrorism planning and coordination was often appended to an existing organizational chart as a division unto himself or herself or in a staff relationship to the department administrator. Rarely was the bioterrorism function assigned to an existing division of the organization.

Organizational relations with regional or district offices are more complex. In regional offices headed by employed physicians, the physician is often the titular head of all of the local health departments within his or her jurisdiction. In regional offices not headed by a physician, a nurse supervisor may assume executive responsibility for a number of health departments within the region but typically not clinical responsibility. Under both organizational patterns, local public health staff draws directly on the consulting staff of the regional office without seeking authorization from either the nursing supervisor or the regional administrator. Rather, cross-organizational linkages exist among employees at lower levels of both organizations, who seek each other out to better perform their jobs.

Regardless of the state-local health department relationship, state departments of health provide information and educational opportunities to local departments to a major degree. All of the local health departments we visited allow their employees to attend state-sponsored education programs and compensate them for travel expenses. Most local health departments also provide reimbursement for continuing education seminars, workshops, and college classes. Because of the expense of travel, many restrict attendance to in-state programs.

State associations of local health departments provide an ongoing forum for problem-solving and sharing of best practices among local departments. Nevertheless, three of the six states we visited did not have a state association of local health departments. Membership in national public health organizations by local health department administrators was unusual.

Overall, comparison of staff levels across local health departments suffers from the inability to allocate regional office and state level efforts that directly benefit the community to the local health department. Failure to recognize the contribution of these public health workers to the health of county residents overstates the role of county health departments and understates the resources employed to do the job. Matching effort with departmental outcomes is a major problem facing researchers who want to survey the structural characteristics of local health departments.

Services

Basic services provided in almost all local health departments include immunizations, tuberculosis and sexually transmitted disease diagnosis and treatment, HIV-AIDS testing, counseling, and education. Many departments also offer traditional public health services such as infectious disease surveillance, and environmental health services including rabies control and restaurant, septic tank, swimming pool, and well-water inspections. Some departments inspect and license personal care homes and childcare facilities and some initiate and maintain vital records. Most local health departments receive categorical grants for state or federally funded public health programs such as chronic disease prevention, community health planning, diabetes care, family planning, WIC and other nutrition programs, tobacco use prevention and cessation, stroke and heart attack prevention, and postnatal home visitation and other maternal and child health services. Some local health departments have relationships with local school districts to provide or supervise school health services. In the wake of the terrorist attacks in New York City and Washington, D.C., almost all local public health departments received funding for emergency preparedness and bioterrorism response planning. Few local health departments are the provider of last resort in the community. The departments that are the provider of last resort are more prevalent in areas without an adequate health care safety net. They offer personal health care services such as well-baby visits, pap smears and breast examinations, pregnancy testing

and perinatal case management, and oral and mental health care services and management. Finally, local health departments offer a variety of services that are idiosyncratic to their location and governance. Examples from the 12 sites we visited include non-medical transportation, a needle exchange program for intravenous drug users, out-of-county nursing home payment for medically indigent persons, sickle cell anemia screening and counseling, and mammogram and colonoscopy clinics.

Services, like staffing levels, are difficult to measure across local health departments because in some models of state-local relations services may be provided by regional or state government. In others, particularly decentralized models, a wider variety of services, some only tangentially related to public health, are provided. In the case of counties that experience in-migration of transient populations, such as tourists, outdoor enthusiasts, seasonal residents, and migrant workers, public health services may be extended to populations that are not permanent residents of the county.

Information Systems

Despite claims to the contrary by other researchers investigating the information technology resources of rural public health departments,⁵ in our 12 site visits we found that all of the local health departments visited used personal computers to a surprising degree. All departments had at least one computer. Only one of the 12 had less than one computer for every two employees. One-half of all departments we visited had more computers than staff members. Five of 12 had between 0.50 and 1.00 computers per staff member. Not only was access to a computer relatively high in the departments visited, the departments took care to see that the technology they used was relatively current. Most departments had scheduled replacement of computers at two- to three-year intervals.

Information technology plays an integral role in public health assessment, assurance, and policy development activities as well as system management. All local health departments studied had access to high speed Internet services and all used e-mail and had access to the Internet through a Web browser. Fewer used statistical and geographic information system software. Only one of the six states did not have an automated health alert network and

automated disease surveillance system. In at least one state that used regional offices, the local health department reported health information to the regional office either electronically or by telephone and the regional office in turn communicated electronically to the state department of health. Despite the fact that Web pages are excellent information dissemination vehicles, fewer than one-half of the local health departments studied had their own Web sites. Only one of the five that had a Web site made a conscious effort to promote it through electronic and print advertising.

Public Health Systems

Local health department administrators were asked whether they had a relationship with several possible public health system partners and, if so, to describe the relationship. All of the local health departments had a relationship with one or more of the possible system partners, but the character of the relationships varied by the type of partners. In only two of the 12 counties visited did anything resembling a public health system exist.

All of the local public health departments studied had a relationship with the state department of health. In centralized models and other shared/mixed models that featured a regional office, the relationship of the local department to the state department of health was strong but indirect. In other words, the state department of health defined a command-and-control relationship with the local departments that was delegated to the regional offices to implement. Most of the local departments' "state" contacts were carried out by the regional office acting as surrogate for the state. In decentralized models of local–state relationships, the contacts or transactions between local departments and the state department were fewer than those in the other models.

Regardless of model type the relationship is based on the exchange of two key resources, money and assistance. The exchange of money between the state department of health and local departments was already discussed, so the discussion here will focus on information. There are two types of assistance that flow from the state health department to the local health department: programmatic and technical. The programmatic assistance is often tied to the categorical grants made by the state departments to the local departments. Because most local public health departments do not have access to the range of breaking public health news available to the state

department, the state department shares information it deems relevant with the local health departments. Many local public health administrators do belong to professional societies or trade associations, so the link with the state public health department is a key source of information.

The second type of assistance is technical and usually clinical in nature. (On occasion, legal advice might also be sought.) Epidemiological and environmental health advice are the two most common types of technical assistance sought by local health departments. The state department of health laboratory is also a source of service and technical assistance to local departments. Local public health department staff tends to give high marks to state staff that provides the kinds of technical assistance it needs. The relationship with state categorical program managers and staff and local department staff is often more conflictual.

In states where the department of environment is separate from the department of health, local health departments have relations with both. In some states, public health services are assigned to other state agencies. For example, in Pennsylvania, restaurant inspections are conducted by the Department of Agriculture.

The strongest community ties of many local health departments are with other branches of county government. This is because in many areas the jurisdiction for public health overlaps with the jurisdictions of other departments of county and municipal government, such as law enforcement, public works, and animal control. The fact that many public health departments are governed by county commissioners may also influence the frequency with which local public health departments work with other county government departments. These organizations typically share information and coordinate activities. There appears to be little sharing of resources and no documentation formalizing these relationships.

Overwhelmingly, the sites visited reported no formal linkages with the medical community other than those that occur through the medical director or health officer. In states with regional offices managed by a physician, the regional director often attends county medical society or hospital medical staff meetings and discusses public health topics such as bioterrorism preparedness. In one local health department studied for this project, public health nurses visit

private physician offices to share information about local public health programs. Most public health departments have a list of physicians willing to treat low-income patients to whom they make referrals. Aside from these contacts, local health department relationships with community physicians were episodic and unplanned. Given that physicians occupy a key position in the disease surveillance system of public health, a more explicit arrangement between the health department and local physicians would seem desirable.

We met with the hospital administrator of the largest hospital in the county during all of our site visits. We assumed that if a public health system existed within the county we were studying, and if we wanted to find evidence of it, the hospital would be a good place to look. Unfortunately, most contact between the hospital administrator and the local public health department directors centered on emergency preparedness and disaster planning.

Without identifying them as such, we asked hospital administrators which of the Institute of Medicine's essential services of public health the hospital provided (yes or no) and the degree of the hospital's involvement (5-point scale from "hardly at all" to "a great deal"). Overall, the hospital administrators had a favorable view of their hospitals' contributions to public health. All 12 hospital administrators interviewed said the hospitals were involved in informing, educating, and empowering people about health issues; developing health policies and plans; linking people to needed health services; and assuring a competent public health and personal health care workforce. Eleven said they mobilized community health partnerships, and 10 said they diagnosed and investigated community health problems. The lowest response (seven hospitals responded "yes") was to the question "Do you monitor health status to identify community health problems?"

Hospital administrators rated relatively high their involvement in linking patients to needed services, an average of 4.2 on a 5-point scale. The next highest score for involvement by the hospital in public health functions, an average of 3.7, was accorded to informing, educating, and empowering people about health issues and evaluating the effectiveness, accessibility, and quality of personal and population-based health services. The lowest score (2.8) was for diagnosing and investigating community health problems.

The development of more formal public health linkages between local health departments and rural hospitals in rural communities would seem to be a first step in the development of a community public health system. That the health departments have not done so may indicate their belief that they alone are fully responsible for the delivery of essential public health services, as well as an ignorance among most rural hospitals about the functions of public health.

Planning

Community needs assessments are important public health tools for monitoring health and diagnosing and investigating health problems in a community. Eight of the 12 counties visited had conducted full community needs assessments in 2004 or 2005. In the case of four of these eight counties, the actual assessment was made by regional health office staff and shared with the local health department. Almost all of the sites had performed targeted needs assessments, looking at one aspect or another of the health of the population. These investigations typically focused on a known need, such as the lack of mental or oral health care services, and the assessment was an attempt to quantify the need. Although needs assessments are intended to serve as one of the beginning steps in a planning effort, the departments studied did not always follow through with the additional steps of the process, and there was no evidence presented that the health departments had played significant roles in helping to satisfy identified needs.

Evaluation

Several organizations and organizational collaboratives have developed or are developing evaluation tools for local public health departments. The National Association of County and City Health Officials, the local public health department trade association, developed the Assessment Protocol for Excellence in Public Health (APEXPH) by which health departments can measure their own performance. A coalition of national public health organizations led by CDC developed national public health performance standards, and a number of states have instituted state-based programs of local health department performance measurement.

The rural local health departments in the study were asked if they had ever participated in an assessment of department performance using a standardized assessment instrument created at

either the national or state level. Only four of the 12 said that they had used a standardized instrument to assess department performance. Two of the four used an instrument developed by the state, and the other two used nationally developed instruments and procedures. The two local health departments using the instrument developed by the state were required by the state department of health to participate in the measurement program.

POLICY RECOMMENDATIONS

Most local public health departments in rural areas, with the assistance of state departments of health, do a satisfactory job of protecting the health of the populations they serve from contagious diseases and injuries. The nature of public health, however, is changing just as the environment around it has changed and will continue to change. Improvements in transportation, communication, and information technology have improved the ability of public health departments to react to problems and may have released them somewhat from their local moorings. Continued advance in technological supports, increased prevalence of chronic disease, and changing demographic and economic patterns in many rural areas will substantially alter which public health services are provided at the local level and how they are delivered.

- **The federal government should define “local public health agency.”** Local variation among public health agencies is desirable, but organizational variation can also impede public policies that seek to integrate health and social services. From a policy perspective it is necessary to have uniform expectations of local health departments from community to community. This does not mean that they all have to look alike and that there is no room for variation. Institutional providers of services to Medicare patients, for example, have to meet conditions of participation to receive payments – but the conditions of participation for hospitals are so elastic that they can be stretched to cover a 1,200-bed university medical center or the smallest rural hospital. The conditions of participation create a common definition of a hospital with basic structural features that are recognized across the country. Following the example of Medicare, the federal government could require local health departments to comply with a common definition of local health departments as a condition for receiving grant money.
- **Institute governmental incentives to restructure the delivery of local public health services in rural areas to enhance the availability of technical resources to local health departments and to promote broad-based community governance.** One way to enhance the availability of technical resources made available to local health departments is through regionalization. Regionalization can be accomplished from the top down, by state government dividing the state into administrative regions and providing services to counties from a decentralized hub. Alternatively, local health

departments can be encouraged to develop networks in which they share needed resources across counties. Regardless of the method for better obtaining technical resources, it is important for rural communities to develop (or maintain) a source of efficient, broad-based community governance of public health.

- **Invest in rural public health systems development at the local level.** It is clear that the local public health department alone cannot, and should not, be solely responsible for improving the health of the community. To date, the federal government and most state governments have not invested in programs to create public health systems that include all community partners. Creation and maintenance of these systems are relatively low-cost. Communities, individuals, employers, and government at all levels will reap the benefits of these investments for years to come.

There is no question that every community of every size in every corner of the United States needs and deserves the full protection of public health services. How those services are most effectively provided, however, remains a topic of debate. Within a well-formed public health system there will always be a role for government-financed public health delivery at the local level. As the federal and state governments are chief funders of public health services, they need to participate with rural communities in shaping public health systems that are both efficient and responsive to the needs of rural residents.

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Appendix A

Background, Methods, and Findings

BACKGROUND AND METHODS

It has become something of a cliché to summarize differences among various social enterprises by suggesting that, “once you’ve seen one organization X, you’ve seen one organization X.” From a purely taxonomic perspective, however, these various enterprises, more frequently than not, have enough in common with each other to suggest that they are, in fact, like organizations and are not unique as the cliché implies. While the temptation exists to follow suit and spotlight the differences among rural local public health departments, the purpose of this study instead is to identify the elements of organizational structure—governance, staffing, services, relationships, and so on—that tie them together across geography and, where it is germane to their functioning, to point out differences.

Discovering how local public health departments are alike gives practitioners and policy makers a foothold by which they can begin to improve performance. It provides the basis for making comparisons between local health departments. In the absence of broad acceptance of performance standards by local health departments, comparisons to higher functioning and more efficient local health departments may provide an implicit goal that motivates poorer performing local health departments to alter their structures to emulate higher performing departments. This mimetic impulse is unlikely to occur in an environment in which public health providers see their departments as unique.

THEORETICAL PERSPECTIVES

The conceptual framework used for this study is structural functionalism, which proposes simply that functions determine the structure of organizations (Perrow, 1979). The structural functionalist approach applied to studying organizations found its highest expression in the institutional school of organizational theory begun and nurtured by Phillip Selznick in the 1940s and 1950s. According to Selznick (1948:25), “formal organization is the structural expression of rational action.” Elements of structure include, but are not limited to, governance, organization, staffing, services, information technology, facilities, and inter-organizational relations. Selznick recognized that although organizations are intendedly rational, they are influenced strongly by internal and external forces that divert them from purely rational action. He suggested that organizations be viewed as both “an economy” and as “an adaptive social structure.” By

“economy” he meant a system of relationships that defines the availability and distribution of scarce resources. The term “adaptive social structure” places organizations in an environment that requires them to change in order to survive (Burrell and Morgan, 1979). Institutional analysts often describe organizations as being organic or see organizations as organisms, “living systems, existing in a wider environment on which they depend for the satisfaction of various needs” (Morgan, 1986, p. 39).

An “institution” is a unique species of organization. Where organizations feature a “rational, means-oriented, efficiency-guided process of administration,” institutions have “value-laden, adaptive, responsive processes” Perrow (1979, p. 186). Over time people prize institutions in and of themselves, and not merely for the goods or services they produce. As a result, people—consumers and employees alike—become highly attached to institutions, building their lives around them, identifying with them, and becoming dependent upon them (Perrow, 1979). Local public health departments are institutionalized organizations. They are valued by the public more for their goals than their goal achievement.

The emphasis on the environment is the key contribution of the institutional school, a focus taken up by Howard Aldrich, Jeffrey Pfeffer, Gerald Salancik and a host of others beginning in the late 1970s. These investigators do not see organizations as passive actors accepting whatever the environment chooses to give them. Instead, they view organizations as “active, and capable of changing, as well as responding to the environment,” (Aldrich and Pfeffer, 1976: 83). To gather the resources essential to their survival, organizations engage in exchange relationships with powerful and potentially controlling elements of the environment. “Exchange” is simply the trading of resources for benefits. Seen from this perspective, exchanges can be either economic or non-economic, with the boundaries between them often indistinct (Mick and Wyttenbach, 2003).

Although rooted, in part, in economic considerations, many of the primary exchange relationships of institutions are non-economic. Among the key non-economic resources obtained by institutions from the environment is legitimacy. Institutional theory holds that environments will only support organizations they consider legitimate. Environmental support comes not only

in the forms of funding and a workforce reservoir of people who want to work for the institution, for example, but also in political acquiescence to the authority of the institution. Public health organizations are able to exercise their quarantine authority, for example, because those subject to its authority are generally in agreement that the agency should be able restrict some of the freedoms of individuals in order to control the spread of infectious disease. While this authority exists in law, it could not continue if the public did view public health as legitimate.

Beliefs in the legitimacy of institutions are socially constructed (Berger and Luckman, 1967). They may be bolstered by public opinion, laws, and regulations. Some of these social constructions have been characterized as “rationalized myths” (Meyer and Rowan, 1977).

According to Luke and Watson (2003):

Myths that generate formal organizational structure have two key properties: (1) they contain rationalized and impersonal prescriptions that imbue social actions with technical and rational meanings (as expressed in institutional rules), and (2) they are highly institutionalized and thus fall beyond the discretion of individuals or organizations. Given the later property, institutional myths are taken for granted as being legitimate, apart from their actual effect on organizational outcomes. In health care, importantly, such myths are often established and reinforced through licensing, certifying, and schooling, as well as by other broad social mechanisms. The myths occur readily when there is causal ambiguity between organizational processes and the standards used to evaluate outputs, which is often the case in health care (p. 301).

The consequence of structural functionalism and rationalized myths on local public health departments is compound. On the one hand, public health functions should determine how local health departments are structured. On the other hand, rationalized myths, such as the belief that public health departments should be primary care providers of last resort or the belief that environmental health services should be housed in public works departments, require local health departments to choose strategies that reflect the values of the environment but which may ultimately prove ineffective or even harmful to the department. Myths may define functions which in turn define structure. Imbedded in structure are the seeds of its own inefficiency.

The purpose of this study is to investigate variation in local health department structure in rural areas as a first step leading possibly to the discovery of more efficient and effective ways of

organizing services in rural areas. Current thinking holds that the overarching functions of public health are assessment, assurance, and policy development (Institute of Medicine, 1988). Table A-1 lists the 12 elements of structure examined in this study relative to the three core functions of public health. “Organizational structure,” “personnel” and “services provided” arguably apply to all three core functions.

Table A-1. Elements of Structure Associated with The Three Core Functions of Public Health

	Assessment	Assurance	Policy Development
Elements of Structure	Service Area Information Systems Planning	Performance Evaluation	Relationship to State Governance Budget Public Health System Development Physical Plant
	Affect all core functions equally: Organizational Structure Personnel Services Provided		

METHODS

Site visits were conducted in six states. In each of the six states, the person at the state Department of Health, or its equivalent, responsible for local health department management, coordination or liaison was interviewed. In each of the six states, site visits were also conducted to two rural local health departments (LHD). Using standard protocols (see Appendix C), the administrator of the LHD, a member of the governing board, the medical director, a LHD staff member and the administrator of the local hospital were interviewed. Case studies were prepared for each state and each of the 12 LHDs visited using field notes and additional data collected before, during, and following the site visits. The case studies were written using an outline prepared in advance that allowed comparisons to be made across sites. Case studies were analyzed and structural similarities and differences noted; cross-cutting themes and idiosyncratic structural characteristics of LHDs were identified.

Site Selection

Criteria for site selection stressed three dimensions: 1) geographic diversity, 2) locus of local public health department authority or governance, and 3) distinctiveness of rural public health environments.

The United States was divided into six geographical regions. One state was selected from each of the six regions: Pennsylvania represented the Northeast, Georgia the Southeast, Kansas the North Central, Louisiana the South Central, Washington the Northwest, and Arizona the Southwest. States vary in the degree of autonomy that LHDs may exercise: some are governed by local boards of health (which may or may not be synonymous with county commissioners or city council members) and others are a physically decentralized function of state government. The most common model offers an alternative to centralization or decentralization: LHDs either *share* public health responsibility with the state health department or public health jurisdictions within a state are *mixed* (i.e., some counties within a state provide services autonomously and the same services in other counties are provided by the state) (Fraser, 1998). Across the six geographic regions, states were selected that represented the approximate distribution of governance types: three shared/mixed model states (AZ, GA, PA), two decentralized states (KS, WA) and one centralized state (LA). Within the states two counties were selected for site visits that differed substantially from one another in terms of county demographics, economic development, and geography.

Characteristics of Case Study Counties

The counties selected for site visits for this project are considerably different from one another both within states and across states. The sample of sites selected was intended to represent the diversity of rural areas. Table A-2 shows the demographic characteristics of the counties. They range in population from under 3,000 residents to over 170,000. The different geographic size of the counties creates interesting measures of population density. For example, the county with the greatest population (Mojave County, Arizona: population 171,367) has the third lowest population density. The county with the largest population density (175.6 persons per square mile) is the smallest in area of the 12 counties studied. Two of the counties are frontier counties, their population density falling below six residents per square mile. The most

isolated is Gove County in the Great Plains region of Kansas with a population per square mile of only 2.9 persons.

One-half of the counties had populations that were more than 90 percent White. The non-White population of the other half varied considerable in composition. As may be expected, the African American population was larger in the four counties in the southeastern and south central regions of the country than in the other regions, but the two Georgia counties had African American populations whose proportion to the total were approximately three times greater than the two counties in Louisiana. One quarter of the residents of La Paz County reported a race other than White or African American to the Census Bureau in 2000; this figure includes persons of two or more races. The entire Colorado River Indian Reservation lies within the borders of La Paz County, so a substantial number of those who reported “another race” in La Paz County were possibly Native Americans. The Quinault Indian Reservation is located within Grays Harbor County, Washington, part of the Hualapai Indian Reservation is located in Mojave County, Arizona, and Jena Band of Choctaw Indians has its tribal offices in La Salle Parish, Louisiana. The remaining counties had substantially lower percentages of residents who identified themselves as belonging to a racial group other than White or African American. The percent of residents of Hispanic heritage was greater in the southwest than the other regions, although the percentage of Hispanic residents in Mojave County was less than one-half of that reported in neighboring La Paz County.

Table A-2. Demographic Characteristics of Site Visit Counties

County/Parish	Area (Square Miles)	Population (2003 est.)	Population Density (2003)	Percent White (2000)	Percent Black (2000)	Percent Other Race (2000)	Percent Hispanic (2000)	Percent Age >65 (2000)	Percent < 100% FPL (2000)
La Paz, AZ	4,500	19,517	4.3	74.2	0.8	25.0	22.4	25.8	19.6
Mohave, AZ	13,312	171,367	12.9	90.1	0.5	9.4	11.1	20.5	13.9
Laurens, GA	813	46,108	56.7	63.4	34.5	2.1	1.2	13.3	18.4
Telfair, GA	441	11,523	26.1	59.7	38.4	1.9	1.8	14.9	21.2
Crawford, KS	593	38,398	64.8	93.3	1.8	4.9	2.4	15.5	16.0
Gove, KS	1072	2,910	2.7	97.9	0.1	2.0	1.2	22.7	10.3
La Salle, LA	624	14,179	22.7	86.1	11.7	2.2	0.8	14.8	18.7
Vermillion, LA	1,174	54,222	46.2	82.7	14.2	3.1	1.4	13.5	22.1
Adams, PA	520	96,456	185.5	95.4	1.2	3.4	3.6	13.9	7.1
Tioga, PA	1,134	41,557	36.6	98.1	0.6	1.3	0.5	16.0	13.5
Grays Harbor, WA	1,917	69,406	36.2	88.3	0.3	11.4	1.6	15.4	16.1
Kittitas, WA	2,297	35,206	15.3	91.8	0.7	7.5	5.0	11.6	19.6

Source: ARF

La Paz and Mojave Counties in Arizona have high proportions of persons 65 years of age or older. This is caused by migration of older individuals into the warm southwest after retirement. In contrast, the similarly high rate of elder residents in Gove County, Kansas is caused by the out-migration of younger people in search of greater economic and cultural opportunities. One-half of the counties selected have populations in which approximately one in five residents lives below the federal poverty line. Eight of 12 have a poverty rate greater than 15 percent, as compared to the national average of 11.3 percent in 2000 (U.S. Census, 2004).

Table A-3. County Characteristics, Economic Dependence

County/State	Farming Dependent ¹	Mining Dependent ²	Manufacturing Dependent ³	Federal & State Government Dependent ⁴	Services Dependent ⁵	Non- Specialized ⁶
La Paz County, AZ						X
Mohave County, AZ					X	
Laurens County, GA			X			
Telfair, County, GA			X			
Crawford County, KS						X
Gove County, KS	X					
La Salle Parish, LA						X
St. Mary Parish, LA		X				
Adams County, PA			X			
Tioga County, PA			X			
Grays Harbor County, WA						X
Kittitas County, WA				X		

Source: 2004 ERS County Typology (Economic Dependence), USDA, 2004.

¹Farming-dependent counties—either 15 percent or more of average annual labor and proprietors' earnings derived from farming during 1998–2000 or 15 percent or more of employed residents worked in farm occupations in 2000.

²Mining-dependent counties—15 percent or more of average annual labor and proprietors' earnings derived from mining during 1998–2000.

³Manufacturing-dependent counties—25 percent or more of average annual labor and proprietors' earnings derived from manufacturing during 1998–2000.

⁴Federal/State government-dependent counties—15 percent or more of average annual labor and proprietors' earnings derived from Federal and State government during 1998–2000.

⁵Services-dependent counties—45 percent or more of average annual labor and proprietors' earnings derived from services (SIC categories of retail trade; finance, insurance and real estate; and services) during 1998–2000.

⁶Nonspecialized counties—did not meet the dependence threshold for any one of the above industries.

Table A-3 shows the dependence of the counties on certain economic sectors. Despite the common connection of rural areas with agriculture, the economy of only one of the counties selected for the study was dominated by agriculture. Manufacturing was the dominant economic sector in four counties, all located in the eastern portion of the country. Four counties had economies that were sufficiently diverse that the dependence threshold was not passed for any of economic sectors measured. At least one of the 12 counties populates each of the six economic sectors measured by the Economic Research Service of the U.S. Department of Agriculture.

Table A-4. County Characteristics, Potential Hardship

County/State	Housing Stress ¹	Low Education ²	Low Employment ³	Persistent Poverty ⁴	Population Loss ⁵
La Paz County, AZ		X	X		
Mohave County, AZ	X		X		
Laurens County, GA					
Telair, County, GA		X		X	
Crawford County, KS					
Gove County, KS					X
La Salle Parish, LA		X			
St. Mary Parish, LA		X	X		X
Adams County, PA					
Tioga County, PA					
Grays Harbor County, WA					
Kittitas County, WA	X				

Source: 2004 ERS County Typology (Policy Types), USDA, 2004.

¹Housing stress counties—30 percent or more of households had one or more of these housing conditions in 2000: lacked complete plumbing, lacked complete kitchen, paid 30 percent or more of income for owner costs or rent, or had more than 1 person per room.

²Low-education counties—25 percent or more of residents 25–64 years old had neither a high school diploma nor GED in 2000.

³Low-employment counties—less than 65 percent of residents 21–64 years old were employed in 2000.

⁴Persistent poverty counties—20 percent or more of residents were poor as measured by each of the last 4 censuses, 1970, 1980, 1990 and 2000.

⁵Population loss counties—number of residents declined both between the 1980 and 1990 censuses and between the 1990 and 2000 censuses.

Seven of the 12 counties have poor social determinants of health indicators as measured by the Economic Research Service. Table A-4 shows the distribution of counties with housing stress, low education, low employment, persistent poverty, and population loss. These indicators might suggest that the population of counties with these characteristics may be less healthy compared to others that are not as disadvantaged. Four counties have more than one social determinant of health indicator that is depressed.

Table A-5. Health Care Resources per 1,000 Population, 2000

County/Parish	Hospital Beds	Family Doctors	Internists	Pediatricians ¹	OB/GYN ²	Other MDs/DOs	Dentists	330 Clinics/FQHCs
La Paz, AZ	2.9	0.34	0.15	0.00	0.00	0.18	0.11	0.00
Mohave, AZ	2.1	0.23	0.14	0.20	0.18	0.66	0.25	0.00
Laurens, GA	11.8	0.38	0.26	0.38	0.51	1.07	0.33	0.00
Telfair, GA	2.1	0.42	0.08	0.00	0.00	0.00	0.25	0.00
Crawford, KS	4.4	0.29	0.18	0.28	0.15	0.60	0.50	0.08
Gove, KS	26.1	0.98	0.00	0.00	0.00	0.00	0.00	0.00
La Salle, LA	7.1	0.42	0.07	0.00	0.00	0.21	0.14	0.00
Vermillion, LA	1.9	0.17	0.13	0.24	0.03	0.32	0.20	0.00
Adams, PA	1.1	0.35	0.14	0.23	0.13	0.33	0.26	0.00
Tioga, PA	2.0	0.56	0.12	0.18	0.00	0.53	0.31	0.17
Grays Harbor, WA	4.6	0.28	0.12	0.16	0.15	0.42	0.43	0.10
Kittitas, WA	1.0	0.54	0.09	0.34	0.12	0.26	0.36	0.00

Source: Area Resource File

¹ Pediatricians per 1,000 population 0–18 years of age.

² OB/GYNs per 1,000 women.

In terms of health resources, the residents of all of the counties appear to have access to hospitals and family physicians within the county, although the ratio of physicians to population is somewhat low in some of them (see Table A-5). (The apparent over-bedding in some communities may have improved since 2000, when the measurement was taken, due to greater participation in the critical access community hospital program and the decertification of some hospital beds.) The availability of second-tier primary care physicians—internists, pediatricians, and OB/GYNs—varies. Residents of La Paz County, Arizona, Telfair County, Georgia, and La Salle County, Louisiana do not have access within the county to a pediatrician or OB/GYN. The residents of Gove County, Kansas do not have access to any of the three identified primary care specialists. All counties with the exception of Telfair and Gove Counties have reasonably good access to other specialists, although the mix of specialists was not determined. All counties except Gove County were served by at least one dentist, although the availability of dental services relative to the population in La Paz and La Salle counties is low. Three counties, Crawford (Kansas), Tioga (Pennsylvania), and Grays Harbor (Washington), had one or more community health center or FQHC serving its residents. Interestingly, these three counties fall into the group of five counties that had no negative social determinant of health indicators (see Table A-3). None of the distressed counties has a community health center or federally qualified health center.

Table A-6. Three-Year Mortality Rates by Age Cohort, Deaths per 1,000 Persons in Cohort (1997–1999)

County/Parish	< 1 Year ¹	0–4 Years	5–14 Years	15–24 Years	25–34 Years	35–34 Years	45–54 Years	55–64 Years	65–74 Years	75–84 Years	85+ Years
La Paz, AZ	18.782	4.158	0.00	1.480	2.364	5.159	6.245	10.578	15.606	31.715	98.182
Mohave, AZ	8.990	2.242	0.340	1.192	1.360	2.773	5.664	10.791	25.069	53.329	129.104
Laurens, GA	15.397	3859	0.293	0.970	1.553	2.222	6.092	12.464	29.716	58.658	132.612
Telfair, GA	9.091	1.418	0.00	0.579	1.174	3.252	7.371	18.054	33.449	73.323	165.992
Crawford, KS	6.250	1.635	0.213	0.507	1.289	2.234	5.267	11.038	30.133	57.192	164.193
Gove, KS	0.00	0.00	0.00	0.00	4.219	0.00	0.00	13.072	20.468	63.063	151.515
La Salle, LA	1.571	1.145	0.00	1.369	1.125	2.378	4.857	13.858	28.871	62.327	187.755
Vermillion, LA	7.848	1.828	0.236	1.270	1.499	1.883	4.421	12.327	24.785	55.600	141.066
Adams, PA	4.020	0.925	0.149	0.888	0.875	1.400	2.852	8.351	22.319	56.836	169.666
Tioga, PA	4.198	0.895	0.00	0.627	1.105	1.832	3.257	9.115	23.782	62.019	171.795
Grays Harbor, WA	6.213	1.434	0.205	0.697	1.319	3.030	4.650	13.006	28.662	59.809	154.300
Kittitas, WA	6.590	1.758	0.259	0.352	0.517	1.150	3.109	6.296	22.211	59.088	139.241

Source: ARF

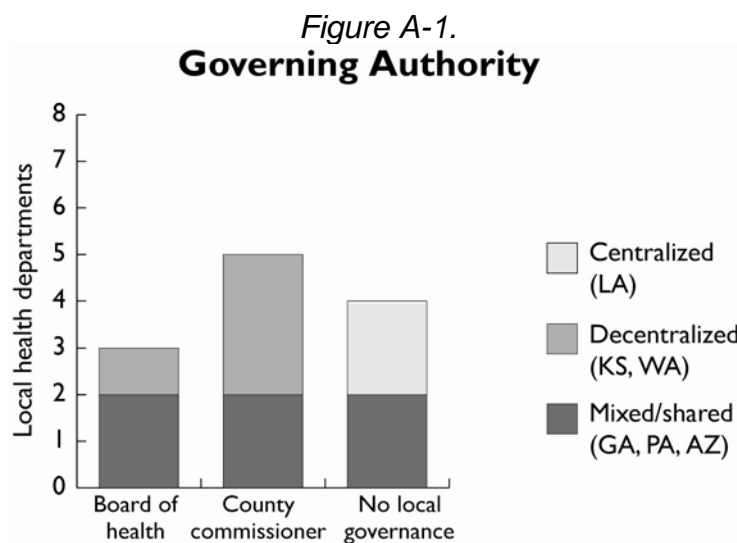
Mortality rates might be a crude summary measure of the impact of social determinants of health, access to health care services, and the extent of public health systems across the study counties. Table A-6 shows the three-year mortality rates by age cohort in the counties. Although they vary considerably, the table suggests that the higher death rates in La Paz and Telfair counties might be due to racial and ethnic health disparities. Gove County, the only county that is farming dependent, has the highest death rate in the 25–34 cohort. These are the years when many new farmers are trying to establish themselves and they may tend to work longer hours and take greater risks with farm machinery. During our site visit to Gove County, public health professionals stressed the importance of farm safety to the department’s mission.

