Creating Community-based Access to Primary Healthcare for the Uninsured Through Strategic Alliances and Restructuring Local Health Department Programs

E. Shirin L. Scotten and Ann C. Absher

In 2003, the Wilkes County Health Department joined with county healthcare providers to develop the HealthCare Connection, a coordinated and continuous system of low-cost quality care for uninsured and low-income working poor. Through this program, local providers of primary and specialty care donate specialty care or ancillary services not provided by the Health Department, which provides case management for the program. Basing their methods on business models learned through the UNC Management Academy for Public Health, planners investigated the best practices for extending healthcare coverage to the underinsured and uninsured, analyzed operational costs, discovered underutilized local resources, and built capacity within the organization. The HealthCare Connection is an example of how a rural community can join together in a common business practice to improve healthcare access for uninsured and/or low-income adults.

KEY WORDS: case management, healthcare, Management Academy for Public Health, rural, strategic alliance, uninsured

In 2003, following requests by physicians, increases in the unemployment rate, and pressure from the local Board of Health to be the provider of last resort, the Wilkes County, North Carolina, Health Department (WCHD) was faced with the need to provide adult primary care. The Department designated a team of managers to attend the Management Academy for Public Health to gain management skills and write a business plan to address this need and provide a coordinated and continuous system of low-cost quality care for uninsured and low-income working poor in Wilkes County.

J Public Health Management Practice, 2006, 12(5), 446–451

Background

Wilkes County supports a rural, largely blue-collar population of 66,000 (2000 US Census) in the foothills of the North Carolina mountains. Two adjoining cities are central to the county, one of which owns and controls the local hospital. The county's economic base has suffered in recent years, with a 7 percent drop in manufacturing jobs in the county as companies moved to larger cities or other countries, and a corresponding spike to a 9 percent unemployment rate in 2002.[1] As NAFTA benefits expired, and economic development stagnated, nearly 10,000 residents were left uninsured, either because of unemployment or because of low wages that make health insurance unaffordable.

The Wilkes County Health Department has 64 employees. Management consists of the Health Director and the Management Team—supervisors of the health department services and clinics, including environmental health, maternal and child health outreach (including a mobile school health unit), health promotion, public health epidemiology, administration, child and adult health services (including laboratory and pharmacy services), and management support services. Each manager reports directly to the health

This article is dedicated to the memory of Beth Baldwin Fletcher, laboratory manager at the Wilkes County Health Department. She was an instigating force in initiating this project. She died in a motor vehicle accident shortly after her team began the Management Academy for Public Health experience.

Corresponding author: E. Shirin L. Scotten, BS, MPH, Wilkes County Health Department, 306 College Str, Wilkesboro, NC 29697 (e-mail: sscotten@wilkescounty.net).

E. Shirin L. Scotten, BS, MPH, is the Public Health Epidemiologist at the Wilkes County Health Department in Wilkesboro, North Carolina.

Ann C. Absher, BSN, MPH, is the Director of Nursing at the Wilkes County Health Department in Wilkesboro, North Carolina.

director, who reports to the local board of health, which consists of doctors, pharmacists, business leaders, a county commissioner, and two "at large" members. The board of health has charged the health department to be the provider of last resort.

In recent years, the patient mix at the Wilkes County Health Department has shifted, with fewer full reimbursement services and more sliding-fee-scale self-pay patients. Revenue and utilization were dropping. Concurrently, patients attending the WCHD for traditional adult services such as immunizations and well screenings or employment physicals were more seriously ill. These routine nurse screenings were turning into more significant visits, driving up the time and cost per patient and limiting potential patient visits due to longer service times per patient.

In December 2001, county health department personnel and other healthcare stakeholders began an inquiry into adult primary care for low-income uninsured adults. A subcommittee was formed which investigated four models of extending healthcare coverage to the underinsured and uninsured: (1) the Medical Access Plan (MAP), offered by the NC Department of Rural Health, which subsidizes providers for treating needy patients*; (2) a private, nonprofit model using volunteers to provide free care†; (3) a church-based nonprofit also operating on private donations and volunteer providers‡; and (4) a medical case-management model that brokers with clinicians to volunteer at a clinic or accept patients into their practices, charges a sliding fee for services, and follows, or "manages" patients as they move through the system.§ This subcommittee concluded that a program would need to be developed through the health department that would blend the concepts of volunteer care coupled with sliding fees and systematic case management.

