Case Study of the Integration of a Local Health Department and a Community Health Center

JEANNE M. LAMBREW, MSPH
THOMAS C. RICKETTS, III, PhD, MPH
JOSEPH P. MORRISSEY, PhD

The authors are with the University of North Carolina at Chapel Hill's Cecil G. Sheps Center for Health Services Research. Ms. Lambrew is a Research Associate with the North Carolina Rural Health Research Program and a doctoral student in the Department of Health Policy and Administration at the School of Public Health. Dr. Ricketts is Director of the North Carolina Rural Health Research Program, Associate Director of the Sheps Center, and an Assistant Professor in the Department of Health Policy and Administration, School of Public Health. Dr. Morrissey is Deputy Director of the Sheps Center and a Professor in the Department of Social Medicine and the Department of Health Policy and Administration.

The work was supported by the Public Health Service's Health Resources and Services Administration, Office of Rural Health Policy, under grant HA-R-000016-04.

Tearsheet requests to Jeanne M. Lambrew, MSPH; Sheps Center, UNC-CH, 725 Airport Rd., Suite 210, CB 7590, Chapel Hill, NC 27599-7590; tel. (919) 966-7106; fax (919) 966-3811.

Synopsis

As rural communities struggle to sustain health services locally, innovative alternatives to traditional programs are being developed. A significant adaptation is the rural health network or alliance that links local health departments and community health centers. The authors describe how a rural local health department and community health center, the core organizations in publicly sponsored primary care, came to share a building and administrative and service activities. Both the details of this alliance and its development are examined.

The case history reveals that circumstance and State involvement were the catalysts for service integration, more so than the need for or the benefits of the arrangement. The closure of a county-owned hospital created a situation in which State officials were able to broker a cooperative agreement between the two agencies. This case study suggests two hypotheses: that need for integrated services alone may not be sufficient to catalyze the development of primary care alliances and that strong policy support may override any local and internal resistance to integration.

IT MAY BE THE CASE that rural communities cannot independently sustain a basic health system, given their recurring difficulties in maintaining health care providers and organizations. Rural communities are struggling to cope with these challenges through traditional methods, such as providing incentives to recruit health care professionals, through adaptation of existing programs, and by fashioning innovative solutions.

We examined a rural community that realigned its existing health care resources to create new services. In this case, a rural local health department and a community health center, the core organizations in publicly sponsored primary care, agreed to share a building and collaborate in administrative and service activities. Both the details of the arrangement and its development were examined in order to stimulate discussion about the process of integration and the political implications of the emergence of rural primary care alliances.

The importance of public policy to the health of rural people became clear during the 1980s. The gradual expansion of policies and programs supporting rural health care was stemmed, and in some cases reversed, by a shift in the political climate during this period. Reduced funding in the Community Health Center program restrained its growth, with rural centers receiving disproportionately lower subsidies than urban centers (*1, 2*). The number of National Health Service Corps providers fell from more than 6,000 in 1980 to 160 in 1989 (*1*). The concentration of family and general practitioners in nonmetropolitan areas grew at a slower rate than that in urban areas (*3*). Probably the most notable trend was that small, rural hospitals closed at a rapid rate, with more than half of the survivors having negative operating margins for Medicare patients in 1988 (*4*). Without the financial and policy support that traditionally provided these organizations with a buffer from the environmental

'To a lesser extent, the health department's desperate need for space facilitated the integration by putting additional pressure on local leaders to address a complicated yet fragile health care delivery system. These strong, though transient, factors interacted with the more rational reasons for the development of the alliance.'

turbulence, the evolution and adverse selection of health care organizations was rapid.

One significant adaptation that occurred during this period was the proliferation of networks of health services among hospitals and between different types of organizations (*5–7*). Informal hospital consortia and multihospital systems, whereby ownership is shared, emerged. A 1988 study identified 269 rural consortia (*8*). In 1987, 590 nonmetropolitan hospitals with fewer than 300 beds were in multihospital systems, nearly 1 out of every 4 rural hospitals (*1*). In the late 1980s and early 1990s, as attention to rural health policy was renewed, regionalized hospital systems were promoted through Federal programs, such as the Health Care Financing Administration's for Rural Health Care Transition Grant Program of 1987 for small, rural hospitals (42 U.S.C. 1395ww), and the Essential Access Community Hospital Program (42 U.S.C. 1395i-4, et seq.) (*9*).

This trend toward interorganizational alliances has spread in rhetoric if not in practice to primary care delivery organizations. Robert Harmon, who heads the Health Resources and Services Administration, explicitly supports the integration of local health departments and community health centers as a strategy to improve health care for the underserved (*10*). William Roper, Director of the Centers for Disease Control and Prevention, in a 1990 speech, advocated interorganizational relationships "because without mechanisms to stimulate stronger networks, at best we will continue to have a patchwork quilt of services . . ." (*11*). The National Advisory Council on Rural Health recommended support to "eliminate impediments to the integration, coordination, consolidation, and colocation of services in rural areas." Though interorganizational alliances in rural primary care have not evolved as quickly as those in acute care, their numbers are growing and support for them is increasing (*12*).