SUMMARY OF FINDINGS

This section contains brief summaries of the collective findings from the case studies expressed numerically. These findings are intended to show tendencies among the case study sites and among the different state–local health department relationships (i.e., centralized, decentralized, and mixed) described earlier. These findings should *not* be considered representative of local public health departments in rural areas or of health departments that fall into any of the various types of state–local health department relationships.

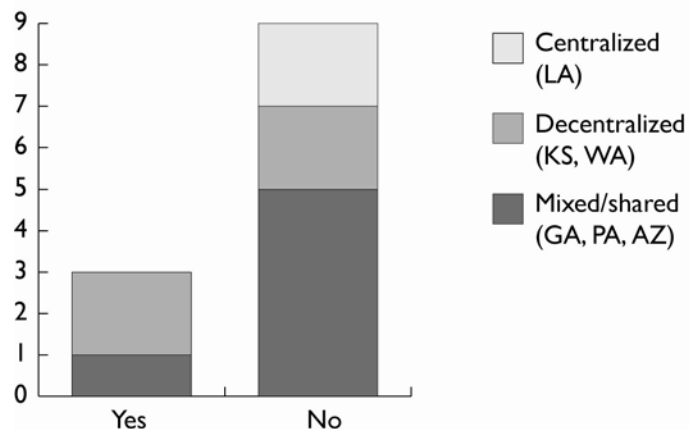
Governance

Governance of the local health department by a board of county commissioners was the most common form of governance among the 12 site-visit counties. One of the three local health departments that is governed by a board of health is a three-member board of county commissioners augmented by two community members that sits as a board of health. Community members are selected by the county commissioners. Four county health departments in the study had no local governance; two of these were in a centralized model state and two were in a mixed model state. See Figure A1.



Nine of the 12 county health departments had either no local governance or were governed by a board of commissioners as simply one of several departments of county government. One way to increase community input into public health decision-making, thereby fostering the development of a public health system, is to establish an advisory committee. Only three of the study health departments had established an advisory committee (See Figure A-2). As an indicator of community input to local health department decision-making, it is reasonable to combine advisory committees and boards of health. Boards of health typically are larger than boards of county commissioners and, because they view themselves as representative of the community, they are less likely to establish community public health advisory committees (i.e., double-counting does not occur). Following this logic, six of the 12 counties had input from local community members as either a board of health or public health advisory committee.

Figure A-2.
Local Advisory Board



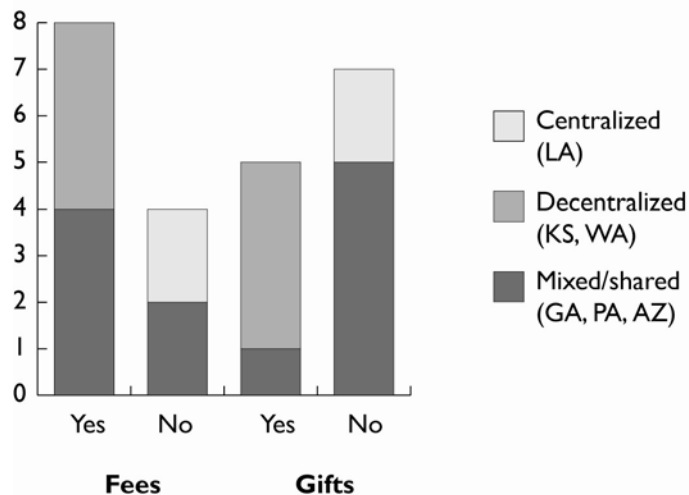
Financing

All of the local health departments visited received funding from the state and, through the state, from the federal government to finance public health functions. In most cases, states provided a general grant for administration and the provision of some core public health services and an assortment of federal pass-through grants for categorical programs. In eight of the 12 counties, county government also made a financial contribution to the local public health department. In addition to budgeted allocations of county revenues to public health departments, some counties also provide in-kind contributions to the health department in the form of no-cost occupancy of county-owned buildings and a range of services including accounting, human resources management, housekeeping, and maintenance.

The greatest variations in funding come in two categories of revenue: fees and reimbursements and income from gifts, donations and private grants. Fees and reimbursements make a large contribution to the revenues of local health departments that provide a number of primary care services. These services are provided by local health departments to county residents as the provider of last resort in their communities. In counties where safety-net providers are available and able to care for low-income and uninsured patients, the contribution of fees and reimbursements play a decidedly less important role in local health department finances. Four of the counties reported that they received no income from fees or reimbursements.

Gifts, donations, and private grants are an indication of the willingness of the non-governmental sector of the community to support public health departments and their functions. Five of the 12 local health departments visited said they received income from at least one of these sources. See Figure A-3.

Figure A-3.
**Income from Fees/Reimbursement
 and Gifts/Donations/Private Grants**



Staffing

The number of staff members is associated with the size of the population served, the number and mix of services provided, and the relationship of the local department to the state. In centralized and some shared/mixed model states a regional office is interspersed between the state department of health and several local health departments. The regional office typically provides technical services directly to a group of counties and/or technical assistance to the local health department staff of those counties. The regional offices augment the human resources capacity of the local health departments they support. In these cases, the range of services available at the local level may be wider but the number of people providing services as employees of the local health department may be smaller than one would expect. In calculating the number of county residents per local health department staff member (see Table A-7) only the staff employed by the local health department was included. Our inability to allocate regional office staff no doubt had some effect on these results, but that alone does not explain the variation. Note that within-state variation (and within model variation) is often as great as across-

state variation. A key factor appears to be the size of county’s permanent population. Clearly, there are economies of scale to be gained in providing public health services to larger rather than smaller populations. This finding would seem to argue for higher per capita funding for less populated public health jurisdictions or for the consolidation of jurisdictions to increase the size of the population, assuming no other barriers to efficiency.

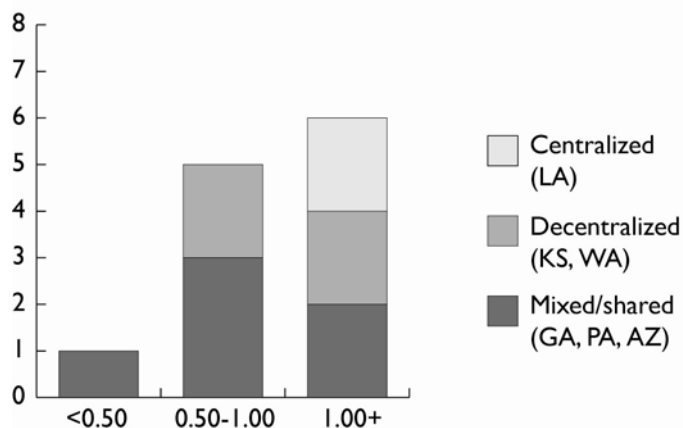
Table A-7. Local Public Health Department Workforce: Population Served per Full-Time Public Health Worker

Mixed/Shared	
La Paz County, AZ	697
Laurens County, GA	1,317
Telfair County, GA	1,440
Mojave County, AZ	1,714
Tioga County, PA	13,852
Adams County, PA	32,152
Decentralized	
Gove County, KS	728
Crawford County, KS	1,280
Kittitas County, WA	1,467
Grays Harbor County, WA	1,614
Centralized	
La Salle Parrish, LA	1,772
Vermillion, Parrish, LA	3,389

Information Technology

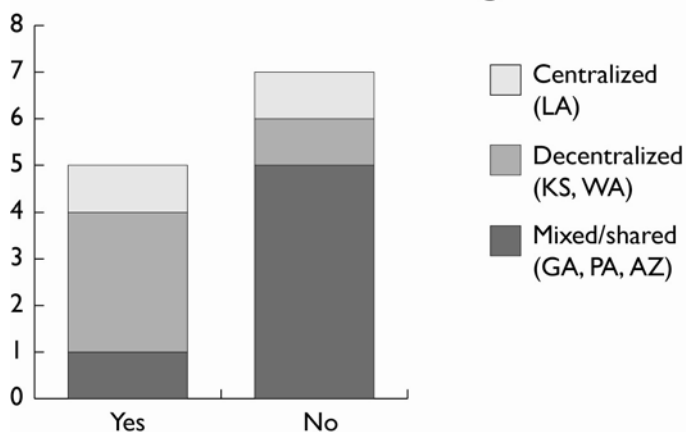
Information technology plays an integral role in public health assessment, assurance, and policy development activities as well as system management. All twelve of the local health departments visited had at least one computer for staff use. Most departments had replacement schedules for computers that were two or three years in duration. All departments had access to high speed Internet services; all used e-mail and had access to the Internet through a Web browser. Fewer used statistical and geographic information system software.

Figure A-4.
Computers Per Staff



Only one of the six states (Washington) did not have a functioning automated health alert network and automated disease surveillance system at the time of the visit. In some cases, local health departments reported to a regional office either electronically or by telephone and the regional office in turn would communicate to the state department of health. Despite the fact that Web pages potentially are excellent information dissemination vehicles, less than one-half of the local health departments had their own Web sites. Only one of the five that had Web sites made a conscious effort to promote it through electronic and print advertising. See figures A-4 and A-5.

Figure A-5.
Has Own Web Page



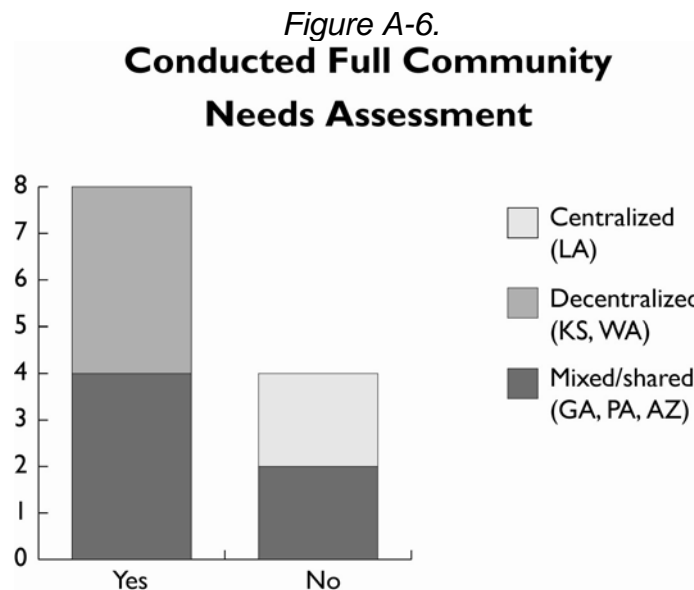
Public Health System

Public health leaders concur that population health is not the sole responsibility of governmental public health agencies. Rather, it is the responsibility of a *public health system* that in addition to governmental health agencies includes the health care delivery system, employers and businesses, the media, academia, and the community at large. To measure the extent of the public health system within a county, local health department administrators were asked with which of nine potential public health partners they had a formal or informal relationship. None of the counties studied had relationships with all nine sectors (e.g., hospitals, physicians, civic/community/faith organizations, businesses and business groups). Five health department administrators said their department had relationships with eight of the community sectors. The mean number of relationships was higher for decentralized model local health departments. Centralized model local health departments had the lowest average number of relationships. See Table A-8.

Table A-8. Number of Public Health System Relationships	
Mixed/Shared	Average: 6.8
Mojave County, AZ	7
La Paz County, AZ	6
Laurens County, GA	7
Telfair County, GA	5
Adams County, PA	8
Tioga County, PA	8
Decentralized	Average: 7.5
Crawford County, KS	8
Gove County, KS	7
Grays Harbor County, WA	8
Kittitas County, WA	7
Centralized	Average: 6.5
La Salle Parrish, LA	8
Vermillion, Parrish, LA	5

Planning

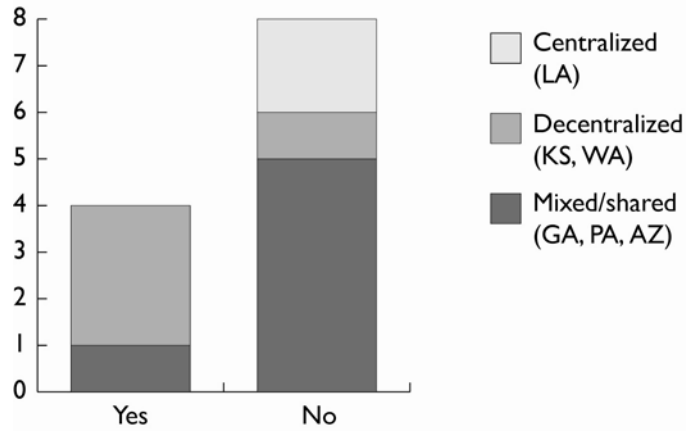
Community needs assessments are important public health tools for monitoring health and diagnosing and investigating health problems in a community. Eight of the 12 local health departments visited (67 percent) had conducted full community needs assessments within 2004–2005. In the case of four of these eight counties, the actual assessment was made by regional health office staff and shared with the local health departments. In NACCHO’s 2000 survey of local health departments, 44 percent of local health departments serving fewer than 25,000 people had completed a community health assessment in the last three years and 63 percent of local health departments serving populations between 25,000 and 49,999 had completed an assessment. See Figure A-6.



Performance Assessment

The administrators of the local health departments visited were asked if they had ever participated in an assessment of department performance using a standardized assessment instrument created at either the national or state level. Four of the 12 said that they had used a standardized instrument to assess department performance. Two of the four used an instrument developed by the state and the other two used nationally developed instruments and procedures. See Figure A-7.

Figure A-7.
**Has Used Standard
Assessment Instruments**



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Appendix B

State and Local Health Department Case Studies

by
Anthony Wellever (AW)
Julie Brennan (JB)
Daniel Bryan (DB)
Jane Faubion (JF)

Arizona: mixed/shared model (JB)

Mojave County Health Department (AW)
La Paz County Health Department (AW)

Georgia: mixed/shared model (AW)

South Central Health District (AW)
Laurens County Health Department (AW)
Telfair County Health Department (AW)

Kansas: decentralized model (JB)

Crawford County Health Department (AW)
Gove County Health Department (JB)

Louisiana: centralized model (JB and DB)

Department of Health and Hospitals Regions 4 and 6 (JB)
Vermillion Parish Health Unit (DB)
La Salle Parish Health Unit (DB)

Pennsylvania: mixed/shared model (AW & JB)

South Central Community Health District (JB)
Adams County State Health Center (JB)
North Central Health District (AW)
Tioga County State Health Center (AW)

Washington: decentralized model (JB)

Grays Harbor County Health and Social Services Department (AW)
Kittitas County Health Department (JF)

ARIZONA

Although Arizona was explored by Europeans as early as 1539, it did not become a state until the Twentieth Century. Arizona entered the union in 1912, the last of the 48 contiguous states. Known as the “Grand Canyon State” because of its most well-known landmark, it might as easily have been called the “Desert State,” after the state’s most prevalent geographical form, without materially affecting the perception of the strange beauty of this land.

By the standard definition of “rural” used for most policy purposes (i.e., non-metropolitan counties as defined by the U.S. Office of Management and Budget), more than half of Arizona is urban, a fallacy that can quickly be dispelled by driving through it. Arizona is divided into only 15 counties, some of which are larger than some eastern states. Small cities such as Flagstaff with a population of approximately 57,000 people is large enough to tip the balance in favor of calling Coconino County, the county in which Flagstaff is located, a metropolitan area. Coconino County is 18,608 square miles in area and Flagstaff is tucked into a corner of the county. The population of Coconino County that does not live within the city limits of Flagstaff is less than 65,000. By way of contrast, the land area of Maryland is 9,775 square miles and the population is 5.5 million. With a population density of less than seven persons per square mile, Coconino County is the only “urban county” in the country that is also almost a frontier county. Even the counties in which major cities, such as Phoenix and Tucson, are located have huge tracks of land that are wild and unsettled. Despite the prevailing definition of “urban,” Arizona is largely a sparsely populated, rural state.

Several Indian reservations are located in Arizona. Although some are small, others are quite large. In fact, the Navaho Indian Reservation in the northeast corner of the state is the largest Indian reservation in the country. The Arizona Department of Health Services employs a Native American Liaison as a link between the health department and Arizona’s Native American health care community comprised of 21 tribal health offices, three Urban Indian Health Programs, three Indian Health Service Area Offices, Inter Tribal Council of Arizona, Inc., and other agencies and entities providing direct or indirect public health services to Arizona’s Native American communities.

Each of the 15 counties in Arizona is responsible for providing essential public health services and is required by law to employ a certified sanitarian and a public health nurse. In addition, counties are required to have a health director. The county board of supervisors (the equivalent of a county commission in many other parts of the country) either appoints or oversees the election of a county board of health. The board of health advises the board of supervisors on public health matters, but decision-making power resides with the supervisors.

Most county health departments provide many more services than those required by state law, some at the direction of the board of supervisors, but most under contract to the state for specific programs or under regulatory authority delegated to the local departments by the state.

In governance and practice, county health departments are largely self-sufficient, yet they are linked to the state by ties of mutual support. To manage state–county health relations, the Arizona Department of Health Services in 2003 created the position of Local Health Liaison. The liaison serves as a resource and reference for county health departments on a variety of issues ranging from general management to technical programmatic problems. County health officers seeking assistance typically contact the liaison. The liaison also attends the monthly meeting of the Arizona Local Health Officer Association (ALOHA). Attendance at the meeting enhances state–local communications, providing the state Department of Health Services with an avenue to communicate directly to county health departments and a way for the state to hear the concerns of the local departments. The liaison occasionally advocates on behalf of the counties to managers in the Department of Health Services. The Local Health Liaison and the Native American Liaison both report to the Assistant Director of Public Health and work closely in coordinating public health programs for the entire state.

The State of Arizona provides very few public health services in the counties. Instead, county health departments receive several distinct grants and contracts from the state to provide needed public health services. Each of these is generally managed for the state by a program manager or contract administrator, who provides technical support and management advice to the county departments. Some programs require additional or ongoing training, which also is provided by the state. County representatives of specific programs may also be invited to participate in

strategic planning sessions to help shape state programs. The Office of Environmental Health Services delegates authority for environmental health enforcement to the county health departments, which operate under county ordinances that regulate practice.

Grants and contracts require the counties to provide services in exchange for programmatic funding. The specific programmatic grants are often passed through to the counties from federal grants by the state. Examples of specific grant-funded programs and activities are sexual abstinence promotion, suicide prevention, tobacco cessation, bioterrorism preparedness, nutrition counseling, child health, WIC, domestic violence prevention, HIV/AIDS education, TB education and prevention, Healthy Start, oral health care, and STD education and prevention. When allocating federal grant money to the county health department, the state uses formulas specific to each grant, which considers factors such as population and community need.

State law requires the provision of Per Capital Reimbursement Grants to county health departments. These grants require a county match and are intended to fund services and programs related to communicable disease control, maternal and child health, environmental health, and health education. The Per Capita Reimbursement Grant is awarded annually to county health departments upon submission and approval of a grant application.

Arizona established the Arizona Health Alert Network (AZHAN) in 2003. AZHAN is part of the Office of Public Health Emergency Preparedness and Response and was established under a cooperative agreement with the CDC. The Network “serves as a communications network between state and local public health agencies, health care providers, hospitals and emergency management organizations.” It connects all counties, tribes, community health centers, border partners and state health organizations. All county health departments and other relevant health organizations have online access to the system. All partners are equipped to obtain information through telephone landlines or satellite connections. As AZHAN was established, counties received funds to hire a communications expert to assist them in setting up the system.

The state is embarking on a new data system project to integrate its MedSys system into AZHAN, which will track all reportable diseases. Information will be submitted electronically,

and data will be available to all state and local health departments. Individual counties will be able to obtain information for their counties as well as to aggregate information across counties.

Most of the specific county programs administered through the Department of Health Services have an evaluation component built into the grant or contract. Evaluation of county health department performance by the state is, therefore, conducted on a decentralized, program-by-program basis; there is no overall county department evaluation. Furthermore, the Department of Health Services does not believe it has the authority to review the performance of an independent entity. Some counties use existing instruments and procedures to assess their own department-wide performance. Some use the National Association of County and City Health Officials' (NACCHO) APEXPH assessment tool and other counties use the Mobilizing for Action through Planning and Partnerships (MAPP) community planning and health improvement tool. Others engage in no department-wide assessment.

Like other states, Arizona received a bioterrorism grant from CDC. With grant funds, the public health community in the state assessed bioterrorism preparedness at the state and local levels and developed a statewide response system to provide alerts in the case of emergencies or bioterrorism events. As part of the grant, each county received funds to hire a bioterrorism coordinator. In 2004, the state and local health department bioterrorism representatives designed a consensus document outlining strategic plans for bioterrorism response. The group continues to meet at least monthly, and conduct telephone conference calls as needed. The counties also formed regional councils to more effectively address bioterrorism and emergency preparedness.

The University of Arizona (Tucson) has a school of public health, and Arizona State University (Tempe) has a health management section within its business school. The universities are considering development of certificate programs in epidemiology and health sector management. The Department of Health Services has an academic health office through which it offers internships for public health students; both state and local internships are offered.

Arizona State University developed a Leadership Academy in collaboration with the Department of Health Services. The Academy, which is taught by faculty from the business

school, is designed to address business strategy and knowledge while focusing on the needs of public health. Participants earn a certificate in leadership upon completion of the program. This year, all public health nursing directors will attend the Leadership Academy. Last year all county bioterrorism coordinators attended the Academy. The faculty of the program coaches as well as instructs students. Some of the activities occur online. A final project is required of students. This year, the project is for the class, as a whole, to produce a state public health plan.

CASE STUDY COMMUNITIES

The two counties selected for site visits in Arizona are both located on the western border of the state. There, the similarities end. Mojave County, according to the Office of Management and Budget, is a metropolitan area. The population of Mojave County at 171,367 (2003) might suggest an urban area, but its population density is less than 13 persons per square mile. Its two largest cities—Lake Havasu City (population 53,204) and Bullhead City (population 37,568)—are located on the Colorado River which forms the western border of the county. In contrast, La Paz County is smaller and less populated. The area of La Paz County is one third that of Mojave County and its largest city, Quartzite has a population of only 3,355. The entire county has 19,517 permanent residents and a population density of 4.4 persons per square mile. The site visits were conducted March 9 and 10, 2005.

Mojave County Health Department (Kingman, Arizona)

The Mojave County Health Department is located in the county seat of Kingman, Arizona (population 24,174). Mojave County is the second largest county in the state and has a geographic area that is larger than that of nine of the 50 states. The Colorado River plays a key role in the geography of the county. The river forms the western border of the county, and part of the northern border rests on the southern shores of Lake Mead, created by Hoover Dam which sits astride the Colorado River. Over millennia, the river has cut deep into the red sandstone plateau of northern Arizona carving out the Grand Canyon; a portion of the Grand Canyon National Park is located in Mojave County. Because there are no bridges across the Grand Canyon, the approximately one third of the county that lies north of the river is not accessible from the rest of the county. To reach Colorado City (population 4,150), the largest town north of the river from any spot in the county south of the river, one must drive through Las Vegas,

Nevada through St. George, Utah and enter Colorado City, which straddles the Utah–Arizona border, from the north, a distance of almost 300 miles from Kingman.

The population of the county doubled between 1990 and 2004. According to the 2004 update of the Economic Research Service’s (U.S. Department of Agriculture) County Typology Codes, Mojave County is a “non-metro retirement destination” county, which means that number of residents 60 years of age and older grew by more than 15 percent between 1990 and 2000 due to in-migration. The influx of “snowbirds”—retired transients from northern states and Canada who “winter” in the south—doubles the county population every winter. Although the general health of snowbirds is protected by the Mojave County Health Department, some services are restricted. For example, because of concern over supply shortages in 2004, clients had to show identification proving they were year-around residents before they could obtain a flu shot from the department.

The “inaccessible” parts of the county create special problems for the health department. For example, during the recent heavy rains (December 28, 2004, through January 12, 2005) normally dry washes flooded destroying bridges and homes. During the flood, the Beaver Dam–Littlefield area north of the river was particularly hard hit. In addition to other utilities, water and sewage were cut off for more than a week. The county supplied potable water and portable toilets to residents of the area and health department personnel went from house to house with pamphlets on food safety and precautions and well water disinfection. On February 18, 2005, President Bush signed a disaster declaration making several Arizona counties eligible for financial assistance for public agencies and hazard mitigation projects.

The Mojave County Health Department is housed in a renovated stone neoclassical church (built around 1910), that is said to be the place where actors Clark Gable and Carol Lombard wed in 1939. Several offices are located on the first floor and clinical services are housed on the second floor. Health department offices are located in five locations within Mojave County. County government provides all facilities at no charge to the health department. The primary office is in Kingman. It is located in the old downtown area close to other county government buildings. Environmental health is located about five miles from the primary office in Kingman.

Full-service public health offices exist in Bullhead City and Lake Havasu City. Colorado City has a more limited facility that is co-located with the clinic of the medical director of the county health department. Certain services, such as death certificates, bioterrorism preparedness, and administration are centralized in Kingman. Division managers are expected to travel to the various sites to perform on-site supervision. Everyone on the management staff of the department has a cell phone and a laptop computer and is available to the entire staff no matter where they happen to be on a certain day.

The Mojave County Health Department plans to purchase a trailer and outfit it for emergency response. A community needs assessment identified the need for dental services in the county, but no program is currently in place.

The hours of operation for the WIC program are 7 a.m. to 6 p.m. Monday through Thursday. General hours of operation for the health department are 8 a.m. to 5 p.m. Monday through Friday.

Governance

By state law, the three-member County Board of Supervisors provides the ultimate governance for the Mojave County Health Department. A nine-member advisory Board of Health contributes community input to public health decision-making. The nine members are selected by the Board of Supervisors from the city councils of each of the incorporated towns in the county. Each Supervisor names two board members from his district. The Mayor of Bullhead City and the head of city government in Kingman are ex officio members with voting authority. The medical director of the health department is also a voting ex officio member. The advisory board of health reports to the County Manager. Members serve terms of four years. The members attend meetings and bring issues to the board from their various communities as well as report back to their respective city councils on the actions taken by the health department. Some members of the board of health are beginning to play a more active role in public health advocacy on behalf of the department, appearing in public service announcements that attempt to establish the department's "brand" in the county. Still, the board of health is relatively weak. When asked how many members sat on the board of health its chairman replied that he did not

know, because “they usually are not all there.” Asked if he could recall an issue within the last two years when the board made a decision on a topic other than the budget, the chairman said he could not recall an issue.

Even though the medical director lives in Colorado City, north of the river, he attends every meeting of the board of health flying to the meetings in a private airplane. In addition to providing medical consultation to the board of health, the medical director also signs standing orders, consults with staff, and provides “back up” for the department. The position is not supported by a job description and is not required by state law or local ordinance. Services are provided under contract.

Budget and Finance

The budget of the health department is approximately \$6 million, second only within the county’s budget to the public works department. Approximately 35 percent of the department’s funding comes from the federal government, 20 percent from state government, 24 percent from county and municipal sources, 17 percent from fees, and 4 percent from non-operating sources such as interest and carry-over funds from previous years.

The county health department budget is composed of more than 35 separate grant programs. The budget process begins with the county finance department assembling and distributing budgeting packets to the departments. The county health department director meets with each program manager to discuss the parameters of the budget. Each manager (in consultation with the director) budgets the positions and dollars needed to run her program. All of the budgets are composed in an electronic format. The health department director assembles all of the health department’s program budgets and reviews them with the county finance manager. The health department budget then becomes part of the county budget. In the past, the county health department director has not received a copy of the budget presentation to the board of supervisors made by the finance department and has not attended the board of supervisors meeting to justify her budget, however, in the future she will be asked to make a budget presentation. The county health department budget is included as a two- to three-page section in the county budget. Certain resources are provided to the health department by the county at no

expense to the department, such as access to the county motor pool, consultation with county IT staff, and all occupancy costs.

Actual line-item expenses are compared to the budget monthly by the health department accounting specialist who makes notes of the analysis and shares them with department of health division managers and the department director. Financial accounting for the department is automated and performed in-house.

Organizational Structure and Personnel

The Mojave County Health Department employs approximately 100 staff members, 90 percent of whom are full-time employees. The staff is spread over three locations (Kingman, Bullhead City, and Lake Havasu City) and five divisions plus administration (Nursing Services, Environmental Health, Nutrition/Health Promotion, Bioterrorism, and Senior Programs). In addition to regular staff, 150 volunteers serve the Senior Program. Each division has a manager; the managers meet collectively with the health department director one or two times per month to share information and solve problems.

The nursing services division includes all clinics and the disease surveillance program. The environmental health division is responsible for licensing of restaurants, hotels, septic tanks, and was responsible in the last year for West Nile Virus investigations. The nutrition and health promotion division administers the WIC program and the tobacco cessation grant among other health promotion activities. The biodefense division is funded exclusively from the department's bioterrorism grant. The division is staffed by a volunteer coordinator and an epidemiologist. The senior programs division is unique to Mojave County. The county does not have an Area Agency on Aging and most aging services have been delegated to the health department by the board of supervisors. The division operates a county-wide meals-on-wheels program and senior centers in strategic location across the county. It administers a new \$3 million senior center building in Lake Havasu City. Some county health departments in Arizona are also responsible for animal control and health of jail inmates, but the Mojave County Health Department administers neither program.

Division heads are responsible for supervising staff in Lake Havasu City, Bullhead City and Colorado City, as well as in Kingman. Local supervisors in the satellite health departments meet monthly with division directors in Kingman. Key staff at the local level also rotates through the main office at Kingman on a regular basis.

In-service training for all staff members occurs twice per year; recent topics include bioterrorism preparedness and team building. The human resources function of the county also provides some training. The county health department currently does not have a new employee orientation program, but the director plans to establish one featuring in-house speakers and online and video instruction. The planned program will be more of an orientation to public health than an orientation to the department. Continuing education is budgeted and encouraged. The department pays for continuing education expenses incurred by employees.

The health department director has personal memberships in the state public health association, the American Public Health Association, the state association of local county health department directors (she is the president-elect), the state nurses association, and National Association of City and County Health Organizations (NACCHO). The health department also has an institutional membership in the National Association of Local Boards of Health (NALBOH). All of these organizations are useful to the director, but the most useful organizations are the state association of local county health department directors and NACCHO. The health department director attends the NACCHO annual convention every year.

Decision Making and Decision Supports

Decision making at the health department is decentralized, and managers describe themselves as being “very autonomous.” Decision making is guided by written policies, procedures and guidelines. These exist at the divisional, departmental, and county level, depending on the topic. At the division level each new employee is assigned a mentor. The mentor is responsible for giving the decision aids to the new staff member to read. Typically, division policies and procedures are reviewed and updated every two years, but the environmental health division’s policies and procedures have not been updated in 10 years.

Information Systems

The health department has 129 computers not counting laptop computers used for emergency response. All computers are leased from a private vendor and replaced after three years of use. Every person in the department has access to a computer. Health department staff has access to high speed Internet services and the department has its own Web page. The county IT department is very helpful in determining needs and negotiating the lease for department computers. The health department is in the process of providing laptop computers to members of the environmental health staff so they can write reports in the field and print out reports for clients immediately. Most staff has access to e-mail and a Web browser.

Public Health System

The Mojave County Health Department has established working relations with several state and local organizations. It interacts with state agencies other than the state department of health to fulfill its mission. For example, it has a relationship with the state environmental quality agency because the agency has final authority over most environmental health issues. Restaurant safety is regulated by a state agency that is unrelated to the state department of health. Mojave County Health Department also attempts to work with colleges and universities in the state. As a recruitment strategy, the health department allows Arizona colleges and universities to place students in the department for internships.

The health department's relationship with the hospital is minimal and informal. The department negotiated a memorandum of understanding with local schools for space should a disaster require additional space. The health department has no relationship to speak of with the private physician community in the county.

The health department has informal relations with community and civic groups (tobacco cessation and prevention programs), faith-based organizations (also tobacco cessation and prevention programs), and businesses. The health department is a member of the local chamber of commerce and provides screening services and pedometers to businesses at which they speak. Health department representatives speak at community gatherings at every opportunity.

All counties in the state have executed memoranda of understanding that they will provide assistance to other counties in an emergency. The directors of Mojave and La Paz counties have made a concentrated effort to combine staff for joint training as often as possible. They are also in the process of jointly recruiting an epidemiologist that they will share. This will be the first position the two health departments have ever shared.

Hospital Relations

Kingman Regional Medical Center is a 130-bed district hospital. The hospital district encompasses only the southeastern section of Mojave County (the section south of the Colorado River and the Grand Canyon). The hospital belongs to a group purchasing cooperative, but has no other networking or system relationships. On the day of the site visit, the hospital had approximately 120 patients, for an occupancy rate of 92 percent.

The hospital administrator characterized the hospital's relationship with the county health department as a network, but said elements of coordination happen rarely. Nevertheless, the administrator said that he was open to the idea of greater joint planning.

Without identifying them as such, the hospital's administrator was asked which of the following eight essential services of public health the hospital provided and to rate the intensity of each one that the hospital does actually provide on a five-point scale (See Table B-1). In varying degrees, the hospital engages in six of the eight essential services of public health listed. The hospital administrator said that the hospital engaged in none of the functions "a great deal" (a score of 5). The highest degree of involvement in providing public health services involved educating the public and assuring a competent workforce. All other responses were average or below average in intensity.

Table B-1. Public Health Services Conducted by Kingman Regional Medical Center

Public Health Services	Yes	No	Degree
Monitor health status to identify community health problems.		X	0
Diagnose & investigate health problems and health hazards in the community.		X	0
Inform, educate, and empower people about health issues.	X		4
Mobilize community partnerships.	X		3
Develop plans and policies that support individual & community health efforts.	X		3
Link people to needed personal health services.	X		2
Assure competent public health and personal health care workforce.	X		4
Evaluate effectiveness, access, and quality of personal and population-based health services.	X		3

Planning and Evaluation

On an annual basis the health department conducts in-depth community needs assessments targeted at specific health problems or special needs. The most recent one focused on the need for dental services. More broad brush, county-wide needs assessments have not been conducted.