Methods

Business plan development at the Management Academy for Public Health

In June 2002, a team was chosen to attend the UNC Management Academy for Public Health and develop a program to meet the needs identified by county stakeholders. The Management Academy training in integrating business models into public health initiatives seemed well suited to helping the team members create a sustainable business plan for a program to provide healthcare for the uninsured of Wilkes County within the constraints of their limited local resources.

The WCHD team completing the Management Academy consisted of four of the health department's employees who would be most directly affected by the integration of a new adult health program: the Administrative Officer, the Environmental Health Programs Coordinator, the Clinical Nursing Supervisor, and the Management Support Supervisor. Representing the community was the Executive Director of Wilkes Community Health Council. This individual was also an employee of the local hospital, which was deeply involved in the initiative and willing to provide the staff time necessary to see this project to completion.

The team began developing its business plan by analyzing relevant community health data, including the demographics of the health department patients, the number of self-payers (as opposed to insured individuals), and chronic disease rates in the patient population. These data were used to plan what the program should entail and the staffing necessary to provide care. The estimated staffing needed and the amount of care it would require in the first 2 years of the program are detailed in Table 1.

After establishing the need and optimum number of personnel, the team members developed their budget for the business plan. They used data from the analysis of other programs as well as health department patient data to estimate costs. They also developed a

TABLE 1 ● Business plan for HealthCare Connection: Managing people

Year 1
15 participating primary care physicians
10 physician assistants or family nurse practitioners
20 registered nurses
5 medical records managers
329 patient encounters
200 individual patients in clinic
450 individual patients assisted with prescriptions
Year 2
20 participating primary care physicians
15 physician assistants or family nurse practitioners
25 registered nurses
8 medical records managers
650 patient encounters
390 individual patients in clinic
890 individual patients assisted with prescriptions

*See http://www.dhhs.state.nc.us/docs/divinfo/orhrd.htm for more information about the Medical Access Plan(MAP).
†See www.projectaccessonline.org/pa/pp for more information about the Buncombe County Project Access program.
‡See www.churchhealthcenter.org for moreinformation about this Memphis, Tennessee, church-based program.
§See http://www.apprhs.org/arhs/ahp.html or the Buncombe County Web site (above) for information about the case management model as used in North Carolina.

TABLE 2 ● Business plan for HealthCare Connection: Managing money

Phase I (March 2003–February 2004)		Assumptions
Expense		
Cost of treatment	$8,750	($25/pt 7pts/day 50 days)
Operating	$2,000	
Total	$10,750	
Revenue		
Sliding fee-for service	$10,750	($30/pt avg)
Total	$10,750	
Phase II (March 2004–February 2005)		
Expense		
Personnel	$38,500	(Case manager)
Cost of treatment	$26,250	($25/pt 7pts/day 150 days)
Operating	$12,000	
Pharmacy	$126,000	
Total	$202,750	
Revenue		
Sliding fee-for service	$73,500	($30/pt avg. + pharm co-pays)
Grants and gifts	129,250	
Total	$202,750	
Phase III (March 2005–February 2006)		
Expense		
Personnel	$72,000	(Director/support staff)
Operating	$22,000	
Equipment	$35,500	
Pharmacy	$140,000	
Total	$269,500	
Revenue		
Sliding fee-for service	$100,000	($30/pt avg. + pharm co-pays)
Grants and gifts	$169,500	
Total	$269,500	

plan for sustainable funding by identifying stakeholders, possible sources of funding, and creative funding initiatives. The first version of a feasibility plan was presented at the Management Academy in October, expanded to a business plan in January, and presented at the program's capstone event in April. Table 2 details the team's business projection for the first three phases of the program.

Business plan implementation

After being graduated from the Management Academy, the team came back to Wilkes County with a business plan and used it to (1) obtain buy-in from the local medical community and a good-faith promise from physicians and midlevel providers to volunteer, (2) write a grant to the Duke Endowment for start-up funds, and (3) implement the HealthCare Connection program. The results of this implementation are detailed below.

● Results

The HealthCare Connection

The primary goal of the HealthCare Connection is to find acutely ill people, bring them into the healthcare network, find them a provider, get them the services and treatments they need, and discharge them from the program. The team identified three components of the program: (1) on-site clinic service, (2) case management, and (3) a large formulary.

On-site clinic service

Although the Management Academy business plan described a stand-alone clinic, the team subsequently decided that situating the HealthCare Connection at the health department would allow them to provide space and services more efficiently. With waning patient loads in other clinics, as well as the presence of providers and bilingual staff, the WCHD calculated that an expansion of services at the health department would increase the patient load without an increase in salary expense.

