North Carolina Insight

$12 November 1991 Vol. 13, No. 3-4

# HEALTH CARE IN NORTH CAROLINA: PRESCRIPTION FOR CHANGE

## PART I

■ New State Roles ■ Health Care Coverage ■ Cost Containment ■ Rural Care

# N.C. Center for Public Policy Research


**Board of Directors**

*Chairman*
Robert W. Spearman

*Secretary*
Beverly A. Blount

*Vice Chair*
Keith Crisco

*Treasurer*
Daphne T. Copeland

Linda Ashendorf
Thad L. Beyle
Ron Bogle
William R. Capps
Ruth Cook
George Daniel
Allyson Duncan
Ann Duncan
Charles Evans
Virginia Ann Foxx
William G. Hancock
Wade H. Hargrove
Katherine Harrelson
Mary Hopper
V.B. (Hawk) Johnson
Phillip J. Kirk Jr.
D. Samuel Neill
William "Cliff" Oxford
Harry E. Payne Jr.
Patricia J. Shore
McNeill Smith
Geraldine Sumter
Nancy Temple
Patricia Watts
Ed Williams
John Winters


**The North Carolina Center for Public Policy Research** is an independent research and educational institution formed to study state government policies and practices without partisan bias or political intent. Its purpose is to enrich the dialogue between private citizens and public officials, and its constituency is the people of this state. The Center's broad institutional goal is the stimulation of greater interest in public affairs and a better understanding of the profound impact state government has each day on everyone in North Carolina.

A nonprofit, nonpartisan organization, the Center was formed in 1977 by a diverse group of private citizens "for the purpose of gathering, analyzing and disseminating information concerning North Carolina's institutions of government."

It is guided by a self-electing Board of Directors and has individual and corporate members across the state.

Center projects include the issuance of special reports on major policy questions; the publication of a quarterly magazine called *North Carolina Insight*; joint productions of public affairs television programs with the University of North Carolina Center for Public Television; and the regular participation of members of the staff and the Board in public affairs programs around the state. An attempt is made in the various projects undertaken by the Center to synthesize the thoroughness of scholarly research with the readability of good journalism. Each Center publication represents an effort to amplify conflicting ideas on the subject under study and to reach conclusions based on sound rationalization of these competing ideas. Whenever possible, Center publications advance recommendations for changes in governmental policies and practices that would seem, based on our research, to hold promise for the improvement of government service to the people of North Carolina.


**Executive Director**
Ran Coble

**Center Staff**
Jack Betts
Mary Fant
Sharon Gibson
Kim Kebschull
Mike McLaughlin
Danita Morgan
Nancy Rose

**Interns**
Seth Blum
Ellen Breslin
Melinda Hammer



**NORTH CAROLINA INSIGHT** is a quarterly magazine published by the North Carolina Center for Public Policy Research, Inc. (a nonprofit, tax-exempt corporation), Suite 701, 5 W. Hargett St., P.O. Box 430, Raleigh, N.C. 27602. Telephone (919) 832-2839. Annual membership rates: Individual, $36; Organizational, $50; Supporting, $100; Corporate, $200; Full-Service, $250; Supporting Corporate, $500; Patron, $1000; Benefactor, $2000. Third class postage paid at Raleigh, N.C.


Copyright 1991 by the North Carolina Center for Public Policy Research, Inc. Articles may not be reprinted without permission.


Graphic design by Carol Majors. Production by PUBLICATIONS UNLIMITED. Printed by Theo. Davis Sons, Inc., Zebulon, N.C. The Center is supported in part by grants from the Mary Reynolds Babcock Foundation and the Z. Smith Reynolds Foundation, as well as by 120 corporate contributors and 600 individual members across the state. The views expressed in this publication are those of the authors and are not necessarily those of the Center's Board of Directors or staff. Published November 1991. Printed on recycled paper with soy ink.

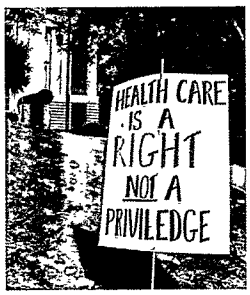
Cover design: Carol Majors

Printed on Recycled Paper

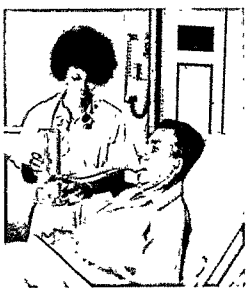
PRINTED WITH SOY INK

North Carolina **Insight**

Vol. 13, No. 3-4 November 1991







**Editor**
*Jack Betts*

**Associate Editor**
*Mike McLaughlin*

**Graphic Design**
*Carol Majors*

**Production**
*PUBLICATIONS UNLIMITED*

The Center gratefully acknowledges grants by The A.J. Fletcher Foundation and The Kathleen Price and Joseph M. Bryan Family Foundation in support of this issue of *Insight* and this project on the roles of the state in health care policy in North Carolina.

# Health Care: New Roles for the State Emerge

by John Drescher

*In a century and a half, state roles in planning and providing health care for their citizens have evolved from reluctant participant to sometime provider to major payer. In the late 19th and early 20th centuries, the role was primarily that of a public health department encouraging sanitary practices and operating state hospitals. In the mid-20th century, states were a sort of junior partner with the federal government as Washington made many of the decisions and paid many of the bills. But in the 1980s and 1990s, states have risen to full-partner status in the decision-making process—and especially in the bill-paying process. How have these new state roles defined themselves? How might they further evolve, and what consequences does that hold for North Carolina's future?*

James C. Dobbin, a Democrat and a state representative from Fayetteville, may not have known what course he was setting the state upon that day in 1848 when he rose to tell his colleagues about a promise he had made to his dying wife. Louisa Holmes Dobbin, he told the House of Commons, had been nursed during her long illness by a Massachusetts woman who had come to North Carolina to campaign for better treatment of the insane.

James Dobbin had made a deathbed promise to Louisa to help that nurse persuade North Carolina to establish a state hospital for the mentally ill. Democrats opposed the plan, but James Dobbin's stirring speech carried the day and the bill passed, marking North Carolina's formal entry into the health services and health policy arena.

Nearly a century and a half later, James Dobbin is long gone and rarely remembered. But Dorothea Dix Hospital—up on Dix Hill overlooking the Capital City—remains both the legacy of Louisa Dobbin's nurse and a symbol of state involvement in providing health care for the citizens of North Carolina. But how did the state's role in health care progress from 1848—when there was

*John Drescher is a capital correspondent for* The Charlotte Observer.

essentially no state involvement in health care—to 1991, when fully one-fifth of the total state budget goes to health care?

Like most other states, North Carolina's formal role in providing and planning health care evolved slowly at first. For most of the 19th century, the only formal role was that of providing state appropriations for Dix Hospital and an institution for the deaf and the mute across the creek—what would become known as the Governor Morehead School. It would not be until 1877, when the State Board of Health was created, and 1879, when the medical school at the University of North Carolina was established, that the role became more formalized. But even then the state role was minimal, writes N.C. historian H.G. Jones, because the health board's "appropriation did not exceed two hundred dollars annually for eight years,"[1] and the two-year UNC medical school didn't fare much better.

Following the board's creation, sanitation and public health were the prime focuses of state efforts for the next three-quarters of a century. Under the supervision of the board and eventually the local health departments that ultimately served each of the state's 100 counties, "the state almost eliminated typhoid fever, diphtheria, smallpox, malaria, hookworm, and rabies as deadly diseases, and greatly reduced the ravages of tuberculosis, polio, and syphilis by distributing serums, vaccines, antitoxins, and medicine and by a campaign of health education."[2]

The campaign for better public health in North Carolina included efforts that environmentalists might challenge today, but at the time were thought essential: spraying and draining the swamps that bred billions of malaria-carrying mosquitoes. "That was a great victory for public health," says State Health Director Ronald Levine, director of the Division of Health Services in the N.C. Department of Environment, Health, and Natural Resources.

The duties of the state health department expanded over the years. By 1913, the department was keeping track of vital statistics and licensing nurses. By 1919, it was inspecting local hotels for health conditions, and eventually every public eating place in the state bore a certificate attesting to the health department's inspection findings. By 1938, the State Board of Health, working with local departments, had opened the first state-sponsored birth control clinics.

***Dorothea Dix Hospital, 1938***

*Department of Cultural Resources*

Gradually, as better sanitation practices bore fruit and many diseases were controlled or eradicated, the public health focus turned toward health promotion: distributing vitamins to fight nutritional deficiencies and promoting better diets as a way to avoid health problems (and by the 1970s that would include avoiding tobacco and alcohol and fat and red meat). "As the condition and relative prevalence of different diseases alter over time, the energy and resources that are in place in any one particular area change," says Levine. By the 1950s, the local health department was a routine stop for many North Carolina families. The annual summer typhoid shot, the tetanus shot, the polio vaccination, the blood test for those planning to get married, all were routine work for nurses at the health department.

For a period, the state was also a major health care provider, building and operating various state hospitals. There were state-run hospitals for patients with tuberculosis, polio, and other communicable diseases in addition to institutions for the mentally ill and for those with physical handicaps. But over the years many of those hospitals were closed. Some, like the TB and polio hospitals, were no longer needed when cures were developed. And in the 1970s, deinstitutionalization of many with mental problems eliminated the need for many beds in mental institutions.

***The changing attitude toward disease during this period is also illuminating. The cholera epidemics of 1832 and 1849 were interpreted by most Americans as a visitation of divine wrath, an explanation made plausible by the fact that the disease hit most heavily at the poor, filthy, and criminal elements in the population.***

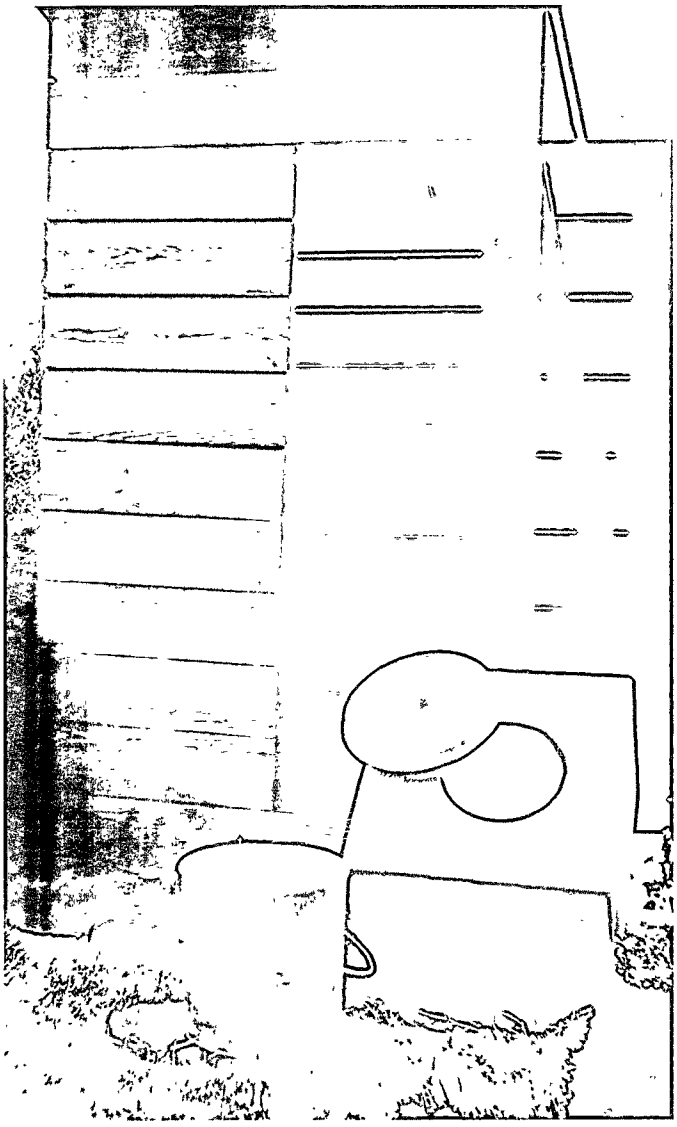
— The American Mind in the Mid-Nineteenth Century, by Irving Bartlett

Research by the N.C. Center for Public Policy Research in 1984 showed how the need for many human services institutions had declined as more and more patients were being treated in area programs and fewer were entering institutions. The Center found that two-thirds of the state's funding was being spent on institutions and only a third on community programs, while the population of the institutions was dropping by a fourth and participation in community programs was rising by more than one-third, from 1974–1983.[3]

The state was also playing a bigger role in planning health facilities. Entertainer and Big Band leader Kay Kyser launched his Good Health Campaign, focusing on the dramatic need for better health facilities and services in North Carolina, particularly for returning wartime troops. In 1944, Gov. J. Melville Broughton shook up the health care establishment by proposing an ambitious program to improve the state's medical schools and build more hospitals. "The ultimate purpose of this program should be that no person in North Carolina shall lack hospital care or medical treatment by reason of poverty or low income," Broughton told the UNC Board of Trustees on Jan. 31, 1944.

Though this goal remained unmet nearly a half-century later, Broughton's plan led to massive hospital-building. During a five-year period of construction between 1947 and 1952, more than 5,000 beds were added to the state's capacity (thanks in part to $885,500 from the Duke Endowment and to millions of dollars from the federal Hill-Burton Act[4]); numerous public health clinics and health centers had been added; and the forerunners of Blue Cross and Blue Shield of North Carolina, a nonprofit insurer that would become a major health care institution in the state, were greatly expanded.

Many of these same trends were occurring across the nation: Beginning with the bacteriology and sanitation movement of the late 19th century, moving into more sophisticated inspection and disease eradication services of the early 20th century, and finally into health promotion and facility-building programs and health services of the mid-20th century. Soon enough, a new national health crisis was clearly visible: questions about care and financing. As a landmark report on public health put it, "By the 1970s, the financial impact of the expansion in public health activities of the 1930s through the 1960s, including new public roles in the financing of medical care, began to be apparent.[5]



Department of Cultural Resources

***Sanitation problems were a key public health concern as state roles expanded.***

## The Explosion of Costs

That financing dilemma was becoming more apparent in North Carolina. When Barbara Matula started dealing with the state's fledgling Medicaid program in 1975, she could keep the details in her head. Eligibility? Federal match? Congressional mandates? "I knew all this," she sighs, scrambling for documents, "without my notebooks."

No longer. The infant that was Medicaid—the joint federal-state program to fund health care for the poor—has grown into a budget-eating monster that now costs the state more than $485 million a year—and when combined with federal and local funds, costs a total of $1.9 billion each year. For budget writers in the General Assembly, the 1970s were the good old days. In the last 20 years, North Carolina taxpayers have paid a larger share of the health bill as the state's role in providing care has expanded.

Consider how General Fund costs have grown from the 1970–71 budget year to 1990–91 in the five major health care spending areas:

- Medicaid, from $14 million to $487 million;
- the state employees health plan, from $23 million to $365 million;
- the Division of Health Services, which oversees dozens of programs administered by county health departments, from $8.5 million to $90 million;
- four state psychiatric hospitals and four mental retardation centers, from $52 million to $145 million; and
- nine Area Health Education Centers, which provide community-based education for medical students and other health professionals, from $1 million to $32.5 million.[6]

In all, during those 20 years the state's spending on health care rose about 1,000 percent. That growth was far faster than the growth in the cost of living, which rose 235 percent, and the state's General Fund budget, which grew 650 percent. Twenty years ago, 10 percent of the General Fund budget, which is supported by state taxes, went for health care. In 1990–91, 15 percent of the General Fund went for health care. This reflects a national trend in health care spending, which went from an estimated $230 billion in 1980 to more than $606 billion in 1990, and is projected to go to $1.5 trillion by 2000 (see article on page 48 for more).

The growth in health costs is even greater if one looks not just at the General Fund budget, but at the state's total operating budget, which includes federal aid and other sources. In 1970–71, 10 percent of the total state budget went for health care; in 1990–91, that share was up to 20 percent.

Such increases have legislators and program administrators wondering how to slow the growth. In doing so, they find themselves confronting issues of availability and cost—and just what the

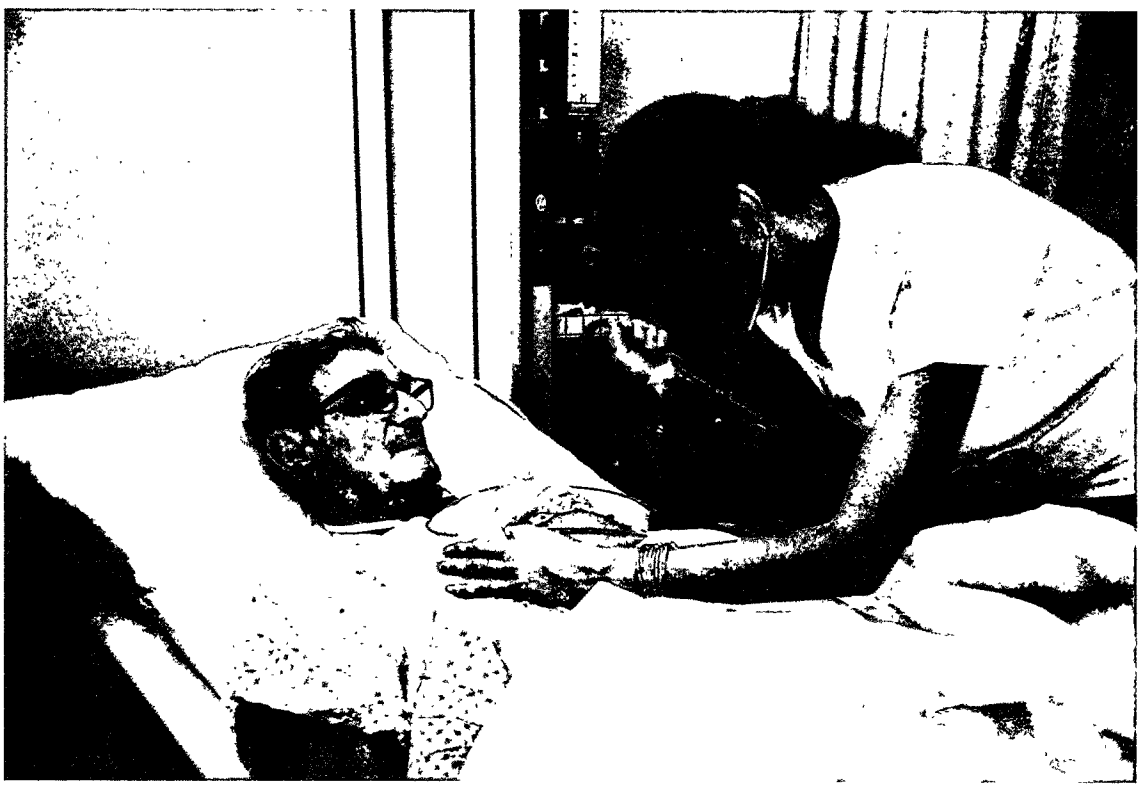
state's future role should be in providing health care.

The state has had to adjust to the changing needs of its citizens in many public policy issues, but nowhere is the changing nature of the state's role more dramatic than in health care. In recent years, state health officials have responded to the AIDS epidemic. They have responded to an aging population that increasingly relies on the state to pay for its long-term care. They have groped for ways to deal with vexing environmental problems, including ensuring adequate supplies of water and dealing with hazardous wastes. They have worked to save rural hospitals with empty beds, to supply physicians and other health professionals to needy areas, and to expand health training beyond the medical schools and teaching hospitals. These are just some of the new problems the state has faced as it takes on more responsibility for planning health care, administering services, paying bills or arranging for funding schemes, building facilities, training caregivers, and making health care policy.