Background

Two important sources of primary care for rural people are community health centers and local health departments. Community health centers are federally subsidized clinics with the mission to provide health care to underserved communities and populations. In 1990, there were 347 federally funded community health centers and migrant health centers serving about 1,400 sites, more than half located in nonmetropolitan areas (*1, 13*). The centers served an estimated 6 million people in 1990 (*13*). Local health departments, which traditionally provided community-level services such as sanitation, immunization, and health education programs, have in the past 20 years assumed greater responsibility for ensuring that personal health services are available and affordable for underserved populations (*14–16*). In 1989, there were 2,932 local health departments nationally, with 65 percent serving jurisdictions with less than 50,000 people (*17*). There are significant differences between the two types of organizations. Health departments are supported by a mix of local and State funds, while community health centers rely on Federal moneys and patient fee collections for their operational revenue. The health department is staffed by a wide range of provider types, while the health centers usually employ physician and nonphysician extender teams to deliver care. However, they share the common mission to care for underserved populations, and both are central to rural primary care.

There is increasing evidence that alliances exist between these agencies in their service to rural and underserved populations. The Health Resources and Services Administration and the National Association of County Health Officials have, since 1985, collaborated in the Primary Care Project, whose goal is to "strengthen linkages between local health departments and federally funded community and migrant health centers" (*18*). In 1990, a Primary Care Project survey found that, of 1,806 local health department respondents, 271 worked with a nearby community health center; of 630 federally funded community or migrant health centers and clinic sites, 405 worked with a local health department (*18*).

The responding local health department officials were, on average, more aware of the services offered by the local community health center, while

the community health center officials seemed more eager to improve the interorganizational relationship than did the health department officials. The most common collaborative activities included referral arrangements; prenatal care; Special Supplemental Food Program for Women, Infants, and Children Programs (WIC); family planning; and AIDS programs. Mutual interest and physical proximity were jointly named as the most important factors facilitating coordination; time constraints, lack of mutual goals, and lack of an initiator were the primary impediments to collaboration (*18*). Rural community health centers and health departments were not analyzed separately, although many of the Primary Care Project sites were located in rural areas (*19–24*).

Bruce Behringer, executive director of the Virginia Primary Care Association, examined the alliances between the 12 community health centers in Virginia and their local health departments in 1984, 1986, and 1990 (*25, 26*). Behringer found that the number of these linkages has increased under this arrangement from an average of 1.75 linkages per community health center in 1982 to 11.8 in 1990 (*26*). He identified five factors that facilitate linkages: a cooperative agreement among departments of health, a State primary care association, and the U.S. Public Health Service; service integration demonstration projects; tenure of key actors; health department constraints; and the impact of other changes in the health care environment, such as Medicaid expansion (*26*).

The evidence suggests a growing number of primary care alliances. However, these alliances are generally understudied, with neither the details nor the implications of their evolution examined. We describe a case study of the early stages of integration between a community health center and a local health department in a rural region. The information was gathered through extensive interviews with people involved in the alliance conducted by staff of the North Carolina Rural Health Research Program during the summer of 1991, with follow-up in the spring of 1992. The findings of the study are intended to stimulate discussion of the process by which these two organizations formed an alliance and the role of policy in the adaptation of rural health systems to changing environmental circumstances.