The department has a strategic plan that it is currently in the process of updating. A consultant has been hired to assist in the process. The current strategic plan is four years old. When the plan is completed, it will be shared with staff. Sharing the plan with the staff is something of an anticlimax, though, because the entire staff is included in the planning process. The final plan is also shared with the board of supervisors at a public meeting. The press covers every meeting of the board of supervisors and through this vehicle the health department's plan is shared with the community at large.

Each division of the health department establishes its own goals as part of the budget preparation process, but specific objectives and action steps are not outlined. Some individual division managers have operating plans for their own units.

The health department regularly engages in the evaluation of its performance on two levels. First, it evaluates the presence or absence of programs and activities, and second it assesses the

quality of the programs and services it offers. The department has used the Public Health Preparedness and Response Capacity Inventory twice. It is currently in the process of receiving training for using the National Public Health Performance Standards Program's Health Performance Assessment. "It is a wonderful tool," the department of health director said, "once you figure it out." If one intends to use it at the local level, she suggested that it is important to find a consultant to help you. The health department was in the process of using NACCHO's APEXPH tool, but the assessment was abandoned after 9/11. In addition to these department-wide efforts, the health department has also used the Pace Environmental Health Assessment.

La Paz County Health Department (Parker, Arizona)

Carved out of the northern half of Yuma County, La Paz County was formed on January 1, 1983, making it the newest of Arizona's 15 counties. There are only two incorporated towns in the county, Parker (population 3,167 in 2004) and Quartzite (population 3,355 in 2004); the population of the county is approximately 20,000. These population figures belie the public health challenge that faces La Paz County. The county relies heavily on tourism, and the influx of visitors from all over the world swells the population to approximately 1 million between January and March of each year. Approximately 2 million rock hounds descend on Quartzite each year to attend the annual Gem and Mineral Show. Two thousand vendors of rocks, gems, minerals, fossils, and assorted handicrafts create one of the world's largest open air flea markets. Eight major gem and mineral shows occur over a two month period at the site. A town of 3,000 is ill equipped to cope with this influx of people, so a virtual community of recreational vehicles and tents pops up on the desert floor. A battalion of itinerant food vendors set up shop to feed this constantly churning throng. In addition to the gem and mineral shows, over the Memorial Day weekend, between 20,000 and 40,000 people congregate in motor boats for assorted recreational activities on the 50 mile stretch of river on the county's western border.

The Colorado River Indian Reservation is wholly contained within La Paz County. The county is largely desert, but the reservation occupies a strip of land along the Colorado River in which 80 percent of the agriculture of the county takes place. The entire town of Parker (the county seat) is located on the reservation. Due to confidentiality challenges on the reservation

some members of the tribe seek care from the health department instead of from IHS/tribal health services.

As a result of tourism and recreation, county services—including public health services—are provided to many more people than the permanent residents of the county. Health department planning takes the large but temporary increase in population into account. For example, flu vaccines are given to high-risk (elderly) “snow birds” at special clinics established at Quartzite, where as many as 600 people have been processed in three hours. Flu vaccine clinics have been a feature of the La Paz county health department program for 18 years. Each of the itinerant food vendors at the Gem and Mineral Show is inspected and food related and communicable disease complaints investigated. To defray the costs of providing services to non-resident populations, the county supervisors negotiate with the State of Arizona and tribal government for additional resources. Relations with these funders are often “adversarial.”

The La Paz County Health Department is located in the county seat of Parker. The primary health department location is in a two-building complex of county government offices designed in a Southwestern style with a small plaza between the two buildings. The health department is in the rear of one of the buildings. Space planned for the health department during the design of the complex was assigned to others before the health department relocated to the building. Consequently, the space for the health department is quite small, requiring staff to double up and to use rooms for multiple purposes. In addition to the main office—where all services are delivered—the health department operates another office a block away in which the tobacco and bioterrorism programs are housed. The space in the county building is provided at no cost; the outside space is rented from private individuals.

The county health department engages in several satellite projects to serve the residents of and visitors to the county. Immunization services are provided monthly in Quartzite (35 miles from Parker), Salome (45 miles), Ehrenberg (42 miles) and Wenden (65 miles), using schools and community centers as the base of operations. Training for food handlers is also provided in satellite locations.

The hours of operation of the main office are: 8 a.m. to 5 p.m. Monday through Friday. The transportation service often begins as early as 5 a.m. in order to deliver clients to 8 a.m. doctor's appointments.

Governance

The three-member board of supervisors acts as the governing body for the La Paz County Health Department. Although an advisory board of health existed at one time in La Paz County, it is now "inactive." The board of supervisors meets twice per month and public health is a standard agenda item for meetings. Board of Supervisor meetings are open to the public, but usually county staff account for 90 percent of those attending. When an issue is contentious, it draws a larger crowd. More than 125 persons have attended some board meetings.

Asked for an example of board decision making, the county supervisor interviewed for this study said that the supervisors "haven't had a big issue" while he has been on the board. He went on to discuss a recent plan to spray for mosquitoes near a wildlife refuge to control the possible spread of West Nile virus. The county administrator refused to permit spraying, saying that if the county sprayed for mosquitoes on this occasion, it would create an expectation in the minds of residents that the county would continue to spray even when there was no West Nile virus threat. Annual spraying had budget implications which the county administrator did not wish to entertain. The county did not spray. He went on to discuss the decision to contract with a mental health provider through the health department to provide care to persons incarcerated in the county jail who may have mental health problems. These examples illustrate occasions where the supervisors either mediated a dispute between departments of county government or used public health to facilitate the work of another department.

Budget and Finance

The size of the La Paz County Health Department's budget is approximately \$1.5 million, which includes funding from all sources. The department's budget is part of the county's budget, although categories of expense for the department are reported in sufficient detail (approximately 10 expense categories) for the department to exercise financial accountability. In La Paz County, the health department is responsible for financing long-term care services for medical indigents.

A “premium for long-term care” of \$792,000 is included in the budget for that purpose (approximately 53 percent of the total budget). Because there is not a nursing home in the county, the health department pays for care delivered to former residents of La Paz County in nursing homes outside of the county. County revenue and fees and reimbursements of approximately \$100,000 are the only sources of revenue for the health department aside from grants from the state.

The process for budget preparation is as follows. The health department director and the administrative assistant review current expenses and programs, changes in the law, and other items to estimate expenses. Part of this estimate includes planning for the migrant population. The health department director then meets with the county finance director who has already estimated revenues and allocated costs among county functions. Salaries for county staff are dealt with separately by the supervisors. The LHD and finance directors meet and “iron out differences.” The board hears appeals from the LHD director and resolves all issues. At the meeting to approve the budget, the supervisors “go deep inside the budget [of every department].” The health department is treated like all other units of county government and presents and defends its budget request to the county commissioners.

The health department director said that she was reluctant to introduce new programs because 1) she wanted to assure that all new services would be of high quality, and 2) creating new programs creates expectations that may not be able to be fulfilled in the future. The second reason is germane to the question of budgeting. Program additions frequently require new money. Unless a funding stream in future years can be guaranteed, the director said she is reluctant to add programs, because she does not want to stop providing a service people rely on.

The LHD director reviews all accounts payable monthly. Accounting services—accounts payable, accounts receivable, payroll, and financial accounting—are provided by the county (which is located in the same complex of buildings). The county’s accounting system is automated.

A salary schedule does not currently exist, but the health department director reported that one was currently being designed. The current director of nursing makes \$39,000 per year, which the health department director estimated is one-half the amount made by nurses at the hospital after shift differential and overtime payments.

Organizational Structure and Personnel

The La Paz County Health department employs 24 full-time positions and 4 part-time positions spread over the following primary functions of the department: 1) environmental health, 2) nursing services (clinics), 3) family planning, 4) tobacco grant, 5) transit (transportation), 6) bioterrorism coordination, and 7) administrative services. Coordination among staff occurs during monthly staff meetings. *Ad hoc* meetings between the health department director, the director of nursing, and the chief sanitarian occur daily. At these meetings, supervisors discuss with the director items that require immediate response, for example the chief sanitarian might inform the director of an anticipated restaurant closing.

Each position in the organization is supported with a position description. Currently some positions are vacant. Position vacancies are advertised in the local weekly newspaper and in Lake Havasu City (approximately 35 miles away). The county also advertises for open positions on its Web site and uses word-of-mouth. The county health department does not advertise in Phoenix or other population centers, because responses from advertisements in urban centers historically have been disappointing. The director stressed the need for potential workers to have a good fit with public health. She said that there was a need for “free thinkers,” and opined that nurses frequently expect to be told what to do by a physician and thus have difficulty working independently in public health departments.

The department does not have a formal in-service training program, although the state Department of Health provides programs regionally that staff attend on a regular basis. Staff members attend other continuing education programs at the expense of the department. Most continuing education programs attended by staff are offered in Phoenix. Staff members required to have CEUs for continued certification or licensure have first priority on the use of continuing education funds.

The department director holds personal memberships in the Arizona Public Health Association, the American Public Health Association, and the state local health department association. The department has no institutional memberships. Of the three organizations, the director finds the local health department association to be the most useful association on the job. She said that APHA and the Arizona association were not useful in day-to-day operations.

The physician designated as the medical director is the only physician in the county who is not a J-1 visa physician. He has never attended a board meeting, and “has never set foot” in the health department offices. All he does for the health department is sign standing orders for nurses. The orders are brought to his office and they are signed while health department staff waits.

Decision Making and Decision Supports

Decision making in the department is centralized. Most functions run independently, but when a non-routine issue arises supervisors consult the health department director. The supervisors typically have thought out the issue and propose a course of action with which the director usually agrees.

Policies, procedures, guidelines, environmental laws, and standing orders are kept in manuals that are available to the entire staff. There is little staff turnover so there is not a formal effort to communicate these guides to decision making to the staff. Standing orders and clinical guidelines are reviewed annually. Laws and administrative regulations are updated when new laws and rules are passed or when old laws and rules are amended.

Information Systems

There are currently 21 personal computers in the department, giving each employee access to a computer. The policy on replacement (determined by county government) is rather restrictive: a workstation can be replaced only when the current one no longer works. The health department uses high-speed Internet services, but does not have a Web page of its own, although some limited information about public health is available on the county’s Web site. The county has an

IT department and it is responsible for procurement of hardware and software for the department. The IT department has partnered with the community college to provide basic computer instruction and some staff has participated in full-day sessions on Excel provided in Phoenix.

All staff has access to e-mail and the Internet. Some have access to spreadsheets, databases, and accounting software. A statistical program has been ordered, which will be installed on one machine only. Some staff also has access to a communication system that allows for the exchange of public health information over the Internet in a secure environment. The health department director said she was unaware of a “state-maintained, Internet-based disease surveillance system.” There is no access to GIS, client registration, or clinic management software. The department charges for services, but does not bill for them. Fees are collected at the time of service.

Public Health System

The health department’s relationship with other local government entities is described as “networking.” The health department works cooperatively with public works (on environmental issues), the hospital, community development, and the county assessor’s office (to track septic tank permits). A “great deal” of interaction occurs between the health department and the board. The offices of supervisors and the county health department offices are in very close proximity. As a result, the supervisors take a keen interest in the activities of the health department.

The health department sends all of its laboratory work, except for tests related to family planning, to the state health department laboratory. The department also relies upon the staff in the environment division of the State Department of Health, which was described as “very good.” The immunization division of the State Department of Health was called “responsive.”

Referrals are made by the health department to local physicians for needed medical care not provided by the department. There are no OB/GYNs in the county. The health department occasionally makes OB referrals to doctors in Lake Havasu City (36 miles away) in Mohave County. The department informally engages community and civic groups by making presentations to service clubs (there are three Rotary Clubs in Parker). The department provides

wellness training to businesses through its tobacco grant and food handling programs are also taught to 4-H members.

The La Paz County Health Department is not part of a formal network. Because of the small size of the local health department association in Arizona, it might be considered a *de facto* network for the primary purpose of exchanging information. The La Paz County Health Department also works closely with the Mojave County Health Department and they have begun to share some resources.

Hospital Relations

La Paz Regional Hospital is a sole community provider certified by the American Osteopathic Association. The hospital is a 39-bed, full-service facility with a medical staff of 24 physicians and two nurse practitioners. Also in Parker is a facility known as the Parker Indian Hospital, a 15-bed facility operated by the U.S. Public Health Service (Indian Health Service).

La Paz Regional Hospital provides radiological services for the county health department. The department received a private foundation grant for providing mammograms; the hospital serves as the sub-contracting mammography provider. The hospital also participates with the health department in bioterrorism and disaster preparedness planning. The health department epidemiologist communicates frequently with the infection control nurse at the hospital.

The hospital administrator was asked whether the hospital provided any of the following essential public health services and, if so, to rate on a five-point scale the hospital's intensity of engagement in providing the service (See Table B-2).

The hospital administrator said that the hospital provided, to one degree or another, all eight of the public health services listed. Only one service, linking people to needed personal health services, received the highest score for intensity, and only one service (inform, educate, and empower people about health issues) received the next highest score. The remaining services received intensity scores in the one to three range.

Table B-2. Public Health Services Conducted by La Paz Regional Hospital

Public Health Services	Yes	No	Degree
Monitor health status to identify community health problems.	X		2
Diagnose & investigate health problems and health hazards in the community.	X		2
Inform, educate, and empower people about health issues.	X		4
Mobilize community partnerships.	X		3
Develop plans and policies that support individual & community health efforts.	X		3
Link people to needed personal health services.	X		5
Assure competent public health and personal health care workforce.	X		1
Evaluate effectiveness, access, and quality of personal and population-based health services.	X		2

Planning and Evaluation

The health department plans to do a community assessment targeting Quartzite in 2006 (“that’s where the people are”). Although a “community needs assessment” is required for the per capita reimbursement grant from the state, it is quite perfunctory and is not used as a planning tool. The health department director said that she is not sure that department staff know how to do one correctly. She complained that the inability to take advantage of annual meetings of NACCHO and APHA has “affected the ability [of the department] to be visionary.” The department does not have a strategic plan, but it does have a one-year operating plan. Each division writes its own plan that is approved by the director. The plan is shared with staff at staff meetings, but is not communicated to the public.

The health department does not regularly evaluate its performance and has no plan to do so in the future—“if it is not tied to money, we can’t do it,” the director said. None of the standard assessment instruments had been used by the department in the past.

GEORGIA

The Atlanta metropolitan area is one county shy of stretching the entire width of the state of Georgia. Despite the continued growth of the “Capital City of the South,” Georgia is largely rural. Three smaller cities, Savannah, Macon, and Albany, form multi-county metropolitan areas within the borders of the state. Due to commuting patterns, the metropolitan areas of Columbia, North Carolina, and Chattanooga, Tennessee, cross their state borders into Georgia. Two small cities, Phenix City, Alabama, and Columbus, Georgia, combine to make up the only remaining metropolitan area of the state. The rest of the state is rural, from the Appalachian Mountains in the north to the Okefenokee Swamp in the south, from the Sea Islands on the Atlantic Shore to the Chatahoochee River, which forms almost one-half of the western border of the state.

With a long history of local governance, Georgia boasts 159 counties, second only to Texas in the number of counties among the states. All of the counties except one (Fulton County) operate a county health department according to rules set out by the State Division of Health, and are overseen by one of 18 health districts. Fulton County, which comprises much of the city of Atlanta, is permitted by law to administer its own public health system.

The 18 health district offices are staffed and operated by state employees. Each district office is administered by a district director who must be a medical doctor. The 18 district directors report to the Director of the Division of Public Health in the Georgia Department of Human Resources, the highest health officer in the state. The district directors also serve as the titular executive director of each county health department in his or her district and report to the seven-member county boards of health established in each county according to state statute. Aside from the executive director/district director, all staff members of the county health department are county employees.

This structure of shared state–county responsibility for public health is approximately 30 years old. Since the 1980s the services provided by county health departments have been spelled out in a master contract. Payments by the State of Georgia to the counties—referred to anachronistically as “grants-in-aid”—are considered payments for contractually obligated and performed duties by the county health departments. The master agreement is occasionally

amended and “annexes” are added to address special duties such as bioterrorism preparedness planning.

State funding provided to county health departments comes via multiple streams. First a payment of “regular grant-in-aid” is made to the local department to carry out basic population health functions. A second “programmatic grant-in-aid” is made to finance specific projects such as WIC, tobacco use prevention, and bioterrorism preparedness. The Division of Health estimates that approximately 10 percent of county health department revenues derive from Medicaid payments for primary care services provided to Medicaid clients by the local departments. Fees from sources other than Medicaid, county government contributions, and funding from grants, contributions, and other non-operating revenues round out the primary sources of county health department funding.

The composition of the county boards of health is prescribed by law to provide a mix of talent, expertise, and interests reflective of each county. The seven members must be:

- The chief executive officer of the county governing authority, or his/her designee.
- The chief executive officer of the largest municipality in the county, or his/her designee.
- The superintendent of the county school system, or his/her designee.
- A licensed physician, appointed by the county governing body.
- A person acting as an advocate for consumers of health services, appointed by the county governing body.
- A consumer representing the needy, underprivileged, or elderly, appointed by the county governing body.
- A person interested in promoting public health who is a consumer, or a licensed nurse, appointed by the governing authority of the largest municipality in the county.

The fact that each county board of health must contain high-ranking county, municipal, and school officials means that the business of public health is frequently taken up at meetings of the Association of County Commissioners of Georgia, the Georgia Municipal Association, and Georgia School Superintendents Association. The potential audience for a public health break-out session at the annual convention of any of these organizations is at least 158.

By law, county boards of health are charged with four functions. They are 1) to determine the health needs and resources of their jurisdictions by research and collection, analysis and evaluation of all data pertaining to the health of the community; 2) to develop, in cooperation with the Department of Human Resources, programs, activities, and facilities responsive to the needs of the area; 3) to ensure compliance with the rules and regulations of the Department of Human Resources that have local application; and 4) to enforce, or cause enforcement, of all laws pertaining to health, unless the responsibility for the enforcement of such law is that of another agency. As a practical matter, health assessment activities are performed at the district level and shared with the county boards of health. Most, if not all, of the public health policing power of the state is not delegated to the county health departments, but instead resides with state employees in the district offices. District offices are responsible for inspections of restaurants, swimming pools, and so on for all of the counties within their jurisdictions.

The Division of Public Health began the development of a statewide coordinated public health data system as a result of the state's bioterrorism preparedness planning. As of the date of the site visit to Georgia (February 2005), the system was not in place. The state has an online infectious disease reporting system called the State Electronic Notifiable Disease Surveillance System (SENDSS). The Division of Public Health established an immunization registry in 1996 called the Georgia Registry of Immunization Transactions and Services (GRITS). All Georgia health care providers who administer immunizations to children under 18 years of age are required to participate in the registry. The Georgia Comprehensive Cancer Registry (GCCR) is a statewide population-based cancer registry collecting all cancer cases diagnosed among Georgia residents since January 1, 1995. The Division of Public Health designated the Georgia Center for Cancer Statistics (GCCS) at the Rollins School of Public Health at Emory University as its agent for the purpose of collecting and editing cancer data. Data on Healthy People 2010 are collected and analyzed for the Division of Public Health by staff at Public Health District 10, located in Athens, Georgia, the home of the University of Georgia.

There is not an association of county health departments in Georgia. As mentioned earlier, county health department governance issues may be discussed in a variety of venues. District directors, medical doctors and state employees attend Division of Public Health meetings where

they have an opportunity to exchange ideas. Furthermore, because there are only 18 of them, they consult with one another regularly. In the absence of an association of county health departments, the Georgia Public Health Association fills the void for district and county health department staff by encouraging local health department networking at its meetings.

Georgia is blessed with several public health training opportunities. The University of Georgia (Athens) and Emory University (Atlanta) each have a school of public health that offers instruction leading to a Master of Public Health or Ph.D. Mercer University (Macon) offers a Master of Public Health degree through its medical school and Georgia Southern University (Statesboro) offers a Master of Public Health degree with a community health concentration. Emory University offers a distance-learning MPH option. Certificate programs from the University of Georgia include programs in environmental health science and health promotion and behavior.

CASE STUDY COMMUNITIES

The two counties selected for site visits in Georgia are both located in Public Health District 5–1. Public Health District 5–1 lies in the piney woods midway between Metro Atlanta and the coast. Comprised of 10 counties in south central Georgia, the district office is located in Dublin, Georgia, the county seat of Laurens County, the designated lead county for the district. We visited Laurens County and Telfair County. The county health departments are located in Dublin and McRae, Georgia, respectively. Laurens County is the largest county in the district and the most heavily populated. The area of Telfair County is approximately one-half of that of Laurens County and its population is approximately one-fourth as great.

South Central Health District (5–1)

The district office is located in Dublin, Georgia, in space it rents from the Laurens County government. The office is located on a campus with the Laurens County Health Department and a Community Mental Health Clinic. Individual county health centers also operate in space provided by their counties. The cost of space provided by the counties may not be considered part of the county expenditure match with state funds. Each county health department has a small

laboratory, but there are no laboratory services provided at the district level. All sophisticated laboratory tests are performed by the state laboratory.

The 10 counties of the South Central Health District have a combined population of approximately 142,000 people, making it the smallest district (in terms of population) in the state. The largest county in terms of both area (816 square miles) and population (approximately 45,000 people) is Laurens County; the population of Dublin is approximately 17,500. The population density of the district is 38.7 persons per square mile.

The district is administered by a physician district health director. Although district directors are required to be physicians, they are not required to have had any training in public health. Nevertheless, filling vacancies in the district director position is not always easy. Prior to hiring the current incumbent of the position in Dublin seven years ago, the position had been vacant for two years. The current director learned public health “by the seat of [his] pants.” A lifelong native of Laurens County, he is able to use his local roots and his network of professional and political contacts to work behind the scenes to manage the local public health system.

Organization and Services

The entire staff of the district office is employed by the state. Four administrators, each supervising a discrete function, report to the district health director: 1) the district program manager, 2) the district administrator, 3) the district dental director, and 4) the district epidemiologist. The district program manager supervises the largest number of functions. This division is made up of environmental health services and nursing and clinical services and a handful of services that report directly to the program manager. The district nursing and clinical director supervises nurse consultants in the areas of women’s health, adult and child health, infectious diseases, children’s medical services and school health. The consultants provide advice, training, and direct services to the 10 county health departments. Additionally, the district nursing and clinical director indirectly supervises the county nurse managers of the 10 county health departments. Functions that report directly to the district program manager include community health promotion and policy development, healthy start, adolescent health and youth development, WIC, and children with special needs, programs that largely are financed by

programmatic grants-in-aid. All county health departments use the same nursing and clinical policies and procedures. The district employs a training coordinator to provide training to the county health departments. A general orientation for newly hired district staff and county health department staff is held every other Monday.

The next largest functional unit is administration which is composed of accounting, personnel, and information technology support staff. Administrative staff provides support not only to district staff but also to the 10 county health departments as well. For example, the district administrator assists the county nurse managers with budget preparation and the IT support staff acquires needed hardware and software for the county health departments and provides training as needed. The final functional unit is epidemiology. The district recently hired its first epidemiologist.

All district staff has access to a computer terminal and e-mail, spreadsheets, and a Web browser, most have access to database software, and some have access to accounting software, statistical software, a secure Web-based communications system and a state-maintained disease surveillance program, depending upon their job responsibilities. The district has recently acquired GIS capability. All of the county health departments have client registration and clinic management software that can be tapped into by the district office.

The district operates a mobile dental clinic that serves all 10 counties. It is staffed by a full-time dentist and hygienists. The target population for the service is children from kindergarten to fifth grade who qualify for the free lunch program. Services are limited to dental sealants, inlays, extractions, and cleanings. The program charges Medicaid for the services it provides to enrolled children.

The hours of operation of the district office are 8:15 a.m. to 5:00 p.m. Monday through Friday. The office closes 45 minutes for lunch.

Financing

The district health director tends to think of the 10-county as a whole. When asked about the number of employees in the district, he includes the staff of the county health departments (all county employees) with the staff of the health district office (all state employees) to reach a total of approximately 135 budgeted positions, most of which are full time. Likewise, the budget for the district—which includes all of the county health department budgets—is approximately \$12 million. Salaries and benefits account for approximately 80 percent of expenditures. The next largest component of expense is inter- and intra-agency transfers which result from the sharing of employees between health departments. The remaining amount is split evenly between operating expenses and equipment.

Planning and Evaluation

The district office completed a comprehensive health assessment for each county in the district in 2004 and at the time of the visit, the assessment had just been sent to the county nurse managers to review with the county boards of health. The health assessments were detailed and allowed counties to compare their performance on a range of indicators to other counties and the state as a whole. The assessments were prepared by the new district epidemiologist working with the IT staff.

The district office has a strategic plan that it tries to update every year; however, the current iteration of the plan has not been updated since 2003. The process of developing the plan begins with a two-day retreat of divisional managers and county nurse managers that is facilitated by the division program manager. At the retreat participants brainstorm to identify problems and needed programs. Subsequent data analysis further refines possible opportunities. When the final plan is prepared (or the current plan modified), it is shared with the 10 individual boards of health.

The division regularly evaluates its performance along two dimensions: 1) the presence or absence of programs and activities relevant to public health services and 2) the quality of programs and activities relevant to public health services. It would like to measure the impact of its programs and activities on the health of the population and has established a working group to

define public health outcomes. To date, the division has used NACCHO's APEXPH system once.

Laurens County Health Department (Dublin, Georgia)

The Laurens County Health Department is located on a main road in Dublin, Georgia, the county seat. Clear signage adjacent to the street directs motorists to the health department. Located in its own one-story brick building, the health department shares a campus with a variety of other health and social service providers. The health department is in the building located closest to the road. The campus is composed of several buildings all built in the same architectural style. An outdoor, covered walkway connects the health department with the district health office, which occupies its own building on the campus.

Entering the health department through the front door, one steps into a smallish waiting room. A bank of three or four clerks sitting behind glass windows faces the door. Clients register for services at these windows. Client services are provided in a series of offices, exam rooms, and conference rooms. The health department offers several primary care clinic services, but they are not provided in physically discrete clinics. All of the nurses work in all of the clinics, although some nurses have developed specialization in some areas. In addition to services provided at the health department, some services are offered at remote locations, such as administering flu shots at nursing homes, schools, and city hall. Most of these remote clinics are announced in the local press to improve participation. The regular hours of operation of the health department are Monday, Wednesday, and Thursday, 8:15 a.m. to 5 p.m.; Tuesday, 8:15 a.m. to 7 p.m. and Friday, 8:15 a.m. to 2 p.m.

Governance

The Laurens County Board of Health meets quarterly. At a typical meeting, the board hears reports on the functioning of the clinics and other current issues. The board of health also grants environmental health licenses and permits for wells and cesspools, for example, and to child care facilities. The board is responsible for approving the budget and although the process of budgeting is largely opaque to board members, the board of health does approve increases in the prices charged for services. Board members feel that among their primary responsibilities is

assuring fiscal accountability, making sure that the money is “spent wisely.” Asked to describe a situation when the board of health was called upon to make a decision other than a budgetary decision, the chair of the board of health related a situation concerning the possible closure of a restaurant for health code violations. The board decided to close the restaurant; later the restaurant went out of business.

The district health director (a physician) attends all board of health meetings. When asked to describe the relationship between the Lauren County Health Department and the South Central Health District, the board chair replied, “As far as I’m concerned, it’s one service, just [located in] two buildings.”

Budget and Finance

Neither of the two health department staff members consulted for this project knew the size of the department’s budget. They said they did not play an active role in the preparation of the budget, that budgeting was all completed at the district level. Monthly comparisons of actual expenses to budgeted expenses are prepared by district accounting staff for county health department managers, but county staff believes that financial issues are primarily a district responsibility. The district accounting system is automated and provides individual financial reports to each of the 10 counties in the district, as well as costs which are unique to the district office.

Organizational Structure and Personnel

The Laurens County Health Department employs approximately 35 people, most of which are full-time employees. Some of the positions are shared with other counties. For example, three interpreters rotate through the ten counties of the district and the costs of employing them are allocated to the local health departments. Only one staff vacancy existed at the time of the site visit.

The county health department is administered by a county nurse manager and the department is divided into three administrative areas: 1) clinical services, 2) disease prevention and health promotion, and 3) administrative services. The clinical services section is the largest and

employs a staff of primarily registered nurses and nurse practitioners. A nutritionist and a social services technician are also employed in the section. The disease prevention and health promotion section is headed by a public health nurse, but the program associates who head specific programs, such as tobacco cessation, are not licensed professionals. Two billing clerks and three appointment and intake clerks report to the chief of administrative services. The relatively high proportion of support staff (approximately nine FTEs) is indicative of the importance of primary care services to the health department. Not only does it take clerical personnel to schedule and process primary care visits, but the revenue derived from these visits is an important part of the overall financing of the department. On average, fees account for 25 percent of county health department revenues, but the range of fee income varies from 20 percent to approximately 50 percent of all income of county health departments in Georgia.

The close proximity of the county health department to the district health department allows for greater interaction between the staffs of the two departments. As a result of proximity to the district office and the size of the Laurens County Health Department relative to other county health departments in the district, the Laurens County unit draws more heavily on district staff than the other county health departments. As a consequence, the Laurens County Health Department is able to call upon state-financed public health resources to provide for the health of its residents, but neither the resources nor the services are reflected in the organizational structure of the department.

The Laurens County Health Department holds in-service training sessions quarterly. Faculty for the sessions may be provided by county staff members, district staff members, or others (e.g., state Division of Health personnel or college faculty). The state Division of Health also sponsors training conferences throughout the year for county health department staff. Examples of topics covered at recent conferences include prenatal care and women's health. The state also has begun to use distant learning video conferencing technology to improve staff training and education. The equipment is located in the district office. Once again, Laurens County Health Department's proximity to the district office provides it with additional benefits. In addition to locally sponsored and state-provided training opportunities, other opportunities are available for key staff to attend conferences. Continuing education is required by the county health

department's quality improvement plan, and staff is reimbursed by the department for expenses incurred in pursuing continuing education.

Neither of the staff members interviewed, both of whom were registered nurses, belonged to any of the following organizations: the Georgia Nurses Association, the American Nurses Association, the Georgia Public Health Association, the American Public Health Association, or the National Association of County and City Health Officials.

Decision Making and Decision Supports

The county nurse manager is responsible for making all of the "every day" decisions of the county health department, but decisions on less routine matters are referred to the district health officer for resolution. Written rules, procedures, guidelines, standing orders, and policies are made available to all staff in three-ring binders stored in a central location. When changes are made to any of the documents, the changes are communicated to staff during routine staff meetings. During orientation, new staff members are shown the manuals and instructed to read and become familiar with them. The nursing guidelines and procedures are reviewed annually by a committee of nurses from all 10 of the county health departments within the district. The district office is responsible for making the changes and communicating updates to the county health departments. All of the county health departments in the district use the same manuals.

Information Systems

Seventeen personal computers are available in the department for use by approximately 35 staff members. Every staff member is authorized to use a computer and has access to one. Equipment is updated every year on a replacement schedule. The person responsible for IT upgrades is the chief of administrative services of the county health department; the district IT person acts as a consultant to all 10 of the county health departments. In the past, employees have received computer training classes at the local university. Staff members were paid to attend classes.

The department uses high speed Internet services, but it does not have a Web page of its own. All staff has access to e-mail (each has a state e-mail addresses), a Web browser, and the client

registration program. Some have access to spreadsheet, database, accounting, statistical, GIS software, and clinic management programs. Public health communication programs and disease surveillance systems exist only at the district level but input to and information from the systems is routine and on going.

Public Health System

County health department staff reported no relations with other local government entities, but stated the department had relations with other state agencies, including the Department of Family and Children Services, the Mental Health Service, the Healthy Start program and the state Division of Health laboratory. (The Department of Family and Children Services and the Mental Health Service are both located on the same campus as the Laurens County Health Department).

The county health department makes referrals to the local hospital for mammograms and for other health care services the department does not provide. County health department staff reported that the local hospital had “just started” participating in joint disaster preparedness planning (February 2005).

No physicians work in the Lauren County Health Department’s clinics. Standing orders and counter signatures are provided by the district health officer. Local physicians see some patients on a referral basis from the department of health. Many of the clients of the health department are covered by public insurance programs such as Medicare, Medicaid, and SCHIP. Physicians may be more willing to accept referrals from the department of health because they use the department to screen for medical need and ability to pay. The county has an indigent care pool, in which local physicians sign a contract to provide an agreed-upon level of services to the medically indigent. Currently, no physicians in the county participate in this program, yet on a case-by-case basis they agree to see indigent patients referred to them.

The department has informal relations with various aspects of the community—usually initiated by requests to the department of health from outside organizations. For example, the department will take certain services (e.g., flu shots, screenings) into the community; nursing students from Middle Georgia University and Georgia College (Milledgeville) precept at the

Laurens County Health Department. On occasion the health department receives requests from churches and businesses to talk about health issues or provide health screenings. Other than the relationship between the county health department and the regional health district, no long-term, enduring relationships exist between the county health department and any other organization or coalition of individuals in the county.

Hospital Relations

Fairview Park Hospital in Dublin, Georgia, is a 190-bed for-profit hospital owned and operated by HCA. Hospital staff meets monthly with the health department and other agencies (e.g., sheriff's office, county EMS) to plan for emergencies and disasters as part of the Laurens Emergency Preparedness Commission. The Commission, as an organization, has applied for grants. The administrator interviewed for the project had previously worked in Macon, Georgia, a somewhat larger community between Laurens County and the Atlanta metropolitan area. He observed that compared to Macon County, Laurens County is much better prepared to deal with an emergency. The hospital administrator characterized his relationship with the health department as one of "coordination," defined for the project as exchanging information and altering services as needed.