***North Carolina's quandary over its future role is hardly unique.***

North Carolina's quandary over its future role is hardly unique. All states face many of the same questions over how to mesh current roles as providers, financiers, planners, and policymakers with the burden of future demands. A U.S. Institute of Medicine landmark report in 1988 grouped these demands into three categories: 1) immediate crises, such as the AIDS epidemic and providing care to the medically indigent; 2) enduring public health problems such as injuries (the leading cause of death in North Carolinians aged 1 to 45 and "the principal public health problem in America today"), teenage pregnancy, controlling high blood pressure, and smoking and drug and alcohol abuse; and 3) growing challenges such as dealing with toxic wastes, conquering Alzheimer's Disease and similar maladies that demand long-term care, and revitalizing the country's once-aggressive public health capacities.[7]

That report raised questions about the efficacy of current public health efforts after a long period of successes. It warned of "complacency about the



*UNC Hospitals*

need for a vigorous public health enterprise at the national, state, and local levels," and declared that the system today "is incapable of meeting these responsibilities, of applying fully current scientific knowledge and organizational skills, and of generating new knowledge, methods, and programs."[8]

## Six Vital State Roles in Health

The Institute of Medicine said the states "are and must be the central force in public health. They bear primary public sector responsibility for health."[9] To carry out that responsibility, the institute recommended six key functions and roles that each state should adopt:

1) To assess health needs "within the state based on statewide data collection;"

2) To assure that sufficient laws, rules, executive directives and policy statements are developed to provide for health activities in the state;

3) To create statewide health objectives and delegate sufficient power to local governments to accomplish them and hold local governments accountable;

4) To assure that adequate statewide health services—including environmental health and education programs—are available to the people;

5) To guarantee that a "minimum set of essential health services is available;" and

6) To support local efforts to provide services, "especially when disparities in local ability to raise revenue and/or administer programs require subsidies, technical assistance, or direct action by the state to achieve adequate service levels."[10]

In varying degree, North Carolina addresses these six roles thorough a combination of state statutes, policies, programs, planning agencies, funding arrangements, and data collection agencies—but there are gaps in how well it does so, as the following analysis indicates.

***Goal 1—Statewide Data Collection.*** For instance, a number of state-supported agencies collect massive amounts of data on the health status of the population. Just to mention a few, the State Center for Health Statistics in the Division of Health Services of the Department of Environment, Health, and Natural Resources; the N.C. Medical Database Commission in the Department of Insurance; and the Cecil G. Sheps Center for Health Services Research at UNC–Chapel Hill, are repositories of extensive health statistics which national and state researchers frequently use to make forecasts of health care needs. But there is no central agency charged with the responsibility to sift through all the data, assess state needs, and make recommendations to the General Assembly. Furthermore, legislation to designate such an agency failed in the 1991 General Assembly, although the Legislative Research Commission has been authorized to conduct a more limited study on public health needs.[11]

### Medicine

*Grandma sleeps with*
*my sick*
*grand -*
*pa so she*
*can get him*
*during the night*
*medicine*
*to stop*
*the pain*

*In*
*the morning*
*clumsily*
*I*
*wake*
*them*

*Her eyes*
*look at me*
*from under -*
*neath*
*his withered*
*arm*

*The*
*medicine*
*is all*
*in*
*her long*
*un -*
*braided*
*hair.*

— "MEDICINE" FROM ONCE,
COPYRIGHT © 1968 BY ALICE WALKER,
REPRINTED BY PERMISSION OF HARCOURT BRACE JOVANOVICH, INC.

Department of Cultural Resources

***Dental work being performed in Salisbury, 1919***

*Goal 2—Adequate Statutory and Regulatory Base.* North Carolina has a vast array of laws, rules, directives and policy statements on health care, and has just rewritten its public health policy to give a higher profile to the mission and services of the state public health system. The new statute, adopted by the 1991 General Assembly, takes no new direction or shift in policy, says Levine, but re-emphasizes the importance of public health to ensure that goals are met. The law identifies seven goals of public health: a) preventing health risks and disease; b) identifying and reducing health risks in the community; c) detecting, investigating, and preventing the spread of disease; d) promoting healthy lifestyles; e) promoting a safe and healthful environment; f) promoting the availability and accessibility of quality health care services through the private sector; and g) providing quality health care services when not otherwise available.[12] Levine says the local health departments, which in North Carolina are operated and funded more from local governments than in many other states, "should feel the responsibility of providing these [meeting the public health goals] directly or seeing there's an effective alternate scheme."

*Goal 3—Statewide Health Objectives.* A number of groups and officials have attempted to identify health objectives in North Carolina, among them the Division of Health Services and the proposed Task Force on Health Objectives. Thad Wester, deputy director of the Division of Health Services, says the effort is to produce 25 health objectives for the state for the year 2000. It is modeled loosely on the National Task Force on Health Objectives, set up by U.S. Health and Human Services Secretary Louis Sullivan. The objectives of the N.C. group, Wester says, should be targeted to the disadvantaged, be measurable, deal clearly with costs and benefits, emphasize local intervention, and fit North Carolina's specific health circumstances. "Those objectives will emphasize prevention of disease and illness through

lifestyle modification," says Wester. "It's a program designed to encourage individuals to take charge of their health and do things themselves to improve their health." In August 1991, Gov. James G. Martin created the Task Force on Health Objectives and began making appointments to it.[13]

In addition, North Carolina does have a state health plan that includes goals, and which the department has updated biennially. But how well it addresses health needs, and how well it is used by public health departments and other state agencies to identify objectives, provide care, and *meet* goals is a matter of some debate.[14]

***Goal 4—Adequate Statewide Health Services.*** North Carolina operates a vast array of state health services, including personal, environmental, and educational programs. A survey by the N.C. Center for Public Policy Research from May to September 1991 turned up more than 200 state programs and activities at work in the health care field, far more than similar programs the Center has researched in fields such as poverty, environment, insurance regulation, economic development, or corrections in the last five years. But this research also shows that the state health programs and services are spread over a variety of administrative structures and sometimes seem to overlap with other programs, raising questions whether the state has developed the most efficient administrative and service structure for its health programs.

The U.S. Institute of Medicine begged the question whether the state should be the *provider* of adequate statewide health services, or simply bear the responsibility for seeing that such services are provided by other agencies and institutions. Such a question has yet to be addressed directly by the N.C. General Assembly.

***Goal 5—Minimum Set of Health Services.*** North Carolina does not have a basic health care program available, though it does, as mentioned previously, operate hundreds of programs. Alone of the industrialized nations, only the United States and South Africa have not identified a basic set of health services they would make available to citizens through a form of national health insurance, although there have been occasional calls for creation of a basic health plan from time to time. Among the states, three—Washington, Minnesota, and Hawaii—have decided to subsidize basic health insurance projects for some of the uninsured, Massachusetts has launched an ambitious but financially troubled health plan for its uninsured citizens, and another eight states have begun encouraging private insurers to sell basic health care policies at low cost to the working poor.[15] The N.C. Institute of Medicine has recommended that North Carolina adopt a system similar to that of Hawaii.[16]

While each county in the state must offer certain basic health services, there may be a big gap between rural counties and urban ones, says Wake County Health Director Leah Devlin. "In larger counties, a lot of health services are offered that are not available in smaller counties," says

*UNC Hospitals*

## *Minimum Health Services Required by State Law:*

1. **Health Support:**
   a. Assessment of health status, health needs, and environmental risks to health;
   b. Patient and community education;
   c. Public health laboratory;
   d. Registration of vital events;

2. **Environmental Health:**
   a. Lodging and institutional sanitation;
   b. On-site domestic sewage disposal;
   c. Water and food safety and sanitation;

3. **Personal Health:**
   a. Child health;
   b. Chronic disease control;
   c. Communicable disease control;
   d. Dental public health;
   e. Family planning;
   f. Health promotion and risk education;
   g. Maternal health.

*Source: G.S. 130A-1.1, Mission and Essential Services (Chapter 299, 1991 Session Laws).*

Devlin. For a rundown of basic services offered at all public health departments in North Carolina, see table above.

***Goal 6—Addressing Disparities in Local Ability to Provide Health Services.*** While North Carolina does provide appropriations to local departments and health service agencies based on a formula that includes county size, it has not yet debated the concept of providing special funding to those counties which have greater needs and fewer resources to provide minimal services for their citizens. The N.C. General Assembly has adopted just such an equalization concept recently in education for the 10 smallest and poorest counties, and future sessions of the General Assembly might apply the same principle to disparities in health care in the needier counties.[17]

A 1985 study showed just how large the disparities can be from county to county in per capita spending on indigent health care. It ranged from a low of $7.36 in Randolph County to a high of $153.85 in Pender County—a huge difference. But the disparity was even higher in the total amount of indigent funding per recipient below the poverty level—from $386 in Currituck County to $2,791 in Stanly County.[18] Wake County's Devlin says developing a need-based formula for distributing health funds would help many counties, but she says such a formula should be based on more than just poverty status. "Public health needs may be greater in urban areas" than in rural areas, Devlin says. For instance, AIDS patients may gravitate to cities, creating a greater need for expensive health care.

In sum, North Carolina's record in fulfilling these six goals is mixed. It partially meets goals 1, 4, and 5; addresses but does not fully meet goals 3 and 6; and satisfies goal 2 fairly completely. If the U.S. Institute of Medicine's standards are comprehensive, then there obviously is much for the state yet to do in meeting its public health responsibilities.

During the 1991 legislative session, lawmakers might have provided a view of the future as they struggled with health issues and how to define the state's future roles. Some lawmakers pushed legislation to provide more care for the indigent. They required many companies to include coverage of mammograms and pap smears in their basic health insurance plans. They worked out an agreement that should make health insurance more affordable and available to employees of small businesses.[19] Such efforts can be expected to mark the beginning of a decade in which health care rivals education as lawmakers' toughest problem.

## Medicaid—The Driving Force in State Budget Increases

Any effort to evaluate the state's role in providing health care must address the enormous impact of Medicaid, which was started by President Lyndon Johnson and the U.S. Congress in 1965.[20] The federal government pays for most of the costs of Medicaid. The formula varies from state to state, depending on the wealth of the state, with poorer states getting more aid. In North

Carolina, the federal government pays for about 67 percent of the costs; the state requires counties to pay 5 percent; the state pays the difference, about 28 percent.

Medicaid began as a program to provide health care to those who receive welfare or Aid to Families with Dependent Children (AFDC)—mostly poor children and their mothers, as well as the aged, blind, and disabled poor. Nationally, the traditional Medicaid programs cover only about 35 percent of the poor because eligibility has been strict, and about 40 percent of Medicaid spending has gone to support the needs of about 7 percent of the eligible population—the elderly and the disabled who require long-term care. But over the years, Congress has expanded the program to include all children under 21 who live in households beneath the federal poverty level.[21]

All these factors, plus the effects of economic recession and inflation, have increased the number of people served in the state. In 1989–90, 545,000 North Carolinians received care funded by the program—up from the 388,000 who received care in 1977–78, the earliest year in which the state has records on the number of Medicaid clients. Legislators have complained about this growth. Many blame Congress for mandating expansion of the program. But the state also has contributed to rising costs because it, too, has increased the number who are eligible.

For example, Congress said in 1988 that states must provide Medicaid coverage to pregnant women and children in their first 12 months who lived at the poverty level or below. But North Carolina already was serving these women and children up to 150 percent of the poverty level. "We've been ahead of specific [federal] mandates since 1987 with our pregnant women and infant population," says Barbara Matula, director of the Division of Medical Assistance. The 1990 legislature extended coverage to all such women and children from families making up to 185 percent of the federal poverty level.

Legislators took such action because they wanted to lower the state's high level of infant deaths—worst in the nation in 1988 with a rate of

***God heals and the doctor takes the fee.***

— BENJAMIN FRANKLIN

*Duke Medical Center*

12.6 deaths per 1,000 births. The rate improved to 11.5 deaths per 1,000 births in 1989, and in 1990 to 10.6 deaths per 1,000 births, but the national average was 10 in 1989. The effort to improve that rate—through increasing Medicaid fees to obstetricians, for example—was effective, but costly. "First you make a conscious decision to raise the reimbursement rate to obstetricians," Matula says, "then you enroll 25,000 pregnant women and encourage them to use the care so their babies will be born healthier. Yes, you'll have higher costs. Why would you want to cut that? You've accomplished what you've intended to do. Sometimes the investments you make in medical care are to prevent larger expenses in the future."

## Other Cost Factors

That type of investment in future good health isn't limited to Medicaid. The state Division of Health Services also has grown quickly, although not as fast as Medicaid, as the state has offered more services through the 87 health departments serving the state's 100 counties, some through shared facilities. A few examples involve state spending to make children healthier:[22]

■ *Maternal and Child Health.* In the early 1970s, most local health departments provided care to pregnant women and young children on a limited basis or not at all, but that's changed. The number of pregnant women receiving care from health departments rose 80 percent from 1984 to 1990, from 21,000 to 38,000. State spending rose dramatically: $840,000 in 1970–71, to $10.6 million 20 years later.

■ *Food Program for Women, Infants and Children.* North Carolina began participating in this federal program in 1972; now 130,000 people are served each month. State spending for nutrition programs: $67,000 in 1970–71, to $1.9 million 20 years later.

■ *Family Planning.* The state first provided funding to health departments for preventive family planning in 1972. The program now includes promoting health prior to pregnancy; counseling couples to achieve pregnancy; and encouraging males toward responsible sexual behavior. About 135,000 people a year are served by these programs. State spending: nothing in 1970–71, $1.7 million 20 years later.

■ *Special Health Services for Children.* Once known as the Crippled Children's Program, this program provides medical care to children with chronic illnesses and developmental disabilities. In the last 20 years, the program has been expanded to cover more than 900 chronic conditions. The program now puts less emphasis on in-patient care for children and more on "ambulatory services," such as speech and physical therapy, home nursing, and nutrition counseling. About 15,000 children were served in 1990. State spending: $1 million in 1970–71, to $8.5 million 20 years later.

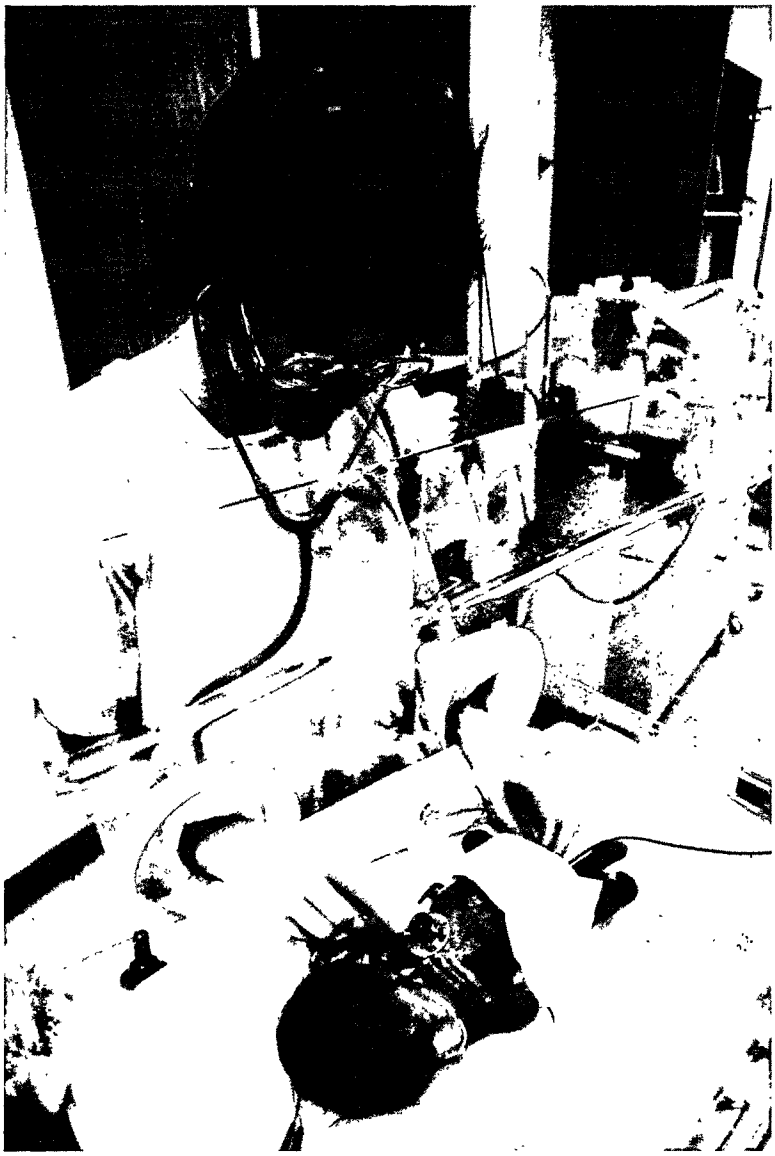
■ *Genetic Health Care and Sickle Cell Programs.* In 20 years, the Genetic Health Care and Newborn Screening Program has grown from serving 75 families a year to more than 7,000 families a year. The Sickle Cell Syndrome Program provides education, voluntary testing, genetic counseling, and financial assistance for medical care. State spending: nothing in 1970–71, $3.6 million 20 years later.

The expansion of programs in the Division of Health Services has not always occurred solely because of efforts to confront health problems more aggressively. Sometimes the state has responded to changes in the private sector that left people without care.

For example, more pregnant women are receiving care from public health departments. As health costs rose in the 1980s, some pregnant women lost their private insurance because they or their employers were unable to afford it. Levine, the state health director, says the state also had to pick up more of the tab due to "the tremendous loss of family practitioners performing obstetrical services because of the medical liability crisis." When physicians' malpractice insurance premiums went up dramatically in 1986, many family doctors quit delivering babies, especially to Medicaid patients in rural areas.

In particular, poor pregnant women have turned to local health departments for care. Four years ago, fewer than 20 percent of people served in Maternal and Child Health clinics were eligible for Medicaid; now 75 percent of those served are eligible. That has forced—or enabled—health departments to provide more services than they once did. "In a number of counties, it's like a doctor's office," Levine says.

The state's role in providing health care also has changed as new problems have arisen. In the last four years alone, as cases of AIDS and Hepatitis B have grown, the number of people reported to be infected with all diseases has doubled.[23] State funding for control of communicable diseases and sexually transmitted diseases has increased from $50,000 in 1970–71 to $4.5 million in 1990–91. "We're just having more we have to



Duke Medical Center

respond to. The problem is so much more than it was 10 years ago," said James Jones, assistant chief for administration in the N.C. Communicable Disease Control Section.

The state has moved in a similar fashion to confront trends in the availability of health care. Fearful that rural areas were losing physicians, about 20 years ago the legislature began a program of providing medical students with clinical internships and staff rotations in community hospitals. Now the state has nine Area Health Education Centers that serve all 100 counties.[24] Students in medicine, nursing, pharmacy, dentistry, and public health are trained at these centers; the local hospitals benefit by the care these students and their instructors provide for patients. The forerunners of the AHECs received about $1 million in 1970–71; 20 years later the centers received $32.5 million.

About the same time the AHEC system was started, Gov. James E. Holshouser Jr. launched the N.C. Office of Rural Health Services, now known as the Office of Rural Health and Resource Development in the Department of Human Resources. The first of its type, the office's mandate was to develop community-owned rural health centers, and to stimulate community practices based on the services of family nurse practitioners and physician assistants.