Development of a Primary Care Alliance

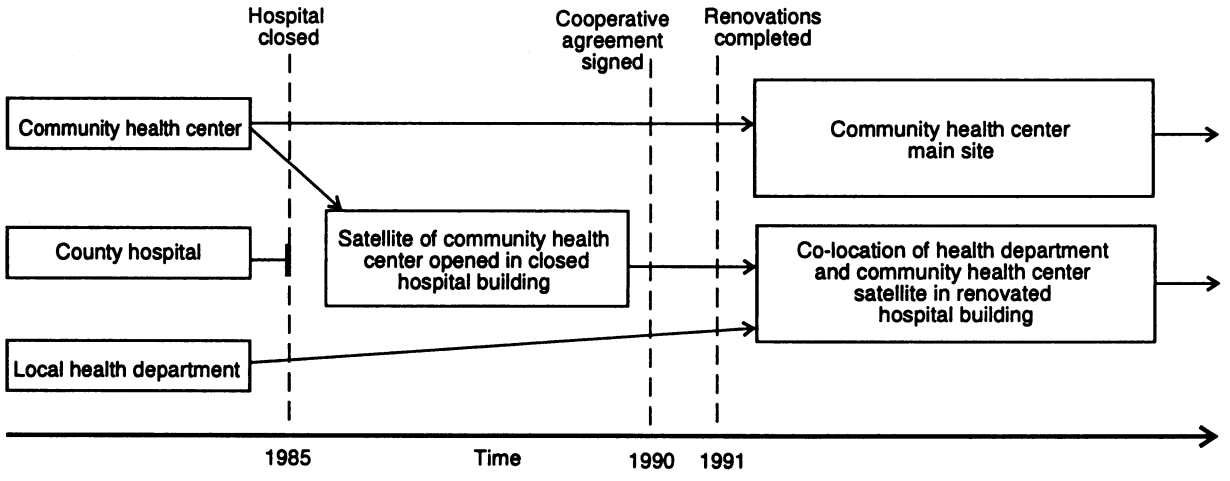
The health department and community health center that are the subject of this case study are located in an impoverished, rural area of the southeastern United States. The majority of the residents are African Americans, and the proportion of county residents who are older than 65 years is growing. The county ranks among the lowest in its State for per capita income, with 29 percent of the population below the Federal poverty line. Most county residents are employed in small firms and businesses, though agriculture is still important to the local economy. Almost half of the employed residents work outside of the county. The literacy rate for residents is low, and the county's health profile is poor. The county has unusually high rates for infant mortality, teenage pregnancy, and mortality for heart disease, cancer, and motor vehicle injury. More than 20 percent of county residents did not have health insurance in 1988, the highest rate in the State. These complex and chronic problems are complicated by the tendency of some residents to underuse the services available to them and to leave the county for health care.

Through the early 1980s, there was a fairly standard array of health services in the county, including a health department, community health center, and hospital. The health department, located in the county seat, has traditionally and currently provided a typical range of services, such as sexually transmitted disease diagnosis and counseling, health education, prenatal care, WIC Program, and home health services.

The county's federally funded community health center was founded in the early 1970s as part of an Office of Economic Opportunity (OEO) "New Communities" project. This community was developed on a farm about 9 miles from the county seat, with the purpose of becoming economically and culturally self-sufficient. From its start, the planned community faced political and financial problems related to the management of the project, which eventually led to the discontinuation of the community's OEO funding. Despite these problems, the community health center kept its funding from the Health Resources and Services Administration and maintained a degree of continuity of care in a county that perennially had trouble attracting and retaining providers.

The small county-owned hospital was built in the 1950s with Hill-Burton funds. However, it suffered in the early 1980s from problems that affect many rural hospitals: facility deterioration, poor management, very low use by county residents, and financial deficits in part due to the implementation of the Prospective Payment System in 1983. In

Development of an alliance between a rural community health center and a local health department



1984, the hospital board established a task force to look into options to save the hospital. Through State technical assistance, an extensive study of the county's health care resources was conducted; one finding was that the hospital was losing $40,000 per month and was not financially viable. Several options were explored, such as making the hospital a satellite site for a nearby hospital and diversifying services into a geriatric clinic or a birthing center. However, the county commissioners decided that the hospital was financially beyond help and closed it in 1985.

The county officials were faced with a second health facilities-related problem at the same time. The health department was critically short of space. The health department had been operating out of trailers that weren't adequate for their needs, so that the home health nurses, for instance, were operating out of a former service station. While this space problem was not of the magnitude of the hospital closure, it was a factor in the strategies proposed to maintain a network of health services in the county.

Two members of the staff of the State office that provides assistance to rural counties on health matters helped to manage the crisis. In 1985, they negotiated with the community health center, described earlier, to set up a temporary urgent care clinic with evening and Saturday hours. The officials simultaneously petitioned the Federal Government for immediate placement of National Health Service Corps physicians in the clinic. They also facilitated the establishment of a satellite clinic of the community health center as a replacement for the temporary urgent care clinic.

The short-term assistance was supplemented by a long-term plan. The State officials proposed that the former hospital building be renovated to accommodate the county health department and the satellite of the community health center that was temporarily occupying the building. State funds would be provided under the condition that the two agencies cooperate in delivering health care to the county residents. County commissioners and the boards of both agencies accepted this idea. A bond referendum that allowed the county to obtain a Farmers' Home Administration loan was passed. Renovations began in late 1989 and were completed early in 1991 at a cost of about $1.3 million. The figure shows the major events in the development of the relationship.

The sequence of events, beginning with the hospital's financial trouble, resulted in a shift of participants in the planning. First, the hospital board and the county commissioners struggled to save the hospital. Until the end, the board members searched for options to keep the hospital open. The board members represented the element of the community that felt that it is essential to have hospital services locally. However, its members were not well organized, and the hospital board was disbanded when the hospital closed.

The current health department director played an active role in the planning from its start, just after the hospital closed. Coming from a background in social work, he was aware of the importance of a multidisciplinary approach to health problems and supported the integration. He also was aware of the chronic resource shortages of the health department, which could be lessened by having a relationship with the community health center.