Without identifying them as such, the hospital's administrator was asked which of the following eight essential services of public health the hospital provided and to rate the intensity of each one that the hospital does actually provide on a five-point scale (See Table B-3). He said that the hospital provide all of the public health services listed. The highest degree of involvement in the services was accorded to assuring a competent public health and personal health care workforce. Five of the remaining seven enumerated public health services received the next highest ranking for the hospital's level of participation in providing the service. The service that the administrator rated lowest in terms of the hospital participation was diagnosing and investigating health problems and health hazards in the community.

Table B-3. Public Health Services Conducted by Fairview Park Hospital

Public Health Services	Yes	No	Degree
Monitor health status to identify community health problems.	X		4
Diagnose & investigate health problems and health hazards in the community.	X		2
Inform, educate, and empower people about health issues.	X		4
Mobilize community partnerships.	X		4
Develop plans and policies that support individual & community health efforts.	X		3
Link people to needed personal health services.	X		4
Assure competent public health and personal health care workforce.	X		5
Evaluate effectiveness, access, and quality of personal and population-based health services.	X		4

Planning and Evaluation

The county health department has no formal strategic planning process. The county needs assessment recently completed by the district office will be shared with the county board of health, which may stimulate discussion leading to a plan to offer services that are not currently offered or to redirect health promotion efforts.

The county health department reviews the quality of programs and activities relevant to public health services annually as required by the departmental quality improve plan. Data on client satisfaction is collected in two ways: the WIC program has its own client satisfaction instrument and a general client satisfaction survey that was started “two or three years ago” is used for all other services. Staff reported that the need for programs or the impact of programs on public health was not reviewed and such assessments were not part of the current quality improvement plan. The county health department has never participated in any performance assessment using instruments provided by national public health organizations.

Telfair County Health Department (McRae, Georgia)

The Telfair County Health Department is located in its own building in a residential neighborhood of McRae, Georgia, four blocks off the main thoroughfare. The county health department is located in a small office complex with other county office buildings. The main entry of the health department opens to a large waiting room with a glass-enclosed reception area

staffed by a single clerk. All activities of the health department are routed through the clerk. Despite its location somewhat off the beaten path, it is well-known among townspeople. Three people selected at random on the streets of McRae were asked the location of the health department; all three were able to identify its location accurately. Without encouragement, one identified the health department simply by its address—“Oh, that’s the health department.” The regular hours of operation of the health department are: Monday through Wednesday, 8 a.m. to 5 p.m.; Thursday, 8 a.m. to 6:30 p.m. and Friday, 8 a.m. to 2:30 p.m.

Governance

Like other county health departments in Georgia, the composition of the Telfair County Board of Health is determined by state law. The chairman of the board of health related that the primary function of the board was to decide what the priorities of the department of health should be. He said that the county health department had recently conducted a community needs assessment and that as a result the board was “aware of health issues throughout the county,” but that an “actual process” of planning had not been used to identify issues or needs. Previous iterations of the county health department’s strategic plans he said were subsumed in the district plan. The county nurse manager believes that the county board of health has “more responsibility than most people think,” but was not specific in citing ways that the board could exercise its authority. Examples given of key board of health functions included approving changes in fees and “keeping informed of health conditions in the county.”

The district health director and key members of his staff attend all county board of health meetings and provide information and advice to the board. The board of health has no standing committees, but uses *ad hoc* committees on occasion to investigate certain issues. The chairman of the board of health did not know the size of the county health department’s budget, but said that the district health director and his staff assemble the budget and that they explain each line item to the board of health. The county board of health provides its input and approves the budget. The board of health also approves the county contribution of matching funds required by state law. The budget of the county health department is a discrete budget separate from the Telfair County government budget. While board of health meetings are open to the public and

meeting times are announced in the local newspaper a week before the meeting, the public does not attend the meetings.

Budget and Finance

The county nurse manager related that the budget for the Telfair County Department of Health is approximately \$300,000. The budget is prepared at the district level, but district financial staff visits the county nurse manager during the budgeting process to consult about changes in programs and staffing for the next year. All capital expense items are purchased out of the regular budget.

The district office prepares comparisons of actual expenses to budgeted expenses which the county nurse manager reviews twice per year. All financial accounting (e.g., general ledger) for the county health department is performed on an automated accounting system at the district office. The district also processes payroll at the district office but the checks are signed by county staff and drawn from local banks. Accounts payable are processed and deposits of receipts (i.e., fee income) are made by county health department staff. The local department accounting system is not automated.

Organizational Structure and Personnel

The Telfair County Health Department is budgeted for eight full-time positions. Currently, all positions are filled. Three nursing personnel (two BSNs and one LPN) report to the nurse manager and three clerks report to a clerical services supervisor. Both supervisors participate in the work of their subordinates in addition to performing other management tasks. An epidemiologist (0.1 FTE) and nutritionist (0.5 FTE) are shared with other county health departments.

In such a small department, communication among staff who all work the same hours is not difficult, but the county health department holds monthly staff meetings to assure that important communications are shared. All staff members are expected to attend. Additionally the county nurse manager meets with other county nurse managers in the district one time per month at the district office to obtain information and discuss problems of mutual concern.

The county health department has an in-service program keyed to its quality improvement plan. Depending on the timetable for review in the plan—some standards require annual “refreshers” and others triennial recertification—staff are scheduled to receive additional in-service training, which may be provided by either district or state staff. Examples of programs are blood-borne pathogens, immunizations, and updates on tuberculosis and diabetes. All staff, including clerical personnel, is required to have training in cultural diversity. County health department staff have other opportunities for continuing education primarily offered through regional training centers established by the state. Recent topics offered include women’s health and dealing with adolescents. Continuing education expenses for staff are paid for by the department.

Decision Making and Decision Supports

The county nurse manager is responsible for making “day-to-day decisions,” but decisions affecting “policies, procedures, et cetera, are made in Dublin [the district office].” Like the other county health departments in the district, written rules, procedures, guidelines and policies, developed at the district level, are available for use at the health department to help guide decision making. They are made available to staff in manuals and an employee handbook. At orientation, all new employees review procedures, policies and guidelines in bound volumes. Nursing policies and procedures are reviewed annually.

Information Systems

Nine personal computers are available in the department for use by the full-time and shared staff, giving every employee access to a computer. “A couple” PCs are upgraded or replaced every year. The IT person employed at the district level is the IT consultant for hardware and software for the department. Employees receive basic training in the use of computers from the regional office staff.

The county health department has high-speed Internet services. It does not have a Web page of its own. All staff has access to e-mail, the Web browser, client registration, and clinic management software. No software for accounting, statistics, or GIS is available at the

department. State-based public health and disease surveillance systems are maintained on behalf of the department by the district office. If necessary, the county health department communicates to the district office by e-mail or telephone and district personnel enter the information into the statewide system on behalf of the county health department.

Public Health System

Five physicians practice medicine in the county and the health department makes referrals to them as needed. The department contracts with local physicians to provide physicals for clients in its stroke and heart attack program. Local physicians also provide prescriptions for STD patients.

The local hospital provides the county health department with prescription drugs when the department's inventory is depleted or near depletion and has agreed to store and refrigerate drugs in an emergency. The hospital performs x-rays for the health department and in the future will perform mammograms for it. The hospital infection control nurse reports information collected at the hospital to the health department. The hospital participates with the county health department in disaster preparedness planning, sitting on local committees.

No relationships with community/civic groups, faith-based organizations and universities were reported. Relations between local businesses and the health department, while informal, are robust. Local businesses have been a focus for improving health awareness in the county and they have "helped get the word out" about public health.

The Telfair County Health Department is a member of Family Connection, an interagency network established and run by the Department of Families and Children. Family Connection jointly has applied for a grant to implement a family-centered "pre-disaster mitigation" program. The interagency group also performs child fatality reviews.

The health department has a relationship with EMS for disaster planning and participates with EMS providers in a semiannual meeting sponsored by the extension service to share information across organizations in the county about safety and health.

Hospital Relations

Taylor-Telfair Regional Hospital is a non-government, not-for-profit hospital that is managed under contract. The hospital is licensed as a critical access hospitals (CAH) and participates in a shared services venture to broaden access to clinical and administrative services.

The hospital administrator characterized the hospital's relationship with the health department as "cooperation" defined for the project as exchanging information, altering services as needed, and sharing services. The hospital views itself as the focal point for disaster planning, but tries "to involve the entire county in planning efforts." The district health director has spoken to the hospital's medical staff about bioterrorism and emergency preparedness. Funds were made available to the hospital from the state bioterrorism grant (HRSA) but in the opinion of the hospital administrator, the grant "didn't involve the health department."

Without identifying them as such, the hospital's administrator was asked which of the following eight essential services of public health the hospital provided and to rate the intensity of each one that the hospital does actually provide on a five-point scale (See Table B-4). In varying degrees, the hospital engages in seven of the eight essential services of public health listed. It does not monitor the health status of the community. Only two of the services it does provide are provided with a degree of intensity (i.e., a score of 4 or 5): assuring a competent public health and personal health care workforce and evaluate effectiveness, access, and quality of personal and population-based health services. Examples cited of how the former service is accomplished by the hospital include the requirement that all RNs and LPNs have training in CPR and to be ALCS-certified. The hospital also provides in-service training and pays for staff development. Evaluation activities are imbedded in the hospital's quality improvement program.

Table B-4. Public Health Services Conducted by Taylor-Telfair Regional Hospital

Public Health Services	Yes	No	Degree
Monitor health status to identify community health problems.		X	
Diagnose & investigate health problems and health hazards in the community.	X		2
Inform, educate, and empower people about health issues.	X		3
Mobilize community partnerships.	X		2
Develop plans and policies that support individual & community health efforts.	X		2
Link people to needed personal health services.	X		3
Assure competent public health and personal health care workforce.	X		4
Evaluate effectiveness, access, and quality of personal and population-based health services.	X		5

Planning and Evaluation

The county health department completed a community needs assessment “about three or four years ago” on its own initiative. (NOTE: The district epidemiologist recently completed a community needs assessments for each of the counties in the district.) The department does not have a strategic plan, but it does have a one-year operating plan, in which it sets goals for performance (e.g., immunization rates). However, an operating plan, with newly stated goals, has not been prepared for the past two years. The operating plan, when prepared, is shared with staff and the community through the board of health meeting.

Summary records are prepared documenting the number of people served in various programs. The health department assesses the quality of programs and activities provided through its quality improvement plan. The department annually conducts patient satisfaction surveys, audits patient records, and reviews and updates manuals. Individual employee’s performance is also considered part of the quality assessment. Each individual’s job performance is assessed annually and concerns or problems are discussed with the employee. The county health department has used no standard agency-wide assessment instruments.

KANSAS

Kansas is two states. The verdant rolling hills of the eastern section give way to the dry, flat, high plains of the west as the traveler crosses U.S. Highway 81. The Kansas City metropolitan area on the eastern border—which was once the jumping off point for all trails west—is today the most highly populated and fastest growing area of the state. Wichita, a national center of aviation manufacturing (Boeing, Beachcraft, Cessna, and others have plants there), is the state’s other leading metropolitan area. There are no metropolitan areas in the western part of the state. With a few notable exceptions, every county in Kansas west of the 100th meridian lost population in every census-taking year of the Twentieth Century. What roots remain in western Kansas are nourished by irrigation-based agriculture, and now even that is in jeopardy. In some places, the water table of the Ogallala Aquifer, the ground water source for the southern Great Plains, is in danger of falling below the level at which it can be effectively pumped. Eighty-three percent of all water used in Kansas for all purposes in 2001 was used for irrigation. The irony of center-pivot irrigation is that on a hot, sunny July day, only a fraction of the water pumped ever reaches the ground. With the out-migration of the young and the decline of its dominant industry, the future prospects for the western portion of the state, at this time, are not optimistic.

Kansas is composed of 105 counties. Public health activities in Kansas rely heavily on county health departments. Local health departments are independent agencies with broad jurisdictional authority. They report to no state agency, rather each local health department is governed, typically, by a three-member county commission. Ninety-nine health departments serve the 105 counties. The majority of local health departments are single-county departments, but multiple-county and combined city-county departments also exist. Significant variation in public health capacity exists across Kansas, due in part, to the independent governance of the health departments.

The relationship between local and state public health entities is characterized as “collaborative autonomy.” The Kansas Department of Health and Environment (KDHE) has a strong relationship with the local health departments that relies largely on incentives to affect local health department performance rather than authoritative coercion.

Kansas law provides little direction for the structure of local public health: counties are not required to have a local health department (although most do), and there are no statutory requirements for services or programs. Services offered by local departments depend entirely on the county government. The only statutory requirement is that each county have a board of health and a health officer. In counties with populations greater than 100,000, the health officer must be a physician. The health officer in other counties may be a physician or other licensed health professional. In some cases, the health officer is a part-time physician who offers advice and serves only as a consultant. In other cases the health officer is also the designated health department administrator. County health officers play significant roles in determining the services and programs operated by the health department.

Local health departments in Kansas are not organized into regions. However, in recent years, various cooperative ventures among local health departments have begun to emerge. There are currently three strains of cooperative alliances that have formed in the Kansas public health system. The first strain is voluntary alliances with a programmatic focus (e.g., WIC or mental health services) intended to share targeted public health share resources among neighboring counties. In some cases, one county health department provides one or more service for another department. Through this kind of alliance counties with fewer resources are able to offer a particular service to their residents, albeit the resident must travel to obtain the service. In other cases, two or more counties may share a particular resource, such as a mobile health unit that serves multiple counties. The second type of cooperative alliance is related to bioterrorism preparedness. When planning for bioterrorism preparedness began, the Department of Health and Environment asked local health departments to form regions voluntarily to increase effectiveness and resource utilization. Local health departments, working through the auspices of the Kansas Association of Local Health Departments, formed 15 regions. Bioterrorism grant funds were allocated to each of the regions so that they could purchase resources or hire staff for necessary planning, training, and activities. Although these regions appear to be useful for bioterrorism preparedness planning, to date they have not been used for other purposes. The third cooperative alliance also was organized around bioterrorism planning. These alliances attempt to coordinate the efforts of local public health departments, hospitals, and emergency service providers. Six

regions were established by the Department of Health and Environment based on geography. With a long history of independence, Kansas health departments are moving forward cautiously in these nascent networking ventures.

Although the local health departments operate independently from the state Department of Health and Environment, both parties agree that the state department influences the programs and policies of the local departments. The State Office of Rural and Local Health provides guidance and support to local health departments in both rural and urban areas. The Office of Rural and Local Health employs six public health nurse specialists based in district offices around the state. They serve as direct field staff, coordinating activities between the state health agency and local health departments. They focus on improving the public health system by offering technical assistance to increase local agency capacity to deliver public health services, developing infrastructure, and coordinating public health into other care networks.

The Department of Health and Environment also works closely with the Kansas Association of Local Health Departments (KALHD). KALHD offers education, technical support, and support of specific projects to improve community health through local health departments. KALHD hosts a mid-year public health meeting and an annual Kansas public health conference. Another key organization that supports Kansas public health is the Kansas Public Health Association (KPHA), representing more than 500 members from over 50 occupations/organizations.

Kansas statutes do not require specific training for local public health personnel. The Department of Health and Environment, nevertheless, strongly recommends that new local health department administrators obtain Kansas Public Health certification. The certification program was jointly developed between the Department of Health and Environment and the University of Kansas public management program. Kansas does not have a school of public health in any of its universities, but the University of Kansas School of Medicine offers a Masters in Public Health. The schools of public health located closest to the bulk of Kansas's population are in St. Louis, Missouri (St. Louis University), and Oklahoma City (University of Oklahoma).

State financing is available to local health departments through two types of grants: the state formula grant and categorical grants. The state formula grants are available to local public health departments on a formula basis to support general health services. To be eligible for these funds, the local health agency must be a county, city-county or a multi-county health department supported by sufficient local tax revenues and expenditures to meet state maintenance of effort requirements. State formula (general health) funds are intended to help insure that "adequate health services are available to all inhabitants of the State of Kansas." There are no specific program requirements for this funding. Categorical grants are available in the following areas: community based primary care, child care licensing and registration, maternal and child health services, family planning, teenage pregnancy reduction, comprehensive school health centers, teen pregnancy case management, teen pregnancy prevention peer education, HIV/AIDS, Immunization Action Plan (IAP), and enhancement/chronic disease risk reduction. Categorical state funds are provided to support relevant projects administered by local units of government. Some categorical grants require matching local funds or other maintenance as defined by the grant.

Lack of a comprehensive information system is one of the primary challenges recognized by Kansas public health leadership. Several information systems have been developed within the state, but there is not one system that is capable of capturing and communicating necessary public health information and alerts. The state public health system operates the Health Alert Network (HAN) and the Kansas Public Health Information eXchange (PHIX). The Kansas Association of Local Health Departments uses a separate information network (KIPHS), while the hospital association and the department of emergency management implemented two additional networks, EMSsystems and WebEOC, respectively.

The Health Alert Network (HAN) is part of the state's bioterrorism planning and response effort. As a part of the HAN implementation, funds are being used to enable Internet connectivity and pager alert functionality for local health departments. As a result, all local health departments in Kansas have an Internet connection, with 62 of them (covering 93 percent of the state population) having always-on, high-speed connections.

The Kansas Integrated Public Health System (KIPHS) was developed to provide technical assistance in epidemiology. Disease investigation protocols are provided for the reportable diseases in Kansas. Unfortunately, KIPHS does not interface with the Health Alert Network or other newly developed IT programs.

The Kansas Public Health Information eXchange (PHIX) is a secure, Web-based communication system designed to facilitate the rapid exchange of information between the KDHE and public health and safety officials. Only select groups of people are eligible to become PHIX users. Eventually eligible users will include state and county health department officials, select members of law enforcement and hospital staff, select members of public health, public and private medicine, emergency management and law enforcement. Lastly, Kansas maintains a trauma registry through KDHE and an immunization registry is currently being developed.

Kansas does not use standard performance assessments at the local level. The CDC's Public Health Preparedness and Response Capacity Inventory has been used once for state evaluation purposes. In addition, a few counties independently used the APEXPH tool approximately 10 years ago. A County Health Assessment of Progress (CHAP) was developed to assist counties in evaluating health standards. A majority of counties have used the tool (approximately 65 of the 105 counties), but it was not required. The state health department and the association of local health departments both encourage counties to use NACCHO's MAAP program for local evaluation.

The Department of Health and Environment is partnered with the St. Louis University School of Public Health, Heartland Center for Public Health Workforce Preparedness, to develop innovative ways to address the training and professional development needs of the workforces in the state. To identify and set priorities among training needs, a state Workforce Training Needs Assessment was completed. The survey is based on the Core Competencies for Public Health Professionals, as well as the Bioterrorism and Emergency Readiness Competencies developed to address public health preparedness. The assessment results will allow each the state department of health to identify gaps in training. As a result the

Department of Health and Environment will offer training programs that are more specific to individual needs and to build workforce expertise.

CASE STUDY COMMUNITIES

To depict the two faces of Kansas, we selected one county for a site visit in eastern Kansas and one in western Kansas. Eastern Kansas more closely resembles neighboring states in the Midwest, such as Missouri and Iowa, both geographically and economically. Western Kansas falls squarely in the Great Plains. In Eastern Kansas we visited Pittsburg (population 19,152), the county seat of Crawford County. Crawford County lies in the Cherokee Lowlands of southeast Kansas, an area whose history, economy, and culture has been influenced by the strip mining of bituminous coal and is known locally as “The Balkans.” Crawford County is home to Pittsburg State University, the only college in the country whose athletic teams’ mascot, incongruously enough, is a gorilla. In western Kansas we visited Gove (population 98), the county seat of Gove County. Gove County is located immediately west of the 100th meridian, the point that roughly marks the western boundary of the normal reach of moist air from the Gulf of Mexico. Gove County is part of the Kansas badlands, and two landmarks erupt from the plains of the southern part of the county that once served as road signs for frontier teamsters on the Butterfield Trail—Castle Rock to the east and Monument Rocks, also known as the Chalk Pyramids, to the west. The Butterfield Trail was a stage coach and freight route from Atchison to Denver used by Butterfield Overland Dispatch, a company later acquired by Wells, Fargo, and Company.

Crawford County Health Department (Pittsburg, Kansas)

Crawford County Health Department is housed in a free-standing brick building in Pittsburg, Kansas, designed and built for it in 1996 by the county commission. The building is divided into two sections, one half providing routine public health services and the other providing women’s health and HIV/AIDS services. There is a common entrance for clients; separate entrances to the two divisions are located on either sides of an entry foyer. In addition to the health department building, Crawford County Health Department operates a number of satellite facilities. Services are housed outside of the health department building due to space constraints or client privacy concerns. Services located in other facilities includes a teen pregnancy program (county juvenile justice building), healthy start home visitor program (youth services building), HIV/AIDS case

management (private office complex), and a satellite environmental health office (Girard, Kansas, city office building). The space occupied by the department outside of the county health department building is either provided by another government entity or rented from a private party.

The health department's regular hours of operation are Monday to Friday, 8:30 a.m. to 4:30 p.m. The women's health division is open Monday to Thursday from 8 a.m. to 5 p.m. The two divisions had the same hours of operation but the women's health division's hours were reduced because of budget reductions. The health department experimented with evening hours, but did not adopt them because of low use. The third Thursday of every month the health department remains open until 6 p.m. to provide immunizations. (Immunization services are also routinely available during regular hours of operation.)

In 1995, the Crawford County Board of Commissioners consolidated all county health and social services into a single unit, a structure that within Kansas is unique. The executive of the combined department provides many administrative services for the health department, but day-to-day supervisory professional services are provided by an advanced practice registered nurse designated as the County Health Officer. (By state law a county health officer must be a physician, nurse, dentist, or veterinarian and take an oath of office.)

The site of several public health emergencies in the past decade, including multiple tornados and an outbreak of meningitis at the local college, the Crawford County Health Department reputation and professionalism has allowed it to provide a leadership role in the Southeastern corner of the state. In addition to providing a rich array of public and personal health services to county residents, the health department also provides selected services to the residents of several other counties. Depending on specific service, the number of counties using Crawford County Health Department services is as few as two and as many as 22 (there are 105 counties in Kansas). Shared services include WIC, HIV/AIDS case monitoring, childcare licensing, and women's health programs.

No formal contracts exist between Crawford County and the other health departments, but the state grant to Crawford County that funds categorical programs specifies which counties will be covered by the Crawford County Health Department for which services. Residents from other counties seeking services must travel to Pittsburg, Kansas, the site of Crawford County Health Department. On the day of the site visit (July 12, 2005), the health department was conducting a WIC clinic and the waiting room was consistently filled throughout the entire visit. More than once, the waiting room was full and individuals spilled into the adjoining entry foyer.

In the past year, the health department, in cooperation with other counties, purchased a semi-trailer sized mobile facility that is being outfitted for the delivery of services during a health emergency. The mobile unit may also be used for planned mobile services as well. The new mobile facility has not yet been deployed, but a training exercise is scheduled to determine how best to use the new tool. The area has been the site of several recent natural disasters.

Governance

A three-member board of county commissioners provides governance for the health department, holding meetings that are open to the public every Tuesday and Friday morning. Public attendance is light, but the minutes of the meeting are published in the local paper. The commissioners appointed a health advisory board of 12 citizens that meets monthly. The health advisory board makes non-binding recommendations to the county commissioners. The county commissioners also create other health committees as needed. Examples of *ad hoc* committees formed in the past include a public relations committee specifically to deal with the meningitis outbreak, a committee to plan for the range of client services, and legal and personnel committees.

Asked for decision concerning public health made by the board of commissioners the health officer related the following: A stray dog was “adopted” by a resident and the dog bit another county resident. Concerned about the possibility of rabies, the county health department wanted to destroy the dog for testing, but the owner refused to allow the dog to be killed. The department agreed to quarantine the dog. A “public outcry” followed the quarantining of the animal (fanned in part by the good humored exuberance of local college students who took out newspaper

advertisements encouraging that the “captive” dog be set free), which lead to the development of standards and protocol for the quarantining of animals. During the process, the health officer made appearances before the county commissioners to explain the science of rabies and why the health department took the steps it did.

Budget and Finance

The budget for Crawford County Health Department is approximately \$1 million. The executive administrator of the Health Department prepares the budget for all programming areas, including the health department, drawing on several revenue sources: state aid to local communities (Kansas Department of Health and Environment), Department of Administration, federal grants, county public mill levy for public health, 80 percent of the city liquor tax, and fees from services. The health department’s budget is combined in the overall budget of the Crawford County Mental Health Center and Regional Health Department, an umbrella organization that combines several independently administered health and social service programs. Nevertheless, the health department’s budget is relatively detailed. Health department expenses are compared to the budget monthly and financial accounting (payroll, accounts payable, and so on) is conducted in-house by staff of the larger, central organization. The capital budget for the health department is included as part of the county budget.

The Crawford County Mental Health Center and Regional Health Department established a private foundation called Families and Children Together Inc. that is funded by donations and grants. The purpose of the foundation is to purchase items for the county health department when the county government is legally or fiscally unable to do so. For example, the land upon which the health department building was built was purchased by the foundation. The Crawford County Mental Health Center and Regional Health Department also has a reserve of approximately \$3 million for emergencies and unexpected expense items.

Organizational Structure and Personnel

The county health officer for Crawford County is a registered nurse. She reports to the county commissioners (which is a requirement of state law) as well as to the executive administrator of the Crawford County Mental Health Center and Regional Health Department.

The executive administrator provides part-time oversight to the health department's non-clinical activities, but the health officer manages the day-to-day clinical and health-related activities of the department. As mentioned previously, the health department is divided into two divisions, Crawford County Health and Family Services, which provides family planning, women's health, and HIV/AIDS services, and the health department, which provides all other health services. In addition to the routine public health services offered, the department conducts school health screenings, well-child clinics, environmental inspections (solid waste, private well-water systems, and management of waste-water requirements for single-family houses and subdivisions within the county), and licensing of child care facilities. Crawford County Health and Family Services, the women's health division of the department, provides free annual breast screening to women over 50 years of age and Pap smear tests to women over 40 years of age who are uninsured.

These activities are conducted by a staff of 30. Twenty-one staff members are considered professional staff and nine are administrative/clerical staff. Of the 21 professional staff members, 12 are full-time employees and nine are part-time. The full-time staff includes six registered nurses, two nurse practitioners, a nutritionist, a social worker, and an inspector/surveyor in addition to the health officer. The part-time staff is composed of six registered nurse who each work an average of three days per week, two physicians who each work one to two hours per week, an environmental specialist/sanitarian (three days per week), a laboratory technician, (21 hours per month), and a pharmacist (one hour per month). There were no staff vacancies at the time of the site visit.

The health department does not conduct routine staff meetings, but information is shared by the health officer and feedback is sought and provided regularly by staff members. Regular program meetings are held with relevant staff members. A formal in-service training program for new staff is not in place; staff members are expected to learn the public health skills through on-the-job training. A recent position announcement for a job on the women's health side of the department required one year of clinic experience and stated a preference for nurses who were bilingual (Spanish and English) and computer literate.

Most staff members attend educational conferences, seminars, and meetings at the national and/or state (KDHE) level. On occasion, the health department will bring in professionals to conduct in-house training. The continuing education and travel is paid from by the health department.

The health department has institutional memberships in the state public health association and the state local health department association. Of the two, she finds the state public health association membership to be the more useful. She has no personal memberships in any health-related organization.

Decision Making and Decision Supports

The decision making for the health department is largely centralized with the health officer making most of the decisions (with some oversight by the executive administrator). The decision making process is guided by written rules, procedures, guidelines, and policies, which are reviewed “every couple years or as needed.” A rules and guidelines manual is provided to each employee when she or he begins employment and policies and procedure manuals are available on each side of the health department.

Information Systems

The health department has 19 computers (12 for the health department and seven used exclusively for WIC). All staff members have access to a computer. The equipment and software is upgraded on an as needed basis and is the responsibility of a county government consultant. Newly hired employees take a test to determine their computer proficiency and, with the aid of funding from its bioterrorism grant, complete any needed training to improve their performance to an acceptable level. Computer training for the WIC program is conducted by the state department of health in the state capital, Topeka. Every employee has access to a computer, with high-speed Internet services. All employees have access to e-mail and a Web browser. Some employees have access to spreadsheet, database, accounting, client registration, and clinic management software. Public health communication systems and the state disease surveillance systems are available to the professional staff. No employees use statistical or GIS software.

Public Health System

The health department is highly involved with the community and interacts regularly with several other local government entities. The health department provides pre-employment physicals to city employees and immunizations to city employees (often at the city office). The health department also conducts educational sessions for inmates in the county jail on how to improve and maintain their health through “self-help.” Jail staff receives training in blood borne pathogens by the health department staff. The Crawford County health department is a member of the Crawford County Coalition, which is made up of various agencies and service providers who share an interest in combining their efforts to support area children and their families.

The health department’s interaction with state government currently is limited to the state providing guidance and funding through grants. The state does not provide services locally, but the county uses the state Department of Health and Environment’s laboratory services. In the past, the county health department has had a substantial amount of interaction with the state health department. During public health emergencies, most recently a tornado, state staff assisted the Crawford County Health Department with the delivery of services (such as immunizations and tetanus shots) to residents and affected individuals. The department interacts with other state agencies on a limited basis. One recent example of *ad hoc* collaboration with a state agency was a car seat installation education program co-sponsored with the Department of Transportation.

Several physicians in the county accept referrals from the health department. The health department does have contracts with physicians in the community for providing services but many physicians work closely with the health department and “never turn down Health Department referrals.” Local physicians also refer patients to the health department for services such as patient education, immunizations and tuberculosis testing. The health department has a part-time employment relationship with two physicians and the Crawford County Mental Health Center, which is connected to the health department through the executive administrator, employs five physicians.

The department has informal relationships with community/civic groups, faith-based organizations, and businesses. Health department staff had spoken with community groups, such

as the Rotary and Kiwanis. The department has worked with faith-based organizations through a local children's coalition and a parish nursing program. Blood pressure and preventative care clinics have been provided at several local businesses. The health department has a formal relationship with Pittsburg State University, providing immunizations and other various health services, serving on university committees, and providing student nurses with clinic experience through "internships."

The Crawford County Health Department is a member of an eight-county network of health departments, which meets seven or eight times per year. Originally formed as part of the state's bioterrorism preparedness plan, the primary purposes of the network are to share resources, distribute regional bioterrorism funds from state to members, assist each other during health crisis services (e.g., several counties helped provide immunizations after the recent tornado), and engage in regional surveillance of diseases.

Hospital Relations

County health department leaders said that the health department's closest working relationship was with the county hospital. (The county hospital is located in Girard, Kansas, approximately 10 miles from Pittsburg.) The two entities collaborate and cooperate on the delivery of services and make referrals to each other. In contrast, the relationship between the health department and the local private hospital (Mt. Carmel Regional Medical Center) is less active; they work together only when an opportunity presents itself, but neither party seeks collaboration with the other.

The hospital and the health department cooperate in emergency and disaster planning. The bond between the two public organizations has been strengthened by the number of emergency situations that have occurred in the county in the recent years. The health department and the hospital meet monthly (more frequent if needed) with 22 different entities within the county to plan for emergency situations and other major health occurrences. These meetings started in 1996 and continue to present.

The hospital administrator characterizes the relationship with the health department as one of “collaboration” citing a cooperative effort on behalf of the two entities to improve the distribution of flu vaccinations. In this case, the health department had additional dosages of flu vaccine but did not have the staff to distribute. The hospital had the staff but no vaccine, so they coordinated their efforts for successful distribution.

This district owned hospital receives the majority of its funding through a district levy of 1 mill on assessed valuation of real property. The hospital district does not comprise the entire county. The hospital is independently managed. The hospital is a designated critical access hospital that operates in a network with its supporting hospital in Joplin, Missouri. The district hospital also has a consulting management services agreement with the larger hospital.

The hospital administrator was asked which of the public health functions listed on Table B-5 below were carried out by the hospital and to rate the degree of involvement in the service from one (hardly at all) to five (a great deal).

Table B-5. Public Health Services Conducted by Girard District Hospital

Public Health Services	Yes	No	Degree
Monitor health status to identify community health problems.		X	0
Diagnose & investigate health problems and health hazards in the community.	X		3
Inform, educate, and empower people about health issues.	X		4
Mobilize community partnerships.	X		3
Develop plans and policies that support individual & community health efforts.	X		4
Link people to needed personal health services.	X		5
Assure competent public health and personal health care workforce.	X		5
Evaluate effectiveness, access, and quality of personal and population-based health services.	X		4

The hospital administrator said that the hospital engaged in seven of the eight listed public health services. Of the seven services provided by the hospital, the hospital administrator said that hospital’s participation in five of the activities was high. Some examples of activities include:

- **Inform, educate, and empower people about health issues:** Hospital staff visits 14 schools three times per year to provide health education to students (for example, one program called “Tar Wars” is a nonsmoking campaign; other programs include CPR demonstrations and hand washing).
- **Assure competent public health and personal health care workforce:** The hospital conducts in-services and conferences, provides clinical rotations for Pittsburg State University (PSU) nursing students, and has staff that serves as instructors for PSU health career training programs.

Planning and Evaluation

The department has conducted community needs assessments two or three times in the past with the most recent assessment being completed three or four years ago. The last strategic assessment completed by the department is 12 years old. Other than the budget the department does not have a one year operation plan.

Evaluation of departmental performance is conducted informally on a daily basis. Following major events or crises the department and its partners debrief and review their performance critically. The department has used the CDC public health preparedness and response capacity inventory “two or three times.”

Gove County Health Department (Gove, Kansas)

The Gove County Health Department was established in 1961. Initially, the two public health nurses who comprised the department also worked as school nurses for the local school district. When a local elementary school closed in the early 1990’s, the public health department, along with other county government departments, occupied a section of the school building. The health department occupies space that was previously a classroom. The physical layout of the space is a large rectangle that has been divided into two areas, an administrative room and a patient treatment room. A wall with an open door divides the two spaces. The administrative half has space for three desks and computers, and a small area dedicated to information pamphlets. The treatment room side has a desk, a computer, an exam table, a baby weighing and exam area, and

storage. The county owns the building and pays for major utilities. The health department pays for its own telephone expenses.