There's another reason why health care is swallowing more of the state budget: It simply costs more than it did two decades ago. This simple fact is best reflected in the increase in health insurance for state employees. In 1972–73, the state paid $13 a month per employee for health coverage; in 1990–91, it paid $108 a month per employee, an increase of 730 percent, more than triple the rate of inflation over the period. It will go even higher after action of the 1991 General Assembly (see pages 56 and 64 for more). Inflation itself has been high—4.7 percent a year, and health care costs have risen 10.4 percent per year for the last decade—and coverage has expanded, but the fact remains that state health insurance just costs a lot more.

Higher costs for health care aren't unique to state government, of course. Businesses are struggling with the same problem of trying to control expenditures for health care. Many people think of Medicaid as an out-of-control budget-eater, and that appears to be an accurate assessment, thanks to 1991's $113 million increase. But from 1985 to 1990, the average cost of corporations' health plans rose 85 percent—faster than state Medicaid costs for the same period.[25]

When it comes to the state supplying health insurance for state employees, "It's the same kind of thing that the banks, the tobacco companies, and the textile companies go through," says Alex McMahon, former president of the American Hospital Association, who now chairs Duke University's health administration program. "They don't understand why the costs keep going up on an annualized basis. There's just more technology, more things we can do for people. All of us seem to want every possible new thing there is on the market. The dichotomy we have is people want more and more services but they want somebody else to pay for them."

## Other States Reframe Their Health Care Roles

Across the country, states are evaluating their roles in providing health care. In many states, this new role also means attempting to control costs. Several states have considered reducing services to some Medicaid patients, generally to protect health services for children from poor families. Alaska has limited adult dental and chiropractic Medicaid services. Georgia required older Medicaid patients to make higher co-payments for drug prescriptions and outpatient hospital visits. New York cut programs for non-Medicaid indigent care.[26] While some services have been cut, others have been expanded, in some cases reflecting a new state emphasis on health promotion and prevention of health problems. Several states have tried to make it easier for small businesses to provide health insurance for their employees, as has North Carolina.

The National Governors' Association approved its own plan in August 1991 listing state options for increasing access to care and controlling costs. In particular, the governors proposed that health care be available to all Americans by the year 2000, and that the federal government should bear the costs of long-term care for the aging and the chronically ill (see article on cost containment, pp. 48–66, for more on this report).[27]

North Carolina is struggling with many of these same issues on cost containment, minimum services, and the like. Interviews with officials who study health care suggest two competing scenarios. Some believe that the federal government is on the verge of tackling the questions of avail-

***The nursing class of 1930 graduates at the State Hospital in Raleigh.***

*Department of Cultural Resources*

ability and cost, freeing the state to address other problems in health care. Others believe Congress is incapable of solving problems in health care—leaving the states to find solutions. *Either way, the state seems likely to play a greater role in health care in the 1990s.*

## What New Roles Should North Carolina Take?

The six goals recommended by the U.S. Institute of Medicine as key targets for each state should be embraced by North Carolina's health care system as well. They represent a broad, well-defined approach to ensure systematic planning for adequate health care for the state's 6.6 million people. But in addition to the six broad goals that the state *ought to adopt,* there are four more emerging roles that *are being forced* upon the state—(1) ensuring access to care, (2) cost containment, (3) health promotion, and (4) rural health.

***A State Role in Access to Care.*** Research has shown that more than one million North Carolinians go without insurance at least some time during the year, and many more have inadequate health insurance coverage. Many more U.S. citizens often avoid getting health care because of the expense—and putting off needed care can result in worsening health problems later on. As the article on access to care and health insurance on pages 21–41 indicates, this is a complex and growing problem in North Carolina—and one that state policymakers need to examine.

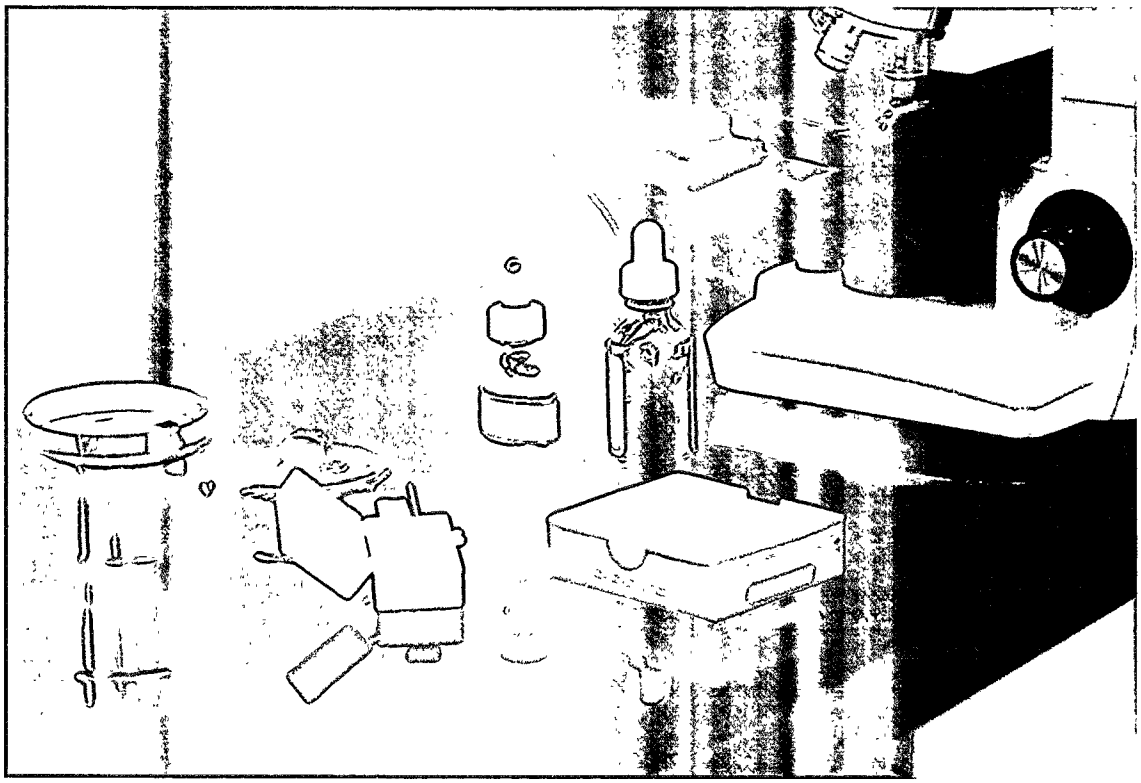
The range of options the state could consider, as outlined in more detail on pages 38–41, include legislative action to broaden insurance coverage but leave it up to employers to decide whether to offer insurance; adopt a "pay or play" approach requiring employers either to offer health insurance or pay into a public fund to provide such coverage; go to a single-payer system with the state acting as a huge insurer; or decline to make changes and hope the problem does not worsen.

***A State Role in Cost Containment.*** There are signs Congress is about to take on health care problems. Senate Democrats have prepared legislation to overhaul the system by limiting spending and providing health insurance for everybody. Under Senate Majority Leader George Mitchell's (D-Maine) plan, employers would have to provide a core package of employee health benefits or pay a tax to help finance coverage for the uninsured.[28] Mitchell's plan would replace Medicaid with a state and federal program called AmeriCare that would offer a health package to citizens who can't get insurance through their employers. AmeriCare beneficiaries would be charged a premium based on income, with the poorest not paying for coverage. To slow the increases in costs, Mitchell's plan creates a national panel to negotiate spending limits with both care providers and those who receive care.

Duncan Yaggy, chief planning officer at Duke Medical Center, says the state should not expect help from the federal government any time soon. The issue is too difficult for national politicians to handle, he says. "It's a no-win proposition," Yaggy says. "You can't deal with the financing of health care sensibly without reducing existing benefits or increasing the portion of health care costs funded out of taxes. People inside the Beltway don't want to do either." Consequently, he believes states will be forced to deal with the problems. That will lead to painful discussions aimed at making citizens choose between two apparently contradictory beliefs: (1) that every citizen has a right to health care, and (2) that health care is too expensive, so not everyone can have it even though they believe they have a right to it.

For example, Yaggy points to discussions in Oregon about whether some organ transplants and other medical procedures should be funded by the public. Americans have shown little taste for discussions of rationing health care. After discussing the astronomical amounts spent to keep the elderly alive in their last years, "That's usually where the conversation ends because then people have to start talking about their mothers and grandmothers," Yaggy says. Nonetheless, he believes states will be forced to have such conversations—and make decisions. Holding such debates and making such decisions likely will renew the debate about North Carolina's Certificate of Need (CON) process, which is designed to hold down health care cost increases (see article on page 48 for more) and other cost containment programs.

Some are skeptical about whether states can tackle the problems. Deborah A. Stone, Brandeis University professor of law and social policy, argued at a conference at Duke University in 1991 that states lack enough freedom from the federal government to innovate in health policy.[29] States have little hope of controlling their biggest health expense, Medicaid, because of federal mandates, she said. "It may well be that there are some policy problems simply too big for states to handle," Stone said. "We have a health policy system that



Karen Tam

is federally dominated, so that the federal government directs and constrains state government innovations, even as the reigning ideology celebrates the importance of state and local innovation."

Others raise flags at increasing state involvement. North Carolina legislators are getting into the debate. For example, legislators agreed this year that employers should be required to include the cost of mammograms, which detect breast cancer, in their basic health insurance packages. Yet others argue for restraint. "That's the tendency, for political figures to try to solve every problem with a new law," says McMahon, the head of Duke's hospital administration program. "It's going to add costs. Is it worthwhile? The people in favor of it say yes, but the employers are much more cautious. They know what the costs are.... It turns into some very real problems if we insist that our employers do something employers in Virginia and South Carolina don't have to do. Then we have real problems of interstate competition."

Yet many people who follow health care issues don't see the state retreating. Some state officials hope the federal government will help solve the twin problems of health care availability and health care costs, freeing the state for other health-care challenges. "If they solve the problems of financing care for all, we may be able to reorient some of those [state] resources into prevention," says Levine, the state health director. "I think public health is going to move more into the traditional role of prevention. Public health has a huge job to make [age] 65 [seem] young, which is possible and we will be concentrating on."

***A State Role in Health Promotion.*** Levine envisions a new state emphasis on promoting health through nutrition counseling, physical fitness and injury prevention. The Division of Adult Health Services, established in 1981 to promote health and prevent disease, estimates that only 20 percent of the deaths among 18- to 64-year-olds are from natural causes; the remainder of the deaths are controllable—or can be influenced—through such changes as an altered lifestyle or different environment.[30]

Compared to many countries, the American lifestyle is unhealthy. Compare it to, say, China. In the largest city in China, Shanghai, the life expectancy at birth is 75.5 years. In New York City, the United States' largest city, the life expectancy is 73 years for whites and 70 for non-

## What the Doctor Said

*He said it doesn't look good*
*he said it looks bad in fact real bad*
*he said I counted thirty-two of them on one lung before*
*I quit counting them*
*I said I'm glad I wouldn't want to know*
*about any more being there than that*
*he said are you a religious man do you kneel down*
*in forest groves and let yourself ask for help*
*when you come to a waterfall*
*mist blowing against your face and arms*
*do you stop and ask for understanding at those moments*
*I said not yet but I intend to start today*
*he said I'm real sorry he said*
*I wish I had some other kind of news to give you*
*I said Amen and he said something else*
*I didn't catch and not knowing what else to do*
*and not wanting him to have to repeat it*
*and me to have to fully digest it*
*I just looked at him*
*for a minute and he looked back it was then*
*I jumped up and shook hands with this man who'd just given me*
*something no one else on earth had ever given me*
*I may even have thanked him habit being so strong*

— Raymond Carver

From the book, A NEW PATH TO THE WATERFALL

Copyright © 1989 by the estate of Raymond Carver. Used with the permission of Atlantic Monthly Press. Raymond Carver died of cancer in 1988.

whites.[31] Cost comparisons are tricky, but in Shanghai, each person receives the equivalent of $38 worth of health care each year, on average; in the United States, we each receive an average of $2,400 worth of care each year. If a Shanghai resident needs dialysis, a coronary bypass or an organ transplant, he or she likely won't get it. The person probably will die. But the Chinese live longer because they get plenty of exercise, have low-fat diets, avoid alcohol and drugs, and are highly unlikely to be murdered or killed in a car accident.

"In order to get people healthier and keep them healthy, increasingly you're not talking about vaccinations. You're talking about [altering] lifestyles," said Yaggy, the Duke official who once served as assistant health commissioner in Massachusetts.

Even if the federal government is successful in overhauling the health care system, the state probably will continue to have a strong role in financing health care. For example, the state can expect to continue paying to care for the poor. Medicaid might be changed and given a new name, but costs will live on.

***A State Role in Rural Health.*** Other problems will remain. As the article on page 67 indicates, rural hospitals in North Carolina are in trouble and shortages of physicians persist. Sixteen rural hospitals are at risk of failing to meet their service missions, and hundreds of vacancies exist for a variety of health professionals. The health of rural care facilities, and the lack of providers, will be a prime concern of state officials and policymakers in the future.

No one believes the roles of the state will diminish. Duke's Yaggy notes that states historically have filled the gaps in providing care. For decades, even into the 1950s, when parents didn't know what to do with mentally ill or retarded


*Duke Medical Center*

children, many simply dropped them off at state institutions and abandoned them for life. The role of the states has changed enormously since then, but gaps remain and may become larger, says Yaggy. "I think the state's role is going to grow."

That greater role is appropriate for the states, said the Committee for the Study of the Future of Public Health. The committee urged states to take a leadership role in planning and providing for health care. "In fulfilling the public health mission," the committee said, "states are close enough to the people to maintain a sense of their needs and preferences, yet large enough to command in most cases the resources necessary to get the important jobs done."[32]

## FOOTNOTES

[1] H.G. Jones, *North Carolina Illustrated,* The North Caroliniana Society, 1983, p. 264.

[2] Hugh T. Lefler and Albert Ray Newsome, *History of a Southern State,* UNC Press, 1954 (third edition, 1973), p. 677.

[3] For more, see Michael Matros and Roger Manus, "From Institutions to Communities," *North Carolina Insight,* Vol. 7, No. 1, June 1984, pp. 42–54.

[4] 42 U.S. Code 291, et seq. For more on this subject, see Lori Ann Harris, "The Hill Burton Act," *Comparing the Performance of For-Profit and Not-For-Profit Hospitals in North Carolina,* N.C. Center for Public Policy Research, 1989, pp. 42–45.

[5] "A History of the Public Health System," *The Future of Public Health,* the U.S. Institute of Medicine, National Academy Press, Washington, 1988, p. 69.

[6] Figures supplied by the N.C. Office of Budget and Management. The 1970–71 cost for the state employee health plan cannot be determined, so the figure used was for 1972–73. The 1970–71 figure for AHECs is an estimate based on the sum spent by precursor agencies to the AHECs.

[7] *The Future of Public Health,* pp. 19–31.

[8] *Ibid.,* pages 19 and 31.

[9] *Ibid.,* p. 143.

[10] *Ibid.,* p. 143.

[11] Senate Bill 367, sponsored by Sen. Russell Walker (D-Randolph) would have authorized a Public Health Study Commission with broad authority to assess health status and health needs and report to the 1993 General Assembly, but the bill was not approved. However, an LRC study commission was authorized by Chapter 754 of the 1991 Session Laws (SB 917, Part II, Legislative Research Commission, item 11, Effectiveness and Efficiency of the Public Health System's Delivery of Health Services to the Citizens of the State). The Legislative Research Commission has approved funds for such a study.

[12] Chapter 299 (House Bill 499) of the 1991 Session Laws, codified in G.S. 130A-1.1.

[13] Executive Order Number 148, Aug. 6, 1991, issued by Gov. James G. Martin.

[14] See "Consolidated Plan for Public Health Services FY 90," Department of Environment, Health, and Natural Resources, September 1989.

[15] "'Basic' State Health Insurance Plans: No Substitute for a National Program," Public Citizen Health Research Group *Health Letter,* Vol. 7, No. 3, March 1991, p. 7.

[16] "Strategic Plan to Assist the Medically Indigent of North Carolina," Report of the Task Force on Indigent Care, N.C. Institute of Medicine, July 1989.

[17] Chapter 689 of the 1991 Session Laws (HB 83, p. 138), provides supplemental funding of $4 million per year for small county school systems (less than 3,000 students) and $6 million a year for county systems with high-tax effort, but low tax income. The total supplement available for the biennium is $20 million.

[18] See Chris Conover, "Indigent Health Care North Carolina County Profiles," prepared for the Indigent Health Care Study Commission, Center for Health Policy Research and Education, Duke University, July 1986. See specifically Tables 11 and 12, pp. 22–25.

[19] HB 1215, sponsored by Rep. Nick Jeralds (D-Cumberland), and SB 908, introduced by Sen. Russell Walker (D-Randolph) would have taxed hospitals to provide indigent care. Chapter 490 of the 1991 Session Laws (HB 347), sponsored by Rep. Anne Barnes (D-Orange), requires insurance companies to pay for mammograms and pap smears. Chapter 630 of the 1991 Session Laws (HB 1037), introduced by Rep. Thomas Hardaway (D-Halifax), makes health insurance available for more employees of small businesses, defined as those with three to 25 employees.

[20] Title XIX, Social Security Act, 42 U.S. Code 1396 *et seq.*

[21] Tony Hutchison, "The Medicaid Budget Bust," *State Legislatures* magazine, National Conference of State Legislatures, June 1991, p. 11.

[22] See "Changes in Maternal and Child Health Programs Over the Last Twenty Years," internal memo prepared by the staff of the N.C. Division of Health Services, undated, pages 1–5.

[23] Memo from James A. Jones, assistant chief for administration, Communicable Disease Section, to J.N. MacCormack, director, N.C. Epidemiology Section, May 31, 1991, page 1.

[24] The nine Area Health Education Centers were first authorized in 1974 through the main appropriations bill, according to Jim Newlin, an analyst with the Fiscal Research Division of the N.C. General Assembly. See Chapter 1190 of the 1973 Session Laws (Second Session 1974).

[25] Hutchison, p. 12.

[26] Kathleen Miller, *Governor's Weekly Bulletin,* National Governors' Association, March 29, 1991, p. 4A.

[27] "Report of the Health Care Task Force," National Governors' Association, August 18, 1991.