The community health center administrator at

the time of the closure was less involved and interested and left his job during the early planning stages. The current health center director, who was hired in 1988, has shown commitment to collaboration, though she had little to do with its early development. This administrator was hesitant about the integration because of concerns about the investment of time and staff that it would require. Her primary motive, though, was to maximize and expand services for the community; the alliance's potential in this respect outweighed its disadvantages. Both administrators commented that their boards mostly ratified the plans that were brought before them; the boards did not extensively contribute to the planning.

The county board of commissioners was one key to the continuity of the project. Its chair during the hospital closure and early planning of the alliance was a well-respected local citizen who recognized that the primary care alliance would be no substitute for the hospital, but would meet different, perhaps more important needs of the residents. First, it might attract and retain health care providers, a major concern with the closure of the hospital. Second, the renovated building and innovative nature of the program might restore some pride to the community. She articulated to the residents this vision for the alliance that was a necessary complement to the State officials' knowledge of details and process, the second key to the project's continuity.

Staff members of the State office brought to the county their experience with other impoverished rural areas. They understood, from their assessment of the hospital's viability in 1984, that there was little hope of saving it. They also were familiar with the inherent benefits of such arrangements and the growing Federal interest in integrated services. As a result, the concept of developing the community health center and health department alliance had its origin in this group, which assisted in both promoting the idea and working through its technicalities.

Nature of the Primary Care Alliance

The renovated hospital building, which houses both the satellite clinic of the community health center and the local health department, has its own name and identity. The space that is shared includes the reception and waiting areas, the laboratory, the conference and educational rooms, the employee break room, and a Wellness Center equipped with stationary bicycles, a rowing machine, a stair master, and a special floor for aerobics. A cost allocation plan divides the shared costs related to building maintenance and service contracts; there is one exchange of funds per month to cover these arrangements. To maintain their distinct organizational identities, directional signs for the individual and shared spaces are coded in three colors: one for each of the separate organizations and one for the shared space.

Before and during the renovations, a "Cooperative Agreement" was developed. A prerequisite for State funding, this document outlines administrative functions and services that are to be shared. It was signed in 1990, prior to the co-location of the two organizations, but took more than a year of debate to resolve. The opening statement says:

> This Agreement calls for closer cooperation between the two agencies so that each agency's unique resources will benefit clients of the other agency. As a result of close cooperation, unnecessary duplication of services will be eliminated, giving both agencies more time to offer expanded community education and health services not generally available to rural and economically disadvantaged populations.

The accompanying box shows the elements of the Cooperative Agreement. One person involved in the planning process remarked that the "beauty" of the Cooperative Agreement is that "you look at it and ask why didn't we do this all along." Yet, even to date, not all of the health care providers are familiar with the Agreement, and both administrators commented that it does not have a great role in the daily interaction.

The Cooperative Agreement created an advisory council with three functions: to review plans for the renovation and working relationship between the two agencies prior to implementation, to evaluate the progress of the arrangement in meeting the goals of the two agencies and report the findings to each organization's individual board, and to act as a mediating body for disputes. The council met three times in 1991, and will likely continue to have two to three meetings per year. Its membership includes the chairpersons of both agencies' boards, a county commissioner, the county manager, a local hospital administrator, the director of the State primary care association, the director of the State office of rural health, a representative of the State department of health, and a physician or health services researcher from the State university. In 1992, the council sponsored a joint meeting of the boards of both agencies for the purpose of

Elements of the Cooperative Agreement between the Local Health Department and the Community Health Center, Showing Status of Elements

Shared space. Reception and waiting areas, laboratory, conference and education rooms, employees' rooms, Wellness Center. *Status:* Accomplished in renovation, 1991.

Health risk assessment and promotion. CHC patient will be seen by LHD staff for risk assessment and counseling under established protocols. Information will be entered into the LHD data bank for mailed information and personal followup; this applies to the risks of elevated cholesterol, elevated blood pressure, obesity, smoking, sedentary lifestyle, significant stress, increased accident risk (occupational, environmental, or personal behavior risks).
Status: An informal relationship has developed; a joint committee will be established to develop a formal system.

Common medical record. Accomplished either by a jointly owned record or a designated custodian for the single record for each patient; each agency will designate a records coordinator responsible for assuring smooth flow of patient information, developing policies and procedures, and monitoring record sharing matters.
Status: Administrators expressed doubt about the likelihood of accomplishment.

X-ray services. LHD use of CHC services.
Status: Accomplished, 1991.

Common laboratory. A Laboratory Oversight Committee will set policies for the operation of the joint laboratory. The laboratory will be supervised by the Common Medical Director or an appointee; each activity will be classified as a LHD service, a CHC service or a shared service. Supplies will come from the home agency; costs will be set in advance by a cost allocation plan.
Status: Accomplished, 1991.