Health department staff members are employed by the county. The health department does not have any full-time staff members. Even the department administrator is not considered a full-time employee.

Governance

Gove County Health Department report to three elected county commissioners. Public health issues are not a regular agenda item for the commission meetings, and the administrator is not required to attend the commission meetings unless a public health issue will be discussed. Nevertheless, the public health administrator meets with the commissioners once every other month. The commissioners are described as “easy to work with” and have a hands-off approach to guiding public health. The commissioners are responsible for hiring a public health administrator. The public health administrator is given the freedom to decide on necessary services and programs and manage daily operations. The local health department does not have any other advisory committee or boards.

Gove County also employs a part-time health officer, a local physician, who provides standing orders and other necessary advice but is not involved in day-to-day decisions. He receives \$35 per month as compensation for his services. The health officer does not have a vote on public health governance issues and is not required to attend county commissioner meetings.

Budget and Finance

The Gove County Health Department budget is \$68,000 for 2005. The budget is prepared by the health department administrator and is approved by the county commissioners. Each year, the administrator works with an accounting consultant to estimate a new budget based on the previous year’s performance. The budget includes wages, contractual service fees, commodities, and equipment. Twenty-five hundred dollars is included in the overall budget for capital expenditures. The county clerk’s office provides a monthly statement that compares actual expenses to the budget.

Accounting and payroll systems are managed through county government offices. The health department is required to submit vouchers and documentation for all expenses. The health department employees also submit timesheets to the county. The health department office manager has developed a spreadsheet that allows the department to track accounts payable and receivable, but an automated system is not in use.

The health department does not have a standardized wage and benefit schedule. Each individual's salary and benefits are negotiated upon hiring. Wages for comparable positions are lower in the public health department than that in private industry or at the local hospital. In a typical year, all employees of the department receive a small wage increase.

Sources of income for the public health department are approximately 40 percent from property taxes, 10 percent from local sales tax, 16 percent from federal bioterrorism grants, 18 percent from state grants, 15 percent from fees and reimbursement, and one percent from foundations and other sources.

Organizational Structure and Personnel

The Gove County Health Department has four part-time employees. The administrator is a registered nurse. In addition to administrative and clinical duties, she supervises three additional part-time employees. One registered nurse serves as a staff nurse and works one to four hours per month. The office manager works 16 hours per week. A Healthy Start Home visitor (perinatal health educator), who is not a nurse, works four hours per week. In addition, the Gove County health department administrator formally supervises a regional bioterrorism coordinator; however, this individual is responsible for meeting the needs of all counties within the designated public health region. The space in which the public health employees work is very small, so they speak frequently and do not have a need to establish regular staff meetings. The department does not have any job descriptions, although the administrator is working on developing one for each position.

The health department does not offer in-service training, but there are other educational opportunities available. Employees have traveled recently to state training sessions on the new computer systems made available by the Department of Health and Environment. Bioterrorism grants have also enabled some travel and training. The health department pays for continuing education if the programs are relevant to the job.

The health department administrator has a personal membership to the Kansas State Nurses Association (KSNA). KSNA provides little information specific to public health, but it is useful for nursing information and networking. The Gove County Health Department has an institutional membership to the American Public Health Association (APHA). This is useful because the department is able to save money on publications. APHA also offers relevant continuing education opportunities and hosts an annual conference.

Services

The Gove County public health department is open on Mondays and Fridays from 8 a.m. to 4:30 p.m. The department does not operate any mobile facilities. A satellite immunization clinic is offered every Tuesday afternoon in a physician's office in Quinter, Kansas. The health department uses the space free of charge. The immunization clinic has been in operation for two years, and draws patients from four or five surrounding counties.

The Healthy Start Home Visit staff member is trained to educate maternity patients and new mothers. While she is not a licensed health professional she has completed several courses related to breastfeeding, car seat installation, alcohol abuse, drug use, SIDS, asthma, and child abuse. The home visitor must meet continuing education requirements each year to maintain status as a Healthy Start educator. Nineteen mothers were visited in 2004.

Decision Making and Decision Support

The Gove County Health Department functions independently from the state; however, the state health department plays a large role in program guidance and decision making. The state health department funds many programs and services provided by the county, and this increases their role in decision-making. For local service and operation decisions, the health department

administrator has the authority to make decisions. Kansas Department of Health and Environment and the CDC distribute guidelines for some programs and operations. These are communicated to staff through paper manuals or are available online. The department has few written policies of its own, but the health department administrator is developing an employee handbook for the first time this year (2005).

Information Systems

The Gove County Health Department has five personal computers. Every staff member has access to a computer, and a laptop is available for travel. Computers are updated approximately every two years. Every employee has access to high-speed Internet services, e-mail, spreadsheets, word documents and database software (Access). Some staff has access to client registration, clinic management and KIPHS, a system that allows users to exchange health information over the Web in a secure environment. The health department hires a computer consultant to provide advice on hardware and software. Approximately \$5,000 is budgeted each year for information systems. Employees receive direct training on new programs, and the department has also used a vendor for training. Occasionally, multiple health departments will gather together for group computer training. The health department is working with the Kansas Association of Local Health Departments to develop a Web site, but it is not yet complete.

Public Health System

The relationship with other branches of local government is limited. The local health department administrator attends occasional meetings with the county commissioners. The health department provides some immunizations for the police department and occasionally other local government agencies. The health department also works with the Gove County EMS and the Quinter fire department to provide services for their employees.

The local health department has the most interagency contact with the state department of health. The local health department is a part of the regional bioterrorism group, which has guidelines and bylaws determined by the state agency. Gove County Health Department functions as the fiscal agent for the regional network. The group includes five counties that meet monthly to discuss bioterrorism planning. The group also hired a bioterrorism coordinator to

facilitate its work. Through the bioterrorism planning, the health department has also worked with the Office of Homeland Security.

The Gove County Health Department is a part of three networks related to the health of the community. First, the Gove County Health Department is included on the local emergency planning committee (LEPC), which is a group formed originally as part of bioterrorism planning. Other members include an emergency manager and other community representatives. The LEPC meets quarterly. The Gove County Interagency Team is another local network in which the health department is involved. The group was established in 2001. Members of the team include the Kansas Department of Social and Rehabilitative Services, the Kansas State University extension office, county schools, parents, and Quinter city administrators. The group meets quarterly to apply for grants and discuss programming. The public health office usually serves as the fiscal agent for the grants. Public health administrators from 15 to 20 counties in northwest Kansas have also formed a network for sharing information. The group meets every two months. A representative from the state department of health often attends meetings to share new information with the group or answer questions. The counties involved in the group do not share services.

The local health department works closely with the local Kansas State University extension office, which is located in the same building as the health department. The extension office provides WIC education every other month when the health department holds its WIC education day. In addition, the extension office has obtained a grant to help reduce obesity and increase exercise in local schools. The local public health nurse works closely with the extension office to chart the progress of the school children.

The health department's relationship with local physicians is good. Physicians call the health department if they need advice on issues such as rabies cases. The satellite immunization clinic is also located in one of the physician practices in Quinter.

The health department has a few formal and informal relationships with organizations within the community. Most relationships with community/civic groups are informal and focus on

providing information. Health department staff has worked with Kiwanis to obtain a prostate cancer awareness grant. The department provides immunizations for some local businesses. The health department also has a formal arrangement with Colby Community College that allows Colby students to complete an internship in the health department.

The health department administrator is part of the Northwest Kansas Trauma Council. She is responsible for education within the group and encouraging others to attend meetings and learn about preventing or managing trauma. The group meets quarterly to discuss local safety concerns and ways to address them.

Hospital Relations

Gove County Medical Center was built in 1925 to serve the local community. There are five physicians on staff at the hospital. The hospital provides little specialty care. Patients seeking specialty services must travel to Hays Medical Center. In some cases, specialists from Hays also visit Gove County Medical to provide services. Gove County Medical is managed independently and owned by the county. Gove County Medical Center was designated as a critical access hospital last year (2004). The hospital also includes a long-term care facility.

Gove County Medical Center is a part of multiple networks. The hospital is a member of the VHA network. In addition, the hospital is an integral part of a local cooperative, Med-Op Incorporated, which includes 15 to 17 hospitals in the surrounding area. Through Med-Op, the hospitals share strategies and information on a voluntary basis. Med-Op also organized a group purchasing cooperative. Gove County Medical Center is also part of another informal network that includes 40 hospitals that worked together to develop HIPAA “how to” manuals concerning confidentiality and security measures.

The hospital administrator was asked which of the following eight essential services of public health the hospital provided and to rate the intensity of each one that the hospital does actually provide on a five-point scale (See Table B-6).

Table B-6. Public Health Services Conducted by Gove County Medical Center

Public Health Services	Yes	No	Degree
Monitor health status to identify community health problems.		X	0
Diagnose & investigate health problems and health hazards in the community.		X	0
Inform, educate, and empower people about health issues.	X		1
Mobilize community partnerships.		X	0
Develop plans and policies that support individual & community health efforts.	X		3
Link people to needed personal health services.	X		4
Assure competent public health and personal health care workforce.	X		5
Evaluate effectiveness, access, and quality of personal and population-based health services.	X		1

The health department administrator described the relationship with the local hospital as “okay,” although lines of communication with nursing at the hospital are not ideal. The hospital director of nursing is unwilling to share patient information with the health department because of confidentiality concerns, and this often seems as if it hinders the public health department’s ability to provide necessary service (e.g., Hepatitis B vaccines for newborns).

Strategic Planning and Evaluation

Neither a strategic nor operating plan has ever been developed for the Gove County Health Department. The health department did conduct a local needs assessment based on health profiles provided by the state health department in 2000. These data were used to identify disease and health behaviors needing attention in Gove County.

No formal instruments have been used to assess local health department performance. The only program that conducts an assessment is the immunization program managed by the Department of Health and Environment. This program offers a reward for compliance with guidelines. Individual employees have never been evaluated, but the administrator explained that they plan to start evaluations this year.

LOUISIANA

Named in honor of the Sun King, France's Louis XIV, Louisiana is the 18th state admitted into statehood. The culture and history of the Pelican State are unique. The southern part of the state is dominated by its French and Spanish heritage while the north is part of the Cotton Kingdom of the Old South. Baton Rouge is the state capital. The state is divided into 64 parishes, the equivalent of counties in other states, and the parishes are administered by police juries, the equivalent of county commissioners.

Louisiana's 43,562 square miles ranks it at 33rd among all U.S. states, while its population of 4,468,976 ranks it at 22nd (2000 Census). A large portion of Louisiana residents live in the southeastern portion of the state around Baton Rouge and New Orleans. Except for these major metropolitan areas and a handful of smaller cities like Shreveport, the majority of the state (especially the Central and Northern areas) is rural. The rural population densities typically range from eight to 54 persons per square mile.

Officials interviewed during the site visits indicated that two of the largest problems facing the citizens of Louisiana are poverty and lack of general education. The 2000 Census data supports these concerns. The median household income is \$32,566, which is \$9,428 below the national median income. One-quarter of the population 25 years of age or older lacks a high school diploma.

The public health system in Louisiana serves the 64 parishes through a highly structured and centralized system. Local health departments were established in 1855 by state law. Each of the parishes is assigned to one of the nine Louisiana Department of Health and Hospitals administrative regions. Within the nine regions, there are 70 local health units. Parishes that have more than one local health unit have substantial geographic barriers, and multiple health units are necessary to provide adequate service.

Regional health offices supervise the parish health units, with the exception of two unique public health units. One of the independent health units is operated by Plaquemines Parish, and the second is operated by the city of New Orleans. The two independent health units were

established before the regional system was developed. The state the Department of Health and Hospitals does not interact with them on a regular basis.

The majority of state, regional and local public health staff are employees of the state. Information and resources provided by the Louisiana Department of Health and Hospitals are transferred to local health units through the regional offices. The Department of Health and Hospitals and some regional administrators share the belief that the regional divisions allow the state to communicate more effectively and consistently with local units. This communication is facilitated by the fact that each regional office has a Medical Director/Administrator who reports directly to the Department of Health and Hospitals. These Regional Administrators are responsible for transferring information from the state to the local level. Most local health units do not have an administrator. In a few cases, the local unit has a facility manager position. This individual serves a part-time role as the local administrator and is shared among three or four health units.

Services provided directly to the local health units through the state are usually related to specific programs. Program resource experts and nurse consultants operate out of the state Department of Health and Hospitals, but they may also provide local resources. For example, the WIC program employs individuals at the state and also assigns a nutritionist to each region. Some local health units also have a WIC nutritionist and/or nurse.

The Office of Public Health, within the Department of Health and Hospitals, operates eight satellite units. These satellites are typically single-purpose offices (e.g., only offering sexually transmitted diseases services). In addition to sexually transmitted diseases, other single purpose offices focus on environmental health and women's health services. Standard local health units offer services from 8 a.m. to 4:30 p.m. Monday to Friday, but satellite clinics may have fewer hours. In addition to the satellites, the Office of Public Health manages 50 to 70 school-based health centers. The majority of these centers are located in remote rural areas. Services provided are limited, but primary care and immunizations are typically available.

The state has made strides in improving integration between the public health system and local communities. In 2004, a Governor's Health Care Reform Panel was created to better address local health concerns. As part of this effort, the governor created Regional Health Care Consortia in each of the state's nine health care regions to discuss region-specific problems. Consortia members include local business leaders, health care professionals, faith-based leaders, social service agency representatives, and other community members.

Louisiana's Department of Health and Hospitals maintains several data systems including: Health Alert Network, a reportable disease database that includes hospital information, a Tumor Registry (in collaboration with Louisiana State University), a Laboratory Response Network, sexually transmitted diseases reporting, and a hospital discharge diagnosis database that is currently in development.

The state does not conduct standardized performance reviews of regions or local health units, but individual programs conduct quality control evaluations and have auditing systems in place. The Public Health Preparedness and Response Capacity Inventory has been used on a state and regional level in the past. Other evaluation tools such as the National Public Health Performance Standards Program and the Assessment Protocol for Excellence in Public Health (APEXPH) are not widely used but may be used by specific programs. The State of Louisiana conducted a study to determine the number of nurses needed to work in a health unit based on its size. Some programs are encouraged to use more non-nurse personnel for services; however, nurses are often used because they are more versatile. Most regions employ nurse practitioners who perform medical exams, conduct family planning visits, and assist with sexually transmitted diseases diagnosis and treatment.

Bioterrorism preparedness was assessed using the CDC and Office of Homeland Security tools. The assessment was conducted on a state, regional and local level. Public Health officers worked collaboratively with other community groups and partner agencies, including police, health care providers, biohazard experts, and local governance.

Louisiana is fortunate to have the Tulane School of Public Health within its borders. Louisiana State University recently developed a public health program, although it is not yet accredited.

CASE STUDY COMMUNITIES

The two sites selected in Louisiana for site visits were Vermilion Parish and LaSalle Parish. Vermillion Parish is the larger of the two with 1,538 square miles of area and a population of 53,807. Vermilion Parish has a population density of 45.8 persons per square mile. It is located in the south-central part of the state and is bordered on the south by the Gulf of Mexico. A portion of Vermilion Parish is covered by marsh and wetlands, which limits the delivery of services to residents in that area. Some residents of the parish can be reached only by boat. In contrast, LaSalle Parish has 662 square miles of area and a population of 14,282. LaSalle Parish is located in the center of the state and is considerably more rural than Vermilion Parish with a population density of 22.9 persons per square mile.

Department of Health and Hospitals: Regions 4 and 6

The state is divided into nine public health regions, each serving between four and 12 parishes. The research team visited Region 4 and Region 6. Region 4 is located on the south-central coast of Louisiana, in Cajun country, where a heavy French influence still exists. The primary industries are agriculture—rice, beef cattle, sugarcane and fishing—and oil. Region 6 is located in the Central part of the state and includes the city of Alexandria, which has a population of approximately 46,000 people. The main industries in this region are forestry and oil.

Organization and Services

Each region has a medical director who is a physician and who serves a dual role as the regional administrator. The medical director reports directly to the director of the Louisiana Center for Community Health, Office of Public Health. The medical director provides standing orders and policies for the regional offices and local health units. Financial resources and expert program personnel are employed at the regional level and shared among the parish health units. All clinical services are provided locally; no services are available in regional offices.

Five positions report directly to the Region 4 administrator (which is similar to other regions): an administrative assistant; a nurse supervisor responsible for all local health unit nurses; two program coordinators/social service managers; and a program manager responsible for five regional programs. The program manager is responsible for the largest range of services, supervising the medical support unit, administrative support, disease intervention, sanitarian services, and engineering services. Each region also maintains expert professional staff to supervise and advise local health unit staff. When a health unit nurse has a problem or question the regional nurse consultant is the local nurse's first contact. Of the 46 nurses employed throughout Region 4, fewer than 10 of them are under the age of 40. Benefits of the job (not including salary) encourage long tenure. However, low pay can cause frustration and difficulty when trying to replace a retiring employee. The Region 4 public health office has 43 positions (this does not include parish health unit staff), three of which were vacant at the time of the visit. In contrast Region 6 had 140 total positions (including parish health unit staff); fourteen positions were vacant at the time of the site visit.

The primary services provided at the regional level are program management, administrative support, immunization and nutrition program supervision, disease intervention, sanitation services, and engineering services. All regional offices manage the same basic programs and services, including infectious disease, tobacco prevention coordination, environmental toxicology, injury prevention, HIV prevention, audiology program (two to three audiologists are shared among regions), and school-based health centers.

The majority of policies and management decisions are decided at the state level and communicated to regional administrators. If something arises in a parish that requires immediate attention, parish staff contacts the regional medical director/administrator. Policies and procedures are standardized by the state and communicated to all employees through e-mail and Web sites and are available in manuals. The policies and procedures are reviewed and changed as needed. Many of them are also available on the Department of Health and Hospitals' Web site, although program-specific policies and procedures are not available online.

Public health staff has many opportunities for training and continuing education. Department of Health and Hospitals offers a variety of online, videoconference and satellite courses for all public health employees. A weekly bulletin highlights courses that are applicable to public health. In addition, staff can access courses online through Element K, an Internet-based staff development company. Staff will occasionally travel for special training organized by divisions such as the Bioterrorism Preparedness program. Courses offered by the Department of Health and Hospitals are free of charge to employees; as a result, most continuing education credits are free. Finally, laboratories or hospitals may offer specific training when an appropriate topic arises.

All regional staff has access to a computer, although there is not one computer designated to each individual. All computers have high-speed Internet access, e-mail, spreadsheets, databases (Access), and a Web browser. Some staff has access to an epidemiology database, accounting software, statistical programs, GIS software, client registration, clinic management, the disease surveillance system and the state-maintained, Internet-based disease surveillance system (RDD).

Procurement of hardware and software is managed by a regional IT employee. Approximately \$2,000 to \$3,000 is budgeted each year for regional IT expenditures. The majority of computer and program purchases are program based. As new software programs are released, such as a new WIC computer program, the state may send individuals out to the regions to provide relevant training. Employees do not receive regular training in the use of computers.

Financing

Regional offices are responsible for the preparation of parish health unit budgets. The administrator submits an annual budget request for each parish health unit and the regional office to the State Office of Public Health (OPH). The OPH then includes all regionally prepared budgets in its request to the Department of Health and Hospitals. State legislature has final budget authority. After the legislature considers the budget and anticipated revenue, money is appropriated to the Department of Health and Hospitals and funneled through the OPH to the region. Neither regions nor parish health units have discrete budgets. All requests for capital

expenditure for local health units must be sent to the regional administrator, who then requests funding from the state.

Planning and Evaluation

Regional health offices are not required to conduct community needs assessments, and few have completed such assessments. Assessment instruments have not been used to assess regional or local performance. Programs conduct occasional assessments, but these only apply to the particular program area. For example, continuing quality improvement audits are conducted regularly for the sexually transmitted disease program and for family planning. Regional and local health units do not develop strategic or one-year operating plans. Individuals are evaluated annually.

Vermilion Parish Health Unit (Abbeville, Louisiana)

Vermilion, one of eight parishes in Region 4, is located on the south-central coast of Louisiana. French-speaking Acadians settled this area during the 18th Century and a small subset of the population's primary language is still French. Vermilion Parish is the largest parish geographically in Region 4, but has the lowest population and housing density in the region, presumably due to the fact that portions of the parish are occupied by wetlands and marshes. The population is primarily Catholic with a strong French heritage permeating many aspects of the culture. The majority of the parish residents are White; however, some Hispanics and Vietnamese have migrated to the area in search of work in the oil, mining, and fishing industries. The chief industries in Vermilion are farming (rice, beef, and sugarcane), fishing, and oil production.

The Vermilion Parish Health Unit is located in its own one-story building near downtown Abbeville, the county seat of Vermilion Parish. The yellow brick structure of approximately 6,100 square feet was built in 1953. The health unit consists of a moderately sized lobby with four public restrooms, a clerk's office for registration, four exam rooms, two small post-conference rooms, a WIC educational kitchen, rooms to stock vaccine and formula, a file room, supply areas, a conference room, and staff offices. Most laboratory testing is sent to the state laboratory. There are two major state labs, one in Shreveport and one in New Orleans. The local

lab is equipped for stick tests e.g., urine, hemoglobin and pregnancy, but, any test requiring venipuncture is sent to the state lab.

On the day of the site visit an immunization clinic was being held, and the lobby was filled with approximately 20 people. The regular of hours of operation for the health department are Monday to Friday, 8 a.m. to 4:30 p.m.

The parish government plans to build a new health center adjacent to the local hospital. Although the new building will house the same number of exam rooms, its design will be more modern and, at approximately 8,000 square feet, will provide additional space. The project is being funded by an \$800,000 grant from the Louisiana Community Development Block Grant program and \$700,000 from the Vermilion Parish Police Jury. The new Community Health Center is expected to be operational by 2007.

Governance

No local governing board exists for parish health units in Louisiana. Parish health units are operated by and report to the regional health office. In Louisiana, the local governing body of each parish is known as a police jury. The health unit does not have any formal reporting obligation to this governing body; however, the policy jury in each parish provides and maintains the buildings in which the public health units operate. Buildings and maintenance are completely funded through a parish mill levy.

Occasionally, the health unit may request a parish to fund clerical staff member to support the health unit's mission. If approved by the police jury, the position is funded with the same mill levy that provides for building and maintenance staff. At the time of the site visit (June 2005), Vermilion Parish had four clerical staff funded by the policy jury. These staff members are not state employees, but employees of the parish. Nevertheless, they report to and are managed by the health unit's nurse supervisor.

Budget and Finance

The State of Louisiana controls all funding for local health services, with the exception of the building and maintenance. All sources of revenue are accumulated at the state and passed down to the local health units through regional offices. Neither local health units nor regional offices receive funds directly from money collected for services. For example, when local health units receive fees for services they are deposited directly into the state general fund via a state account. All funds made available to local health units are disbursed through the regional office.

The Vermilion health unit's budget for 2004 was approximately \$1.8 million, with \$1.3 million designated to funding the Women, Infant, and Children Program (WIC). The health unit budget pays for salaries, supplies and necessary travel. Vermilion Parish's budget is a portion of the regional budget and is based upon the previous year's expenditures, services offered, and the needs of the community. The health unit's chief clerk and nurse communicate with the regional administrator to establish an adequate level of funding for services.

The regional administrator monitors local health unit budgets throughout the year, and expenditures are compared to the budget annually. Each local health unit has a payroll and accounting system that is monitored at the regional (and state) level. Some employees have access to financial systems. All financial information feeds directly into the state fiscal system. Neither regions nor local health units have separate capital budgets. If funding for a specific capital expense is needed, the request is sent to the state, and the state determines if funding is available and appropriate. Standardized salary schedules are available for all positions and offer a minimum, median, and maximum salary available.

Parish police juries contribute to the needs of the local public health units with revenue collected through the parish-wide mill levy. Millage funds are collected and distributed to the health unit in one of two ways. Money collected can be sent directly to the state to be used as the state decides necessary. Another option is for the parish to hold the money locally and designate it toward specific needs such as a new health unit or support staff.

Organizational Structure and Personnel

The Vermilion health unit staffs 20 positions. At the time of the site visit the health unit supervisor position was vacant; respondents indicated that they did not expect the position to be filled, and the nurse supervisor had assumed the role. The majority of local staff members are full-time employees of the state, with the exception of four staff members employed by the police jury—one sanitarian and three clerks.

Five parish health unit staff members report directly to regional level supervisors. Each of the five individuals is responsible for managing specific programs and staff. A nurse supervisor is responsible for two local health unit nurses and reports directly to the regional nursing supervisor. The chief Vermilion Parish sanitarian reports directly to the regional sanitarian supervisor and oversees three state-employed local sanitarians and one parish-employed sanitarian. The administrative supervisor reports directly to the regional administrative manager and is responsible for five staff members. The head nutritionist supervises one nutrition educator and reports directly to the regional nutrition program manager. The supervisor of the home visitation program reports directly to a regional supervisor within the regional medical support unit. The Vermilion Parish visitation program includes one supervisory and two additional nurses.

Meetings among the health unit staff occur both on a formal and informal basis. Due to the small size of the nursing staff, the three nurses meet daily to informally discuss operations and services of the health unit. The nurses hold formal meetings to discuss new or changed policies as needed. The entire Vermilion staff meets quarterly for safety meetings and to discuss any other necessary issues. Each month, the regional nursing supervisor hosts a meeting with all local nurse supervisors to discuss policies, programs, etc. The sanitarian staff works relatively independently of the other health unit employees.

Vermilion Parish public health staff has many opportunities for training and continuing education. In-service training is also provided to staff members and is conducted when necessary to address specific areas of knowledge (e.g., emergency planning). The Department of Health And Hospitals offers a variety of online, videoconference and satellite courses for all public

health employees. A weekly bulletin highlights applicable public health courses. In addition, staff can access courses on-line. Staff will occasionally travel for special training organized by divisions such as the Bioterrorism Preparedness program. Courses offered by the Department of Health and Hospitals are free of charge to employees, so most continuing education credits are free. Immunization training is offered every year in New Orleans and each parish sends one nurse. Health unit nurses have the option to attend special training to become STD “certified,” which allows them to treat patients using standard orders without consulting a physician.

The Vermilion Parish nursing supervisor has a personal membership to the Louisiana Public Health Association, which hosts an annual conference with many relevant speakers. The membership is also a valuable networking tool with other public health employees throughout the state.

Decision Making and Decision Support

The majority of policies and management decisions are made at the state level and communicated down to regional administrators who manage communication and implementation at the local level. If a parish issue requires immediate attention, parish employees contact the regional medical director/administrator. With rare exception, parish health unit staff does not have direct contact with the State Department of Health and Hospitals. All procedures, policies, and guidelines for health unit operation are available in manuals and on the Department of Health and Hospitals Web site. The Vermilion facility manager position (administrator) is currently vacant, so the nurse supervisor manages the day-to-day operations of the health unit in accordance with the provided policies.

Information Systems

The health unit has approximately 22 personal computers in their facility with one computer in each exam room and one in each laboratory. Every employee has access to a computer, which offers high-speed Internet services, e-mail, spreadsheets, word documents and database software (Microsoft Access). Some staff has access to an epidemiology database, accounting software, statistical programs, GIS software, client registration, clinic management, the disease surveillance system and the state-maintained, Internet-based disease surveillance system (RDD).

Computers and software are updated as needed or when funding is available. Procurement of hardware and software is managed by a regional IT employee. The state Department of Health and Hospitals has a Web site that displays contact information for the Vermilion health unit, but the health unit does not have its own site.

Public Health System

The health unit's relationship with local government generally revolves around the maintenance of the building. Health unit nurses occasionally provide physicals for local law enforcement and jail employees and provide follow-up care for inmates. In addition, unit nurses hold periodic tuberculosis clinics at the jail and treat sexually transmitted diseases of inmates.

The health unit occasionally interacts with other state agencies to address health issues. For example, school nurses are hired through the Department of Education, but the regional and local units work closely with school nurses, providing advice over the telephone and managing tuberculosis cases. The health unit interacts with the state Department of Environmental Quality (DEQ) for emergency preparedness and lead-related health concerns. The DEQ conducts the lead tests but may refer a client to the local public health unit for treatment. Some cases also require interaction with the Office of Family Security or the Office of Community Support. Health unit staff occasionally works with local law enforcement. Public health employees also have informal relationships with local social service agencies and community groups to provide care for referred clients.

The health unit does not employ a local physician. The relationship between the health unit and physicians is primarily based on referrals.

Hospital Relations

In 1962, Hospital Service District No. 2 was created by the Vermilion Parish Police Jury to provide a parish-owned hospital for the community. Abbeville General Hospital opened in February 1966 as a community based non-profit healthcare provider. After numerous expansions and renovations, Abbeville General Hospital is a 60-bed acute care hospital that is staffed with

32 active staff, 41 courtesy staff, 16 consulting staff and 11 ER staff. Abbeville General is not a member of a formal system or network.

The Police Jury appoints a seven-member board to govern Abbeville General Hospital. Board members are qualified voters and residents of the District and serve a term of six years, except for the physician member who serves a two-year term. The CEO of the hospital reports directly to the board of commissioners (equivalent to a board of directors) and describes the hospital as a “quasi-governmental entity.”

The hospital’s relationship with the local health unit is described as a “network”—the purpose of which is to exchange information and coordinate when necessary. An example of necessary coordination is the meeting held twice per year (before and after hurricane season) to address disaster and emergency planning. Other communication with local hospitals is centered on infection control and occurs several times per month.

The hospital administrator was asked which of the following eight essential services of public health the hospital provided and to rate the intensity of each one that the hospital does actually provide on a five-point scale (See Table B-7).

Table B-7. Public Health Services Conducted by Abbeville General Hospital

Public Health Services	Yes	No	Degree
Monitor health status to identify community health problems.	X		5
Diagnose & investigate health problems and health hazards in the community.	X		5
Inform, educate, and empower people about health issues.	X		5
Mobilize community partnerships.	X		1
Develop plans and policies that support individual & community health efforts.	X		3
Link people to needed personal health services.	X		5
Assure competent public health and personal health care workforce.	X		5
Evaluate effectiveness, access, and quality of personal and population-based health services.		X	

Planning and Evaluation

Neither the region nor health unit has developed a strategic plan or a one-year operating plan. Additionally, no assessment instruments had been used to assess local health unit performance. The state conducts occasional program assessments are conducted on specific programs. For example, continuous quality improvement audits are conducted for the sexually transmitted disease program and for family planning, and the WIC program conducts a state audit and a self-audit every other year. Individual health unit staff performance evaluations are conducted on an annual basis.

LaSalle Parish Health Unit (Jena, Louisiana)

The LaSalle health unit is housed in a newly constructed, one-story building in downtown Jena, the county seat of the parish. Jena is largest of the four incorporated communities in LaSalle Parish, which include Olla, Tullos, and Urania. The building includes two exam rooms, one lab, a medical file room, offices for the staff, and supply storage. Office hours at the health unit are 8 a.m. to 4:30 p.m., Monday to Friday. The health unit has attempted to implement evening hours and weekend health drives (e.g. immunizations) with little success.

LaSalle Parish, one of eight parishes in Region 6, has the smallest area and the lowest population density for the region. LaSalle Parish is located in central Louisiana. The geographical landscape of the parish varies. The northern part of the parish consists of upland hill terrain covered by pine and hardwood forests. In the southern end of the parish, the land submerges into the rich Mississippi River valley between Catahoula Lake and Saline Lake.

The relationship between the health unit, region and state is centralized. Determination and implementation of budgets and services are managed through a traditional state hierarchy. All regional and the majority local staff members are employees of the state. Regions have a small petty cash account but do not have a significant independent bank account. Finances are controlled by the state.

The Jena Band of Choctaw Indians health department is located in close proximity to downtown Jena and has a service area that covers LaSalle Parish, Grant Parish, and Rapides

Parish. The health department is a tribal health service staffed by four employees: a health director, LPN, social services director and administrative clerk. A new IHS health unit is expected to open its doors in the summer of 2005. The Jena Band health department provides only limited services and contracts with the LaSalle General Hospital and other private physicians in the community for the delivery of some services. The tribal department sends some of the patients to the La Salle Parish Health Unit and has occasionally had health unit staff assist at the tribal facility.

Governance

No local governing board exists for parish health units in Louisiana. Parish health units are operated by and report to the regional health office. (See Vermillion Parish Health Unit case study for governance relations between regional offices and local health units.)

At the time of the site visit (June 2005), LaSalle Parish did not support the employment of any health unit staff. While no formal supervisory authority exists between the police jury and the health unit, health unit staff members try to accommodate any request from the police jury concerning services.

Budget and Finance

The State of Louisiana controls all local health unit funding, with the exception of the physical space. All revenue, including fees collected for service, is accumulated at the state and distributed to the local health units through the regional offices. The total budget for Region 6 is \$13,183,534, with approximately \$557,998 allocated for the LaSalle Parish Health Unit.

All public health funds are controlled by the state and are subject to any occurrences at the state level (i.e. budget freeze). Any private grant received by a region or health unit is transferred to the state and subject to state control. This situation has led the regional office to manage some grant money through an independent, non-profit agency. This agency administers the grants for programs and services within the region. These funds can not be directly allocated to a health unit, but they are available to provide public health program funding without state restrictions.

Preparation of the health unit budgets is the responsibility of the regional office, which prepares annual budget requests and submits them to the State Office of Public Health. The money is controlled at the state level and health units and regions do not have a discrete budget. When additional equipment is needed the regional administrator must request funding from the state on behalf of the health unit. For instance, the regional administrator requested laser levels for surveying purposes in five consecutive budgets, until they were finally approved on the fifth request.