Currently a total of 18 physicians donate their time and effort to the HealthCare Connection; some donate laboratory services, and the hospital donates radiology services. Beginning in the second year, a family practice physician was added to health department staff, allowing for the care of more acutely ill patients and higher levels of reimbursement. Some clinic staff unfamiliar with aspects of acute adult healthcare have resisted these changes, and some turnover has resulted.

As with most health department clinic services, eligibility is determined on the basis of financial income according to a sliding fee scale. Services are provided at a $5 charge to the patient per visit or test (substantially less than the amount estimated by the Management Academy team), and the rest is considered donated care. This process allows the hospital to recoup a percentage of what would have been considered bad debt. It also gives providers a network of healthcare to whom they can refer underinsured patients they had been treating at a financial loss, or treating incompletely because patients could not afford to complete therapy or medication recommendations. This pattern of referral and assistance with healthcare costs brings non-healthcare seekers into the healthcare system, increasing patient loads and State Department of Rural Health funds at rural health centers and the health department.

Case management

A cost-effective method of case management is central to the implementation of HealthCare Connection.

The WCHD shifted a Public Health Nurse to the position of Adult Health Case Manager, who works with the local hospital and private providers to secure specialty care or ancillary services that are not provided at the WCHD. The Case Manager applies entrepreneurial thinking to the challenges of optimizing and sustaining this program, advocating for clinical services in the community, obtaining volunteer commitments from local physicians and specialists, collecting statistics on all healthcare providers and recipients in the program, referring patients to available healthcare resources existing in the community, and admitting qualified patients into the "acute problem" component of the HealthCare Connection. This Case Manager position, paid for by the Duke Endowment and county funds, has allowed the HealthCare Connection to stretch local resources and distribute the burden of uncompensated care in a planned continuum of care.

A large formulary

Medicines are often the most costly and critical component of healthcare programs for the uninsured. To serve the HealthCare Connection, an established low-income grant-funded pharmacy, Care Connection Pharmacy, was restructured and brought into the network to provide a large formulary for the HealthCare Connection. Private physicians, rural health centers, and the WCHD can refer patients to this pharmacy for medicines at a nominal charge per prescription filled. The Care Connection Pharmacy exists through grant dollars, supplemental funds from the hospital, hospital contractual funds from WCHD, and the Pharmaceutical Medial Assistance PMA (Free) Drug Program.

Securing funding

Using the business plan created for the Management Academy, the team developed a grant proposal to fund the upfront costs of the program. In 2003, the Duke Endowment awarded a 3-year $140,000 grant to pay for start-up, renovations to the pharmacy, and equipment necessary for the addition of adult clinical services at the WCHD.

Program operations and benefits

The HealthCare Connection has developed into a Web of healthcare provision with the WCHD at the center coordinating activities. As a result of the development of HealthCare Connection, the WCHD has been able to add additional services without a corresponding increase of county taxes. As shown in Table 3, the amount of uncompensated care has increased, but not by a greater percentage than the growth of the clinic or of the actual bill. Staff time is being used more efficiently, and the annual cost per patient has fallen, even though patients are more acutely ill than was the case before.

TABLE 3 ● Wilkes County, North Carolina, Health Department adult health clinic statistics (month-to-date numbers)

	October 2004	June 2005	% change
Patient encounters	201	314	56
Charges	$16,572.48	$22,132.53	34
Patient receipts	$4,425.08	$8,301.54	88
Private pay encounters	166	269	62
Actual bill amount	$3,505.68	$4,988.81	42
Uncompensated care	$9,944.80	$13,419.72	35
Salary and fringe	$22,749.44	$24,636.29	8
Total operating cost	$27,373.06	$32,776.66	20
Annual cost per patient encounter	$119.02	$115.52	−3

During its first year of operation, the local hospital and participating providers donated $76,600 in uncompensated care to the HealthCare Connection. The Care Connection Pharmacy donated $69,264 worth of prescription medications. The WCHD has donated more than $134,000, as adult patients referred to the HealthCare Connection for an acute health problem are treated or returned to a nonacute state and then referred back to the new adult health clinic at the health department for chronic condition maintenance and preventive care. In sum, staff time is being used more efficiently and a greater number of more acutely ill patients are being treated at lower cost.