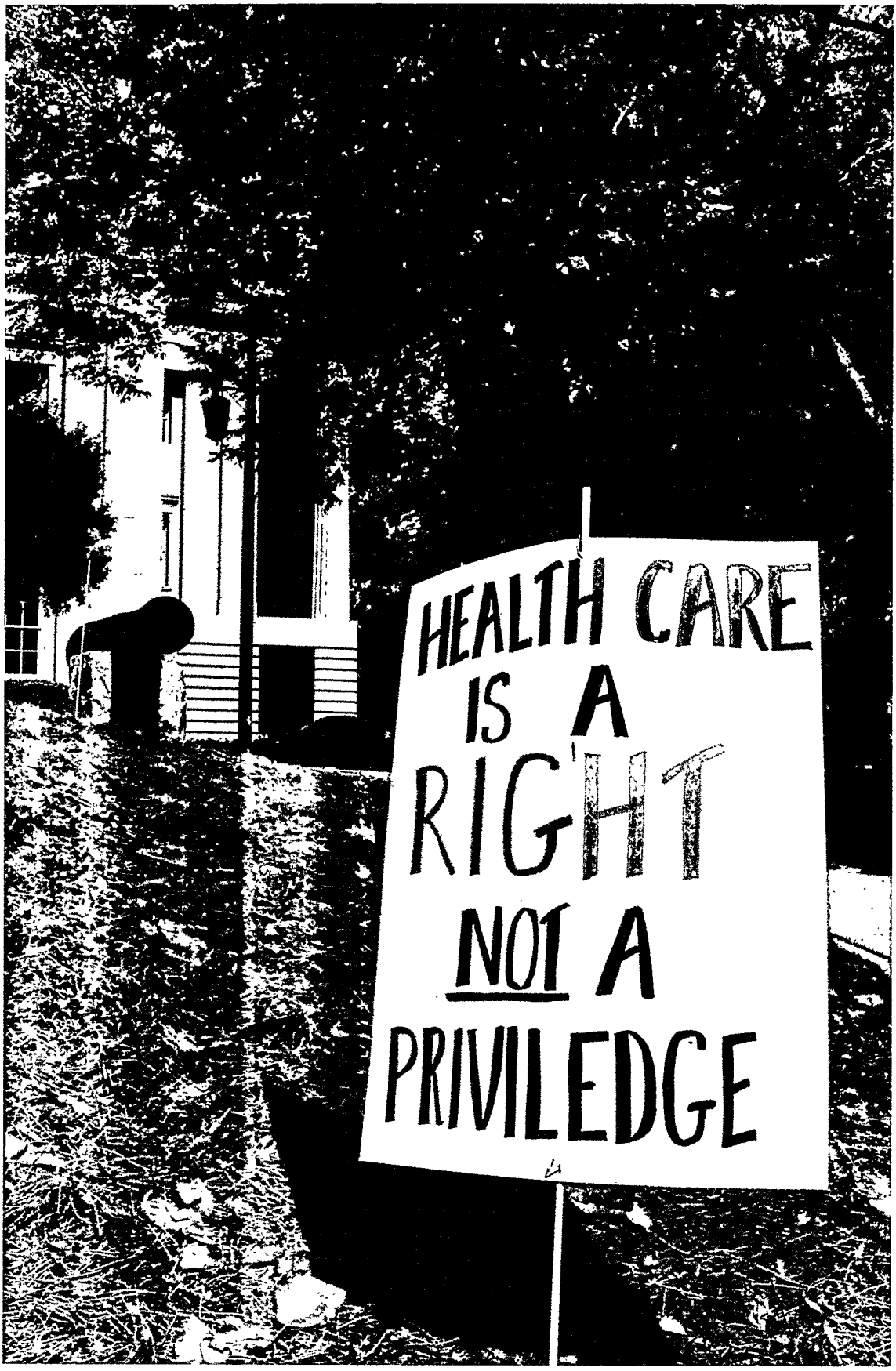
[28] SB 1227, introduced by U.S. Sen. George Mitchell (D-Maine). For a general description, see Hilary Stout, "Senate Democrats Ready Legislation to Overhaul the Health-Care System," *The Wall Street Journal,* May 20, 1991.

[29] Deborah A. Stone, "State Innovation in Health Policy," prepared for the Ford Foundation Conference on The Fundamental Questions of Innovation, Duke University, May 3–4, 1991, pp. 30–31.

[30] Memo from Georjean Stoodt, N.C. Division of Adult Health Services, to Thad Wester, May 31, 1991, pages 1 and 4.

[31] Nicholas D. Kristof, "Chinese Grow Healthier From Cradle to Grave," *The New York Times,* April 14, 1991, p. A1.

[32] *The Future of Public Health,* p. 143.




*Karen Tam*

# Spreading the Risk and Beating the Spread: The Role of Insurance in Assuring Adequate Health Care

by Chris Conover and Mike McLaughlin

*North Carolina has seen unprecedented Medicaid expansion in recent years, and yet the problem of the uninsured and underinsured continues unabated. Nearly 29 percent of the state's 6.6 million citizens now face the threat of being unable to pay for medical care because they have too little health care coverage. This article examines why sweeping segments of the state's population have little or no coverage and the consequences for the health care system and for the economy.*

North Carolina's system of health care coverage is in some ways like a quilt —the patchwork made up of the hundreds of private providers and the public system, Medicare and Medicaid. The image of a quilt is a comfort in the face of accident or illness. At least there is the assurance that the bills will be covered, even if we lose our health.

But this quilt has great gaping holes in it, and the moths are feeding. The sense of security it provides may well be false. Consider these facts:

■ Of North Carolina's 6.6 million citizens, 1.9 million have too little health care coverage—most of them working people.[1] Of these, 1.2 million have no health coverage at some point during the course of the year and 700,000 have too little coverage. These are the medically indigent—people who in the event of accident or illness may not be able to pay for their medical care.

■ Even those who are insured have no assurance that they will always have affordable insurance or that the insurance they do have will pay for treatment doctors recommend as the best hope for recovery from an illness.

■ Businesses confronted with rising health insurance costs are shifting more of the cost to

*Chris Conover, research associate at the Duke University Center for Health Policy Research and Education, conducted research on the medically indigent problem for this article. Mike McLaughlin is associate editor of* North Carolina Insight.

employees, who increasingly are giving up their own insurance or forgoing family coverage.

What kinds of problems does this lack of coverage cause, and what is to be done about it? Is there a state solution, or must the problem of inadequate health care coverage be addressed at the national level? These vexing questions are at the heart of the health care reform movement, and practical answers are not easy to come by. But the first step toward a solution is to establish the scope of the problem. Who are the medically indigent, and why do we have so many of these people?

## Who Are the Medically Indigent?

One sizable component of the medically indigent population is *people who do not pay for care during the year.* Of the 4.7 million North Carolinians who visited a doctor in 1990, for example, nearly 700,000 left behind unpaid bills.[2] More than 100,000 of these were charity cases for which doctors expected to receive no reimbursement. The rest were financial hardship cases in which doctors agreed to accept reduced charges, bills that were paid in part, and bad debt. The numbers do not include the 438,000 Medicaid recipients who visited the doctor in 1990 or negotiated price reductions that reflect a volume discount, such as preferred provider arrangements.[3]

Hospitals also absorbed a healthy share of non-paying patients. Some 150,000 of 800,000 patients left behind unpaid bills in 1990, and hospitals had to write off the entire stay of 80,000 of these patients.[4] Again, the numbers exclude 140,000 hospital patients covered by Medicaid.

Besides those who can't pay their bills, there are thousands of others—most of whom are poor—whose finances are severely strained by medical expenses.[5] Extrapolating from national data, more than 350,000 people in North Carolina live in families that spend more than 15 percent of their income on health care. Of these, more than 200,000 spend 25 percent of their income or more on health care.[6] Federal poverty guidelines are written assuming that medical expenses absorb 4 to 6 percent of a family's annual income.[7]

But these figures, while alarming, probably understate the magnitude of the health coverage problem. "A lot of people can't go to a physician when they get sick," says Dr. Thad Wester, deputy state health director. "The economically compromised often postpone health care."

A better measure of the medically indigent adds those who would have left behind a medical bill if they had gotten sick, and those who failed to get medical care even though they needed it. These can be called *the medically indigent at risk*—people who are at relatively high risk of being unable to pay their medical bills.

All but the extremely wealthy face some risk of being unable to pay their medical bills. For example, even the best insurance will not pay for experimental treatments, which can bankrupt a typical family. But the uninsured and under-insured face the greatest risk, with the under-insured defined as those with enough holes in their plans that they could easily end up spending more than 10 percent of family income on medical expenses.

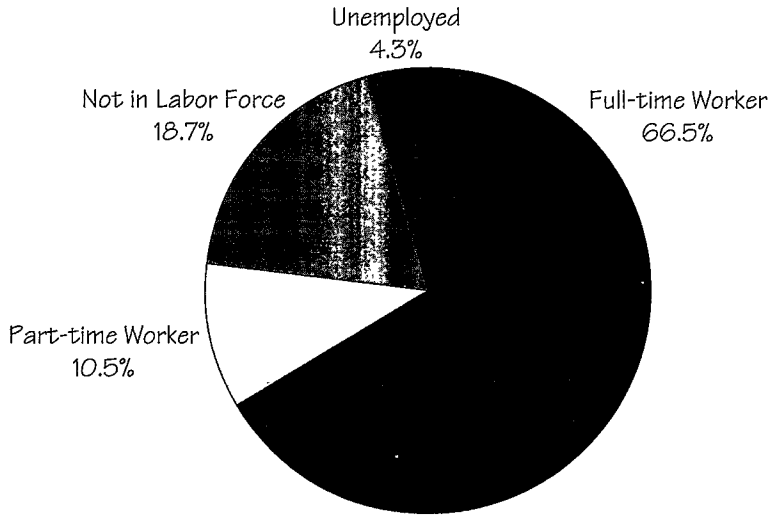
Including both the uninsured and under-insured, there are nearly 2 million people in North Carolina who are medically indigent. These include four different groups: 1) the uninsured all year; 2) the uninsured part of the year; 3) the under-insured with private insurers; and 4) the under-insured enrolled in Medicare. In North Carolina, the ***uninsured*** comprise nearly two-thirds of those at risk, with 1.2 million people uninsured at some point over the course of the year and 885,000 uninsured on any given day.[8] Half of these uninsured have had no health coverage for the entire year and more than 240,000 have not had health coverage for nearly three years.[9]

Of the ***under-insured,*** some 400,000 have private coverage and roughly 300,000 rely exclusively on Medicare to pay their medical bills.[10] These people are considered to have inadequate coverage because Medicare typically pays only 45 percent of medical bills for its elderly participants.[11] Unless a participant has a policy to fill the gaps, the patient may be unable to pay the remaining bills. Because Medicare participants typically are in poorer health than the younger uninsured, they often have higher out-of-pocket medical costs.[12]

***"I firmly believe that if the whole materia medica could be sunk to the bottom of the sea, it would be all the better for mankind and all the worse for the fishes."***

— Oliver Wendell Holmes

**Figure 1. Workers and Their Dependents as a Proportion of the Uninsured**




*Data prepared by Duke University Center for Health Policy Research and Education*
*Source:* Current Population Survey, 1988-1990

"Medicare has, I think, failed to do what it is designed to do—meet the health care needs of the elderly and disabled," says Barbara Matula, director of the N.C. Division of Medical Assistance in the Department of Human Resources. The elderly can get many of their remaining medical expenses covered by Medicaid, which is funded by the state—if they are poor enough. A working elderly or disabled person making more than $241 per month isn't eligible without spending excess income on medical bills first. "We are clearly the reinsurers for them," says Matula.

Medicaid recipients are medically indigent by definition. Unless they meet strict guidelines on income and assets, they aren't allowed to participate. Nearly 29 percent of the state's 6.6 million citizens can be considered medically indigent when Medicaid recipients are added in with the rest of the state's uninsured and under-insured.

But though Medicaid is designed to provide health coverage for the poor, it doesn't cover all of them. Estimates are that 48 percent of North Carolina's poor are covered by Medicaid at some point during the year, with about a third of these participants enrolled all year. About 30 percent of the poor can never qualify for Medicaid because of federal eligibility restrictions.[13] Medicaid is targeted at single-parent families, two-parent families with an unemployed breadwinner, pregnant women, children, the disabled, and the elderly.

***In recent years, the growth in the insurance problem has come among people who work, while the number of uninsured poor has actually dropped.***

People who do not fit these categories need not apply.

In addition, there are people who are technically eligible for Medicaid but decline to participate. National studies estimate that only 76 percent of those eligible participate in Medicaid.[14] If this is true for North Carolina, about one in six poor people are passing up health care coverage for which they could qualify.

The poor and near-poor make up a sizable segment of the medically indigent at risk, representing 40 percent of the uninsured and 52 percent of the under-insured. Still, it is clear that poor people aren't the only ones with too little health care coverage. In fact, 40 percent of the uninsured and more than 25 percent of the under-insured have incomes above 200 percent of poverty.[15] *In recent years, the growth in the insurance problem has come among people who work, while the number of uninsured poor has actually dropped.* (Figure 1, page 23, shows the proportion of the uninsured who are workers and their dependents.)

## Table 1. Percent of Population Uninsured in Each State, 1988

| | Percent Uninsured | Number Uninsured | State Rank in % Uninsured* |
|---|---|---|---|
| New Mexico | 22.8 | 345,509 | 50 |
| Arkansas | 21.8 | 519,163 | 49 |
| Texas | 21.4 | 3,621,720 | 48 |
| Florida | 18.4 | 2,199,960 | 47 |
| Oklahoma | 18.0 | 592,995 | 46 |
| Mississippi | 17.9 | 472,365 | 45 |
| Arizona | 17.7 | 608,444 | 44 |
| Nevada | 17.3 | 172,097 | 43 |
| Louisiana | 17.3 | 778,919 | 42 |
| California | 17.2 | 4,737,675 | 41 |
| Idaho | 16.4 | 165,419 | 40 |
| Montana | 15.9 | 129,258 | 39 |
| Alaska | 15.8 | 85,903 | 38 |
| Alabama | 15.1 | 615,680 | 37 |
| Kentucky | 14.9 | 555,113 | 36 |
| South Dakota | 14.7 | 104,051 | 35 |
| Oregon | 14.6 | 397,160 | 34 |
| Tennessee | 14.2 | 687,400 | 33 |
| **North Carolina** | **13.8** | **883,308** | **32** |
| Indiana | 13.6 | 751,116 | 31 |
| Colorado | 13.0 | 428,555 | 30 |
| West Virginia | 12.9 | 245,160 | 29 |
| Washington | 12.8 | 579,781 | 28 |
| Georgia | 12.6 | 788,513 | 27 |
| South Carolina | 11.9 | 406,552 | 26 |
| Utah | 11.7 | 198,706 | 25 |

Since 1985, the state has expanded Medicaid enrollment by 52 percent, and the number of uninsured poor has fallen. Still, the *overall* number of uninsured has not declined, which implies that every poor person now covered by Medicaid has been replaced by a person with a higher income. In the early 1980s, nearly half of the uninsured were poor and fewer than one in five were middle income or higher. Now less than one-third are poor and more than a third are middle income or higher.

## Workers Dropping Health Insurance?

Why this shift in the uninsured population? Part of the problem is workers forgoing health insurance for themselves or for their families. Faced with rising costs, many employers are cutting benefits or passing more of the cost of health insurance to their employees. Some of these employees are electing to drop coverage. "[More than] a third of those without health insurance are earning twice the poverty level," says Allen Feezor,

| | Percent Uninsured | Number Uninsured | State Rank in %Uninsured* |
|---|---|---|---|
| New York | 11.5 | 2,049,755 | 24 |
| Wyoming | 10.9 | 54,968 | 23 |
| Virginia | 10.8 | 637,029 | 22 |
| Nebraska | 10.5 | 168,268 | 21 |
| Missouri | 10.5 | 533,342 | 20 |
| Kansas | 10.4 | 257,374 | 19 |
| Delaware | 10.2 | 65,178 | 18 |
| Illinois | 10.1 | 1,164,471 | 17 |
| New Hampshire | 9.9 | 105,203 | 16 |
| Ohio | 9.6 | 1,031,230 | 15 |
| Maryland | 9.5 | 430,254 | 14 |
| Vermont | 9.2 | 50,256 | 13 |
| New Jersey | 8.3 | 638,403 | 12 |
| Michigan | 8.2 | 756,414 | 11 |
| Hawaii | 8.1 | 87,669 | 10 |
| Pennsylvania | 8.0 | 949,608 | 9 |
| Iowa | 7.9 | 222,017 | 8 |
| Maine | 7.8 | 92,123 | 7 |
| Wisconsin | 7.6 | 361,781 | 6 |
| North Dakota | 7.5 | 50,447 | 5 |
| Massachusetts | 7.3 | 424,868 | 4 |
| Rhode Island | 7.2 | 71,051 | 3 |
| Minnesota | 6.6 | 282,003 | 2 |
| Connecticut | 5.8 | 186,011 | 1 |

* States are ranked according to the percentage of their citizens without health insurance, with 1 being the state with the lowest number of uninsured (Connecticut). Ties in percentages are due to rounding only.

*Source: Lewin/ICF Health & Sciences International Co., 1090 Vermont Ave. N.W., Suite 700, Washington, D.C. 20005, (202) 842-2800.*

UNC Hospitals

deputy commissioner of the North Carolina Department of Insurance. "And 10 percent are earning above $30,000 and still will not purchase health insurance. They spend the money on something else."

Most of these uninsured workers are young, and many forgo dependent coverage. They trust that they can pay the bills out of pocket, and Medicaid is the insurer of last resort for their children.

But the problem is far broader than people passing up health insurance. National figures show that the vast majority of workers who are offered health insurance accept the coverage being offered. Only about 10 percent of all workers refuse coverage and half of those refuse because they have coverage elsewhere.

On the average day, 465,000 workers are without health care coverage in North Carolina. When dependents are included, they make up about three-fourths of the uninsured population on a given day. Two-thirds of these uninsured workers are without coverage because they were not offered a plan.[16] Another sixth were ineligible for the employer plan either because they were part-time or seasonal employees or because they had to complete a waiting period to qualify for coverage. The remaining sixth declined coverage even though they had no other source of insurance.

Not surprisingly, workers who earn the least are the ones least likely to get coverage through their employer. Fully one-fourth of workers earning less than $5,000 a year are uninsured, compared to one in 20 workers earning $50,000 or more. And most of those workers with the lowest earnings who *are* insured get their coverage from someone besides their employer. Only one in eight workers with the lowest earnings get coverage through their job, compared to nearly 80 percent of the highest-paid workers.

Part of this may be explained by the fact that health insurance is a very expensive benefit. For example, the cost of the State Employees Health Plan is $1,600 a year for individual coverage and $4,200 for family coverage. A minimum-wage employee who works full-time all year earns only $8,840.[17] Giving this employee individual coverage comparable to that offered by the state would cost as much as an 18 percent wage increase, while family coverage would be worth 48 percent of the employee's wage. And an employee earning the minimum wage typically is in no position to help shoulder the burden of health insurance costs.

Of course many of these employees work part-time and may look to other sources of coverage besides the employer. Low-wage workers may be covered by Medicaid, by a spouse's policy, or they may be dependents covered by their parents. Only one in 10 full-time workers is uninsured, while part-time workers and full-time workers who are employed less than a full year account for more than half of all uninsured workers.

Besides being the lowest paid, uninsured workers also tend to be less educated. Only half of those with less than an eighth-grade education get coverage through their employers, and nearly a fourth of these workers are left without coverage, even though they are *more* likely to qualify for other coverage such as Medicaid.

## Employers Who Don't Offer Coverage

Among employers, small businesses are the least likely to offer coverage. Indeed, a recent national survey showed that virtually all large firms with more than 500 employees now offer health insurance.[18] Even among middle-sized employers with 25 to 99 employees, the chances are 19 out of 20 that they will offer a health insurance plan. The big drop-off comes at the threshold of fewer than 25 employees. Three-fourths of employers with 10 to 24 employees offer plans, while only a third of those with less than 10 employees provide health insurance.

Employers often cite cost when asked why they do not provide health insurance.[19] They either have concerns about current or future health care costs or they feel that profits are too low or unstable to justify offering a plan. For the most part, health insurance seems to be available for small firms if they are willing to pay a high enough price.

"Many smaller firms are either start-up enterprises or are operating on very thin profit margins and cannot afford to provide all the employee benefit programs that larger or more successful employers can afford," says Randy Ferguson, an executive vice-president with Jefferson-Pilot Life Insurance Company in Greensboro.

Ferguson says an over-abundance of state-mandated benefits makes health plans unaffordable for many small businesses. "Various studies have


Jack Betts

shown that many smaller employers could afford to sponsor and would like to offer their employees a basic, bare-bones health care benefit plan but cannot do so due to various state-mandated regulations. Such regulations mandate liberal benefits that, while on the surface appear desirable, greatly increase the cost of the plans."