Revenues are monitored at the state level. All revenues are deposited directly into an account that feeds into the state general fund. Local expenditures are routinely compared to the budget allocation by the health unit and regional administrator. All accounting and payroll is managed by the state with an automated system; some local staff has access to these financial systems. Standardized salary schedules are available for all positions and offer a minimum, median, and maximum salary.

Organizational Structure and Personnel

The LaSalle Parish Health Unit has eight staff positions with two vacant positions at the time of the site visit. The nurse supervisor is the acting health unit supervisor because the facility manager position is vacant and is not expected to be filled. The facility manager position is a part-time administrator shared among LaSalle, Grant, and Winn Parishes. In addition to the nurse supervisor, the health unit has another nurse, a sanitarian, a public health nutrition educator, and two administrative staff. All current staff members are full time employees. The nutritional health education position was vacant during the site visit.

Meetings in the health unit are largely informal due to the small staff and their close working relationship. Most meetings are held as needed to address any concerns or issues that may arise in the delivery of services. Formal meetings with regional staff members are rarely necessary due to the ongoing flow of information between the health unit and the regional administrator.

Each position in the region and the health unit is supported by a job description containing detailed duties and expectations. The sample job description for the regional administrator details

(by percent) the areas of expected effort expenditure. For this position, the organizational charts for the region and all health units under the authority of the regional administrator were included, making the job description information packet a total of nine pages. The packet includes a page the employee must sign to show they received and have reviewed the expectations provided in this job description.

There are multiple continuing education opportunities for staff members including Internet-based courses, video conferences, regional and statewide meetings, out of state meetings (e.g., bioterrorism meetings held at the U.S. Department of Justice), and the South-Central Public Health Leadership Institute and Family Planning Title X training. In-service training is also provided to staff members and is conducted as the need arises to address specific areas of knowledge (i.e. emergency planning). The type of continuing education a staff member chooses dictates whether or not the state will reimburse costs. Available funding for travel to seminars and training has steadily decreased. Employees may select their continuing education opportunities but the state will only pay for the pre-approved training. Courses offered through the Department of Health and Hospitals are free of charge.

The LaSalle nurse supervisor has two personal memberships to professional associations: the state public health association and the state nurse association.

Decision Making and Decision Support

Decision making for the health unit is highly centralized because the state retains all decision-making powers. The day-to-day decision-making process at the local health unit is governed by written rules, procedures, guidelines, and policies that are communicated to staff through written copy, verbal explanation, and electronic updates. These resources are updated on an “as needed” basis. State level decision-makers rarely have contact with the local health unit staff, and except for rare instances, decisions are made at the state and region level.

Information Systems

The region has a total of 212 computers, 12 of which are located at the LaSalle health unit. Every employee has access to a computer with high-speed Internet, e-mail, spreadsheets,

databases, Web browser, and client registration. Most of the employees can access clinic management tools (such as billing and scheduling) and systems that allow users to exchange public health information over the Web, while only a few have access to statistical software, GIS programs, and state-maintained disease surveillance systems.

At the time of the site visit, the computer equipment in the office and the region had just been upgraded. The procurement of hardware and software for the region is the responsibility of a regional IT employee. No predetermined annual budget exists for computer system upgrades, so all upgrade funding requests must be submitted to the state. Employees typically receive Web-based training on new program software prior to implementation.

Public Health System

Due to the state control of the local health units, formal relationships with local government center on the provision and maintenance of the health unit building. The local government also has an informal relationship with the health unit for the provision of physicals for parish civil servants. In addition, health unit staff conducts local health fairs for the dissemination of health information and preventative clinics (e.g. blood pressure monitoring).

The health unit interacts on a local level with other state agencies including social service agencies in the areas of child protection and public program eligibility determination. Staff members also volunteer to participate with the Department of Education by providing health education seminars for school children.

The relationship between the health unit and local physicians is “getting better all the time.” Currently, the region hosts medical society meetings at their facility so that physicians will become more familiar with public health and public health staff. The region and its health units allow family practice medical residents and nursing students to rotate through their clinics. Local physicians also contact the local health units for help in managing patients and reporting suspected bioterrorism events.

Interaction between the local hospital and the health unit is “excellent.” The hospital supports the public health mission of the local health unit through supplies and equipment during hurricane season and reporting diseases. The regional director often attends hospital staff meetings and tumor boards. The regional office hosts monthly meetings of hospital infection control practitioners and regional staff attends the quarterly meetings held by region hospitals.

Relationships that exist with other community-based organizations include the Cancer Coalition (civic group), Chronic Disease Coalition (faith-based group), Chamber of Commerce (business), and MOUs for students and hurricane shelters (University). The regional administrator also sits on the Governor’s Health Care Reform Panel and is a member of Kitchasi Delta Planning Commission and Family Planning Advisory Board.

Hospital Relations

Hospital Service District #2 of LaSalle Parish was created in April 1966 by the LaSalle Parish Police Jury. In October 1970, LaSalle General Hospital, a 37-bed medical surgical facility, was opened. In 1980, the hospital added a 101-bed nursing home and 30 private acute care beds. Today, the hospital provides a full-time pharmacy, cardio-pulmonary service, physical therapy, a dietitian, and ambulance service.

The hospital is owned and operated by the LaSalle Parish Police Jury, which is responsible for appointing the board members. The hospital is independently managed and is not associated with a hospital system or network. The hospital cooperates with the region and the local health unit whenever possible. One such example is collaboration on infection control through a pre-established reporting mechanism from the hospital emergency room to the health unit concerning any unusual outbreaks of disease.

The hospital administrator was asked which of the following eight essential services of public health the hospital provided and to rate the intensity of each one that the hospital does actually provide on a five-point (Table B-8).

Table B-8. Public Health Services Conducted by LaSalle General Hospital

Public Health Services	Yes	No	Degree
Monitor health status to identify community health problems.	X		1
Diagnose & investigate health problems and health hazards in the community.	X		1
Inform, educate, and empower people about health issues.	X		2
Mobilize community partnerships.	X		1
Develop plans and policies that support individual & community health efforts.	X		4
Link people to needed personal health services.	X		5
Assure competent public health and personal health care workforce.	X		4
Evaluate effectiveness, access, and quality of personal and population-based health services.		X	

Planning and Evaluation

Neither the region nor health unit has developed a strategic plan or a one-year operating plan. None of the state or federal assessment instruments have been implemented. The region and local health units regularly evaluate their performance through assessing the presence or absence of programs and the quality of programs. The health regions do not evaluate the impact of the programs and activities, but some state programs conduct audits of the activities delegated to them.

PENNSYLVANIA

Pennsylvania ranks sixth among states in population, yet much of it is decidedly rural. The major metropolitan areas of the state, Philadelphia and Pittsburgh, are located in the southern corners of this essentially rectangular state. The rural areas of the state are referred to as the “T-Bone,” because of the shape they form when highlighted on a map. The rural northern tier of counties is connected to the southern border of the state by a swath of rural counties following the spine of the Appalachian and Allegheny Mountains running south–southwest through the center of the state, forming the T-Bone. The T-Bone is hilly and densely forested. Although many small farms (less than 150 acres) dot the landscape, manufacturing dominates the economic base of the area. The region boasts many towns and villages, but few have a population greater than 10,000 residents.

The state–local public health relationship in Pennsylvania generally is characterized as mixed, but that characterization is somewhat misleading. Most of the state’s public health activities are administered by state department of health employees in a web of decentralized venues. In this regard, the delivery of public health services more closely resembles a centralized model. However, six counties and four municipalities (all of which are located in urban communities) provide all or most public health services for their residents themselves. The state provides 50 percent of the funding for these county and municipal efforts.

The self-rule county and municipal health departments approach public health more comprehensively than the state-operated local health departments, providing some services that the Pennsylvania Department of Health does not offer. For example, the county/municipal health departments may conduct restaurant inspections. The state operated local health departments do not provide this service, because restaurant inspections in Pennsylvania fall under the purview of the Department of Agriculture. Self rule county and municipal health departments are governed by local boards of health. Despite the apparent autonomy of the county and municipal health departments, they have a line relationship to the Bureau of Community Health Systems and are subject to annual audits by the Department of Health and the Department of Environmental Resources.

State law also outlines the services the county and municipal health departments must offer and specifies that each county or municipal health department must hire at least an administrative director, a director of public health nursing, a director of environmental health services, and at least one full-time physician (who may also be the health director). These four positions are approved by the state Department of Health.

Relations between the state and the state health centers (the centralized public health system that exists throughout rural areas of the state) are highly structured and uniformly enforced. All district and state health center employees are employees of the Pennsylvania government. The state is divided into six Community Health Districts of roughly equal area. Each Community Health District is composed of approximately 12 counties. The six district offices are responsible for administering public health services at the local (i.e., county) level through a series of 57 state health centers—the name used for local public health departments in Pennsylvania. Only two counties without home rule authority do not have a state health center located within their borders.

The district office employs an executive director to manage activities. In addition, each district hires a district nurse administrator and two or three nurse supervisors to manage activities locally and to serve as a conduit from the district office to state health centers in multiple counties. Although they are district office employees, the nurse supervisors live and work in the field. In addition, the district office employs several nurse consultants and program representatives who coordinate and operate programs on a district level and serve as a resource for the state health centers. District nurse consultants also provide technical assistance to the municipal and county health departments.

The State of Pennsylvania provides all funding for local state health center services. Funding is provided directly by the State of Pennsylvania or the by federal government or through categorical grants distributed by the state. The average estimated budget per state health center, including a fair share of the district office expenses, is approximately \$1.5 million. The average estimated budget per community health district, including the costs of the state health centers is \$14.2 million per year (2005–2006 state budget). The independent county and municipal local

health departments receive 50 percent of their funding from the state, equal to approximately \$35 million total.

The State of Pennsylvania does not have a board of health, but it does have a State Health Advisory Board appointed by the governor that advises the secretary of the Department of Health. The advisory board is composed of 17 geographically representative members who are divided into two groups, one focusing on policy advice and the other on medical matters and public health priorities at the local level across the state. The State also has a medical director, located in Harrisburg, who provides standing orders and policies for the district offices and state health centers.

The PA Health Alert Network (PA-HAN) serves as a communication network among state and local public health agencies, healthcare providers, hospitals and emergency management officials. The information provided on the PA-HAN Web site is based upon recommendations from the CDC and other health organizations.

NEDSS is a national initiative driven by the Centers for Disease Control and Prevention (CDC) to improve the timeliness, completeness, accuracy, and uniformity of surveillance data. Pennsylvania's Electronic Disease Reporting project, PA-NEDSS, is a way to report diseases and investigative findings to the Pennsylvania Department of Health via the Internet. PA-NEDSS is the mandatory electronic disease reporting application for Pennsylvania. The system establishes a near real-time, secure communication link between laboratories, hospitals, individual medical practices, and the Pennsylvania Department of Health. PA-NEDSS provides the following core features:

- Web-based reporting for labs, hospitals, and physicians.
- Integrated electronic lab reporting (ELR).
- Integrated Health Alert Network (HAN).
- Morbidity and Mortality Weekly Report (MMWR) and report extracts for CDC.
- Graphical reporting/ analytical tools.
- Geographical Information System (GIS) mapping tools.

- Comprehensive and integrated system for all program areas including Case Management for Epidemiology (EPI), Tuberculosis (TB), Sexually Transmitted Disease (STD), and Elevated Blood Lead Level (Lead) program areas.

The state also maintains an epidemiology hotline that is staffed by an epidemiologist 24 hours a day, seven days per week. If a call is placed to the hotline, the epidemiologist on call will alert epidemiology teams within the relevant county.

Bioterrorism preparedness was assessed at the state and local levels using the CDC and Office of Homeland Security tools. Pennsylvania received federal funds to expand infrastructure, including the state health laboratory, electronic disease reporting system, and HealthAlert (a rapid notification system involving hospitals and laboratories). The state also received funds from the U.S. Department of Justice to perform an assessment of the local public health system for each of Pennsylvania's 67 counties. The Department of Health also developed the Office of Public Health Preparedness to coordinate local and state public health preparedness activities and responses.

Pennsylvania is fortunate to have many public health education opportunities available within its borders. University of Pittsburgh and Drexel University (Philadelphia) both operate Schools of Public Health. Temple University's (Philadelphia) College of Health Professions offers undergraduate courses in public health as well as a Masters in Public Health graduate program. Arcadia University (Glenside) offers a Master of Science in Public Health through the Department of Medical Science and Community Health. East Stroudsburg (East Stroudsburg) University offers a Masters in Public Health in Community Health Education. Finally, West Chester University's (West Chester) Department of Health offers a MPH graduate program.

STATE–LOCAL HEALTH PARTNERSHIPS

The State Health Improvement Plan (SHIP) provides an important link in the state-to-region-to-local distribution of public health responsibility and accountability. The initial SHIP was developed in 1999 to replace the CON-directed State Health Services Plan, and in July 2001, the Department of Health issued the State Health Improvement Plan (SHIP). SHIP has three

principle focus areas: 1) prevention of death, disease and disability by addressing the root cause of these conditions, 2) engaging organized community health improvement partnerships to identify and address local health issues, and 3) improving access to relevant health and health related data for use by communities.

In each Community Health District, the executive director is charged with establishing relationships between communities and the state. The executive director works with the Department of Health staff in the county to identify potential community partners and provide them with services. Partnerships are voluntary, so there must be a sufficient exchange of value between the state and the community to maintain the relationship.

The state does not provide any guidance on which issues the partnerships should address. The application for affiliation is basic and easy to complete. Upon acceptance of the affiliation, the state provides a mini-grant to the partnership to help facilitate its efforts. SHIP partners meet regularly to address root causes of health issues in their communities. Resources are then coordinated among community and state organizations to meet the most pressing needs. Many types of organizations are involved in SHIP partnerships, including, but not limited to, hospitals, religious organizations, local government representation, local nonprofit agencies, businesses and large social service organizations.

All SHIP partnerships are voluntary, and the community decides structure of the partnerships. The organizations involved in forming the partnerships may be informally joined, or may be established as 501(c)(3) organizations. Some partnerships have full time executives to run the programs; volunteers run others. Members of the partnership are decided by the communities, but often include educators, university members, school district representatives, community leaders, social service organizations, hospitals, physician groups, dentists, and occasionally representatives from local governance.

The state encourages the partnership to represent the community and provide an overall community view of needs and health status. Multiple county partnerships are not prohibited, but they are discouraged because competition can interfere with their effectiveness. Tioga County—

one of the counties visited for this project—established one of the seven initial SHIP partnerships.

State and district health offices offer technical assistance to the partnerships to support program efforts and assessments. One way in which the state assists local partnerships is by hiring contractors for specific programs. Contractors are required to seek out the partnerships and offer assistance with program development and implementation. Contractors are hired for programs such as immunizations, tobacco use, HIV education and prevention or Safe Kids. The contractors have been valuable for many communities because interaction with an outside party has made the community partnerships more aware of services and initiatives within their own community.

Approximately 58 percent of partnerships have completed a needs assessment for their community, but assessments are not required by the state. The affiliated partnerships typically use state data to help build their assessments. The Bureau of Statistics and Information has designed an extensive database of county statistics that partnerships can access. In addition, the state conducts a survey every two years to assess the needs of the partnerships and how the state can better support them.

The state is beginning to use a logic model to evaluate the effectiveness of the partnerships, but this evaluation method is not yet used consistently. The effectiveness of partnerships varies by county. The state is working to identify the impact the program is having in the following areas: improving relationships with partnerships, providing access to data and information, and ability to identify emerging trends.

The greatest accomplishment of the SHIP program has been success in mobilizing community efforts, one of the Healthy People 2010 objectives. The partnership affiliations create a ready-to-use local infrastructure. For example, when the state received a grant for disaster preparedness, it contracted with the partnerships. The partnerships are also valuable in spreading grassroots efforts for initiatives such as immunizations. The partnerships can “beat the bushes” at the community level without state interference.

The Pennsylvania SHIP program is the only state-generated activity identified during the course of this study that attempts to create a public health system at the local level.

CASE STUDY COMMUNITIES

The two county sites selected site visits in Pennsylvania were Adams County and Tioga County. Adams County is located in the South Central Health District, on the border of Maryland. It is located at the bottom of the state's "T-bone" region. The South Central District includes 13 counties, approximately half of which are rural and half of which are urban. Adams County has a population of 96,456 and a population density of 175.6 persons per square mile. Adams County has historically been a strong farming region, but that has been changing over the past few decades as the county becomes more industrialized. Tioga County is located at the opposite end of the state, in the very northern portion of the "T-bone." In contrast to Adams County, Tioga has a population of 44,557 and only 36.5 persons per square mile. Tioga County has developed a unique Partnership for Community Health in collaboration with a countywide network of individuals, business executives, community leaders, health care providers and human service personnel. The Partnership addresses various health- and community-related issues such as education, employment, housing, lifestyle choices, and sanitation/hygiene.

South Central Community Health District (Harrisburg, Pennsylvania)

The South Central Community Health District Office is located approximately 10 minutes from the Pennsylvania Department of Health in Harrisburg. The South Central Health District includes 13 counties with a mix of urban and rural areas. The South Central region includes three MSAs: Harrisburg–Lebanon–Carlisle, York, and Altoona. The 13 counties cover 7,844 square miles, and the total population of the region is 1.6 million. The district's population density is 200 persons per square mile, but population density varies greatly among counties, ranging from 32.6 persons per square mile in Fulton County to 479.4 persons per square mile in Dauphin County. Each county in the district operates a state health center, and York County also operates an independent municipal health department. At the time of the site visit (May 2005), the district was celebrating its 100th anniversary of providing services in the region.

The South Central District Office is located in space leased in a strip mall. All district and local office space is leased by the state. The physical layout of the district office is a large rectangular space with many cubicles filling the middle. A few offices and two large conference rooms surround the outer edge. Conference rooms are used by district office staff and occasionally used by community organizations working on health-related activities. The district and local offices do not have any laboratories or clinics, with the exception of a district tuberculosis clinic. All laboratory work is sent to a central location in Harrisburg. The district operates six satellite facilities that offer periodic services such as immunizations. For example, in Perry County, immunization clinics are offered in a church facility once per month. The district does not operate any mobile facilities.

Pennsylvania district health offices provide coordination, consultative and administrative support. Program support services include communicable disease tracking, surveillance and investigation, epidemiology, information and referral, chronic disease prevention and intervention programs, family health programs, school health programs, and environmental health services.

District consultants serve as resources for all county nurses and State Health Center staff. In addition, district staffs may assist local counties by temporarily filling vacant positions. All consultants, coordinators and program representatives for the district office:

- Gather and share data related to their program area.
- Offer education programs for the public and professionals.
- Identify and share resources and promising approaches to their program area.
- Work with partners to promote community-based initiatives that advance health promotion and risk reduction.

The District Office maintains a toll-free help/health line that can be accessed 24 hours a day, seven days per week. Office hours are 8 a.m. to 5 p.m. Monday to Friday.

Coordination between the state Department of Health and the district is strong. The district executive director reports directly to the director of the bureau of community health in

Harrisburg. The six district executive directors have a weekly conference call with the Bureau of Community Health. All funding and the majority of decisions are made at the state level, with some input from district or local staff. The state Department of Health offers a great deal of guidance and the majority of resources for district programs.

Several of the broader public health services have been delegated to other departments within the state government. The District coordinates closely with these departments to effectively operate programs and address public health concerns. The Department of Agriculture manages animal control and food hygiene. If an animal control problem arises, local nurses work closely with Agriculture staff to contain the problem. The Department of Environmental Protection is responsible for air and water safety; District health consultants work closely with the environmental protection representatives referring clients, and contributing to investigation efforts. Some counties have a representative from the Department of Environmental Protection who works locally. The Department of Aging manages elder care, including day care support, some transportation, health promotion and home health. Local public health nurses also coordinate with the Department of Health and Welfare and the State Police.

Organization and Services

Six individuals report directly to the district executive director: a clerk, the district nurse administrator, the district business manager, the district epidemiology manager, a public health educator and the EMS program specialist. District office meetings are held monthly with all district office consultants and nurse supervisors. The epidemiology manager supervises 13 individuals who are consultants in the areas of communicable disease, HIV/AIDS, STDs, TB, immunizations, environmental health, and epidemiology research. The public health educator supports the health education component of the chronic, communicable, family, school and environmental health programs, and provides technical assistance and professional support for health information lines and state public health training. The public health educator also provides information concerning organ donations. The EMS program specialist plans, coordinates and implements activities and training for emergency response for the district, collaborating with counter terrorism task forces, PEMA and local emergency preparedness response teams.

The district nurse administrator is responsible for the three community health nurse supervisors (one of whom serves a dual role as the chronic disease nurse supervisor), the maternal child health consultant, the special health care needs consultant, and the school health nurse consultant. The district nurse administrator holds two scheduled meetings per month with the three nurse supervisors. The community health nurse supervisors are each responsible for between two and seven state health centers and travel to each site regularly. Community health nurse supervisors also hold monthly meetings with their staffs at a central location in the district. The maternal and child health consultant, a registered nurse, has the following responsibilities: assists in the formation and development of local child death review teams and is a member of the state child death review team, coordinates Department of Health services for families who have lost an infant to SIDS and promotes SIDS risk reduction awareness, coordinates Department of Health activities with the Early Childhood Education Linkage System program, and coordinates Department of Health services for the State Childhood Lead Poisoning Prevention Program. The special health needs consultant promotes inclusion of the special needs population into services, distributes resources regarding prenatal care to reduce neural tube defects, and provides technical assistance and consultation to families of children with special needs and agencies serving them.

School nurses are managed through the Department of Education; however, a full time school health consultant is located in each of the Health Department's six district offices. The School Health Program serves all children of school age attending public and private schools in Pennsylvania. School health programs services include medical and dental examinations and five different health screenings (growth, vision, hearing, scoliosis, and tuberculosis) at specified intervals; nursing services, including the treatment of acute and chronic conditions, first aid, and emergency care; medication administration; health counseling and health promotion; maintenance of student health records; and assessment for school immunizations. The Pennsylvania Code requires the Health Department to reimburse 501 school districts, 11 full-time comprehensive vocational technical schools and over 100 Charter Schools for a portion of the costs associated with the provision of these school health services.

The school health consultant is a full-time professional nursing position in each of the District Health Offices that is responsible for the district-wide development, implementation, coordination and evaluation of systems for coordinated school health programs and school nursing services. The school nurse consultant communicates with school nurses daily.

The Pennsylvania Public Health Association organizes a “Public Health Institute” two times per year. Many district and local employees attend the training. Training sessions cover many areas of public health, including reimbursement, management skills, emergency preparedness, drug trends, disaster and trauma intervention, CPR instruction, epidemiology, special needs populations, and more. Other educational opportunities are arranged as necessary or as new programs are initiated. For example, public health nurse update courses were offered last year, and the immunization program offers an annual two-day training course. Reimbursable continuing education is funded by the position sponsor (e.g. HIV/AIDS program).

The district executive director is a member of the state public health association and the American Public Health Association. Other district staff join professional associations and trade associations on an individual basis.

Community health needs assessment is an area in which the Department of Health interacts closely with community organizations to identify and address needs. SHIP partnerships are a way in which interactions are organized. Disaster planning and preparedness is another service that is organized collaboratively. The district has developed plans for addressing the first 12 hours post-disaster and how to coordinate with other health organizations to ensure care. For communities in which nuclear plants are located, distribution of potassium iodide is in place. (Three Mile Island, the site of a nuclear accident approximately 25 years ago, is located in the district.)

All information system equipment and programs are procured and managed by the state department. Every employee at the district and local level has a personal computer. One third of the equipment is replaced every year. Microsoft Office is available on all computers, and all staff

has access to Excel spreadsheets, Web browsers, word processing, Access database programming and Outlook. Employees are trained on equipment as necessary.

All computers have high-speed Internet access and are connected to the NEDDS information system. Access to information on NEDDS is specific for each individual. Individuals who are authorized for certain access can obtain information pertaining to their district, but cannot access information for other districts. (e.g., the immunization consultant may only have access to immunization data on the NEDDS system, and will only be able to see immunization reports for the 13 South Central counties). EPI-X provides regular epidemiology case updates to relevant staff members. Both local and district epidemiology staff or registered nurses check this several times per day so that they can respond to suspicious cases. Local health respondents indicated that the system also has a West Nile Virus tracking program that offers GIS capabilities. Some employees also have access to client registration and statistical software. According to district employees, the state shares relevant statewide or multi-district information as necessary. One goal of the district is eventually to have all student health data collected by school nurses on SIS (Statewide Immunization System) so that immunization and other health records are easily accessible.

The district office interacts often with other state agencies because many public health services are managed by these agencies: Department of Transportation, Department of Aging, Department of Environmental Protection, Department of Drugs and Alcohol, Department of Welfare, Department of Agriculture and the State Police. In some cases, these other departments will have a local representative who can coordinate closely with health staff. Responsibility is clearly designated in written protocols, so coordination runs smoothly.

The state-initiated State Health Improvement Plan (SHIP) encourages coordination of multiple community organizations. SHIP partnerships meet regularly to address root causes of health issues in their communities. Resources are then coordinated among community and state organizations to meet prioritized needs. The South Central District works very closely with the United Way, which is often a member of SHIP partnerships. The district office and United Way organizations in the counties share information related to community needs and health status.

District consultants work with local hospitals and health providers to investigate local infections or disease. They also collaborate on efforts through the SHIP program. District disease-management staff communicates with local health officials several times per week.

Financing

All funding for district office and local state health center activities comes from the state. All accounting, personnel, salary and other financial systems are managed at the state level. The district business manager works with a manager within the Bureau of Community Health for any necessary planning and information. Budgets are determined each year with input from district management.

Planning and Evaluation

The District conducted the most recent community needs assessment one year ago. The needs assessment incorporates information provided by district staff and local organizations such as the United Way. County plans are developed each year in collaboration with the Department of Community Health. These county plans are shared with the county and with SHIP partnerships to facilitate relevant programs.

The district office does not conduct a district-wide evaluation. All individuals are evaluated annually based on personal job descriptions. Job standard evaluation criteria are based on the 10 essential public health services. In addition, individual programs conduct evaluations. For example, immunization reviews are conducted, tuberculosis chart audits are conducted, HIV test audits are conducted, and MCH consultants conduct audits in their program areas.

The District has completed the Public Health Preparedness and Response Capacity Inventory in the past. There are plans to conduct comprehensive district evaluations in the future, but details were not available.

Adams County State Health Center (Gettysburg, Pennsylvania)

Created in 1800 and named in honor of President John Adams, Adams County historically has had a strong German heritage and a farm-based economy. The county has only recently become industrialized, but small farms still cover 56 percent of the land. Adams County currently produces over 40 percent of Pennsylvania's annual fruit harvest and produces large amounts of wheat, barley, soybeans, and hay. The county houses Gettysburg College, founded in 1832, and is the site of the Gettysburg National Battlefield.

The Adams County State Health Center has a waiting area, a reception area for the clerk, four small exam rooms, one laboratory room, a staff bathroom, storage, a kitchen, a conference room, and an office for the state health nurse, which includes three cubicles for the nurses and nurse supervisor. The state health center building, which is leased by the state, shares its space with the Adams County Migrant Health Program. The migrant health offices are located in the back of the facility, and one of the county exam rooms is used by the migrant health clinic.

Adams County has one hospital, Gettysburg Hospital, which also operates a physical therapy center and a dialysis facility. In addition, home health services are provided by the Visiting Nurses Association of Hanover and Spring Grove. There are two ambulatory surgery centers, one in Hanover and one in Gettysburg. There are 0.8 beds per 1,000 population. Adams County also operates seven nursing homes, all of which are Medicare certified and six of which are Medicaid certified. There are two licensed drug and alcohol treatment facilities, both outpatient, with one offering partial hospitalization. The median age of the population is 37.4 years.

Service Area

The population of Adams County is 92,997 (US Census estimate 2001), and the square mileage of the county is 520. The total population per square mile is 178.8, although only 40 percent of the population lives in a Census-defined urban area.

State-Local Relationship

Coordination between the state Department of Health, the district, and the local State Health Centers is strong. All employees are employees of the state. The Community Health Nurse

Supervisor, who reports directly to the District Nurse Administrator, visits each state health center at least once every other week, and communicates with the local RNs almost daily.

Governance

All governance decisions are made at the state level. State health departments are not governed by local boards and do not have local medical directors. The state offices develop all standing orders and procedure manuals.

Budget and Finance

All of the funding for district office and local health center activities comes from the state.

Organizational Structure

The Adams County State Health Center is very small. The staff includes one full-time registered nurse, one clerk, and two half-time registered nurses who are shared with sister counties. The registered nurses and the clerk report to the community health nurse supervisor. The full-time registered nurse position at the Adams County state health center is currently vacant (May 2005). District nurses rotate to fill the position.

Several education opportunities are available for public health staff. All nurses are entitled to four education days per year, and these can be used for continuing education programs. The collective bargaining contract also allows for tuition reimbursement for undergraduate or graduate course work, up to approximately \$2,000 per year. Individuals must apply for tuition reimbursement on a case-by-case basis.

The Pennsylvania Public Health Association organizes a “Public Health Institute” two times per year. Many district and local employees attend the training. Training sessions cover many areas of public health, including reimbursement, management skills, emergency preparedness, drug trends, disaster and trauma intervention, CPR instruction, epidemiology, special needs populations, and more. Other educational opportunities are arranged as necessary or as new programs are initiated.

Decision Making and Decision Supports

All program and activity decisions are centralized at the district office or the Department of Health. Policies and procedures and standing orders are updated regularly and distributed to all state health employees online and made available on paper. Policy and protocol manuals are developed for all programs. The state medical director and dentist create standing orders and decision trees for public health use. Each year new standing orders are issued for flu vaccines. A unique order may be issued for specific cases such as providing rabies vaccines to veterinarians.

Information Systems

Both the nurse and the clerk at the state health center have a PC. All computers have high speed Internet access, and all employees have access to Excel spreadsheets, e-mail, Web browsers, word document programs, and the Access database program. All PCs have access to NEDDS, but the registered nurses have authorization to access different information than the clerk. State health center nurses can only access local county information through NEDDS. Nurses use the EPI-X system to monitor local epidemiology outbreaks, and the system is monitored throughout the day.

Public Health System/Networks

State health centers interact with other state agencies because many public health services are managed by these agencies: Department of Transportation, Department of Aging, Department of Environmental Protection, Department of Drugs and Alcohol, Department of Welfare, Department of Agriculture and State Police.

Adams County State Health Center staff has a good relationship with Healthy Adams County, a local SHIP partnership established as an independent 501(c)(3) organization. The state health center nurse sits on task forces for Healthy Adams County. In addition, the PA Department of Health and district office offers technical assistance to Healthy Adams County for specific programs and initiatives. The state also hires independent contractors to support various programs. As a part of their contract, these individuals are required to reach out to SHIP partnerships and offer to assist them in developing programs.

Originally called the Adams County Council on Community Services, Healthy Adams County was established in the 1950s. This organization was created as a forum for community members and organizations to share their concerns about issues affecting social services in Adams County. The organization experienced periods of inactivity over the years. In 1994, the organization approached Gettysburg Hospital and asked if the hospital would be willing to help coordinate resources toward a community assessment and health improvement effort. The hospital agreed to help, and assigned an employee to work full time as the director of the program.

In 1996, the first Adams County community health assessment was completed by surveying residents and health providers to compile information on the community's health status, risk behaviors, and related needs. After this, the Adams County Partnership for Community Health was established to address some of the needs identified. The name was later changed to Healthy Adams County. The establishment of this group to address the identified needs occurred around the same time that the state of Pennsylvania received a grant to investigate how to foster community collaboration and better understand the links between health status and quality of life. Soon after, the state established the SHIP program. In June of 2000, Gettysburg Hospital gave one of its executives the option to become the full-time executive director of Healthy Adams County, and he accepted. The executive director and his assistant work on Healthy Adams County full time and are both employees of the WellSpan Health System. Although the executive director is a health system employee, the hospital encourages the group to focus on issues that are community-based.

Healthy Adams County officially became an approved SHIP partnership in 2002. Affiliation as a SHIP partner offered credibility within the community and grant opportunities. The partnership has continued to grow, and community members are eager to participate on task forces. Healthy Adams County facilitates interaction among various community and social organizations in the county. It has created an environment in which different organizations can work together and join resources to create the most effective programs. The most significant achievements to date have been centered on improving

access to health care across the county. Access to all health services has been ranked high in each community assessment.

One example of community collaboration and improved health relates to dental care. Two or three years ago Healthy Adams County formed an oral health task force. The partnership held several meetings and invited dentists from across the county to attend and learn about local problems with access to dental care. Only a few dentists at that time accepted medical assistance (i.e., Medicaid), and the group wanted to investigate other solutions for low-income residents.

During the time period when the oral health task force was meeting, Gettysburg Community College announced that it planned to start a dental hygiene program and asked if local dentists would be willing to supervise and teach their students. The Gettysburg Community College offices are located next door to a Head Start office. After several discussions the two organizations agreed to allow the Community College to hold training clinics in the Head Start offices so that those children in need would have access to dental care. Funds were raised through grants, and three fully equipped dental rooms were added to the Head Start office. The program has been beneficial for the community. The dental hygiene students receive training, Head Start children receive dental care, and the dentists are able to treat a needy population in a convenient location. The Oral Health Task Force has identified 10 populations with limited access to dental care, and they hope to be able to treat these individuals in the future.

Hospital Relations

Gettysburg Hospital's relationship with the Adams County State Health Center is described as collaborative "the purpose is to exchange information and alter services and share services for mutual benefit to achieve a common goal." Gettysburg Hospital is a non-governmental, community-based, not-for-profit hospital that is independently managed. The hospital is a facility of WellSpan Health, an integrated health system serving the Adams-York county region. Gettysburg Hospital is also a VHA member. A Health Connect van, operated by WellSpan, travels through York and Adams counties, delivering basic care to rural and other access-challenged populations.

Hospital representatives indicated that they are involved in promoting many of the essential public health functions in the community. See Table B-9 below.