Mutually supported and utilized community education program. A single health education department will be developed within the LHD.
Status: Not yet addressed.

Mutually supported and utilized patient education and counseling services. Evaluation of areas of most critical need for such education; specific training of staff members to develop areas of specialty; purchase or development of pamphlets and audio-visual aids to facilitate patient education.
Status: Not yet addressed.

Use of common medical director. The CHC director will provide part-time consultative, backup and medical services to the LHD for a negotiated number of hours per month. A basic contract for 10 hours per month includes (*a*) standing orders for immunizations; administration of TB drugs; STD treatment; and blood pressure, cholesterol, and diabetes screening; (*b*) consultative services; (*c*) reviews of LHD plans and policies with medical implications; (*d*) quality assurance review, attend each meeting at least once a year.
Status: Accomplished, 1991.

Commitment to joint planning and expansion proposals. Regular meetings will be held with directors and staff members of both agencies to review programs and make plans for changes; consultation with the other agency will be carried out before significant expansions or changes are made.
Status: Only informal or as-needed meetings to date.

Resource sharing plan. When agreement exists for an organization to undertake an activity for the other agency that is beyond its usual scope of work, time records will be kept; an hourly charge for each involved employee will be established; and accounting will be done at the end of May, August, November, and February.
Status: Accomplished; physician and technological services with monthly accounting, 1991.

NOTE: CHC is community health center. LHD is local health department.

identifying priority areas and opportunities for collaboration. Although one of the administrators and several of the members hope that the council can "challenge" the organizations to increase the scope and extent of linkages, the group has no power over the two agencies. It primarily provides advice and insight through its diverse composition.

Shared staffing is arranged through contract; currently, there are three such relationships. The Cooperative Agreement specified that the health department and community health center would share a medical director. The medical director, appointed and legally employed by the community health center, spends 10 percent of his time under the jurisdiction of the health department. The health department pays a flat annual fee to the community health center for his services. His duties so far have been consultative, both in patient care

issues and health department clinical protocols review. In an interview, the director acknowledged that the arrangement "is less formalized than the Agreement implies." However, this joint appointment has eased some of the prior administrative hurdles such as the difficulty of the home health nurses in getting their standing orders signed.

The second contract is with the health center's laboratory technicians. Because the health department lost its full-time laboratory technician, it arranged with two of the three health center lab technicians to provide 25 hours per week of service to cover the maternity and family planning clinics. The contract is on an hourly basis and covers the laboratory supplies that are purchased by the health center. The work is conducted in the joint laboratory in the renovated building.

The third contract is for the services of a health center physician at a pediatric clinic one morning each week. A similar contract is being negotiated for a physician's obstetrical services.

Several of the joint activities enumerated in the Cooperative Agreement may not materialize. The most contentious of these is the common medical record. Though intended to reduce the fragmentation of services to patients, most people expressed concerns over confidentiality, given the rurality of the county. One key person described the inclusion of the common record as an artifact of the negotiation for funding and doesn't anticipate that it will happen. The medical records coordinator for the community health center pointed out that even if there were overlap in some area of the records, providers from the different organizations might take notes differently, potentially making the record inconsistent. No action has been taken to integrate the medical records. The other prescribed activities that have not been enacted relate to planning, reflecting time constraints and the lingering concern over extensive cooperation.

There has been slow but steady development of service and administrative linkages beyond the Cooperative Agreement since early 1992. The health center recently purchased colposcopy equipment; the health department contracts with the health center for this service, reducing the delay between a Papanicolaou (Pap) test and subsequent diagnosis and initiation of treatment to 6 weeks from the previous 3 to 4 months. For several types of patients, formal referral networks have been established. A committee of providers from both agencies have established protocols and administrative arrangements for obstetrical care, beginning in 1992. A woman coming to the health department will have a choice of using the older arrangement that the health department established with a distant academic medical center, or the health center option, which uses health center physicians and the hospital 30 miles from the site. The health department pays the health center physicians for their time and the use of their ultrasound machine and a formal system is evolving for health education services.

Informally, the community health center physicians refer some of their patients to the health department's nutritionist, who administers the WIC Program; to the Adult Health Clinic, where diabetes education is conducted; and to the Wellness Center. Currently, there are few educational or fitness programs being conducted in the Wellness Center. In addition to these transfers from the health center to the health department, there is a stream of patients in the opposite direction when physician or other services not offered by the health department are needed.

For the most part, a referral system has yet to be worked out. One physician commented on his frustration at the lack of a feedback loop. Once a referral is made from the community health center to the health department, information on the subsequent care of the patient does not systematically return to the physician. However, the informal communication between the health department and health center providers is good, so that with a regular referral flow, the formality, standardization, and intensity of referrals are likely to increase.