Feezor, the deputy insurance commissioner, says that mandated benefits increase health insurance costs in North Carolina by about 5 percent—far less than in some other states. And some of these mandates are essential to basic coverage, Feezor says. For example, North Carolina is among 49 states that mandate coverage of newborn babies.[20] "That is necessary," says Feezor. "It would be irresponsible to write insurance coverage without it." North Carolina does not mandate mental health coverage, which drives up the cost of care in many states, Feezor says.

**Three-fourths of employers with 10 to 24 employees offer plans, while only a third of those with less than 10 employees provide health insurance.**

Insurance companies also charge small firms higher administrative costs than they charge larger firms. The very smallest firms may have to pay as much as 40 cents per benefit dollar for administrative costs, while firms with more than 10,000 workers—such as Duke Power Company and Sara Lee Corporation—pay only 7 cents per benefit dollar.[21]

The main reasons for this are economies of scale and the higher risks associated with serving small employers. "They're always going to be having to pay a little more," says Feezor of small employers. "If in one case I can cover 1,000 employees, and the other five, where am I going to spend my time?" With larger employers, Feezor says, insurance companies also gain access to larger markets for such products as life insurance and annuities, which are more profitable than health insurance.

Edward Green, a nursery operator in Wilkes County, is among those small business owners who *might* offer health insurance if it were more affordable. "I definitely would be interested if it were an attractive policy at a discounted price for the small employer," says Green, who employs up to nine workers including four family members at Green Valley Farms. "Anybody who comes to work for me, they know I don't have insurance, and that's spelled out to them up front. They're taking their chances, and that's sad, but we just can't pay it."

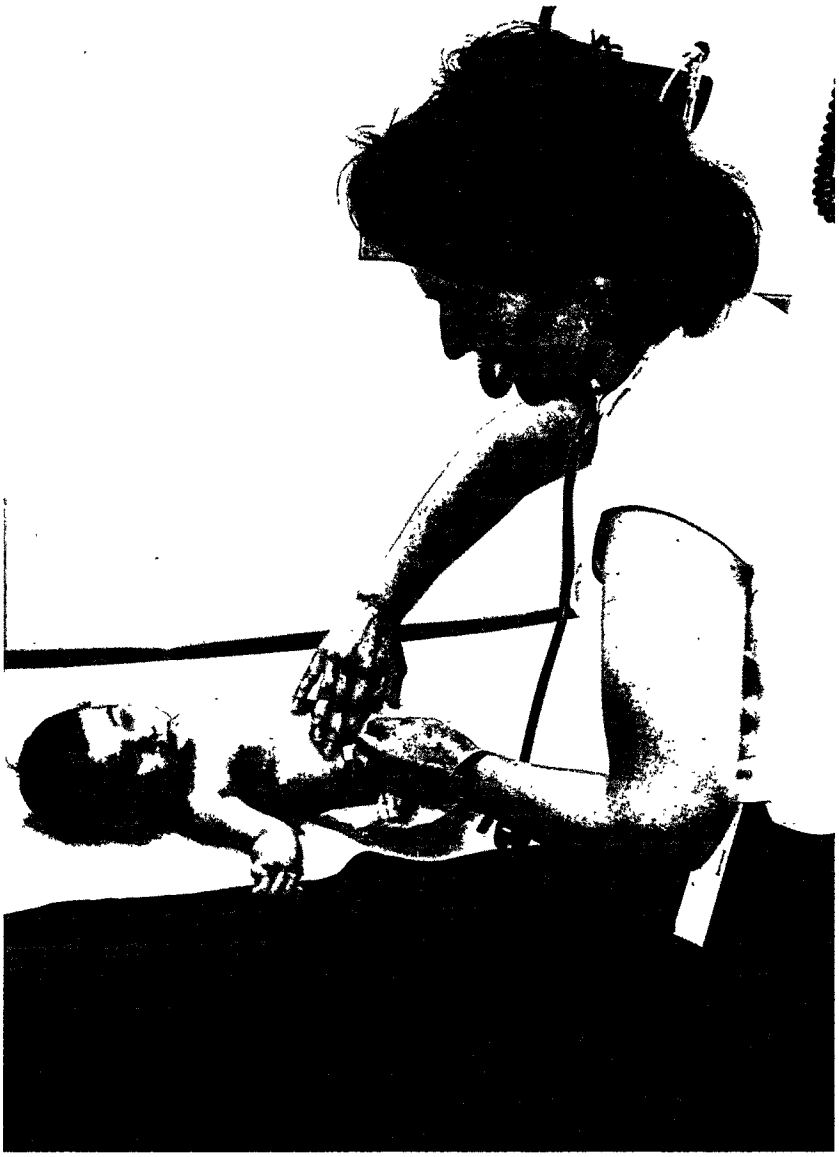
But before he would purchase *any* policy, Green says he would have to get his business on a stronger financial footing and would have to have workers he wanted to insure. He starts his workers at $3.50 an hour and some of them stay no more than three months. Green says he also would want to consider whether the policy were worth purchasing. "I'm afraid if they made it affordable, it would be a cheap little policy—a gimmick," he says.

Bob Greene operates a country store in the Wilkes County community of Clingman. Greene says he employs mostly high school students in part-time positions—so they aren't much concerned about health insurance. He did, however, lose one employee who went back to a low-wage position at a bank so she could be insured. "If I had employees who were more than part-time, or some I knew were going to stay with me, I wouldn't have a problem offering it to them," says Greene.

A growing problem for small firms is insurance company underwriting that excludes a particular worker or even an entire firm from coverage because of a single worker's medical condition. "They [insurance companies] are driven by competition, which drives out the marginally insurable people," says Wester. "They want healthy people free of overt disease." Adds Matula, "The people with the greatest risks and the highest needs are least apt to have insurance."

All told, employees in small firms account for 44 percent of uninsured workers. Most of these employees work for companies that do not offer health plans, so the key to getting coverage for small-firm workers is enticing more employers to offer plans.

In larger firms the situation is the reverse. Plans are available, but there are structural eligibility barriers that keep some employees from participating. The two biggest barriers are waiting periods required for enrolling a new employee in a plan and policies that exclude part-time and seasonal workers. A federal law known as COBRA



*Duke Medical Center*

gives some relief from waiting periods after a job change.[22] It requires that workers be given the option of keeping their old coverage and paying premiums out of pocket until the waiting period for enrolling in a new plan ends. Still, this transitional coverage is expensive, and many workers forgo it.

Another barrier is the practice of excluding medical expenses for pre-existing health conditions from coverage. The key to getting coverage for uninsured workers in large firms is to find a way to reduce structural eligibility barriers.

Whether a worker is offered health insurance is influenced not only by the size of the employer but by the type. Three industries, in fact, account for 60 percent of the uninsured workers in North Carolina: retail trade, services, and construction. Low-wage jobs are less likely to provide health insurance, and the typical retail-trade worker earns 40 percent less than the average worker in the state.[23] Services and construction work pay more, but the service industry includes many self-employed people who may not be able to afford coverage. And high turnover in the construction industry may prevent firms from offering coverage.

But size and type of employer isn't the only indicator of whether a person is likely to do without coverage. Other demographic characteristics appear to play a role. For instance, blacks are

***Three industries, in fact, account for 60 percent of the uninsured workers in North Carolina: retail trade, services, and construction.***

more likely to have no health care coverage than whites. One out of five blacks has no coverage, compared to only one out of every nine whites—despite the fact that blacks are four times more likely to qualify for Medicaid than whites. Hispanics and Native Americans also are less likely to have coverage than whites. (See Figure 2 for a breakdown of the uninsured by race.)

Family status also appears to be important. Nearly 80 percent of children living with two parents are covered by one of the parents. Only 11 percent have no coverage. The rest are covered by Medicaid or some other government or charitable program. Children in single-family homes are twice as likely to have no coverage, and they have a much greater reliance on Medicaid.

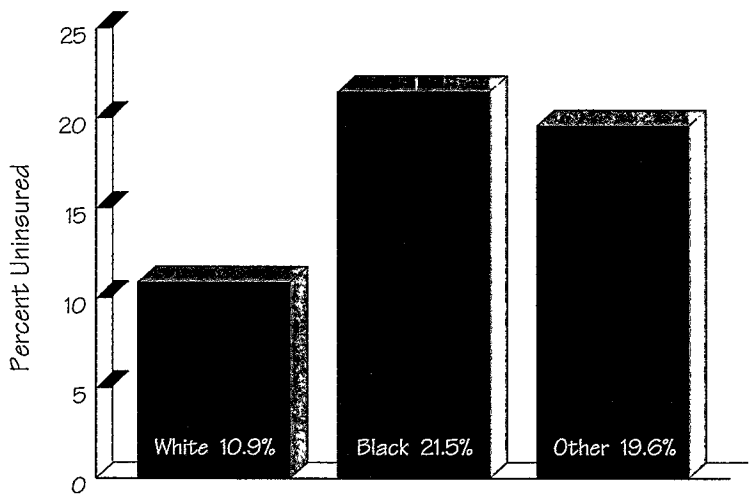
Single adults also are much less likely to have health care coverage than those who are married. They do not have the option of being covered under a spouse's policy.

And much of the uninsured problem seems to be centered on children and young adults ages 18–30. In North Carolina, the chance of being uninsured is 14 percent among children under 18. They account for fully a fourth of the uninsured. (See Figure 3, page 32, for an age breakdown of the uninsured.)

Young adults, however, face the greatest risk of being uninsured, accounting for nearly a third of the problem. They may be just starting out in the work force and unable to afford coverage if their employers don't provide it, or they may be under a mandatory waiting period before enrolling in their employer-sponsored plan. They also switch jobs more frequently than older workers, and when health insurance is presented as a costly option, they are more willing to risk doing without.

Whether one lives in a rural or urban area also makes a difference. (See Table 3, page 36 for a county-by-county breakdown of the average daily uninsured population in North Carolina.) Isolated areas with high unemployment and little manufacturing have high numbers of people without health

## Figure 2. The Uninsured as a Percentage of Each Racial Group




*Data prepared by Duke University Center for Health Policy Research and Education*
*Source:* Current Population Survey, 1988-1990

## Table 2. North Carolina's Medically Indigent

| | |
|---|---|
| Uninsured All Year | 600,000 |
| Uninsured Part Year | 600,000 |
| Under-insured (Private Coverage)* | 400,000 |
| Under-insured Medicare | 300,000 |
| Total | 1,900,000 |

*The under-insured are defined as those at risk of spending more than 10 percent of their family income on medical expenses.

*Source: Duke University Center for Health Policy Research and Education*

care coverage. This ties in with a range of problems with rural health care. Fewer paying patients and low reimbursement rates for Medicaid and Medicare patients make it even harder to attract physicians to rural areas that already are suffering health manpower shortages, says Jim Bernstein, director of the state Office of Rural Health and Resource Development in the Department of Human Resources.

"Everything piggybacks and complicates the problem," Bernstein says. "The end result is a poor delivery system, with less access for patients and more patients waiting for services. Statistics show the health outcome in rural areas is not as good as in urban areas, and we're a rural state, so it's something we need to pay particular attention to."

The impacts of this widespread lack of health coverage fall into two broad categories. One could be labeled health and the other economics.

## The Health Impact of Too Little Insurance

Study after study has shown that people without health care coverage tend to get less care than those who are covered by some type of plan and that they wait until they are sicker before seeking care.[24] "I know of very few doctors who would refuse someone in need," says Wester, the deputy state health director. Nevertheless, he acknowledges that people without health care coverage are not welcomed into the health care system with open arms. "Poor people do not like to be berated. They would like to be able to pay for their care, and they wind up not going."

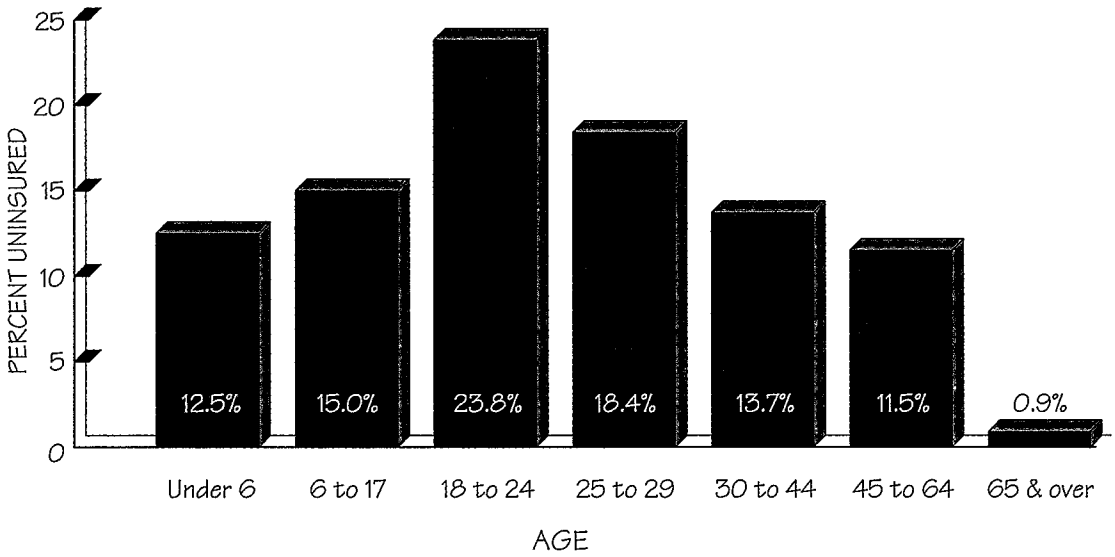
The medically indigent have more chronic health conditions than the general population, as well as greater numbers of disabilities and more mental illness.[25] They use 30 to 65 percent fewer services than the privately insured,[26] face greater access barriers,[27] and defer preventive and acute care.[28]

They are less likely to have a regular source of care, and thus more likely to rely on the hospital emergency room, which is expensive.[29] Studies also indicate they are hospitalized more frequently for conditions that are preventable through access to regular care.[30] The bottom line is that the medically indigent are more likely to have worse health than the general population, at least in part because of their lack of health care coverage.

Of course the ultimate indicator of poor health is premature death. The *Atlanta Constitution-Journal*—in a computer analysis of more than

***The bottom line is that the medically indigent are more likely to have worse health than the general population, at least in part because of their lack of health care coverage.***

**Figure 3. The Uninsured as a Percentage of Each Age Group**




*Data prepared by Duke University Center for Health Policy Research and Education*
*Source:* Current Population Survey, 1988-1990

530,000 deaths in 1987 in 12 Southern states—found 22,000 deaths to be caused by diseases that were easily treated or preventable. Race and income were the strongest predictors of premature deaths, and the problem was particularly acute in rural areas.[31]

## The Economic Impact of Too Little Health Insurance

But if a lack of adequate health care coverage takes its toll on the medically indigent, it also has an impact on the North Carolina economy. State spending on Medicaid and direct government medical services, plus the cost of unpaid doctor visits and hospital stays, has reached $3.3 billion a year, twice what it was five years ago.

The typical North Carolina family of four now picks up the tab for about $950 in unpaid medical care. About half comes in the form of state and local taxes. The rest is in hidden taxes—the so-called cost shift in which medical bills rung up by non-paying patients get added to the bills of paying patients. These costs are pushed still higher by the tendency among people without health care coverage to overuse the emergency room and end up hospitalized when it might have been medically avoidable.

## Is There a Solution?

Clearly the problem of the medically indigent is one that needs to be addressed. The problem is helping to drive increased medical costs, and there is the human cost of poor health for those who do without health care coverage. On the national level, debate has focused on a national health insurance system such as that operating in Canada, an employer-based system in which employers offer a health plan or pay a penalty to help cover the uninsured, or some hybrid. But what can be done at the state level?

A handful of states are moving toward universal coverage, with one option a "pay-or-play" employer-based system.[32] Under this system, employers either play by providing coverage for their employees or pay into a state fund which is used to provide insurance for uninsured workers. Other states, including North Carolina, so far are taking a less comprehensive approach. The Health Insurance Association of America, a national

trade group, is pressing states to implement this kind of reform focusing on broadening existing coverage.

The group proposes that states make changes to make health insurance more available and affordable for small business. The states would help cover other gaps by creating high-risk pools for the hard-to-insure and by Medicaid expansion. The North Carolina General Assembly enacted the small business proposal in the 1991 session.[33]

Developed with the cooperation of small business and the insurance industry, the legislation requires insurers and health maintenance organizations writing health insurance for businesses with less than 26 and more than two employees to offer at least two types of policies. The first of these is a stripped-down version that covers only essential services and would thus be more affordable. This basic plan is exempted from state mandates, with a special committee determining which services are essential and must be provided. Feezor says the basic plan is likely to feature higher co-payments and deductibles and to cover shorter hospital stays than standard insurance.

The second type of policy is more comprehensive—similar to that currently being offered by small and medium-size employers. The nonprofit provider Blue Cross and Blue Shield of North Carolina unveiled its stripped-down coverage, called **BasiCare**, at a September 1991 news conference. The company is marketing BasiCare to individuals and small business groups, with prices

## *Glossary of Health Care Terms*

**Co-payment** — The payment a patient is required to make, in addition to any private insurance coverage or government assistance program, to obtain health care service.

**Coverage** — A system that pays for health care, and which includes private insurance companies, employer-financed plans, government transfer programs such as Medicare and Medicaid, and the like.

**Deductible** — An up-front payment a patient must make on a health service before an insurer has any liability to pay.

**Diagnostic Related Groups** — A system of classifying patients according to the type of disease, and which is used in determining hospital payments for the Medicare system.

**Health Maintenance Organization** — An organized system which provides an agreed-upon set of comprehensive health services to a voluntarily enrolled population in exchange for a predetermined, fixed, and periodic payment.

**Medicaid** — Popular name for government program that provides medical assistance for the poor, and which is funded by the federal, state, and county governments.

**Medicare** — Popular name for government program that provides two kinds of health insurance for the aging—hospitalization and institutional care, and physician's care and other health services—funded under the Social Security System.

**Preferred Provider Organization** — An alternative to HMOs, the PPO can provide health care through an organization of doctors, hospitals, employers, and insurance companies who agree to contracts to provide certain health services to PPO members at reduced rates.

**Premiums** — The amount of money that insurance subscribers must pay to maintain their health insurance policies.

**Prospective Payment System** — A prospective system of payment using Diagnostic Related Groups (DRGs) for Medicare payments to hospitals as established by Title VI of the 1983 Social Security Amendments.

**Third-Party Payer** — An institution, organization, or entity that pays the health care bill for a patient. Most often, a third-party payer is either the government or an insurance company. The three parties are the patient, the provider, and the payer.

*Duke Medical Center*

beginning at $41.67 a month for a 22-year-old single male.

The new law controls the rate of increase insurers and health maintenance organizations can charge small employers from year to year and narrows the difference in rates insurance companies and health maintenance organizations can charge competing firms of similar size and type. It also sets up a reinsurance pool for high-risk businesses that insurers and health maintenance organizations don't want to cover.

Industry officials view the new law as an important first step toward making health insurance more broadly available in North Carolina. "Clearly, complying with this law will be costly," says Ferguson of Jefferson-Pilot. "However, the law demonstrates that health insurers are committed to contributing to the solution of the health care access problem."

It appears unlikely that small business operators will flock to the new basic plans. Feezor says a similar program operating in Virginia has been slow to catch on; both Green, the Wilkes County nursery operator, and Greene, the grocer, seemed skeptical that such a plan would meet their needs. Still, it's a start.