● Discussion

The HealthCare Connection enables community leaders to fight the growing problem of the lack of healthcare for uninsured adults on the local level, and gives healthcare providers the ability to provide continuous care to patients they had been treating incompletely or turning away because of financial restrictions. The HealthCare Connection is an example of how a rural community can join together in a common business practice to improve healthcare access for uninsured and/or low-income adults. It provides services in response to a documented community need in a cost-effective, sustainable, and flexible manner.

The Management Academy for Public Health contributed to the success of this program, through the training and coaching of the 2003 team that created it,

TABLE 4 ● Wilkes county health department management academy teams

Years	Health department employees	Community partner	Project	Result
2000–2001	Health director, director of nursing, health promotion coordinator	Director, Centro Latino	Reestablish failing rural health center as successful primary provider of primary care for non-English-speaking adults	Returned to community; incorporated Rural Health Insurance funding to supplement revenue
2001–2002	Outreach nursing supervisor, immunization nurse, child health program coordinator, health promotion specialist	Public Health Dental Clinic, Director	Create system of pediatricians and pediatric dentists to provide dental varnishing for infants and young children	System of providers model developed used for the HealthCare Connection
2003–2004	Laboratory manager, finance officer, environmental health supervisor, management support supervisor, clinic nursing supervisor	Wilkes Community Health Council (Healthy Carolinians), Executive Director	HealthCare Connection	Obtained $140,000 grant from the Duke Endowment; Supplied $210,000 donated care to uninsured adults first year.
2004–2005	Director of nursing, clinic nursing supervisor, adult health case manager	Parish Nurse Program Coordinator	Healthy living program administered in churches geared to adults	Business training for adult case manager and new management team staff

and also through the training of other teams that attended the Management Academy earlier and whose work informed the creation of this program. Since 2000, four WCHD teams have attended the Management Academy for Public Health (Table 4). The collective wisdom and cumulative business acumen gained each year have become integrated into the management and function of the entire health department, and the 2003 team was able to apply specific assets of those previous Management Academy teams to the particular challenge faced in 2003. For example, because of the work and community partnerships built by the 2001 Management Academy team, the 2003 team members had a continuing data resource on primary care issues affecting their constituencies. Also, the 2002 Management Academy team had interviewed potential partners to discover opportunities for networking and cost-sharing, and the 2003 team members used these strategies with primary healthcare providers to understand their provision of charity care and their desires for meeting the healthcare needs of all their patients. Finally, Management Academy alumni in WCHD management had initiated the review of monthly and biannual financial and clinical reports, which greatly informed the 2003 team's work. These reports—and the management team's understanding of their implications—were a direct result of financial skills gained at the Management Academy.

Creating this program was not without challenges. Beyond the expected stressors of finding time to complete Management Academy exercises and create a comprehensive business plan while filling regular job responsibilities, working with partners outside of the governmental public health system also represented a challenge. During the team phase of each Management Academy year there has been some difficulty with the inclusion of a community member. The community member often had different goals, methods, and priorities from those of the health department members. For the 2003 Management Academy team, one community member initially held to the ideal of creating a separate clinic staffed by volunteer healthcare professionals for evening free clinics. The difficulty of merging visions, however, is far outweighed by the benefit of the community members' perspectives, contributions and partnerships they bring to the table, and community buy-in created simply through their participation.

● CONCLUSION

The organizational change in thinking, from providing care at all costs to providing care at functional costs, built a foundation for creating strategic alliances to achieve a common goal—affordable healthcare for sick uninsured adults, with more than $280,000 donated services in first year. By transforming the health department into a business-oriented model of operation, WCHD managers became "creators of wealth rather than mere distributors of wealth."[2] The Management Academy curriculum stresses the importance of the dual bottom line: financial sustainability and social return on investment. In the case of the HealthCare Connection, wealth has been the financial return on

investment in the form of reduced bad debt and fewer emergent visits with high uncompensated costs; and the social return on investment is a community more healthy, chronically ill patients more consistently treated, and healthcare providers more satisfied with the care they are able to deliver to the low-income and uninsured within Wilkes County.

REFERENCES

1. North Carolina Department of Commerce Economic Development Information System. The Wilkes County Profile 2003 4th Quarter page. Available at: http://cmedis.commerce.state.nc.us/countyprofiles/. Accessed October 7, 2005.
2. Johnson JH Jr. *Civic Entrepreneurship Mission*. Chapel Hill, NC: Management Academy for Public Health; 2004.