Indirect benefits of the alliance include enhanced recruitment and grant funding. The health center, since the opening of the renovated building, has attracted three new health care providers; none is a National Health Service Corps physician. The health department filled its last vacant position in May of 1992, making it the first time in 4 years that agency has been fully staffed. Both administrators attribute this success in part to the alliance. The two agencies also have collaborated in several grant funded projects. They are part of a county-wide demonstration project to deal with the multidimensional problems of poor families. The agencies were chosen to participate in a community-based training program through the State school of public health. The two also are members of an AIDS consortium in the eastern part of the State and have conducted joint workshops on the topic. Administrative linkages are few, although the health department director commented that a full staff would allow that agency more time to work

'Most of the county leadership agreed that without the legitimacy and financial support provided by the State and Federal governments, neither the co-location nor any cooperation between the agencies would have occurred.'

out the administrative details required for such collaboration.

The advisory council has created a vehicle for developing future activities. A series of meetings of the boards of the health department and health center began in the fall of 1992 to undertake joint, long-term planning. They are expected to identify a set of priority areas reflecting community needs and problems that can best be addressed by a team effort; for example, increased immunization services have been suggested. The advisory council members will add to this priority list recommendations on how best the agencies can achieve the goals. Responsibility for enacting the new programs remains with the individual boards and administrators.

During the interviews, patient education was most often identified as the common ground between the organizations and the area where future collaboration is likely. There have been several one-time joint programs, including a children's health fair and health screenings in the local factories. The idea of collaborating in new programs rather than directing early efforts toward reducing overlap in old ones was advocated by one of the advisory council members. She remarked that with new work, there is no history to interfere and roles can be defined in a nonthreatening way.

Barriers to Integration

More than 5 years passed between the closure of the hospital and the opening of the renovated building that the health department and community health center share. The lag was largely owing to historical, social, and economic concerns raised by the project rather than the construction and technicalities of the arrangements. Questions about the alliance came from several fronts: the boards of the two organizations, the administration, the staff and the local residents. While none of these groups was totally opposed to linking the two organizations, there was general reticence that affected the pace and extent of the development of the alliance.

From the start, the health department and health center have had to contend with the public hostility caused by the hospital closure. Although few county residents who attended a public meeting about the hospital's problems used the facility, many felt that it was important to have local emergency services, since the next nearest hospital is about 30 miles away. It also was an important source of employment in the community. This opposition to the hospital closure has manifested itself in resentment toward both the county leadership and the administrators of the two organizations that moved into the closed hospital building. The administrator of the health department still gets telephone calls blaming him for closing the hospital. Many residents feel that the money used in the restoration of the hospital building would have been better used in maintaining the hospital. Others feel as though the community health center and local health department acted opportunistically. While these reactions may be unique to the case at hand, they underscore the importance of history and loyalty in rural residents' preferences for traditional health services.

The idea of integration itself alarmed of some members of the two agencies' boards. To many, "integration" evoked images of a "takeover" or "merger." Boards of both agencies are composed of a majority of citizens and users of the services, and act as the defenders of the identities of each organization. One member remarked that the board's opposition to the idea was not rational, but represented people's need to feel control over limited resources.

The administrators expressed a more pragmatic concern over the control of resources. Both organizations are understaffed and cannot easily afford time for planning, which is necessary for successful integration. Similarly, the collaborative arrangement required the establishment of another oversight board, so the administrators are faced with an additional reporting requirement. Some of the costs of integration come from the tight constraints due to the nature of the organizations. Local health departments have a fairly prescribed set of services and activities, and community health centers expend a great deal of effort on their reporting requirements. There are definite areas where coordination may reduce costs; for example, the shared laboratory has benefited both groups. But the administrators noted that integration is not necessarily cost free nor cost efficient.

Concern over control not only created tension

between the two organizations, but joined the two in some negative feelings towards the State. The State office, described previously, is a dominant force for all the small, rural health care facilities; its suggested strategies for these organizations, especially when linked to funding, are difficult to reject. At times, local leaders felt that they were being coerced into conducting joint activities by the State. This resentment of outside control was magnified by the residual feeling on the part of local residents that it was partly the State's fault that the hospital was closed.

Finally, while the innovative nature of the project sold it to some county residents, to others it seemed like a risk or an "experiment." At the time of its planning in 1985, there were few similar community health center and local health department alliances, models, or guidelines for the local and State leadership. Similarly, it was difficult for the county residents to develop expectations. To a large part, the county residents' perceptions of health services were shaped by the hospital. Consequently, the hospital remains the benchmark to which most residents compare the current alliance. While the proliferation of community health center-local health department alliances is making this configuration more common nationally, this is not evident to the rural residents in this county.