Other significant changes have come through private efforts. For example, Blue Cross and Blue Shield has developed a program called **ACCESS** to cover the hard-to-insure. The program was implemented after several failed legislative efforts to establish a state high-risk pool for insuring people with severe medical conditions. It offers basic coverage for all comers—if they can afford the premiums.

The company will charge as much as 175 percent of normal rates—and still expects to lose money on the program.[34] Under one plan, Blue Cross and Blue Shield charges $387 a month for individuals and $964.38 a month for a subscriber and three family members, with a $500 deductible. Another plan carries a $1,000 deductible with payments of $349 a month for individuals and $991.65 for a family of four. Losses are to be paid from the company's reserve fund.

The firm also has developed the **N.C. Caring Program for Children** in cooperation with the North Carolina Council of Churches. Under this program, sponsors agree to donate $240 a year to pay insurance premiums for uninsured children from low-income families.[35]

The Health Access Forum, a panel of doctors, government officials, academics, and industry officials appointed by the North Carolina Institute of Medicine, also is studying how to address the problem of the medically indigent.

The institute, which examines pressing health care problems, has secured a $424,000 grant from the Kate B. Reynolds Charitable Trust to pay for this attempt at consensus-building. The Health Access Forum will produce a package of recommendations for public and private actions by 1992.

The legislature also has created a study commission to "study the issues involved in designing a program to ensure that all citizens of the state have access to affordable health insurance that provides coverage for basic health needs."[36] The commission—which reports to the 1993 session of the General Assembly—is to study a range of health insurance issues, and at least two ways to broaden coverage: (1) an employer-based insurance system that depends on a state pool to cover the jobless and uses tax incentives to encourage employers to offer coverage; and (2) a single-payer, government insurance system such as that operating in Canada.

The commission also will look at health care cost containment, an issue so serious that some people believe a voluntary insurance system will never succeed. "The real problem—both for individuals and apparently for our society at large—is that today's cost of health care exceeds what most individuals are willing to pay and exceeds what society collectively is willing to pay via third-party coverage," says Feezor. "It is more expensive than we are willing to spend relative to other needs and desires."

Medical care cost increases are running double and triple the annual increase in the Consumer Price Index. Health insurance costs reflect these increases. "The costs are so disproportionate that any voluntary paying method is going to fail at some point," says Feezor. An involuntary system heavily subsidized by employers, the government, or both may be the only way to ensure 100 percent insurance coverage, he says.

Feezor believes some small employers will enroll in the stripped-down health insurance plans that emerge from the 1991 legislation, but most will continue to plead a lack of affordability. "Unless there is a tax credit or a penalty, I'm not sure a voluntary effort will make a substantial difference," he says. As for the ACCESS program—the high-risk pool for the hard to insure offered by Blue Cross and Blue Shield—Feezor believes no more than 6 to 12 percent of the medically uninsurable people in North Carolina will be able to afford the premiums.

Rep. Judy Hunt (D-Watauga) led an unsuccessful 1989 effort to establish such a pool, and the private program is modeled on her legislation. Hunt says she will be watching carefully to see whether ACCESS satisfies the need for an insurance program for people with severe medical conditions. But Hunt is skeptical of the projected rates. "Most people think they are exorbitant," she says.

Kathy Higgins, a Blue Cross and Blue Shield spokeswoman, says the program was designed to make health insurance available to those who can't get it for health reasons. "It doesn't address the cost issue," she says. "It's for those who can afford it and would never have the chance to have insurance otherwise."

Affordability also becomes a problem for further Medicaid expansion. The state's share of Medicaid expenses has been rising at a rate of 17 percent a year since 1985, and the state budget is under severe strain. That makes further expansion hard to accomplish, and Medicaid reaches only the categorically eligible poor and near-poor. The federal Health Care Financing Administration closed one option for Medicaid expansion with a ruling in September 1991 disallowing the use of provider taxes and donations to draw federal Medicaid funds for the states.[37]

The big legislative push for health coverage reform likely will come in the 1993 session, after the Health Access Forum has released its proposal and the legislative study commission has made its report. Silberman says the legislature is likely to consider one of two plans: (1) a pay-or-play system such as the one passed in Massachusetts but stalled by budget difficulties, or (2) a single-payer system such as that operating in Canada in which the government serves as health plan administrator or turns the job over to a private contractor.

The Canadian plan, says Silberman, might make cost containment more effective because it would eliminate cost-shifting. "It's a big shell game," she says. With only one payer, there would be no one to shift costs to. Still, the pay-or-play concept might prove more politically palatable. The government would not be holding all the cards, and

*— continued on page 38*

***There are some remedies worse than the disease.***

— PUBLILIUS SYRUS

## Table 3. Average Daily Uninsured in North Carolina by County, 1988

| County | Number Uninsured | Percent of Population Uninsured | County Rank in % Uninsured* |
|---|---|---|---|
| Warren | 3,600 | 21.9 | 100 |
| Hyde | 1,200 | 21.5 | 99 |
| Greene | 3,400 | 20.8 | 98 |
| Bladen | 6,400 | 20.8 | 97 |
| Washington | 2,900 | 19.6 | 96 |
| Perquimans | 2,100 | 19.0 | 95 |
| Swain | 2,000 | 19.0 | 94 |
| Chowan | 2,600 | 18.9 | 93 |
| Hoke | 4,600 | 18.9 | 92 |
| Martin | 5,100 | 18.8 | 91 |
| Hertford | 4,500 | 18.7 | 90 |
| Halifax | 10,500 | 18.5 | 89 |
| Caswell | 4,100 | 18.2 | 88 |
| Pender | 4,800 | 18.0 | 87 |
| Brunswick | 9,200 | 17.9 | 86 |
| Onslow | 22,700 | 17.8 | 85 |
| Graham | 1,300 | 17.7 | 84 |
| Northampton | 3,900 | 17.7 | 83 |
| Columbus | 9,300 | 17.6 | 82 |
| Robeson | 19,000 | 17.6 | 81 |
| Sampson | 8,900 | 17.6 | 80 |
| Cherokee | 3,700 | 17.4 | 79 |
| Ashe | 4,000 | 17.2 | 78 |
| Vance | 6,700 | 17.0 | 77 |
| Wilson | 11,100 | 17.0 | 76 |
| Cumberland | 44,400 | 17.0 | 75 |
| Beaufort | 7,300 | 16.9 | 74 |
| Camden | 1,000 | 16.9 | 73 |
| Lenoir | 10,100 | 16.7 | 72 |
| Bertie | 3,500 | 16.7 | 71 |
| Jackson | 4,500 | 16.7 | 70 |
| Tyrrell | 700 | 16.4 | 69 |
| Avery | 2,500 | 16.3 | 68 |
| Pasquotank | 5,000 | 16.2 | 67 |
| Yancey | 2,600 | 16.1 | 66 |
| Franklin | 5,700 | 16.0 | 65 |
| Alleghany | 1,600 | 16.0 | 64 |
| Harnett | 10,400 | 15.9 | 63 |
| Duplin | 6,600 | 15.8 | 62 |
| Scotland | 5,400 | 15.7 | 61 |
| Madison | 2,700 | 15.7 | 60 |
| Person | 4,800 | 15.2 | 59 |
| Jones | 1,500 | 15.2 | 58 |
| Granville | 5,800 | 14.9 | 57 |
| Clay | 1,100 | 14.9 | 56 |
| Gates | 1,400 | 14.6 | 55 |
| Currituck | 2,000 | 14.6 | 54 |
| Pitt | 14,700 | 14.5 | 53 |
| Edgecombe | 8,600 | 14.5 | 52 |
| Pamlico | 1,600 | 14.4 | 51 |
| Mitchell | 2,100 | 14.4 | 50 |
| Craven | 11,700 | 14.3 | 49 |

| County | Number Uninsured | Percent of Population Uninsured | County Rank in % Uninsured* |
|---|---|---|---|
| Lee | 6,000 | 14.2 | 48 |
| Richmond | 6,500 | 14.1 | 47 |
| Anson | 3,700 | 14.1 | 46 |
| Haywood | 6,700 | 14.0 | 45 |
| Wayne | 13,200 | 13.4 | 44 |
| Carteret | 6,900 | 13.3 | 43 |
| Nash | 9,700 | 13.2 | 42 |
| Johnston | 10,400 | 12.9 | 41 |
| Rutherford | 7,300 | 12.6 | 40 |
| Macon | 2,900 | 12.4 | 39 |
| New Hanover | 14,400 | 12.2 | 38 |
| Watauga | 4,200 | 12.1 | 37 |
| Polk | 1,700 | 11.8 | 36 |
| Moore | 6,900 | 11.8 | 35 |
| Dare | 2,400 | 11.5 | 34 |
| Orange | 9,900 | 11.3 | 33 |
| Surry | 6,900 | 11.1 | 32 |
| Wilkes | 6,800 | 11.0 | 31 |
| Henderson | 7,600 | 11.0 | 30 |
| Cleveland | 9,400 | 10.9 | 29 |
| Stokes | 4,000 | 10.9 | 28 |
| Mecklenburg | 50,900 | 10.7 | 27 |
| Lincoln | 5,100 | 10.7 | 26 |
| Buncombe | 18,400 | 10.7 | 25 |
| Rockingham | 9,200 | 10.6 | 24 |
| Union | 8,800 | 10.5 | 23 |
| Yadkin | 3,100 | 10.3 | 22 |
| Guilford | 33,900 | 10.1 | 21 |
| Davidson | 12,500 | 10.0 | 20 |
| Stanly | 5,100 | 10.0 | 19 |
| Davie | 2,700 | 9.7 | 18 |
| Durham | 16,600 | 9.7 | 17 |
| Gaston | 16,800 | 9.7 | 16 |
| Transylvania | 2,500 | 9.6 | 15 |
| Montgomery | 2,300 | 9.5 | 14 |
| Forsyth | 25,600 | 9.5 | 13 |
| Iredell | 8,600 | 9.5 | 12 |
| McDowell | 3,400 | 9.4 | 11 |
| Wake | 36,600 | 9.4 | 10 |
| Randolph | 9,500 | 9.3 | 9 |
| Alamance | 9,800 | 9.3 | 8 |
| Rowan | 9,700 | 9.2 | 7 |
| Caldwell | 6,500 | 9.2 | 6 |
| Alexander | 2,500 | 9.1 | 5 |
| Catawba | 10,600 | 9.1 | 4 |
| Cabarrus | 8,400 | 8.9 | 3 |
| Burke | 6,800 | 8.9 | 2 |
| Chatham | 3,200 | 8.7 | 1 |
| Statewide Total | 802,900** | Avg. 12.4 | |

* Ties in percentage due to rounding only.

** Based on 1988 data, adjusted to reflect the projected impact of Medicaid expansion, so statewide total does not match the figure for North Carolina in Table 1. The average daily uninsured population for 1990 was about 885,000, and the number uninsured over the course of the year totaled about 1.2 million.

*Source: Duke University, Center for Health Policy Research and Education.*

insurance companies could keep writing coverage for their best customers.

Other experts believe there will be less comprehensive options on the table. Feezor says so far he hasn't seen the kind of leadership that would be required to achieve a broad-based solution, and so he expects more of a piecemeal approach. "What has been noticeably absent is a major elected official of sufficient stature, stamina, and intellect to lead the debate in this area," Feezor says.

> ***"What has been noticeably absent is a major elected official of sufficient stature, stamina, and intellect to lead the debate in this area."***
>
> — ALLEN FEEZOR
> N.C. DEPARTMENT OF INSURANCE

Bernstein asks, "How realistic is it to even discuss North Carolina adopting a Canadian-style plan? I can't see how the General Assembly can even begin to consider this for many reasons, most importantly cost." Bernstein says costly mandated health care coverage—whether modeled on the Canadian system or on pay-or-play—could hurt industrial recruitment.

Phil Kirk, president of North Carolina Citizens for Business and Industry—a statewide chamber of commerce—agrees that cost must weigh heavily in any legislative package broadening health care coverage. "Any insurance plan the legislature looks at, cost certainly has to be figured into the equation," says Kirk. "Many small businesses particularly want to provide health insurance but can't afford it. It might be a difference between some of the smaller ones making a profit or closing their door."

And Kirk says some North Carolina industries such as textile firms are competing in a global market against third world countries with low salaries and few, if any, fringe benefits. Excessive health plan costs could hurt their competitiveness. "Most United States companies want to provide good fringe benefits," says Kirk, "but they have to consider the bottom line."

Yet no one disputes that the legislature will be returning to the issue of broadening health care coverage in the near future. "I think you'll see something in the next year or two—if not universal health insurance, at least something that will cover a major percentage of those people who are now uncovered," says Rep. Nick Jeralds (D-Cumberland), a leading advocate of health insurance reform. "In the 1993 session we will probably introduce some type of model plan. To what degree we can sell all the players who will be involved, we aren't certain."

Sen. Betsy Cochrane (R-Davie) agrees that health care coverage reform will be high on the General Assembly's agenda for the 1993 session. "It's going to take a joint effort of the business community working with insurers and the government," says Cochrane. "This three-pronged approach is the only chance we have to come up with some answers." Cochrane says the three groups working together could "come pretty close to covering most people." She says she doesn't think North Carolinians are ready for a Canadian-style system that doesn't pay for some procedures and requires some waiting for others.

Still, it's clear there is increasing disenchantment with the system as it exists now. A 1991 Gallup Poll found 85 percent of Americans think the nation's health care system needs reform.[38] The rising cost of care and how to pay for that care seem to be the main concerns. And the cries for reform are likely to grow louder as employers shift more and more of the cost of insurance coverage to workers—or drop it altogether.

## Options

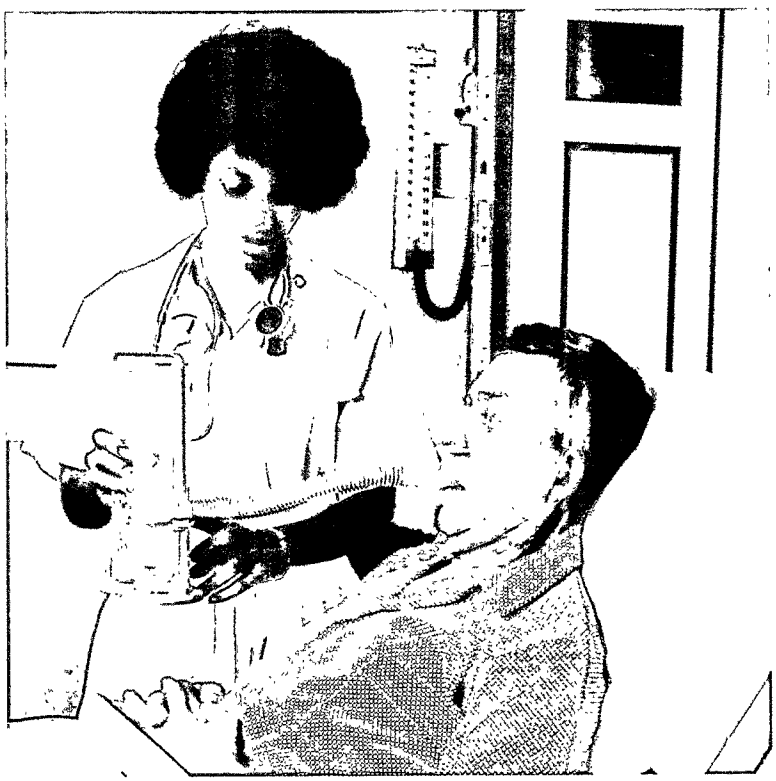
With 1.2 million North Carolina citizens doing without health coverage over the course of a year and another 700,000 dangerously undercovered, the time is approaching for major reforms. The Center has identified at least three broad options that would expand insurance coverage. Within these options are a number of incremental steps that would help chip away at the problem. There also is the option of doing nothing, which raises a fundamental policy question. Is health care a right of all North Carolinians, or is it just another economic good that should be left to market forces? If it's an economic good, then the major options are numbers one and four below. If health care is a right, then options two and three are preferable.

***Option 1: The legislature could make incremental changes that broaden health care coverage but leave it up to employers whether they offer plans and employees whether they enroll in them.*** This approach leaves room to broaden coverage for the poor through Medicaid expansion. Medicaid expansion to the limit allowed by the federal government has been endorsed by a number of groups, including the North Carolina Hospital Association and the N.C. Medical Society. Despite the cost, expansion makes sense as a match for federal funds; the federal government pays $1.99 for every $1 in state and local funds spent on Medicaid. The question is whether it is wise to leave money on the table that could be used to help finance health care for the medically indigent.

The state also may want to examine whether it wants to help high-risk citizens who are not impoverished yet cannot afford to enroll in the private ACCESS program. At least 24 states operate high-risk pools, most of which work along the same lines as North Carolina's automobile reinsurance facility.[39] States with high-risk pools are California, Colorado, Connecticut, Florida, Georgia, Illinois, Indiana, Iowa, Louisiana, Maine, Minnesota, Missouri, Montana, Nebraska, New Mexico, North Dakota, Oregon, South Carolina, Tennessee, Texas, Utah, Washington, Wisconsin, and Wyoming. Wisconsin subsidizes premiums by up to one-third for those who cannot afford to pay. Maine also subsidizes some pool participants, and it allows some very small employers to cede high risk employees to the pool, thus reducing premiums charged for remaining employees.

All of the pools lose money, despite charging premiums that exceed the market average. Insurance companies doing business in the states typically share the losses among themselves, although some states support their pools with tax revenues. Yet the North Carolina Department of Insurance estimates that as many as 100,000 people need such a pool in North Carolina. Only a small percentage of these can afford above-market-price premiums.

The state might explore carefully tailored tax credits or subsidies to persuade more employers to offer health insurance. Many of North Carolina's 465,000 uninsured workers are employed by small businesses that may not be able to afford coverage. Tax credits could be used to persuade such employers to offer insurance, and the credits could be phased out over time. Even with tax credits, however, the increase in small employers offering health insurance may be modest. Michigan tried



*Duke Medical Center*

picking up a third of the tab for small employers who agreed to offer health insurance for the first time. Over a two-year period, only 15 percent of these employers took the state up on its offer. It remains to be seen whether a permanent program would have better results than Michigan's pilot study.

This approach, then, involves three sub-options: (1) Medicaid expansion, (2) creation of a state high-risk pool, and (3) incentives to encourage employers to offer health insurance. Each of these steps would take a bite out of the uninsured problem. And because the approach is incremental and does not represent drastic change, it may be the easiest to achieve politically. Yet its greatest strength is also its greatest weakness. With optional insurance, there will always be those who opt not to offer or purchase insurance, which shifts the burden of paying for care to someone else.

***Option 2: The state could adopt the "pay or play" approach of requiring employers either to play by providing health insurance or pay into a fund to provide basic coverage for the uninsured.*** Under this approach, insurance is not optional. The disadvantage is that employers who do not currently provide health insurance would be hit with an expensive new tax. That would be difficult to enact legislatively and would add to the cost of doing business. And cost is an oft-cited reason small business operators do not offer insurance. If they can't afford insurance, how can they afford the tax? An additional worry is that if North Carolina adopts such a program and neighboring states don't, industrial recruitment could be hurt. Still, the approach would have the advantage of covering more people than the incremental approach, and it would apply across the board in the business community.