Table B-9. Public Health Services Conducted by Gettysburg Hospital

Public Health Services	Yes	No	Degree
Monitor health status to identify community health problems.	X		5
Diagnose & investigate health problems and health hazards in the community.	X		4
Inform, educate, and empower people about health issues.	X		5
Mobilize community partnerships.	X		5
Develop plans and policies that support individual & community health efforts.	X		5
Link people to needed personal health services.	X		5
Assure competent public health and personal health care workforce.	X		5
Evaluate effectiveness, access, and quality of personal and population-based health services.	X		5

Planning and Evaluation

County assessments are conducted annually at the state level, and program planning is based on these assessments. The Healthy Adams County partnership also conducts assessments as needed. The most recent Healthy Adams County assessment data was collected in 2003 with the assistance of the state Department of Health. The assessment was built upon the BFRSS survey, with additional questions added by the county. Once the survey was complete, Healthy Adams County hired a consultant to conduct some follow-up work to supplement the materials collected by the state project.

Healthy Adams County conducted a community needs assessment in 2002. Based on this assessment, five priorities were identified:

1. Medical care access
2. Dental care access
3. Affordable housing
4. Transportation access

5. Mental health access and youth issues (tied in importance) (e.g., delinquency, teen sexuality, sexually transmitted diseases, teen pregnancy, violence/conflict resolution, recreation/activities, education/training, smoking and smokeless tobacco)

In addition to the five priorities listed above, the following needs were identified: employment/financial problems, childcare, family violence, substance abuse, elderly services/chronic disease, disease demographics, racism and intolerance, literacy, marketing, provision of services to undocumented residents, planning and population growth, family stability/family composition, parenting skills, and motor accidents/seatbelt use.

County plans are shared with partnerships to facilitate relevant programs. Local organizations may also conduct independent needs assessments related to specific areas of interest such as housing.

North Central Health District (Williamsport, Pennsylvania)

The North Central District is composed of 12 counties comprising an area of 8,773 square miles. The region contains both the largest county in the state (Lycoming County at 1,237 square miles) and the smallest (Montour County at 131 square miles). The population of the region is 669,741 (2004 population estimate); the population per square mile is 152.7. The region is home to some of the most innovative rural health systems in the country, including the Guthrie Clinic in Sayre (established 1910), the Geisinger Clinic in Danville (established 1915), and the Laurel Health System in Wellsboro (an integrated delivery system developed in 1989). All of the counties in the region except one (Sullivan County) have state health centers, the state-operated local public health agency. The district office is in Williamsport, approximately the geographic center of the region and the region's largest city (population approximately 30,000). The district operates no mobile facilities. Public health consultants from the district office travel to the various state health centers within the region on a routine basis.

As expected of a state-operated system, the story from the district perspective correlates highly with that from the state level. Relations between the state and the regions are generally good. The six region executive directors report to director of the Bureau of Community Health

Systems. The relationship of the various parts of the system is spelled out in statute. The Department of Health recognizes that it “provides a limited range of public health services” through the department, its district offices, and the state health centers. It relies on community health improvement partnerships at one end of the spectrum and other state agencies on the other to complete the public health system. Among other state agencies providing public health services are the Department of Agriculture (food safety, restaurant inspection, and animal health), the Department of Environmental Protection (air and water quality), the Department of Conservation and National Resources (protection of public beaches, recreation programs), and the Department of Public Welfare (county mental health and mental retardation services, services for children and youth). The district health offices maintain open channels of communication with these agencies. For example, the region offices are charged with performing enteric investigations and consult with Department of Agriculture staff in the process. The region health offices also work with others to implement some programs, such as the Department of Transportation of traffic safety and Planned Parenthood on MCH programs.

Organization and Services

Thirty-four employees—all full-time—work in the district office, but a total of 59 employees, including those in the 11 state health centers, report indirectly to the district executive director. The district office is headed by a district executive director. A public health educator has a staff relationship to the district executive director and is responsible for health promotion, maintaining the district library, organ donation, and media relations. Four division heads also report directly to the district executive, the district nurse administrator, the district business manager, the district epidemiology manager, and the emergency medical services program specialist. The district nurse administrator is responsible for the state health centers, chronic disease, maternal and child health programs (but not family planning), and school health. The district epidemiology manager is responsible for communicable diseases (including STDs and HIV prevention) as well as the district’s immunization program. An environmental health specialist and a sanitarian have dual reporting relationships; they report to the district epidemiology manager and the environmental health administrator in the Bureau of Community Health Systems in Harrisburg, the state capital. The emergency medical services program specialist is a preparedness coordinator whose position was established as a result of a

bioterrorism grant. Finally, the district business manager fulfills the administrative duties of the district office. A distributed system specialist reports to the business manager and the Division of Data Processing in the Department of Health in Harrisburg. This person is responsible for maintaining the states HAN and NEDDS systems.

Each of the community nurse supervisors holds monthly meetings with the nurses in the state health centers they supervise. District meetings are held once a month. The community nurse supervisors are required to attend, but the meetings are open to any of the district staff (including those serving in state health centers).

Neither the district office nor the local state health centers have laboratory capacity. Decentralized state laboratories were closed because of CLIA licensing requirements. All laboratory work from the counties and region is sent to Harrisburg.

The buildings which house the state health centers are leased; the state owns none of the facilities. The state health centers are virtually the same in terms of physical capacity. Each provides for one to three offices, two or three exam rooms, storage space, a kitchen, and a small conference room. The services provided in the exam rooms are testing and immunizations. Although the health centers are responsible for sexually transmitted disease, examination and treatments are contracted out to private physicians.

The district office has approximately 25 offices, a large conference room that can be divided and assorted rooms for production, mailing, storage, and other administrative tasks. The district office is co-located with the Lycoming County state health center in a large office building that is shared with private businesses and other state and county offices. The region has no satellite or outreach facilities, but the local state health centers hold *ad hoc* clinics and regularly scheduled immunization screenings and clinics throughout their counties. The district office partners with a private mobile dental practice to provide oral health services to Amish residents of the area.

A public health institute convened by the Pennsylvania Department of Health is held two times per year and is attended by district and local staff. All of the registered nurse staff is

covered by a union contract. (In all, there are four separate unions representing four bargaining units.) The registered nurse collective bargaining contract contains language that requires the employer to provide the employee with both continuing education and access to college credits. The district office has institutional memberships in NACCHO, ASTHO, and the Pennsylvania Rural Health Association. Both the district executive and the district nurse executive are members of the State Public Health Association and the district executive is a member of the APHA. There is no state local health department association in the state. The district executive said that the most useful association to her was NACCHO.

Financing

The 2003 budget for the region is approximately \$4 million, as reported to NACCHO on a recent survey. All of the funding for the region comes from the state, although some of the state dollars are pass-throughs of federal dollars. Expenses for county public health services are paid by the district.

Planning and Evaluation

Approximately every three years, the district develops county public health assessments from which they develop action plans. The planning is a cooperative effort between the district and the centers. County demographics are reviewed as well as health status indicators—BRFSS, morbidity (cancer registry, reportable disease, death certificates, PHC4), and mortality. Health center nurses and district staff collaborate on identifying program needs and goals from the data. Part of the process is identifying “priority partners” in the community through which they may work. Planners also identify other state departments through which some objectives may be met. In the district plans—as well as the SHIP plans—Healthy People 2010 goals are used as performance benchmarks.

At the district level several activities occur to assess the quality of programs. Among them are immunization audits; observing center nurses for technique and procedure; inter-clinician review (i.e., they review each other); testing of various clinical techniques by running nurses through various testing stations until individual proficiency is one hundred percent; and chart reviews (in which a random sample of all charts are pulled and audited).

The district office has used the National Public Health Performance Standards Program—Health Performance Assessment in the past. An assessment of whether to use it again was underway at the time of the site visit. The completed survey is used as a management tool and the results are only shared internally.

Tioga County State Health Center (Wellsboro, Pennsylvania)

Tioga County is located in north central Pennsylvania and shares its northern border with New York State. The home to the Grand Canyon of Pennsylvania, a 50-mile gorge cut in the Allegheny Mountains by Pine Creek to a maximum depth of 1,450 feet, tourism is a leading industry in Tioga County. Other leading economic sectors include light manufacturing, health services, and education. Mansfield University is located in Tioga County. With a student body of more than 3,500 students, Mansfield University is the site of the first night football game in 1892, an occurrence that is celebrated each September. Wellsboro, a town of approximately 4,000 residents is the county seat and the location of the Tioga County State Health Center.

Like other state health centers, the Tioga County State Health Center is located in space that is rented by the Pennsylvania Department of Health. Also like other centers it is similarly equipped with two examination rooms, offices for three nurses, a medication room, a lobby/waiting room, a clerk's desk, and rooms for files, storage, meetings, and breaks. Some services are provided outside of the office. For example, HIV/AIDS testing takes place at the student health services at Mansfield University. If a test is positive, a consultant from the district office makes contact with patient. Regular office hours are 8 a.m. to 4:30 p.m., Monday through Friday.

Governance

There is no local governance of governmental public health in Tioga County. District and state health center staff participate in community health improvement partnerships, but are not bound by the decisions of the partners.

Budget and Finance

All of the funding for district office and local health center activities comes from the state.

Organizational Structure and Personnel

The staff of the Tioga County State Health Center is composed of two nurses and one clerk typist who report to a community health nurse supervisor, who in addition to supervising the Tioga County State Health Center, supervises the staff and operations of five other centers as well. Staff routinely functions independently, although the community health nurse supervisor is available at all times by telephone or through e-mail. Clinical services account for only 20 percent of a typical day. The remaining time is consumed by planning, assessment, and assurance activities.

As noted previously, the state provides educational opportunities for health center staff and the collective bargaining agreement spells out the continuing education requirements for registered nurses.

The capacity of the state health center staff is augmented by district office nursing consultants. The nurses at the local level are considered generalists and the district nurse consultants are specialists. The Tioga County community health supervisor said that the local state health center nurses are the “county specialists.” As an example, she cited an increase in animal bites in Tioga County. Residents had recently suffered bites from five rabid raccoons. The local nurses investigated the causes of the bites and initiated a rabies education program for children that highlighted the needs to avoid human contact with wild animals. Due to the size of the district (12 counties), infectious disease consultants at the district level may not have identified this local problem.

Decision Making and Decision Supports

All program and activity decisions are centralized at the region or the state Department of Health. Policies and procedures and standing orders are updated regularly and distributed to all state health employees online and made available on paper. Policy and protocol manuals are developed for all programs. The state medical director and dentist create standing orders and decision trees for public health use.

Information Systems

The nurses and the clerk at the state health center have access to a personal computer. All computers have high speed Internet access, and all employees use Excel spreadsheets, e-mail, Web browsers, word document programs, and the Access database program. All PCs have access to NEDDS, but the registered nurses have authorization to access different information than the clerk. State health center nurses can only access local county information through NEDDS. Nurses use the EPI-X system to monitor local epidemiology outbreaks, and the system is monitored throughout the day.

Public Health System

The Tioga County Partnership for Community Health is a highly visible manifestation of the public health system in Tioga County. All of the relevant players participate in the process of identifying and providing health services. Citizen input is essential to the process, deciding what to do and how best to accomplish it with limited means. Even health care providers in the county have adopted a population health perspective. The initiative to form the Partnership did not come from the local public health agency or its district supervisors. They are, however, an indispensable part of the whole. Rather than leading the effort with expert power, local public health has been seamlessly integrated into the fabric of the system. The idea of “public health” would seem foreign to many of the members of the Partnership. They view their role as improving the health of their families and neighbors.

The Laurel Health System in Wellsboro, the county seat of Tioga County, has had considerable experience with networking. One of the most successful rural health networks in the country (see Moscovice, Wellever, Christianson, et al., 1997; 1996), the Laurel Health System was formed in 1989 and is composed of an 83-bed acute care community hospital, a 122-bed skilled nursing facility, a 30-apartment assisted living facility, a 17-bed personal care home, a home health agency, and a variety of other health and human services ranging from administering Head Start centers to providing attendant care and care management to seniors.

In 1994, Laurel Health System along with faculty from Mansfield University and the Tioga County Department of Human Services formed the Tioga County Partnership for Community

Health to “jointly define and address health needs in the community.” The Tioga County Partnership for Community Health is incorporated as a 501(c)(3) organization. The board of directors is composed of one member for each of the three founding members, one county commissioner, and three at large members, plus the chairperson of each of the 15 Work Groups. The Work Groups are semi-autonomous panels of volunteers who assemble to address county health needs in specific areas. The general areas of focus of the Work Groups include: access to health care; aging; chronic illness, disabilities; immunizations; mental health; oral health; physical activity and nutrition; tobacco, alcohol, and drug use; and youth development.

The Tioga County Partnership for Community Health is an organization that thrives on volunteerism. Approximately 200 individuals volunteer their time and expertise to the Partnership and its Work Groups. In 2004, the Partnership estimated the value of the in-kind contributions (primarily free labor) at \$181,221. Another source of income to the Partnership is grants. The Partnership has received millions of dollars in grants to sponsor a variety of initiatives such as providing dental services and obesity-related programs. An example of one grant is a Rural Outreach Grant from HRSA for \$200,000 which the Partnership received in 2001. The Partnership was also a focal point for the state’s SHIP program. Although the Partnership received technical assistance and support from the Pennsylvania Department of Health, it received no grant funding. Staff from the local state health center and the district administrator sits on various Work Groups of the Partnership.

The accomplishments of the Partnership are impressive. Two countywide needs assessments have been conducted under its auspices. Two health status surveys of county residents (sample size 1,500; response rate 70 percent) for the mental health Task Force (an outgrowth of the Mental Health Work Group) were conducted this year. Childhood immunization rates increased from 45 percent to 89 percent through the Partnership’s effort. The Partnership provides dental screenings and fluoride treatments for 0–5 year olds in decentralized locations in the county. Through a large dental school in the state, the Partnership was able to start a dental clinic that provides oral health services to underserved residents. Other examples of the impact of Partnership could be cited.

Due to grant funded positions, the Partnership has a staff of eight. Typically the Partnership is not the grantee; members of the Partnership are. However, Partnership staff assists in planning and administration of grant programs. For example, the Partnership published a series of five widely distributed health monographs written by various partners. Examples of monograph titles are “Overweight and Obesity” and “Oral Health.”

Hospital Relations

A representative from the Laurel Health System was asked the questions normally directed to hospital administrators to detect the presence of a public health system. Because of the symbiotic relationship of the Laurel Health system to the Tioga County Partnership for Community Health the respondent answered “yes” to every question concerning the essential public health functions and answered “5—a great deal” to every question about the depth of the Laurel Health System’s participation in the essential services of public health.

The relationship between the local state health center and the Tioga County Partnership for Community Health is one of “collaboration.” Evidence of collaboration includes the fact that the two public health nurses who staff the local state health center are on “many” of the Work Groups of the Partnership, and that one of them is the Secretary of the Tioga County Partnership for Community Health’s Executive Committee.

Planning and Evaluation

The 2004 Tioga County Assessment prepared by the staff of the state health center lists specific benchmarks and the implementation strategies by which they might be accomplished, but as yet, the benchmarks have not been used as evaluation criteria. Most of the benchmarks were determined externally by using the Healthy People 2010 goals. The assessment document reviews demographic indicators, health and human services resources, and health status indicators and assigns “priority activities” to the local health partnership, the state department of health and its district and local components, and various environmental health providers.

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WASHINGTON

Washington State has a rich, natural geography. Towering forests intertwined with three large rivers cover the majority of the state. The state is bordered by the Pacific Ocean on the west coast, and Canada to the north. Washington residents value their natural resources as contributors to both the beauty and the economy of the state. Major industries in Washington include farming, lumber, tourism, hydroelectric power, computer software, aircraft manufacturing, and aluminum refining. The total population of the state is approximately 5.6 million, but Washington has a combination of urban and rural areas within its borders.

The public health system in Washington is highly decentralized. There are 39 counties in Washington, and 35 local health jurisdictions (LHJs), the term used by the State for local health departments in Washington. The LHJs are local government agencies, not satellite offices of the Washington Department of Health or the State Board of Health. Local health departments carry out a wide variety of programs to promote health, prevent disease and build healthy communities. The Public Health Systems Planning and Development Office works closely with the LHJs to ensure that services are provided and communication is maintained between state and local officials, even though the LHJs do not report directly to the state. Liaisons from several offices within the Washington Department of Health are assigned to work closely with leadership forums for the LHJs.

The State Department of Health has a 10-member Board of Health to provide a citizen forum for the development of public health policy. The board recommends strategies, promotes health goals to the Legislature and regulates a number of health activities including drinking water, immunizations, and food handling. The Governor appoints seats on the Board of Health. The board is housed with the Department of Health, although it is an independent entity. Each LHJ also has a Board of Health. The composition of local boards varies, and the local boards do not have a relationship or reporting requirements to the state Board of Health.

Washington State statutes lay out minimal guidelines and standards for local health jurisdictions. Statutes state that “it is the primary responsibility of the county to ensure the health of the population....and there shall be a health officer...” In cases where the health officer is not

an integral part of the health department, authority can be delegated to an administrator. The state does not provide a list of services that LHJs must provide for their communities. Instead, the LHJs are expected to provide “whatever it takes to ensure the health of the communities.” This usually includes environmental inspections, immunizations, home visits, limited personal health services and other environmental services. In reality, programs with readily available categorical funding are most likely to be offered. Some LHJs also provide WIC, STD clinics, maternal and child health care.

Due to the flexibility of the statutes, LHJ structure, services and organization vary greatly. LHJs are organized in one of two ways; they may be operated as county departments or as districts. County operated LHJs are closely managed by county government. LHJ districts may be composed of parts or the entirety of one or multiple counties and are autonomous from county government. All LHJs, regardless of the structure, report to a local board of health. For county operated LHJs, the board of health consists of three county commissioners. The board of county commissioners may adopt an ordinance expanding the size and composition of the board of health to include elected officials from cities and towns and persons other than elected officials as long as persons other than elected officials do not constitute a majority. For the district operated LHJs, the board of health is comprised of various members who may include county commissioners from each county, representatives from relevant cities, and physicians.

Washington local health jurisdictions are not divided into regions, with the exception of bioterrorism planning regions. As a part of the public health emergency preparedness and response planning, Washington divided its LHJs into nine regions. The main purpose of the regionalization was to ensure that all LHJs had enough funding to support resources and necessary staff to properly prepare. Grant funds were distributed individually to each LHJ, but in addition, funds were allocated for each of the nine regions so that the regions could hire staff members to direct planning and related activities. The State provided grant funding for four regional positions (although regions and LHJs may not have implemented the plan as such): an emergency planner, an education trainer, an epidemiologist and a surveillance specialist. Although the regional organizational structure might be used for other purposes, to date, they have only been used for bioterrorism preparedness planning.

The state believes that relations between the Department of Health and LHJs are strong, that communication is frequent, and that the LHJs appreciate the fact that they have direct access to Department of Health staff and assistance when needed. While the assessments of state–local relations on behalf of the two LHJs we visited were far from being hostile, relations were perceived to be less hardy from the local perspective than from the state perspective. The State provides few direct public health services. Examples of direct services provided include monitoring very large drinking water systems, shellfish testing, and radiation testing of the state’s only nuclear power plant. The primary role of the Department of Health is to provide guidance to the LHJs, and develop policies to promote health within the state. Divisions of the Department of Health manage statewide health programs and are staffed with liaisons and consultants who can assist LHJs with content and technical expertise for programs. These individuals also monitor the performance of funded programs. Some LHJs receive funding from Human Service Agencies and are required to report to this agency for relevant programs.

Police powers that have been delegated to the LHJs include food inspections, environmental health inspection and maintenance, including on-site sewage monitoring, drinking water monitoring, food handling inspections and control of issues such as clean-up of methamphetamine labs.

The state association of LHJs is a primary source of interaction between the state and the local health jurisdictions. The Washington State Association of Local Public Health Officials (WSALPHO) is an affiliate of the Washington State Association of Counties (WSAC). WSALPHO meets as a group three or four times per year. All LHJ leaders are members of WASALPHO, and LHJs pay an annual membership fee to the organization. Within WSALPHO, the group is divided into three forums based on discipline. The three forums are Health Officer/Administrator Forum, Nursing Director Forum, and Environmental Health Forum. These individual forums meet every one or two months, and a liaison from the Department of Health is always present at the meetings.

Funding for local health jurisdictions is a compilation of local, federal, and state funds. Approximately 12 percent of local funds are provided by state agencies, including the Department of Health. Almost 50 percent of funding is provided through local sources, including local government contributions, licenses and permits, and fees. The majority of remaining balance of funds is provided by federal sources (passed through the state).

Washington State maintains a few information systems that provide health data to state and local officials. The Washington Department of Health has Health Alert Network. The State is currently working on developing a 24-hour system that will send health alerts to approved individuals through their computers, beepers, and other communication devices. In 1990, Washington law made cancer a reportable condition in Washington and mandated the Department of Health to establish a statewide cancer registry program. Under this mandate, the Department established the Washington State Cancer Registry (WSCR). The Department of Health also has a Center for Health Statistics that makes health data for the state and counties available to the public.

An initial bioterrorism assessment was conducted after 2001 using CDC tools and questionnaires. A comprehensive assessment of local, regional and state public health and hospital preparedness and response capacity was completed. The state is applying to continue into the fourth year of a cooperative agreement with CDC and the second year with HRSA. Some of the activities carried out to this point include:

- Adding state capacity to provide critical centralized support services, including information technology.
- Establishing regional coordination of public health and hospital planning and response activities.
- Creating the state smallpox response plan and implementing nationally compliant vaccination clinics.
- Establishing a core group of hospital and public health personnel vaccinated against smallpox and ready to respond to an outbreak.

Washington places a strong emphasis on coordination among hospitals, local health, physicians, nurses, emergency medical personnel and others. CDC and HRSA grant funds will be distributed primarily through contracts with local health jurisdictions and hospitals. A regional system for coordination and planning has been established. Approximately 50 percent of available CDC funds will be distributed directly to LHJs to build capacity at the local level. Another 30 percent will go toward building shared capacity such as laboratory analysis and the Health Alert Network (HAN) for statewide use. The final 20 percent will be retained by DOH for planning, exercising and administration. On the HRSA side, more than 80 percent of the grant funding will be passed through to hospitals, outpatient facilities and federally recognized tribes in Washington State. All of this funding continues to support public health capacity and infrastructure development for staffing expertise and activities including epidemiology, communications, education and training and also local and regional emergency preparedness and response planning.

The Department of Health was also awarded a grant by the CDC in October 2002 to enhance and improve community health assessment (CHA) practice in Washington State. The five-year grant supports the formation of a new state–local partnership—called Assessment in Action (AIA)—focused on improving community assessment work and enhancing Vista, a automated tool for accessing and analyzing health data.

The primary performance standards used in Washington—for both the state and local health jurisdictions—are the *Standards for Public Health in Washington State*. *Standards for Public Health in Washington State* was developed using a collaborative process involving more than 100 public health professionals who work at state and local health departments. Responsibility for public health protection is shared among the Washington State Department of Health, the State Board of Health, and 35 local government public health jurisdictions with local boards of health. The standards are designed to recognize that state and local responsibilities are different. A single standard is proposed for the public health system, with separate state and local measures that demonstrate whether a standard is met.

The standards focus on the capacity of the system to perform necessary functions.

The standards are purposely limited to the responsibilities of state and local government. The contributions of non-government health providers and community-based organizations are essential, but they are separate from the specific accountability expected of government agencies. The standards cover five key aspects of public health: 1) understanding health issues 2) protecting people from disease 3) assuring a safe and healthy environment for people 4) promoting healthy living and 5) helping people get the services they need. Standards were field-tested in summer 2000 with on-site visits to every local health jurisdiction and many state health department programs. Baseline measurements were gathered in 2002, and a second round of data collection is being conducted in 2005.

The University of Washington School of Public Health, located in Seattle, offers a Masters in Public Health. It is the only school in the state offering a graduate degree in public health.

CASE STUDY COMMUNITIES

The two counties selected for site visits in Washington were Grays Harbor County and Kittitas County. Grays Harbor County is located on the Western coast of Washington. The principal industries are wood and paper production, seafood processing, food processing, and manufacturing. The largest city in Grays Harbor County, Aberdeen, houses the local health jurisdiction. Grays Harbor County has a population of approximately 64,000 with 35.4 persons per square mile.

Kittitas County is located in central Washington State. It spans from the Cascade Mountains to the upper Yakima River Valley plains and the Columbia River. The local health jurisdiction is located in Ellensburg, the county seat. Ellensburg also contains almost half of the county's population. The total county population is 33,875 with approximately 14.5 persons per square mile.

Grays Harbor County Health and Social Services Department (Aberdeen, Washington)

Grays Harbor County is located on the Pacific coast of Washington State just below the Olympic Peninsula. A large county of some 1,910 square miles, forestry, agriculture, fishing,

shipping, and tourism make up the diverse economy of Grays Harbor County. Grays Harbor is the deepest natural harbor north of San Francisco, and although it is still used as a seaport, its volume of traffic is quite modest compared to other ports to the north on Puget Sound. The area is heavily forested, and logging and forest products provide many jobs in the county. Several saw mills and paper mills process timber within the county, but many logs are also trucked out. Although, the coast has long been home to many weekend visitors, tourism traffic has increased in recent years and the towns along the coast are becoming retirement destinations.

The county seat of Grays Harbor County is Montesano, a small town (population 3,366 in 2004) in the center of the county. As one would expect, most of the offices of county government are located there. The Grays Harbor County Health and Social Services Department, however, is located in Aberdeen, the largest town in the county (population 16,364 in 2004). The population of Grays Harbor County was estimated at 69,406 in 2004.

Within the borders of Grays Harbor County are two Indian Reservations. The Quinault Indian Reservation occupies a large expanse of territory in the northern part of the county. The entire reservation falls within the boundaries of the county. Health services are provided by a tribal clinic to enrolled members of the tribe. The Chehalis Indian Reservation is much smaller and straddles the southeastern border of the county shared with Thurston County. Following years of economic deprivation, both tribes now sponsor casinos on their land and are beginning to see the first signs of broad-based economic development.

Prior to 1997, the health department and the social services department were separate. The health department consisted of public health and environmental health services and the social services department was comprised of developmental disabilities services, substance abuse prevention and treatment, and mental health services. In 1995, environmental health was removed from the health and social services department and assigned to the public works department. The ostensible reason for the change was to better coordinate the writing of septic tank permits and building permits within county government. Not only did environmental functions transfer, but the offices were moved from Aberdeen to Montesano, the county seat. The environmental health division of public works (buildings and planning) is responsible for

restaurant inspections, solid waste, public swimming pool and spa inspections, beach monitoring, methamphetamine laboratory clean-up, and the county drinking water program (delegated to the county from the state).

The Grays Harbor County Health and Social Services Department is located in a two-story modern brick building in a commercial district of Aberdeen, Washington. It shares space with a district court and a large public auditorium. Client and clinic services are delivered on the first floor in a variety of exam rooms, counseling rooms, and offices. The department has a small laboratory that it uses only to process specimens before sending them to state laboratory or to commercial laboratories.

Clients enter the department into the waiting and reception area. Three to four receptionist sit behind a large, L-shaped, built-in desk, that resembles a small private group medical practice reception area. The area is spacious and well-lit. A records room, a copy room, and cubicles for more confidential intake procedures are all available to receptionists from the area behind the desk.

The large waiting area is also L-shaped. A children's waiting area with toys and games is located in one leg of the "L." Presumably, adults who wish to wait for services out of the presence of small children may do so in the other leg. Adequate storage, break rooms and conference rooms exist on the first floor. Due to the relocation of education and health promotion staff to the second floor, approximately 288 square feet of space in a corner of the health department's first-floor suite is unused. The second floor is shared with the district court and contains administrative offices and offices for education and health promotion and social services staff.

The space for the department is provided by the county at no cost to the department. In addition to rent, the county provides building and grounds maintenance, janitorial services, and utilities. The department also does not reimburse the county for any of the indirect expenses the county incurs in providing other services to the department.

The health department operates no mobile facilities. It does, however, operate a van that exchanges syringes at various points in the county on a two afternoons-per-week schedule. The van is staffed by regular public health staff.

The department offices are open Monday through Friday from 8 a.m. until 5 p.m., but close for one hour over lunch.

Governance

The governing board of Grays Harbor County Health and Social Services Department is the county board of commissioners, sitting as a board of health. Until four years ago, the board of commissioners considered public health business as simply an agenda item on the regular weekly meeting. Beginning in 2001, the commissioners began to meet as a separate board of health four times per year. The meetings take place at the Health and Social Services Department rather than in the county commission chambers. The meetings are viewed as an opportunity to develop a greater awareness and understanding of public health among the commissioners. The department director also attends the weekly meetings of the board of commissioners to obtain approval and signatures for contracts and to inform the commissioners of unforeseen events. When considering public health business, the chairman “gavels out” of the board of commissioners meeting and “gavels in” to the board of health meeting. The director also attends commission meetings so she can be aware of decisions made by the commissioners relative to environmental health. (Several environmental health issues require public hearings.)

The board of commissioners is composed of three elected officials, each representing a geographic district of the county. By state law, the county commissioners constitute the county board of health, but the law also allows the commissioners to expand the board of health to include other residents of the county. To date, the commissioners have not expanded the membership of the board of health and have not established a health advisory committee.

The board of commissioners is an active participant in public health decisions as demonstrated by the following example. Grays Harbor County has a number of IV drug users and the health department noticed an unusually high rate of hepatitis B and C. Department staff

thought that a syringe exchange program might reduce the hepatitis prevalence in the county. Staff was concerned, however, that proposing a syringe exchange program may not be popular with the commissioners.

As a first step, the health department asked the board of health for permission to conduct a study of the feasibility of a syringe exchange program. The department sought permission for the study, because it did not want to begin talking about the program in the community without first informing the board. The board of health approved the feasibility study and the department held three meetings with stakeholders (e.g., law enforcement officials, substance abuse providers, physicians, and IV drug users), prepared a report and submitted it to the board of health. The board of health then held a public meeting at which the police chief from Olympia (approximately 50 miles east of Aberdeen) presented testimony on his community's experience with a county-wide syringe exchange program. Following the hearing, the board of health published a resolution to establish a syringe exchange program and subsequently adopted the resolution in January of 2004; the syringe exchange program started in October 2004.

The entire process took two years to accomplish. At first the commissioners were fearful of a public backlash against the idea. Over time, they became convinced that hepatitis was a significant public health hazard and determined that "our job is to protect the public's health" and voted in favor of the syringe exchange program. In the last seven months, the department has collected approximately 17,000 used syringes.

Board of health meetings are open to the public, but only once in the four years that the board of commissioners has met as a board of health has the public attended a meeting. That time was the public meeting to discuss the merits of the syringe exchange program.

Budget and Finance

The Grays Harbor County Health and Social Services Department has two budgets: an operating budget of approximately \$3.1 million and a grants budget of approximately \$7.5 million. The entire operating budget is subject to county-commissioner approval. The grants budget is spent on contracts for the provision of developmental disability, substance abuse, and

mental health services. Grants for these services are provided by the State of Washington. The grants budget finances the social services of the department and “almost all” of the operating budget finance public health activities.

Although the county is responsible for a relatively small portion of the budget, the commissioners approve the entire “budgetary request.” The health department director encourages the commissioners to focus primarily on the part of the budget funded by county dollars, thereby avoiding public discussions of staff additions that are driven by grant programs such as bioterrorism.

Financial accounting is automated and conducted in-house. Actual expenses are reviewed fully on a quarterly basis. A financial report is not made to the board of health. (Because the Health and Social Services Department’s budget is contained in the county’s budget, the county commissioners implicitly review the health department’s budget on a monthly basis.)

The health and social services department uses the salary and wage schedule established by the county. Most of the health department staff is represented by the same union (AFSCME) as courthouse employees. The beginning wage for public health nurses at the Grays Harbor County Health and Social Services Department is approximately \$40,000 annually; a payment rate that the director suggested is still below the hospital rate.

Organizational Structure and Personnel

The department employs 43 people, 37 of which are full-time and six who are part-time. Each position has a job description which outlines qualifications and duties. There is little staff turnover in the department and recruitment is not a problem.

Five supervisory positions report to the department director: two are related to public health services, two are related to social services, and one is related to administrative services. We will focus only on the two public health divisions. The first is supervised by a registered nurse and delivers a range of client and clinic services. Examples of client services include nutrition services, WIC, First Steps, and services delivered through the Maternal and Child Health Block

Grant. Examples of clinic services include family planning, immunizations, TB testing, and STD and HIV/AIDS services. The nursing staff of client and clinics services is trained to rotate through all positions in the division. The second division concentrates on population-based health services. It too is supervised by a registered nurse who is responsible for communicable disease surveillance, assessment and planning (including emergency preparedness and bioterrorism), and education and health promotion. Recently two substance abuse prevention counselors were transferred from the social services side of the department to the health education and promotion office to better integrate health promotion activities.

By law, counties are required to have a health officer who is a physician. The Grays Harbor County Health and Social Services Department contracts with a family practice physician who maintains a private practice in Aberdeen. The county's health officer also has a Ph.D. in microbiology and has a deep interest in infectious diseases. The health officer attends all board of health meetings, but does not have a vote. Additionally, the health officer spends one-half day per week at the department of health, where he consults with the public health staff and the environmental health staff (one time per month) and conducts quality improvement activities and signs standing orders. As a practicing physician in the community, the health officer has great credibility with the medical community in the county. The hospital administrator also believes that, by virtue of his membership on the hospital medical staff, the health officer provides a link between the hospital and the health department.

Health department staff recently asked the county prosecuting attorney's office to investigate the extent of county health officer authority in state statutes. This investigation was prompted by the case of a resident who was spreading Chlamydia and who refused treatment and would not report contacts. As a result of the investigation, the health officer better understands and is more comfortable with his authority.