Causes and Catalysts of Integration

Despite the serious barriers to forging a viable relationship between the community health center and local health department, most people interviewed felt the relationship has great potential for serving the county. Aligning the rural local health department and community health center could serve several purposes. Each organization has resources that the other needs. The community health center, like many such centers, has had occasional difficulty in meeting the encounter quotas required by its Federal grant. By having access to nurse educators to assume some of the time-consuming counseling, the physicians may increase their number of encounters. In turn, the health department lacked the services of a physician prior to the alliance, so that access to health center physicians is an asset. An additional benefit has been improved recruitment capacity; the innovative nature of the alliance helped attract three physicians to the health center to fill health department vacancies. These quid pro quo benefits, though not yet fully realized, are possibly inherent in all community health center-local health department alliances.

Improved health care for the county was also a factor. The leadership of the two organizations expressed the belief that regardless of reasons for or against interorganizational alliances, county residents are better served by the arrangement. By being in the same building, the people are "shuffled around" less, one administrator commented. There are physicians nearby when the health department providers need assistance and vice versa. One administrator commented that the only pressure to integrate services now that the building is renovated and the special funding is over is a commitment to the people.

Yet, in this particular case, it was a conducive policy environment and circumstance that catalyzed the relationship. Asked to suggest options for the hospital in the early 1980s, officials from the State agency that specifically offers technical assistance to health providers played an integral role in the planning process and decisions. Through that office, the county received substantial capital for the renovation. The officials also helped write the necessary justifications, applications, and proposals for the various moneys and approvals necessary for the integration. Most of the county leaders agreed that without the legitimacy and financial support provided by the State and Federal governments, neither the co-location nor any cooperation between the agencies would have occurred.

The crisis of the hospital closing put strong pressure on the existing health system to mobilize. Support was organized and action taken around the need for an alternative source of health care in the absence of the hospital. The chairperson of the county commission at that time commented that they needed to bring something new and exciting to the community to lessen the sense of loss. The need to increase community morale ranked high in the decision process. To a lesser extent, the health department's desperate need for space facilitated the integration by putting additional pressure on local leaders to address a complicated yet fragile health care delivery system. These strong, though transient, factors interacted with the more rational reasons for the development of the alliance.

Discussion

This case study both confirms and extends prior research. According to the profile of health department and health center alliances developed by the Primary Care Project (*18*), the present case is fairly typical. The most common joint activity in both this case and in the agencies responding to the

'The rational reasons for the community health center and health department to collaborate were not compelling enough to create an alliance; both a crisis and outside assistance were needed.'

national survey was referrals. The national survey found that both health departments and health centers named mutual interest and physical proximity as facilitators of the relationship and that the community health centers ascribed greater influence to policy support for alliances. This pattern corresponds with that revealed by this study. There also is confluence with the findings of Behringer (*25, 26*). Behringer names five factors that promote interorganizational alliances between community health centers and local health departments: two involve a State role (development of a cooperative agreement and funds for demonstrations) and two are environmental (health department constraints and other changes in the health care environment). The case we have described supports these findings, particularly the first set of factors, the State's role.

What is different about this case study is the finding about the development of the alliance. The rational reasons for the community health center and health department to collaborate were not compelling enough to create an alliance; both a crisis and outside assistance were needed. The closure of the hospital, the inadequacy of other county health facilities, and the perennial lack of physicians forced county leaders to ask for State assistance, which came in the form of enhancement of the only two health resources in the county, the local health department and the community health center. In sum, policy support for primary care linkages is based on the rational belief that integration of health services via interorganizational alliances will reduce the fragmentation of care that often exists in underserved communities. It may do that; this study did not address outcomes. However, the case at hand shows that the goal of reducing fragmentation of care was not sufficient to create the interorganizational alliance.

This finding may be unique; the case study method prohibits generalizable lessons to be drawn about integration. Indeed, perhaps the unique combination of a strong county commissioner, the circumstances of the hospital closing, and the particular staffing of the State office that provided technical assistance is not replicated anywhere. However, public health leaders and policy makers may see parallels in this case to their own communities, given the prevailing trends against viability for rural health care organizations and toward alliances. The case study also is useful in identifying potential implications of the integration process. The findings from the case suggest two hypotheses.

First, local administrators and policy makers should not assume that need alone dictates action. A community health center and local health department in an area where comprehensive services are accessible may integrate services because of some environmental stimulus like the increased possibility of grant funding or political acceptance. Conversely, the community health center and health department in areas of great need for coordination may not develop a relationship because they lack a catalyst like an outside agency or a threat to the public's health. By acknowledging alternative models of organizational behavior, policy and programs can be more effectively designed and targeted.

The second hypothesis is that the advocacy for these alliances itself is a strong environmental factor, so that organizations may pursue such alliances not just for their inherent benefits but also for the external benefits that come with a politically popular concept. This hypothesis implies that if policy makers think that this type of alliance is a viable option for rural health systems, and back that support with funds and technical assistance, there is potential to override local and internal resistance. From the perspectives of the public and the primary health care worker, recognizing this trend in support might enable underfunded programs or priorities to be expanded if designed and implemented as multi-organizational collaborations.