The financing mechanism would give the state a means of insuring people who are unemployed and ineligible for Medicaid. Citizens insured through the fund could be billed on an ability-to-

***Michelle Ramos-O'Hare, 7 years old, of Raleigh, at a rally for better health care at the State Capitol on Oct. 8, 1991.***


*Karen Tam*

pay basis, providing an additional source of revenue, and the legislature likely would have to appropriate additional tax revenue to keep the fund solvent. Massachusetts is the only state which has enacted the pay or play approach, although Oregon will go to pay-or-play if small employers do not meet targets set in a tax credit program. Hawaii simply requires employers to provide health insurance and has done so since 1974. There is no "pay" option. Budget woes have stalled implementation in Massachusetts, and a hostile new governor wants to abandon the approach altogether.[40] Cost estimates for implementation have run as high as $1 billion, but the payoff would be coverage for the state's 400,000 uninsured.[41]

Delaware and Ohio are seriously considering pay-or-play, and other states are experimenting with less comprehensive reforms, says John Luehrs, the health care expert for the National Governors' Association. Luehrs says he sees three big advantages to pay or play: (1) it provides a mechanism for funding universal health insurance based on the existing system of public and private providers; (2) it improves health coverage for people who are uninsured or under-insured; and (3) it brightens the prospects for successful cost containment. Major disadvantages, says Luehrs, are that marginal businesses would suffer and that the increased costs likely would be passed along to workers through reduced pay or benefits.

***Option 3: The state could go to a single payer system such as that operating in Canada.*** Under this approach, the state would act as health care administrator under a huge government insurance program. Or it could contract this responsibility out to a private provider. The advantages are many. Every citizen would have health insurance—including the state's 300,000 children who currently do without. With a single payer, paperwork should be simplified, resulting in lower administrative costs. And a single payer would be in a stronger bargaining position with health care providers. Employers would have rid themselves of a direct expense that keeps growing every year—the cost of providing health care for workers.

But unless cost containment efforts were effective, the system could get extremely expensive and require major tax increases. And successful cost containment may require *explicit* rationing, rather than *implicit* rationing by ability to pay. That raises a whole new set of questions. Lesser steps along the road to a single-payer system might contribute to cost containment by lowering administrative expenses. For example, Luehrs suggests a single claim form, which would require only "a consensus among payers about data needed to pay a claim."

***Option 4: The state could do nothing and hope the problem of the uninsured and under-insured doesn't continue to mount.*** Under this scenario, hospitals and other care providers would continue to shift to paying patients the cost of providing health care for the medically indigent. This could continue to drive up insurance rates, forcing more employers to cancel their policies or pass along more health insurance costs to employees. More employees might drop coverage for themselves or their families, leading to more health complications and higher medical bills, and the vicious cycle would simply feed on itself.

*****

Each of these options demands difficult choices, but the problem of the medically indigent isn't going to go away. Affordable health insurance—once a problem of the poor and the jobless—is becoming a middle-class issue. More than a third of the state's uninsured now are middle-income or higher, and the trend is toward still more middle-income citizens without health insurance. That makes reforms more likely, and the longer those reforms are deferred, the more drastic they are likely to be.

"The problem is so big and so serious, I think we are just getting our toes in the water," says Rep. Judy Hunt. Sooner or later, legislators are going to have to take the plunge.

FOOTNOTES

[1] Christopher J. Conover, "Health Care for the Medically Indigent of North Carolina: Number and Characteristics of Those 'At Risk'," presentation to Health Access Forum sponsored by the North Carolina Institute of Medicine, June 17, 1991.

[2] *Ibid.*, p. 1.

[3] *Ibid.*

[4] *Ibid.*

[5] Throughout this article, all references to the poor or poverty levels are based on federal poverty guidelines. The *poor* are those with income below 100 percent of the poverty level, which is $13,400 a year for a family of four. The *near-poor* have incomes between 101 and 125 percent of poverty, while *other low-income* families include everyone between 126 and 200 percent of poverty. Those at 201 to 400 percent are considered to be *middle income* and the rest are considered *high income* families.

[6] Conover, pp. 1–2.

[7] U.S. Bureau of the Census, Technical Paper 52, *Estimates of Poverty Including the Value of Noncash Benefits: 1983*, U.S. Government Printing Office, Washington, D.C.,

August 1984, p. B15.

[8] Conover, p. 3.

[9] *Ibid.*

[10] *Ibid.*

[11] In 1987, Medicare covered $2,391 of the $5,360 in average personal health care spending by the elderly. Waldo *et al.*, "Health Expenditures by Age Group, 1977 and 1987," *Health Finance Review,* Vol. 10, No. 4 (Summer 1989), p. 118.

[12] E. Howell *et al.*, "Out-of-Pocket Health Expenses for Medicaid Recipients and Low-Income Persons, 1980," *National Medical Care Utilization and Expenditure Survey,* Series B, Descriptive Report No. 4, DHHS Pub. No. 85-20204, Office of Research and Demonstrations, Health Care Financing Administration, U.S. Government Printing Office, Washington, D.C., August 1985, pp. 21–22.

[13] Conover, p. 6.

[14] J. Holahan and S.R. Zedlewski, *Insuring Low-Income Americans: Is Medicaid the Answer?* (revised), The Urban Institute, Washington, D.C., July 1990, p. 3.

[15] All figures obtained from Center for Health Policy Research and Education analysis of 1988–90 Current Population Survey data for North Carolina.

[16] Data from May 1988 Current Population Survey, reported in U.S. Congress, Congressional Budget Office, *Rising Health Care Costs: Causes, Implications, and Strategies,* Washington, D.C.: Congressional Budget Office, April 1991, p. 75.

[17] The current minimum wage is $4.25 an hour. A worker earning the minimum wage for 40 hours a week, 52 weeks a year would earn $8,840.

[18] Conover, p. 19.

[19] *Ibid.*

[20] G.S. 58-51-30.

[21] *Ibid.*, p. 20.

[22] Congressional Omnibus Budget Reconciliation Act of 1985, P.L. 99-272, 29 USC 1161.

[23] In 1989, average weekly earnings in retail trade were $216.51, compared to $366.10 for all privately employed workers in North Carolina. Employment Security Commission of North Carolina, *Employment and Wages in North Carolina, 1989,* 1990, p. 23.

[24] For more on how the lack of insurance affects decisions to seek health care, see Pam Silberman, "Health Care for the

# *Health Care at the Margins: Three Families without Insurance*

by Susan Dente Ross

*Here are the stories of three North Carolina families without private health insurance. Gene Richards of Durham is the breadwinner for a family of four, but in a good month he earns only $900. Using a combination of charity care and installment payments, his wife Carolyn struggles to finance health care for a child with special needs. Mary Hedgepeth of Rocky Mount wants to work, but her health problems frighten off would-be employers. Her Social Security disability payments make her ineligible for Medicaid, so she forgoes care and juggles bills to make ends meet. Nancy Smith is a single parent who depends solely on Medicaid to provide health care for herself and her family. So far the Smiths' care has been adequate, but it's never been tested by a long-term health crisis. In none of these cases has care been denied due to lack of insurance, yet they illustrate how inadequate insurance can have an impact on health.*

*Susan Dente Ross is a free-lance writer and a journalism instructor at Lynchburg College in Lynchburg, Va.*

Poor: Adequacy, Availability, Affordability," *North Carolina Insight,* Vol. 11, No. 2–3 (April 1989), pp. 122–137.

[25] Patricia M. Danzon and C. Johnston Conover, *Health Care for the Uninsured Poor of North Carolina,* Center for Health Policy Research and Education, Durham, N.C., August 1985, pp. 15–16.

[26] CRS: U.S. Congress, Library of Congress, Congressional Research Service, *Health Insurance and the Uninsured: Background Data and Analysis,* U.S. Government Printing Office, Washington, D.C., pp. 137–147. See also Danzon, pp. 15–16.

[27] Danzon, pp. 15–16.

[28] Steffie Woolhandler and David U. Himmelstein, "Reverse Targeting of Preventive Care Due to Lack of Health Insurance," *Journal of the American Medical Association,* Vol. 259, No. 19 (May 20, 1988), p. 2873.

[29] Danzon, p. 15 and CRS, p. 142.

[30] John Billings and Nina Teicholz, "DataWatch: Uninsured Patients in District of Columbia Hospitals," *Health Affairs,* Winter 1988, p. 160.

[31] Mike King and Hal Strauss, "Thousands in South Dying for Lack of Health Care," *The News and Observer* of Raleigh, Sept. 30, 1990, p. 1A.

[32] "State Health Plans for the Uninsured and Ranking of States' Percent of Uninsured," Public Citizen Health Research Group, *Health Letter,* Vol. 6, No. 11, November 1990, p. 7.

[33] Chapter 58 (HB 1037) of the 1991 Session Laws.

[34] Joe Dew, "Program Targets Medically Uninsurable," *The News and Observer* of Raleigh, March 7, 1991, p. 1–B.

[35] Karen Youngblood, "Plan Helps Children in Need," *Winston-Salem Journal,* June 12, 1991, p. 1.

[36] Chapter 754 of the 1991 Session Laws (S.B. 917).

[37] Robert Pear, "U.S. Moves to Cut Medicaid Payments for Many States," *The New York Times,* Sept. 11, 1991, p. 1A.

[38] Frank Newport and Jennifer Leonard, "The Health Care Crisis," *The Polling Report,* August 12, 1991, p. 1.

[39] Martha P. King, *Medical Indigency and Uncompensated Health Care Costs,* National Conference of State Legislatures, July 1989, p. 20.

[40] Jerry Berger, "Prognosis Poor for Universal Health Care," *State Legislatures,* June 1991, p. 35.

[41] *Ibid.,* p. 36.

## Carolyn and Gene Richards, Durham

CAROLYN AND GENE RICHARDS find the money to provide health care for their children. As for themselves, they mostly do without. Gene earns about $900 a month hanging sheet rock when he can find the work. That's enough to disqualify the family for Medicaid, but a far cry from what it would take to pay for a true medical emergency.

Still, Carolyn has made peace with what for most middle-income families would be a glaring gap—the lack of health insurance. "We're healthy," she says glibly. And the children, Tommy, 12, and Melissa, 11, have gained limited coverage under the N.C. Caring Program, a private insurance initiative that offers free primary and preventive health care to children of low-income families.

The Richards live in a frame rental house on the east side of Durham, a house jammed in so close to its neighbor that Carolyn can hear telephone conversations through an open window. The front door hangs loose. The porch sags. An oil-on-velvet portrait of Hank Williams Jr. graces the living room walls—a Christmas gift Gene got from his cousin. The Richards are no strangers to hard times, but the Caring Program has made things a little easier.

Until recently, the Richards had to struggle with medical bills for a child with severe health problems. Tommy was born without either a hard or a soft palate, and when he was 10 days old—still in the hospital—his left leg was broken.

At 11 months, doctors surgically reconstructed his palate, but he's been seeing an array of physicians ever since. There are, of course, the routine medical needs of any growing child. But Tommy also regularly sees a speech therapist, a speech

Regina Holder

***Carolyn Richards helps daughter Melissa with her homework.***

pathologist, a plastic surgeon, an orthodontist, a hearing specialist, and doctors at an ear and throat clinic.

He has had nine sets of ear tubes implanted surgically to correct a nearly constant string of ear infections that has left his hearing slightly impaired. His tonsils and part of his adenoids have been removed. And there's the specter of repeat surgery for his cleft palate and the certainty of dental braces in his future.

In August 1990, when one of Tommy's ear tubes fell out, Carolyn just crossed her fingers and hoped for the best. She had no choice because the Richards had no medical insurance. Then came the Caring Program for Children. It offers free primary and preventive health care to children of low-income families. A collaboration of Blue Cross and Blue Shield of North Carolina and the N.C. Council of Churches, the program covers routine immunizations, doctor visits, emergency and accident care, x-rays and other diagnostics, and outpatient surgery for children under 19.

But for a child with the health problems Tommy has, there are still gaps. The program does not cover prescriptions, speech and hearing services, dental braces, or in-patient surgery. Still, Carolyn is grateful for the help. "I'm glad they have the program," she says. "Even if it's just for check-ups, those are still expensive."

Without missing a beat, she recites some of the specific costs of routine medical care. An office visit runs $22. Septra, a frequently prescribed treatment for ear infections, costs $15 to $20. The Richards rang up a $75 bill in a hospital emergency room when Melissa got strep throat. The bill along with a $10 prescription totaled $85—nearly one-eighth of the family's monthly income.

Despite the Richards' limited means, Carolyn is a careful health care consumer. For example, she entrusts the care of her son primarily to Duke University Medical Center and avoids the public clinic. "They seem to rush you right through," she says. "Sometimes with a child with special needs—or even one without special needs—you have to make sure they get that extra care. I'm very particular about the children's doctors because I've seen so many. I know it makes a difference. With Tommy's needs, he's strictly Duke. From when he was three until he hit second grade, I was at Duke every week. Those doctors have seen him grow up from my arm baby."

Richards concedes that the family cannot afford this kind of care for Tommy. His annual day-long visit to various specialists at Duke costs $150. "Still, it's for my sanity," says Richards. She also takes Tommy to Duke twice a year to get his hearing tested, rather than relying on the public schools. She pays on the bills not covered by the N.C. Caring Program "a little at the time. That's all you can do," Carolyn says. "I'll just have to pay it off."

The Richards also have gotten help from time to time from Medicaid and the state Crippled Children's Program in the Division of Health Services. But when Gene is working they don't qualify for Medicaid, and there are gaps in all of these programs.

With so little money to begin with, and so much of it going to medical costs, a lot of things just have to wait—like new clothes and a bike for the children. "And they've learned like I learned," says Richards. "When you need something or you really want it bad enough, you just have to put it on hold for awhile."

## Mary Hedgepeth, Rocky Mount

MARY HEDGEPETH is stuck between a rock and a hard place when it comes to health care. She needs a job so she can get health insurance to help pay her many medical bills, yet no one wants to hire her for fear her medical problems will interfere with her work. Hedgepeth is legally blind—and her vision is getting worse.

"I have a good resume, and my record shows I can work," Mary says, "but nobody will trust me. They think because I can't see well, I can't work well. But a person who is vision-impaired is more careful because we know we have to watch ourselves."

Still, Mary's vision problems are only the beginning. She has ulcers and rheumatoid arthritis. She suffers from anxiety and high cholesterol.

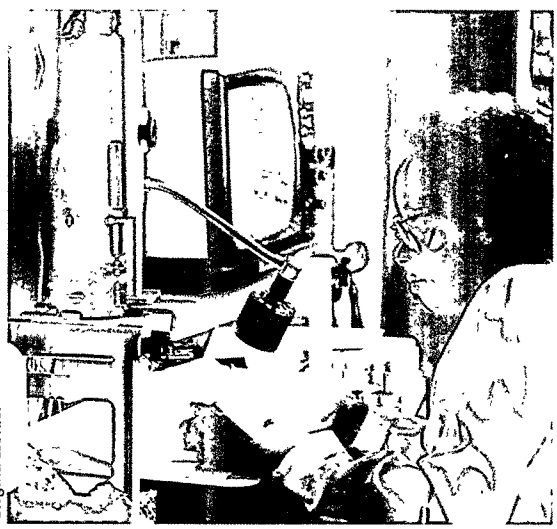
And with no job, she has no health insurance for herself or her sons—19-year-old twins and a 15-year-old.

Mary's Social Security disability payment of $429 and her child support of $200 a month push the family income above Medicaid's eligibility limit. There is no room in her budget for private insurance.

So Mary scrimps on medical care. When she was covered by Medicaid, Mary's prescriptions cost about $250 a month. Now she tries to hold expenses for prescriptions to below $125 to leave about $500 for the family's other bills, including $311 a month for rent. She avoids or postpones medical care whenever possible. Her physician has substituted less expensive and sometimes less effective drugs, and she takes them less frequently than prescribed.

"I can't afford to take prescriptions as I should," Hedgepeth says, "and I get sick from not taking them. I'm in pain. My stomach bothers me. Then too, I can't get a lens implant that would really help me see because I can't afford it. And we all need dental work.

"I know my frame of mind would be much better if I had these services available to me. Right now, the only thing I can do is go to the emergency room, and I can't do that because I can't afford to pay for it. You can cut back on groceries, but that affects my cholesterol. There's only so much that you can rob Peter to pay Paul."



Regina Holder

***Mary Hedgepeth at her desk in Rocky Mount.***

She wonders whether her ulcers and anxiety wouldn't subside if she didn't have to worry so much about making ends meet. "My God, I just can't think about if I don't pay my light or phone bill what will happen," she says. "Do you know what it's like to come home and flip the switch to see if you've got lights or pick up the phone to see if it still works? It's nerve-wracking."

Hedgepeth's vision loss began in the mid-1980s. She says her vision loss stems from detached retinas, cataracts, a weak—or lazy—right eye and dry-eye syndrome. She isn't certain what caused what, but she suffers progressive vision loss, and the treatments are expensive and experimental.

The contact lens that improves the vision in her strong eye has long needed replacement, but a new lens costs money. She risks additional vision loss and a dangerous eye infection because she cannot see well enough to remove the contact lens and clean it herself. She simply leaves it in, day and night, because she cannot afford to have it removed and cleaned.

The vision in her right eye might improve through an experimental lens implant. "The doctor couldn't guarantee better sight or for how long, but it's possible," she says. "And I want it if only for cosmetic reasons. I don't like to have my picture taken anymore because of the way it looks." But until Hedgepeth's financial situation improves, she has given up on the operation. "I didn't make any plans for it because I couldn't afford it," she says.

Her twins already exhibit some of her vision problems. Both have partially detached retinas. And 15-year-old Lionel has arthritis problems with his back and an ailment called loose body osdeochondritis disease that caused him to require arthroscopic knee surgery in September 1991.

Hedgepeth holds small hope of getting a job that would enable her to pay for private health insurance. She continues to take training programs virtually whenever and wherever available and to try to find a job. But she fears there is no work for her in Rocky Mount.

"A woman at Social Services here said I had more going for myself than most of the people there, but I'd have to relocate because businesses wouldn't hire me because I'm a safety hazard . . . and a black lady with education," says Hedgepeth. "I'll do anything I think can help me," she says. "I would leave Rocky Mount in a heartbeat if I could get a job. I enjoy working."

Hedgepeth has an associate degree in business administration. She has worked for most of the past 20 years, nine of those years in a fast food restaurant and six as a nurse's aide. While in college, she was a work-study student, and for a time she did bookkeeping for the city of Rocky Mount.

"Society has me stereotyped, and I can't be very productive—as productive as I could be if I had my medicine and some insurance. I could work around my problems if I could pay for my medicine, and I can get any equipment I need to do a job from Services for the Blind."

Still, she's had no luck finding a job. And so Hedgepeth demonstrates her productivity as a volunteer for the guardian ad litem program and for Big Brothers and Big Sisters. She serves on the boards of the National Federation for the Blind and of N.C. Fair Share, a grassroots organization that helps promote better health-care benefits. Hedgepeth also works with a health-care steering committee in Rocky Mount that is trying to open a public health clinic for Edgecombe County residents. The city lies in two counties, and a health clinic would save Edgecombe residents from having to go to Tarboro to get services.

All this volunteer work is important to Hedgepeth, but it won't help her pay her bills. "I don't like living off the system," she says, "and here I have strived to get an education and to instill the importance of education in my kids, but they see me with no job and they say, 'You got an education, and it didn't do no good.'"

## Nancy Smith, Raleigh

THE BIGGEST COMPLAINT NANCY SMITH has about being on Medicaid is the application process. Eight years after getting up the nerve to walk into the Wake County Social Services Department and apply for the program, the humiliation of the interview still burns in her memory.

"They wanted to know everything but basically your shoe size," says Smith. "I don't think because you're poor or in a transition period is a crime, and I needed some health insurance. . . . They didn't need to treat me like a criminal." Smith, 42, and her three children have been covered by Medicaid since 1983, shortly after she fled home and her abusive husband. "We ran away from home and gave up everything," she says. "I thought Medicaid would help me through the transition."