Since it left the health department in 1995, there has been no formal link between county environmental health and the county health department. A protocol has been established that places the department of health and social services in charge of environmental health in the event of a public health emergency. Because the two functions are separated physically and

operationally, coordination is sometimes a problem. Two examples cited by department of health staff members were food borne illness investigations and West Nile Virus planning and prevention.

All-staff meetings are held monthly. Public health managers (there are six of them) meet two times per month. One time per month social services supervisors are included in the meeting. The all-staff meetings are used for sharing information and for providing staff in-service training. Recent topics included cultural competency, mental health services, blood-borne pathogens and tuberculosis, and client privacy. Speakers are also invited to attend the supervisor meetings and to make presentations. Recent topics have included family violence, incident command, and mental health.

Many opportunities exist for staff to obtain continuing education. Because of cost, most continuing education programs attended by staff are held either within the state or in Portland, Oregon. The state department of health also provides “quite a bit” of training. The proximity of Aberdeen to the state capital, Olympia, and to Seattle (approximately 100 miles) makes attendance relatively easy for staff. The director said the state offers “huge training opportunities” for health educators, many more than the department can take advantage of.

The department of health and social services holds institutional memberships in NACCHO and the state local health department association, known by the acronym WSALPHO (Washington State Association of Local Public Health Officials). WSALPHO is composed of three constituent organizations: 1) Public Health Executive Leadership Forum (PHELF) composed of physician health officers and administrators/directors of county health departments; 2) Public Health Nursing Directors (PHND); and 3) Environmental Health Directors (EHD). Although the director believes that the WSALPHO is the most useful organization she belongs to, the nurse supervisors do not attend meetings of PHND, because it “is not practical.” PHND only recognizes the practice of registered nurses, ignoring all other public health workers, and it is interested in broader nursing issues, such as increasing enrollment in schools of nursing. Furthermore, PHND is often at odds with PHELF, which the supervisors consider counterproductive.

The two public health supervisors both have bachelor's degrees in nursing; one also has a master's degree in public health. Both have certificates in public health leadership. Prior to the integration of public health and social services in 1997, the current director of the combined department was the director of the county social services department. She is not a registered nurse and had no previous training in public health. She has since attended the national Public Health Leadership Institute.

Decision Making and Decision Supports

Decision making in the department is shared. Supervisors are free to make decisions that affect the internal functioning of their areas, but when an issue is "going out into the world" they consult with the director. The supervisors said that consistency of action and policy was paramount for the department and that the director always sees the "big picture."

Typical decision supports such as written policies and procedures have been largely absent from the department, but due to the *Standards for Public Health in Washington State* initiative the county department of health has made a more concentrated effort to document its practices. In the absence of policies and procedures, the department had relied on standing orders and a variety of written plans, for example, TB plan, disaster plan, communications plan, and medical emergency plan. Personnel policies were directed by county policies and union contracts.

Information Technology

The Grays Harbor County Health and Social Services Department has 44 personal computers and two laptops, allowing every employee access to a computer. Computers are not replaced or upgraded according to a regular schedule, but computer improvements are made frequently. Computer consultation, including procurement of hardware and software, is the responsibility of county central services, a branch of county government. Services are provided to the department upon request.

The department has access to high-speed Internet services (through a T1 line). All employees have access to e-mail, a Web browser, and spreadsheet software, although only some use the

spreadsheet utility. Most of the staff uses database, client registration, and clinic management software. Accounting, statistical and GIS software is used by some of the staff. A member of the nursing staff has taken course work in GIS at the local community college and recently mapped the location and test result of dead birds in the county for West Nile Virus surveillance.

Washington State Department of Health is in the process of developing an electronic health alert system named SECURES, which stands for Secure Electronic Communication, Urgent Response, and Exchange System. It was being pilot tested at the time of the site visit (August 2005) and is not yet a reliable communication tool. A state-maintained, Internet-based disease surveillance system exists in Washington State, but the Grays Harbor Health and Social Services Department does not participate in it. All communicable disease reporting by the department is still manual. Hepatitis and STDs are reported via U.S. Mail, and all other communicable diseases are reported to the state health department via paper or telefacsimile.

Public Health Systems

The health and social services department interacts with several other departments of county government to achieve its goals. The public services department and the sheriff's office participate in emergency services planning with the health department. The central services department of the county develops data bases for surveillance and downloads upgrades of the KIPHS system, a public health software system with applications to help local health departments and clinics manage, organize, report and bill more effectively. Staff from the central services department has even obtained training in the use of KIPHS. As mentioned previously, the county attorney recently researched the statutory authority of the county health officer for the department.

The director of the department characterized the local department's relationship with the state department of health as "good, but variable." The state department of health provides direction to local departments on a programmatic basis that follows categorical funding. As a result, different programs of the state department, behave differently. The county health department director said that a "major problem" is that some categorical programs are too prescriptive to be effectively administered in some small, rural public health departments.

Grays Harbor County Health and Social Service Department staff also uses the services of the state epidemiologist, the state laboratory, and the center for health statistics all housed in the state department of health.

Other state agencies with which the local health department has a relationship include the Department Social and Health Services, (which is the state Medicaid agency and also administers child protective services, mental health and substance abuse programs for the state); the Department of Trade and Economic Development, from which the local health department has a drug and alcohol prevention grant; and the Department of Ecology for environmental issues. Staff from the USDA Forrest Service has provided GIS assistance to health department staff. (The Quinault National Forrest office is located in Grays Harbor County.)

The health department's primary linkage with physicians in the community is through the health officer. Nevertheless, health department staff makes office visits to physician practices to review immunization procedures as part of its quality improvement role, and to discuss with physicians their role in reporting communicable diseases. The health department has also established a physician alert system to apprise private physicians of emerging public health developments.

The health department has established informal relations with a number of community organizations. In addition to making presentations to several community and civic groups, the department has developed a relationship with local Catholic churches as a way to reach out to Hispanic residents to inform them of the need for childhood immunizations. The department has a good relationship with the local Chamber of Commerce, partnering with it on a grant application to the Washington Health Foundation for an employee health program. Both the health department and the Chamber are also involved in the Healthy Communities initiative. Finally, the health department is a practicum site for nurses in training at the local community college. The health department and the college developed a joint venture for classes in childbirth education offered through the college. Tuition was charged on a sliding scale fee—something the college had not previously done—and college credit was given for attendance.

A part of its bioterrorism preparedness initiative, the department joined with other county health departments in the area to form a region. The purpose of the region is to share resources among departments during a possible bioterrorism event. The formation of the regional bioterrorism partnership has not had any ancillary benefits to date and was characterized as “not that useful.”

The health department is an associate member of CHOICE Regional Health Network. CHOICE is a five-county network of hospitals, public health agencies, and other institutional health and social service providers. The director of the Grays Harbor County Health and Social Services Department served on the board of CHOICE for several years. A major program of CHOICE is its Regional Access Program, which coordinates with community-based organizations in the five counties to increase the number of people with health insurance and to reduce non-financial barriers to primary care services. A staff member of CHOICE is present in the Grays Harbor County Health and Social Services Department one-half day per week enrolling qualified applicants in Medicaid, SCHIP, and Basic Health, a Washington State health insurance program for uninsured low-income residents who are not eligible for Medicaid.

The county health department director serves on several statewide public health task forces and steering committees related to emergency response and public health improvement.

Hospital Relations

The primary relationships with the local hospitals relates to communicable disease reporting and emergency response planning. (Interestingly, the county’s emergency plans include protocols for tsunamis. Following last year’s tragedy in Indonesia and Thailand, planning for a tsunami disaster has gained greater currency. The Aberdeen hospital is located on a hill some two hundred feet above the town. Crowd control of the highlands is a major issue in the county’s tsunami disaster planning.) The local hospital also participates in the First Steps program of the health department, allowing health department staff to visit the hospital daily to assess which mothers may need assistance.

Grays Harbor Community Hospital (Aberdeen) is the largest hospital in the county. The hospital is located less than one mile from the health department. The hospital is also a member of CHOICE Regional Health Network and is involved in the local Healthy Communities initiative.

The hospital administrator we interviewed for the project said that the hospital provided seven of the eight public health services we enumerated (Table B-10). The only public health service not provided by the hospital was monitoring health status to identify community health problems. The hospital was not judged to be highly engaged (i.e., a score of 5) in providing any one of these services. The three highest ranking services (each receiving a score of 4) were 1) linking people to needed personal health services; 2) assuring competent public health and personal health care workforce; and 3) evaluating the effectiveness, access, and quality of personal and population-based health services.

Table B-10. Public Health Services Conducted by Grays Harbor Community Hospital

Public Health Services	Yes	No	Degree
Monitor health status to identify community health problems.		X	0
Diagnose & investigate health problems and health hazards in the community.	X		2
Inform, educate, and empower people about health issues.	X		3
Mobilize community partnerships.	X		3
Develop plans and policies that support individual & community health efforts.	X		3
Link people to needed personal health services.	X		4
Assure competent public health and personal health care workforce.	X		4
Evaluate effectiveness, access, and quality of personal and population-based health services.	X		4

The hospital administrator described the relationship of the hospital with the health department as a “network to exchange information.”

Planning and Evaluation

The health and social services department does not have a strategic plan. The consolidated contract from the state department of health contains statements of work for the various categorical programs that serves as a one-year operating plan for many of the functions of the department. The health department completed a community needs assessment approximately two years ago for the local Healthy Communities project. The assessment did not directly affect the future operation of the department. The health department has participated in two rounds of the *Standards for Public Health in Washington State* survey. Between the first assessment and the second assessment, the department improved its performance. The department is also assessing the possible use of NACCHO's Assessment Protocol for Excellence in Public Health (APEXPH).

Kittitas County Health Department (Ellensburg, Washington)

The Kittitas County Health Department is located on a gravel road on the edge of Ellensburg, Washington, in a vintage one-story cinderblock building that was once the local hospital. The health department shares the building with other county services. Despite its modest signage and semi-residential location, the abundance of foot traffic in and out of the building signals that something important is going on inside. Aside from a spacious central administrative area at the entrance to the health department, offices and exam rooms are tightly, if economically, packed into one-half of the ground floor. The regular hours of operation of the health department are Monday through Friday, 8 a.m. to noon and 1 p.m. to 5 p.m. The health department also operates a satellite clinic in Cle Elum, the other major town in the county, providing WIC and HIV/AIDS services one and a half days per week.

Governance

By state law, the Kittitas County Health Department is governed by the county board of health. By local choice, the state-mandated three-person board also has two community members appointed by the county commissioners. The board has authority to develop local rules and regulations, set fees and determine the budget for the health department. The chair of the board stated that the board has a "fair amount of discretion" on regulations for the county, although they cannot be less stringent than the state. The board holds monthly meetings which are open to

the public but participation is scant unless topics are of some personal interest. A typical meeting includes a report from the administrator of the health department and discussion and resolution of other agenda items. Neither the administrator nor the county health officer is a voting member of the board but each plays an active role in discussions and decisions, with the administrator setting the agenda for the meetings.

The board has a 15-member advisory committee that came into existence as a result of a citizens' initiative. The board relies heavily on the advisory committee, though it has no authority. Its role is to advise and recommend, but due to the "politically savvy" character of the committee, they are reported to be uniquely effective and productive.

Budget and Finance

Kittitas County Health Department's budget is \$1.4 million. Approximately one quarter of it coming from the county general fund, a quarter from fees, licenses and permits and the remainder coming mostly from federal and state sources. The budget includes a reserves account for capital expenses.

Expenses are compared to the budget yearly, but the health department plans to move to a quarterly examination of expenses. The budget process is transparent and highly participatory. A management team, including the commissioners, the county health department administrator and heads of internal divisions, determine an initial budget breakdown for priority areas. The administrator and division heads refine the budget, with input from the advisory committee. The board of health then recommends adoption of the budget to the county commission.

Financial accounting is an in-house function performed by a full-time business manager, with actual payment of costs and auditing performed by the county.

Organizational Structure and Personnel

The Kittitas County Health Department has 26 employees, 19 full-time and seven part-time. There were no vacancies at the time of the site visit and staff turnover is light. The county health department is directed by an administrator and the department is divided into four organizational

divisions, each with a manager or director—community health services, administrative services, environmental health, and health promotion.

The community health services section is the largest and employs a nurse manager, four nurses, a part-time oral health coordinator and three WIC personnel. Environmental health employs a director and three environmental health specialists. Health promotion includes a manager, a full-time community outreach worker and two health educators. The administrative services division employs four administrative/clerical staff members and the business manager. Besides the division managers, other positions reporting to the county health department administrator include the business manager, a part-time assessment coordinator and two bioterrorism response staff.

Intra-department communication was characterized as being frequent and formal. Division heads meet formally with their staff once a month. The management team (division heads and administrator) meet weekly and meeting minutes are disseminated to all staff.

In-service training is available for all staff members and occurs approximately four times per year. Topics have included leadership, customer service, computer-related training and program-related Web casts from the state office. The staff has frequent opportunities to pursue continuing education from the state, CDC and the local hospital. Some of it is presented in person but many presentations from the state and CDC are online training opportunities. The administrator expressed her desire to have individual continuing education plans for every employee.

The administrator has personal memberships in the state public health association, the American Public Health Association and the National Association of City and County Health Organizations (NACCHO). Additionally, she and five other staff belong to the National Committee for Health Education Credentialing. The health department also has an institutional membership in NACCHO.

Decision Making and Decision Supports

Although as the county health department administrator put it, she “runs the show,” decision making was characterized by others as being participative, with the division managers having considerable autonomy. Written rules, policies, procedures and guidelines are used to aid decision making and are reviewed at least annually. These are communicated to the staff at division staff meetings, through management team minutes and informally through the culture of the organization. Division heads and the chair of the policy committee are responsible for weighing the consequences of policy and procedure breeches and taking remedial action as necessary.

The policy committee is an internal group made up of one representative from each division. It was created about five years ago to review and gather staff input on administrative and general operational policies. The result has been a separate body of health department policies, distinct from the county policies.

Information Technology

The health department has personal computers for all of the staff, plus two additional desktop and three laptop computers. There is a rotating four-year schedule of upgrading computers. Seven or eight computers are replaced every year, using capital equipment funds. The county IT department is responsible for procuring computers and software.

The department has access to high speed Internet services and has its own Web page. All staff has access to e-mail, a Web browser, databases and spreadsheets. Some of the staff has access to accounting packages, GIS software, client registration, and clinic management programs. No one has access to a statistical program. Some staff also has access to the state disease surveillance system and Web-based public health information exchange systems. Department employees do not routinely receive training in the use of the computer; however, some staff members have needed more help than others to use the technology appropriately.

Public Health System

The county health department staff denied any relationship with other local government entities and described only minimal interaction with the state. The majority of interaction with the state is use of the state lab for processing of all biological samples. Other interactions with state agencies included interacting with the Department of Ecology for environmental health issues like water and air quality, solid waste permitting and inspections and submitting paperwork to the Department of Social and Health Services for payment of services to pregnant and uninsured clients.

The health department has working relationships with community organizations, both formal and informal, through wellness programs with business and civic groups (via Shape-up Kittitas County grant), accepting interns from the local college, participating in the campus coalition on alcohol awareness and participating on a county methamphetamine task force. The health department is a formal member of three state or regional networks, one of which is for bioterrorism emergency preparedness. The administrator characterized the health department's relationship with the local hospital as excellent, with the ER calling the health department when a notifiable condition, such as *E coli* is identified. Additionally, the hospital and health department are connected through bioterrorism and emergency preparedness planning and continuing educational opportunities that are offered to both staffs. Relationships with local physicians are also "excellent." The health department makes weekly surveillance calls to identify trends among their practices. The physicians also report any reportable conditions they discover. The health department conducts a monthly survey of physicians to determine which practices are willing to accept primary care referrals from the health department.

Hospital Relations

The Kittitas Valley Community Hospital is a public, independently managed, not-for-profit hospital. It is the only hospital in the county, although the county has two hospital districts. The hospital is part of a critical access hospital network, participating in a quality improvement project with a hospital in Spokane. The hospital administrator characterized the hospital's relationship with the health department as a "network for information exchange purposes." One

of the chief linkages the hospital administrator acknowledged was joint participation in bioterrorism and emergency preparedness planning.

The hospital administrator was asked to identify which essential public health services the hospital provided (Table B-11). For those services, the administrator was to indicate the intensity with which the hospital provided the service, with one being least intense and five being most intense. To some degree, the hospital engages in seven of the eight essential services of public health listed. It does not evaluate the effectiveness, access or quality of personal or population-based health services. Only one of the services it does provide is provided with more than an average degree of intensity and that was educating and empowering the public about health issues. Examples cited of how that service is accomplished by the hospital include the maintenance of a community health library and publications and classes for the public on topics like diabetes, cancer and prenatal care. Prenatal care classes are available in both English and Spanish, as are all of the educational publications.

Table B-11. Public Health Services Conducted by Kittitas Valley Community Hospital

Public Health Services	Yes	No	Degree
Monitor health status to identify community health problems.	X		3
Diagnose & investigate health problems and health hazards in the community.	X		2
Inform, educate, and empower people about health issues.	X		4
Mobilize community partnerships.	X		3
Develop plans and policies that support individual & community health efforts.	X		2
Link people to needed personal health services.	X		3
Assure competent public health and personal health care workforce.	X		2
Evaluate effectiveness, access, and quality of personal and population-based health services.		X	0

Planning and Evaluation

The last community needs assessment for Kittitas County was conducted by the department four years ago and the department has no current strategic plan. Operating plans are not formalized but each division and the department as a whole has goals tied to the budget.

The department is in the early stages of evaluating its performance. Evaluation of the presence or absence of programs and activities is undertaken only when severe budget cuts are threatened. The health department assesses the quality and the impact of the programs and services it offers. A part-time assessment coordinator has been hired who is charged with “handling” the community health assessment data collected four years ago, conducting in-house quality improvement activities with divisions, and coordinating the activities of the board of health’s advisory committee.

Several years ago, the department used NACCHO’s APEXPH tool to assess its performance. The department also used a public health preparedness inventory developed by the University of North Carolina’s School of Public Health once in the last three years. It has also used the State of Washington’s performance assessment for public health departments.

Appendix C

General Interview Protocol

The Structure of Rural Public Health Systems

Local Public Health Department Protocol

Date: _____ **State:** _____

Community: _____

Respondent: _____

Point of View: **Administrator** **Staff** **Board** **Medical**
(circle one)

Protocol Key	
Position	Protocol Sections To be Completed
LHD Administrator	All
Staff Member	C-1, C-2, C-3, C-4, C-5, C-6, D-1, D-2, D-3, F-1, G-2, G-3
Board Member	A-3, A-4, A-5, A-6, A-7, B-All, G-1
Medical Director	C-2, C-3, C-5, C-6, F-1, F-2, F-3, F-4, F-5, G-1, G-3

A. GOVERNANCE AND LEGAL STRUCTURE

State: _____ Respondent: _____ Organization: _____

1. Basic Information

Name of organization: _____ Contact: _____

Phone number: _____ Email: _____

Mission:

Documents: Brochure Mission statement

2. Size and Service Area

Service area: _____

Full county Multiple counties Number of counties: _____ Estimated square miles: _____

Population of service area: _____ Population density: _____ (calculate)

Satellite facilities in other communities? Yes No Describe satellites: _____

Documents: Maps

Interviewer: _____

Date: _____

C-4

A. GOVERNANCE AND LEGAL STRUCTURE (continued)

3. Relationship to State

Decentralized Centralized Shared Mixed

Explain:

4. Governing Board

Title of Governing Board: _____ Board of Health: Yes No

How many members? _____ How are they selected?

Elected at large as BoH member Elected at large as county or district commissioner Self perpetuating Other

Explain Other:

What legal authority does the Board have?

What legal authority is retained by the state?

C-5

Interviewer (initials): _____

Date: _____

A. GOVERNANCE AND LEGAL STRUCTURE (continued)

5. Governing Board Decision Making

Think of a time in the past two years when the Board made a decision on some issue other than the budget. Describe the decision making process (PROBE: Who has the idea? Who does investigation? Who was involved? Debate? Decision-making criteria? Post-implementation evaluation?)

6. Governing Board Structure

- Does the Board have committees? Yes No
- Types of committees: Finance Bylaws Legislative Building and grounds Other (specify)
- Is there a medical director? Yes No Part-time Full-time Paid? Yes No
- Does the medical director have a vote on the governing board? Yes No
- Does the medical director typically attend board meetings? Yes No
- Are Board meetings open to the public? Yes No Does the public attend board meetings? Yes No

On average how many members of the public (including other providers) attend Board meetings? _____

C-6

Interviewer (initials): _____

Date: _____

A. GOVERNANCE AND LEGAL STRUCTURE (continued)

6. Governing Board Structure (continued)

- Does the Department of Health have an advisory committee? Yes No

How is it selected?

Describe its relationship to the governing board:

7. Establishment

- How was the local health department established? State law Local ordinance Both Other (Specify):
- In what years was it first established? _____ If “don’t know,”
- How is its “charter” amended?

C-7

Interviewer (initials): _____

Date: _____

B. FINANCE

State: _____ Respondent: _____ Organization: _____

1. Budget

- Size of budget: _____
- Describe the steps in the budgeting process. (PROBE: Who, what (e.g., steps, approval), when)

- Do you have a discrete budget or is it part of another unit of government? (circle one)
- Do you have a capital budget? Yes No Explain how capital expenditures are made.

- How frequently do you compare expenses to the budget? _____

Documents: Budget (confidential)

2. Financial Systems

- Do you do your financial accounting in-house or is it done by someone else? Payroll? Accounts payable?
 - In-house County/district Contract Other (specify)_____

Interviewer: _____

Date: _____

C-8

B. FINANCE (continued)

2. Financial Systems (continued)

- Is your accounting system automated? Yes No System/program name: _____
- Do you have standardized salary, wage, and benefit schedules? Yes No (Obtain a copy)
- If respondent is unwilling to share or does not have a schedule ask: What is the typical hourly rate you would offer an entry level Registered Nurse who has had public health coursework? _____

3. Sources of Income

Which of the following sources of income do you rely on? (PROBE: estimate amounts or percent)

Source	Rely on	Select One (calculate the other)	
		Amount	Percent of Total
Property tax (mil levy)			
Local sales tax			
Other local funds			
State funds			
Federal funds (inc. grants)			
Fees and reimbursements			
Licensing fees			
Private foundations			
Donations			
Other:			
Other:			

Interviewer (initials): _____

Date: _____

C. MANAGEMENT

State: _____ Respondent: _____ Organization: _____

1. Organizational Structure

- Do you have an organization chart for the health department? Yes No (Obtain a copy)
 If "no" ask "Could we draw one together?" Draw chart on back of protocol.
- Would you please walk me through this chart? (PROBE: reporting relationships, supervision, number of staff (FT/PT), authority)
 MAKE NOTES DIRECTLY ON ORGANIZATION CHART.
- How do these various organizational components communicate with each other and coordinate their work? (PROBE: Commitees, staff meetings, job rotation, etc.)

C-10

Interviewer: _____

Date: _____

C. MANAGEMENT(continued)

2. Personnel

- Tell me about your background. (PROBE:
 - Time in position_____ Time in public health_____ Time in this department_____
 - Previous positions _____
 - Highest level of education_____
 - Public health certification_____
 - Other:

• How many budgeted positions do you have? _____ How many are part-time?_____ full-time?_____

• Do you have a job description for each position? Yes No

• Are any positions currently vacant? Yes No Which ones? How do you accomplish the work of that position?

• Describe your process of recruiting for a new position. (PROBE: Range of search, educations/experience, pay, etc.)

• Do you have an inservice training program for staff? Yes No How often do you offer programs?_____

Example of topics covered in inservices:_____

C-11

Interviewer (initials): _____

Date: _____

C. MANAGEMENT(continued)

2. Personnel (continued)

• What opportunities do you and your staff have for continuing education?

• Is continuing education paid for by the department? Yes No

Documents: Job description (example) Position announcement

3. Professional Societies and Trade Associations

C-12

Do you belong to any of the following organizations?

			Type of membership		Useful on job?		Most Useful
	Yes	No	Personal	Institutional	Yes	No	
State Public Health Association							
American Public Health Association							
State LHD Association							
State Nurses Association							
Other:							
Other:							

Interviewer (initials): _____

Date: _____

C. MANAGEMENT(continued)

4. Workforce Capacity

Key Occupational Titles (not complete)	Number on Staff	Employed (✓)	Contract (✓)	Full-Time (Number)	Part-Time (Number and Hours per week)
Administrator/Director (RN Not RN)					
Physician					
Registered Nurse					
Licensed Practical Nurse					
Veterinarian					
Dentist					
Environmental Health Specialist/ Sanitarian					
Epidemiologist/Statistician					
Nutritionist/Dietician					
Pharmacist					
Social Worker					
Health Educator (RN Not RN)					
Planner/Analyst (RN Not RN)					
Public Information Specialist					
Inspector/Surveyor (RN Not RN)					
Disease Investigator (RN Not RN)					
Behavioral or Social Scientist					
Lab Technologist					
Other:					
Other:					

NOTES:

C-13

Interviewer (initials): _____

Date: _____

C. MANAGEMENT(continued)

5. Health Officer (Physician)

Do not have Health Officer

What are the qualifications for health officer? MD/DO Veterinarian MPH Other

FT PT Hours _____ Typical schedule: _____

Duties:

Defined by job description State statute Local ordinance
(obtain)

C-14

6. Decision Making

Would you say that decision making in the department is mostly CENTRALIZED or DECENTRALIZED? (Circle one)

Why do you say that? (PROBE: Example?)

Interviewer (initials): _____

Date: _____

C. MANAGEMENT(continued)

6. Decision Making (continued)

To guide decision making, do you have:

- Written rules
- Procedures
- Guidelines
- Policies

- How are they communicated to staff?
- How often are they reviewed_____ updated_____?
- What are the consequences of not following policies and procedures?

C-15

Interviewer (initials): _____

Date: _____

D. SERVICES

State: _____ Respondent: _____ Organization: _____

**FOLD IN HALF AND
ATTACH “SERVICES PROVIDED” FORM HERE
D-1**

C-16

D. SERVICES (continued)**2. Information Systems (Hardware, Responsibility, Training)**

- Please estimate the number of PCs in the department. _____
- What is the last time equipment was upgraded? _____
- Does every employee of the department have access to a computer? Yes No
 - If “No,” how many do not? _____
- Do you use high-speed Internet services? Yes No
- Does the health department have a Web page? (or a page on someone else’s site?) Yes No
- Is someone responsible for procurement of hardware and software? Yes No
 - If “yes,” who? _____ Employee Consultant
- What is the approximate amount budgeted for information systems each year? _____
 - Does this amount include staff salaries? Yes No
- Do employees receive training in the use of computers? Yes No If “Yes,” what kind, how often?

C-17

Interviewer (initials): _____

Date: _____

D. SERVICES (continued)

3. Information Systems (Software and Systems)

- Which of the following software utilities or data systems are available to all of your staff, most of your staff, some of your staff, none of your staff? (Check all that apply)

Software	Staff who access to named software			
	All	Most	Some	None
E-mail				
Spreadsheets				
Databases				
Web browser				
Accounting package				
Statistical software				
GIS software				
Client registration				
Clinic management (e.g., scheduling, billing)				
Communication system that allows users to exchange P.H. information over the Web in a secure environment				
State-maintained, internet-based disease surveillance system				
Other:				

C-18

Interviewer (initials): _____

Date: _____

E. FACILITIES

State: _____ Respondent: _____ Organization: _____

1. Physical Plant

• Describe the physical space in your primary location. (PROBE: Clinics, laboratories).

• Do you rent any space? Yes No Do you rent from the county/district? Yes No

Do you rent from private individuals/companies? Yes No

• Do you rent any satellite or outreach facilities? Yes No If “yes,” complete table below:

Purpose	Location	Distance from Primary Location

Interviewer (initials): _____

Date: _____

E. FACILITIES (continued)

1. Physical Plant (continued)

- Do you operate any mobile facilities? Yes No If “yes” which ones? (PROBE: Route, schedule, services)

2. Hours of Operation

What are your hours of operation? (PROBE: Clinics, satellite, weekends, evening)

Interviewer (initials): _____

Date: _____

F. PUBLIC HEALTH SYSTEM

1. Other Governmental Agencies (continued)

- Do you interact with other state government agencies? (PROBE: Environment, Transportation, Commerce, Agriculture)
Explain:

C-22

2. Private Medical Providers

- Describe your relationship with the hospitals in the county/district

Interviewer (initials): _____

Date: _____

F. PUBLIC HEALTH SYSTEM (continued)

2. Private Medical Providers (continued)

- Describe your relationship with private physicians in the county/district (PROBE: C/MHC)

3. Community Organizations

- Do you have formal or informal relationships with any of the following community organizations?

	Formal	Informal	Explain
Community/civic groups			
Faith-based organizations			
Businesses			
Universities			

NOTES:

Interviewer (initials): _____

Date: _____

F. PUBLIC HEALTH SYSTEM (continued)

4. Networks

- Are you a member of a formal network? Yes No If “yes” please describe it/them.

5. Task Forces and Commissions

- Do you currently serve on a task force or commission? Yes No If “yes” please describe it/them.

Interviewer (initials): _____

Date: _____

C-24

G. PLANNING AND EVALUATION

State: _____ Respondent: _____ Organization: _____

1. Strategic Planning

- Has the department/agency conducted a community needs assessment? Yes No Plan to _____
(When?)
- If “yes,” how long has it been since it has been since the assessment was done? _____
- Does the department/agency have a strategic plan? Yes No
- If “yes,” how long has it been since it has been updated? _____
- If “yes,” please describe the strategic planning process. (PROBE: Who, what, when, where, why?)

- Has the plan been shared with staff? Yes No Has the plan been shared with the community? Yes No
(If “yes,” how was it communicated?)

C-25

Interviewer (initials): _____

Date: _____

G. PLANNING AND EVALUATION (continued)

2. Operating Plan

- Does the department have a one year operating plan (other than the budget)? Yes No
- If “yes,” please describe the strategic planning process. (PROBE: Who, what, when, where, why?)

- Has the plan been shared with staff? Yes No Has the plan been shared with the community? Yes No
(If “yes,” how was it communicated?)

C-26

Interviewer (initials): _____

Date: _____

G. PLANNING AND EVALUATION (continued)

3. Performance Evaluation (continued)

• Does your agency engage regularly in the evaluation of its performance? Yes No

• If “yes:” Does the evaluation include (Check all that apply):

- The presence or absence of programs and activities relevant to public health services?

- The quality of programs and activities relevant to public health services?

- The impact of programs and activities relevant to public health services?

• If “no” is there a plan to do so in the near future? Yes No

C-27

Interviewer (initials): _____

Date: _____

G. PLANNING AND EVALUATION (continued)

3. Performance Evaluation (continued)

- Has your agency ever used any of the following assessment instruments? (Check all that apply)

Instrument	Ever Used		Used more than once		Number of times used
	Yes	No	Yes	No	
Public Health Preparedness and Response Capacity Inventory (CDC, Public Health Practice Program Office)					
National Public Health Performance Standards Program – Health Performance Assessment (CDC, Public Health Practice Program Office)					
Assessment Protocol for Excellence in Public Health (APEXPH) (National Association of County and City Health Officials – NACCHO)					
A standardized instrument (e.g. survey) published by your state public health department					
A standardized instrument (e.g. survey) produced by your own agency					
Other:					

C-28

Interviewer (initials): _____

Date: _____

The Structure of Rural Public Health Systems

Hospital Protocol

Date:_____ **State:**_____

Community:_____

Organization:_____

Respondent:_____

PUBLIC HEALTH SYSTEM

State: _____ Respondent: _____ Organization: _____

1. Basic Information

Name of organization: _____ Contact: _____	
Phone number: _____ Email: _____	
Ownership: _____ County	Relationships: _____ Hospital system
_____ District	_____ VHA member
_____ Non-Government not-for-profit	_____ Primary network
_____ Religious	(describe: members, purpose)
_____ For-profit	
Management: _____ Independent management	
_____ System management/lease	

C-30

Interviewer: _____

Date: _____

PUBLIC HEALTH SYSTEM (continued)

2. Participation in Fulfilling Public Health Functions

Which of the following functions does the hospital or members of its staff participate in? On a scale of 1 to 5 with “1” being “hardly at all” and 5 being “a great deal” how would you rate the depth of your participation?

Functions	Yes	No	hardly at all			a great deal	
			1	2	3	4	5
1. Monitor health status to identify community health problems.							
2. Diagnose & investigate health problems and health hazards in the community.							
3. Inform, educate, and empower people about health issues.							
4. Mobilize community partnerships.							
5. Develop plans and policies that support individual & community health efforts.							
6. Enforce laws and regulations that protect health & ensure safety.							
7. Link people to needed personal health services.							
8. Assure competent public health and personal health care workforce.							
9. Evaluate effectiveness, access, and quality of personal and population-based health services.							
10. Conduct public health research.							

PROBE for examples of activities if the answer to any of the functions above is 4 or 5. (Be sure to number each PROBE.)

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Interviewer: _____

Date: _____

PUBLIC HEALTH SYSTEM (continued)

3. Emergency/Disaster Planning

Do you participate *with the local health department* in emergency and disaster planning? Yes No

- If “yes,” describe all joint plans and process.
- If “no,” explain why not.

C-32

Interviewer: _____

Date: _____

PUBLIC HEALTH SYSTEM (continued)

4. Partnership with Local Health Departments

I am going to read four types of community partnerships that hospitals often have with local health departments. I want you to tell which one best resembles the relationship your hospital has with the local health department. If none of these examples fit, I want you to explain the type of relationship you do have, or if you have no relationship with the local health department, I want you to tell me so.

___ Network: purpose is to exchange information

___ Coordination: purpose is to exchange information *and* alter services

___ Cooperation: purpose is to purpose is to exchange information and alter services *and* share services

___ Collaboration: purpose is to exchange information and alter services and share services for mutual benefit to achieve a common goal

___ None

C-33

Interviewer: _____

Date: _____