This line of inquiry evokes perhaps the most important policy and research question: what does integration of community health centers and local health departments accomplish? There are many potential answers. Integration improves the followup and preventive care of health center patients; provides access to physician services that a health department patient might not otherwise receive; improves the health of the general population, as indicated in a reduced infant mortality rate; and increases the percentage of people in the county who use health services.

There also may be indirect outcomes. The innovation of the arrangement attracts new physicians, and the appropriate assignment of health care

functions to different levels of providers reduces frustration, hence increasing retention. Interorganizational alliances may elicit support from public and private funding agencies that look for better ways of improving health care and health outcomes. There is considerable speculation on the outcomes of interorganizational alliances, but little research to support them. As rural health problems escalate, and rural health systems decline, the pressures to answer such questions will intensify.

References

1. U.S. Congress: Health care in rural America. Office of Technology Assessment, Washington, DC, 1990.
2. Horner, R. D.: Impact of federal primary health care policy in rural areas: empirical evidence from the literature. J Rural Health 4: 13–28 (1988).
3. Ricketts, T. C., and Kolimaga, J. K., editors: Study of health professionals distribution, training and service models to meet rural health care needs. North Carolina Rural Health Research Program, Health Services Research Center, Chapel Hill, NC, 1991.
4. Wright, G. E., Hirst, B. F., and Errecart, M. T.: An analysis of rural hospitals: the impact of location on services, access to care and costs. U.S. Department of Health and Human Services, Office of the Assistant Secretary for Health, Office of Planning and Evaluation, Washington, DC, 1989.
5. Reid, H. A., and Smith, H. L.: Integrated rural health care systems: managerial implications for design and implementation. J Ambul Care Manage 17: 13–27 (1984).
6. Alexander, J. A., and Amburgey, T. L.: The dynamics of change in the American hospital industry: transformation or selection? Med Care Rev 44: 279–321 (1987).
7. Kaluzny, A. D., and Hernandez, S. R.: Organizational change and innovation. *In* Health care management: a text in organization theory and behavior, edited by S.M. Shortell and A.D. Kaluzny. John Wiley and Sons, New York, NY, 1988, pp. 379–417.
8. Christianson, J. B., et al.: Evaluating rural hospital consortia. Health Aff (Millwood) 9: 135–147 (1990).
9. Alpha Center: alternative models for delivering essential health care services in rural areas. Public Health Service, Health Resources and Services Administration, Office of Rural Health Policy, Rockville, MD, 1991.
10. Harmon, R. G., and Carlson, R. H.: HRSA's role in primary care and public health in the 1990s. Public Health Rep 106: 6–14, January–February 1991.
11. Roper, W. L.: Strengthening the public health infrastructure. An address to the annual meeting of the Association of State and Territorial Health Officials, Charleston, SC, May 2, 1990.
12. National Advisory Committee on Rural Health: Third annual report to the Secretary of Health and Human Services. Public Health Service, Health Resources and Services Administration, Office of Rural Health Policy, Rockville, MD, 1990.
13. National Association of Community Health Centers: Community and migrant health centers: overview and status report. Washington, DC, 1991.
14. Jain, S. C., editor: Role of state and local governments in relation to personal health services. Am J Public Health 71 (supp): 5–92 (1981).
15. Miller, C. A., and Moos, M. K.: Local health departments: fifteen case studies. American Public Health Association, Washington, DC, 1981.
16. National Academy of Sciences, Institute of Medicine. The future of public health. National Academy Press, Washington, DC, 1988.
17. National Association of County Health Officials: National profile of local health departments. Washington, DC, 1990.
18. National Association of County Health Officials: Primary care project: report on the nature and level of linkages between local health departments and community and migrant health centers. Public Health Service, Health Resources and Services Administration, Bureau of Health Care Delivery and Assistance, Washington, DC, 1990.
19. National Association of County Health Officials: Primary care case study: Carter County, Tennessee. Washington, DC, 1986.
20. National Association of County Health Officials: Primary care case study: Galveston County, Texas. Washington, DC, 1986.
21. National Association of County Health Officials: Primary care case study: Northeast Tri-County, Washington. Washington, DC, 1991.
22. National Association of County Health Officials: Primary care case study: Monroe County, West Virginia. Washington, DC, 1986.
23. National Association of County Health Officials: Primary care case study: Robeson County, North Carolina. Washington, DC, 1991.
24. National Association of County Health Officials: Primary care case study: Pocatello, Idaho. Washington, DC, 1991.
25. Behringer, B.: Memorandum: center-local health department linkages. Virginia Primary Care Association, Richmond, VA, 1984.
26. Behringer, B.: Promoting interorganizational linkages between local health departments and community health centers in Virginia. Virginia Primary Care Association, Richmond, 1990.