Smith didn't realize that eight years later she would *still* be in transition—still making do with Medicaid. "The biggest problem is [that Medicaid] does not pay the full cost of medications," says Smith. "And if the pharmacy I use is closed, maybe another pharmacy won't take the prescription because I've used the Medicaid prescription card somewhere else.

"Or you get a prescription, and the pharmacist will tell you Medicaid doesn't cover this. There's been some medicines I couldn't afford, and sometimes I had to go back and get another prescription I could afford. I didn't mind. You better not mind or else."

Finding doctors who accept Medicaid also can be difficult. "Medicaid is like food stamps, only worse, because not every doctor takes Medicaid," Smith says. "You have to hunt a lot, and you may not find the doctor you want or like.

"I go through the Yellow Pages. It's almost like a crossword puzzle. You have to search them out. For example, the kids go to the Wake Teen Clinic, and I feel they have gotten the quality of care they would if we had paid privately. But you can't always get the same doctor—the one that's been used to you. I don't have a regular doctor at all.

"When you go to the public health clinic, it's like a factory. They don't know you, and you have to wait and wait. I hear war stories of waiting half a day."

In the years immediately following her marriage, Nancy was agoraphobic, overweight, and had bad teeth. "I needed to re-establish myself as a person," she says. "I knew I was OK, but I didn't know how I fit together."

The first thing she wanted to do was be able to smile again. "I had left the marriage with broken teeth," says Smith. Medicaid paid for her dental work. "But you have less choice of a dentist, and you can't, at least I couldn't, get a root canal, so some teeth I wanted to save I couldn't because it would take too much work. But they did realign my jaw, and now I can smile."

Nancy could never determine whether Medicaid would pay for personal or family counseling. "At first it seemed like they would in a limited way and not for long," she says. "Then it seemed they didn't cover counseling at all. Then, who knows? I'm to the point on a lot of things where I say, 'Why bother?'"[1]

But counseling was important to Smith. "I believe in preventive care," she says. "My mother taught me that. I had gotten my kids and myself into family counseling before we decided to run away. I didn't want my kids to become alcoholics like their daddy, or drug addicts or abusers. So I wound up paying for the counseling on my own. Thank goodness it was on a sliding scale. Think about it: counseling weekly for four people for five years! But that counseling has helped me more than anything."

Regina Holder

***Nancy Smith—a mother on Medicaid.***

At the time, Nancy was supporting her three boys—now 19, 20, and 25—on $266 a month from Aid to Families with Dependent Children and $50 a month in support from their father.

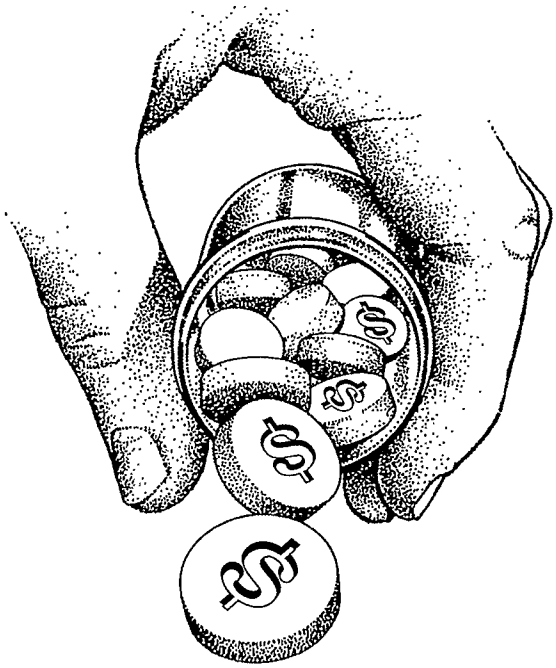
By and large, the family's medical needs have been routine. "All we ever did was go in for yearly exams and to the dentist," Nancy says. But the routine medical needs of growing boys do include emergencies. There was the time four years ago that Ryan's appendix ruptured in school. He had to have an emergency appendectomy and spent almost three weeks in the hospital. Or the time last December when Robert had to have minor, sports-related surgery. Or the time he got cut with pliers. Medicaid covered it all. "I never even saw the bills," Nancy says.

"But," says Nancy, "we're not sickly people. We're very lucky. I've met people with a lot worse problems than I have with Medicaid. I know people who use up the limit" of 24 paid doctor's office visits a year.

The one medical condition Nancy wanted to tackle in 1983 but has yet to address is her weight. "I have wanted to go into counseling for weight and exercising," she says. "I really want to do that."

"And," she adds, "my mother taught me to smother. Now I'm trying to learn to be a mother and keep my hands off my kids and let them grow."

[1] Dennis Williams, assistant director for medical policy in the Division of Medical Assistance, N.C. Department of Human Resources, says Medicaid generally does pay for counseling at Area Mental Health centers but not in every circumstance.



# Health Care Cost Containment: Does Anything Work?

by Nina Yeager and Jack Betts

*North Carolinians shelled out an estimated $12.3 billion in total health care expenditures in 1990, and that huge sum is projected to soar to $32 billion by 2000. The rapid increase in health care facilities and equipment is part of the reason, and so is the cost of certain medical procedures. What drives the high cost of health care? And what can be done to come to grips with these sky-rocketing costs? What devices have other states used to try to put a lid on cost increases and still provide adequate levels of care to their citizens?*

Think of national health care costs as a line on a piece of graph paper. And compare that line to a few other graphic cost lines. The personal income line: steadily up, more than 7 percent per year from 1983–1990. The corporate profit line: moderate growth over the same period, up by an average of about 4.8 percent. The government revenue line: average growth of 9.75 percent. The consumer price index: generally up, an average of 4.7 percent.

And then there's the health care line—up, up, up: From 1980 through 1990, up every year, for a whopping average of 10.4 percent. That makes the growth in health care costs soar over other increases and off the edge of the page.

State policymakers and health care officials are wringing their hands about how to rein in health care costs—and about the impact of efforts to control costs on the delivery of care. This is what one foundation has to say: "Health care costs in the United States have risen dramatically, far outpacing economic growth, general inflation, and families' incomes. These spiraling health costs are creating an emergency—a crisis of affordability for consumers, government, labor, and business. Families are paying more in premiums, deductibles, and copayments while often seeing their benefits shrink. Employers faced with double-digit premium increases now find that health care costs [are equal to nearly] 94 percent of net profits. Rising costs have also resulted in a growing number of Americans without adequate health coverage, or none at all."[1]

Too dramatic a description? Consider the rate of spending from all sources—public and private—on health care in the United States. Not that long ago—1980 to be precise—we were spending about $230 billion annually on health care—a tidy sum. In 1990, we managed to spend nearly triple that amount—about $606 billion. By 2000, Families USA Foundation projects, the total tab will have more than doubled again—to a projected $1.5 trillion, give or take a few score billion dollars. "The cost of health care is out of control and beyond control," says Glenn Wilson, professor of social medicine at the UNC–Chapel Hill School of Medicine.

Unfortunately, the 1991 health-care price hike of 11.8 percent is not unusual, and Families USA Foundation predicts that costs won't moderate over the next decade. The group says that without fundamental reforms in our health care system, per capita spending on health care will consume 15 percent of the nation's gross national product by 2000.

The news is no better for North Carolinians than for the rest of the country. Total health care spending in North Carolina rose 137 percent between 1980 and 1990 and will more than double by the year 2000, from an estimated $12.3 billion in 1990 to a projected $32.2 billion in 2000 (see Table 2, page 52). In one year alone, hospital bills in North Carolina rose by nearly 18 percent.[2]

***Not that long ago—1980 to be precise—we were spending about $230 billion annually on health care—a tidy sum. In 1990, we managed to spend nearly triple that amount—about $606 billion.***

The strain of rising health care costs on state government was evident during legislative budget deliberations for the 1991–93 biennium. In the midst of a $1.2 billion budget shortfall, the State Employees Health Plan needed $75.2 million in state appropriations to meet the cost of health care for state employees and retirees. Meanwhile, the state's Medicaid Plan needed $113.3 million in new money to cover *current* operating expenses—an increase of 25 percent over the previous year.

Government is not the only third-party payer complaining. In a 1990 survey conducted by *Business and Health* magazine, nine of 10 top executives in firms averaging 3,500 employees listed rising health insurance premiums as the health care issue of greatest concern. On average, premiums for employees in the companies surveyed rose 20 percent in 1990.

The picture is even worse for small business owners, some of whom complain premiums have jumped more than 150 percent since 1984.[3] Leaders of organized labor, like their management coun-

---

*Nina Yeager is a senior analyst with the Fiscal Research Division of the North Carolina General Assembly. Jack Betts is editor of* North Carolina Insight. *Assisting in the research for this article was Center Intern Ellen Breslin.*

terparts, see the escalating cost of health care premiums for employees as the most critical and potentially disruptive element in employee relations today.

These rate increases bring up a central question, says Blue Cross and Blue Shield of North Carolina economist Sandra Greene. "How much more can we expand the health care system and still afford to pay the bill?" she asks. Greene says North Carolina is engaging in a "medical arms race" that makes health care increasingly costly—at least in part because there are so many high-cost medical facilities and high-tech services and devices available.[4] Greene says a national Blue Cross and Blue Shield study—not released to the public—found that many costly procedures were performed more frequently on Blue Cross and Blue Shield of North Carolina subscribers than among BCBS subscribers in 15 other states studied, puncturing the myth that we are a medically underserved state.[5] "We have to conclude from this that our subscribers are receiving large amounts of medical care in this state," notes Greene, who asks whether all this care really is necessary.

Figures from the N.C. Medical Database Commission point out clearly how the costs of certain medical procedures have increased in a short period. The commission noted that the average cost of a heart transplant increased from $88,496 in 1988-89 to $139,773 in 1989-90, a 57.9 percent increase (see Table 3, page 55, for more). The cost of a cardiac valve procedure was up 16 percent, from $47,846 to $55,494; and the cost for a coronary bypass was up from $29,417 to $33,643—a 14.4 percent increase.[6]

The North Carolina Hospital Association is equally concerned about these high costs. In a recently-adopted policy statement, the association points out that in one year alone (1988), the average cost of hospitalization in North Carolina jumped from $4,400 to $5,008, according to figures from the database commission.[7] One reason for that huge increase is "cost-shifting," the association says—covering the unpaid bills of indigents by shifting their costs to paying customers. That can amount to a third of bills, and may hit the 50 percent mark by 1994 (see Figure 1, page 54).

Higher costs do not mean that more Americans have access to health care. On the contrary, the number of uninsured Americans rose from 25 million in 1980 to an estimated 37 million in 1989.[8] At least one person in eight has trouble getting access to health care of any kind. The ranks of the medically indigent are likely to swell as employers stop offering health insurance benefits entirely. It is clear that until we get control of rising costs for those who are already insured, there's little hope for expanding coverage to growing numbers of medically indigent citizens.

There are those who see runaway health care costs as potentially apocalyptic—threatening the very viability of the nation itself. Former Colorado Gov. Richard Lamm calls rising health care costs an "economic cancer" that threatens the nation's competitive edge in the international marketplace. He has become a proponent of rationing health care. "We're denying polio and flu shots to kids for exotic things like Barney Clark's artificial heart," says Lamm.[9]

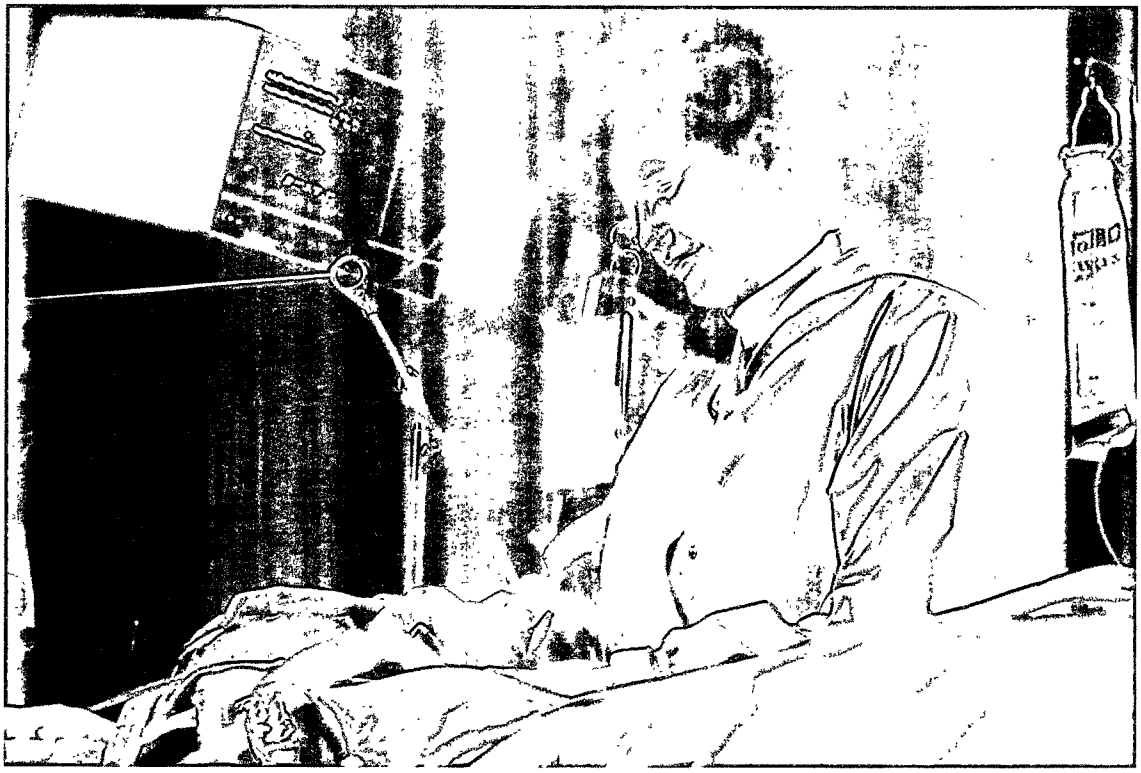
**Table 1. Rate of Growth in Selected Costs of Living, 1980-1990**

| | |
|---|---|
| Energy: | 1.9 percent |
| Apparel: | 3.6 percent |
| Transportation: | 4.5 percent |
| **Rate of Inflation (CPI):** | **4.7 percent** |
| Food and Drink: | 5.2 percent |
| Entertainment: | 5.8 percent |
| Housing: | 5.9 percent |
| **Medical Care:** | **10.4 percent** |

*Source: Dan M. Bechter, "Consumer Prices,"* Cross Sections, *Federal Reserve Bank of Richmond, Spring 1991, p. 12.*

## What Factors Drive Up Health Care Costs?

Although there is little agreement about what to do to cure the cost problem, there is some agreement among experts about what factors are driving costs. Those factors include 1) high technology, 2) demographic changes, 3) the American psyche, 4) mental health coverage, 5) health care



Wake Medical Center

wages, 6) physician fees, 7) malpractice costs, 8) administrative costs, 9) marketing, 10) growth of outpatient care, 11) cost shifting, and 12) price insensitivity.

1. *High Technology:* Powerful medical technologies such as life-saving artificial organs, advanced wonder drugs, experimental cancer treatments, advanced diagnostic devices, and new infertility treatments are major factors in the cost equation. Advances in high-technology medicine may contribute more than 50 percent to annual cost inflation for health care, economists estimate.[10] Ironically, researchers and health care officials alike expected that high technology would be a powerful cost-*cutting* force. In addition, medical success itself often adds to the health care tab (see sidebar on page 105 for more). For example, recent advances in neonatal care enable premature babies weighing under a pound to survive at a cost ranging from $200,000 to $1 million. Unfortunately, about 30 percent of the premature babies who survive have handicaps which require additional health care spending.

What's worse, not all technologies actually improve care or are even necessary. A Rand Corporation study of Medicare records for 300,000 patients found that more than one-third of three major procedures—coronary angiography, upper gastrointestinal endoscopy, and opening carotid arteries—were unnecessary or of questionable benefit.[11] Other studies have concluded that as much as 20 percent or $100 billion of the money spent on health care is wasted.[12]

2. *Demographic Changes:* High-tech medicine combined with an aging population is a potent force that will drive health care costs in the years ahead. On average, 85 percent of an individual's health care expenses accumulate in the last two

***North Carolina is engaging in a "medical arms race" that makes health care increasingly costly—at least in part because there are so many high-cost medical facilities and high-tech services and devices available.***

## Table 2. Spending on Health Care, All Sources, by State

| State | Estimated Per Capita Spending 1990 | Rank | Total Spending in 1990 (billions) | Estimated Per Capita Spending 2000 | Total Estimated Spending in 2000 (billions) |
|---|---|---|---|---|---|
| Alabama | $2,286 | 26 | $ 9.5 | $5,201 | $22.7 |
| Alaska | 2,367 | 21 | 1.2 | 5,390 | 3.2 |
| Arizona | 2,211 | 30 | 8.1 | 5,031 | 23.3 |
| Arkansas | 1,944 | 42 | 4.7 | 4,423 | 11.1 |
| California | 2,894 | 2 | 84.7 | 6,584 | 223.6 |
| Colorado | 2,415 | 20 | 8.0 | 5,496 | 18.8 |
| Connecticut | 2,699 | 6 | 8.8 | 6,136 | 20.9 |
| Delaware | 2,268 | 27 | 1.5 | 5,160 | 4.1 |
| Florida | 2,427 | 19 | 31.4 | 5,520 | 90.1 |
| Georgia | 2,072 | 38 | 13.7 | 4,714 | 37.7 |
| Hawaii | 2,469 | 15 | 2.8 | 5,619 | 7.6 |
| Idaho | 1,726 | 49 | 1.7 | 3,926 | 3.9 |
| Illinois | 2,619 | 8 | 30.6 | 5,953 | 69.8 |
| Indiana | 2,201 | 31 | 12.4 | 5,004 | 28.5 |
| Iowa | 2,351 | 22 | 6.6 | 5,343 | 13.6 |
| Kansas | 2,548 | 11 | 6.4 | 5,792 | 14.7 |
| Kentucky | 1,875 | 43 | 7.0 | 4,266 | 15.7 |
| Louisiana | 2,185 | 33 | 9.5 | 4,972 | 20.6 |
| Maine | 2,175 | 34 | 2.7 | 4,945 | 6.6 |
| Maryland | 2,436 | 18 | 11.6 | 5,541 | 31.1 |
| Massachusetts | 3,031 | 1 | 17.9 | 6,890 | 42.4 |
| Michigan | 2,569 | 9 | 23.9 | 5,840 | 54.7 |
| Minnesota | 2,480 | 14 | 10.9 | 5,641 | 25.8 |
| Mississippi | 1,751 | 48 | 4.6 | 3,984 | 11.0 |
| Missouri | 2,568 | 10 | 13.4 | 5,837 | 31.9 |
| Montana | 2,059 | 39 | 1.6 | 4,686 | 3.5 |
| Nebraska | 2,452 | 16 | 3.9 | 5,576 | 8.6 |
| Nevada | 2,757 | 4 | 3.1 | 6,272 | 8.8 |
| New Hampshire | 1,981 | 40 | 2.3 | 4,505 | 6.4 |
| New Jersey | 2,224 | 29 | 17.4 | 5,056 | 42.4 |
| New Mexico | 1,792 | 45 | 2.7 | 4,078 | 7.1 |
| New York | 2,818 | 3 | 50.4 | 6,408 | 115.1 |
| **North Carolina** | **1,833** | **44** | **12.3** | **4,170** | **32.2** |
| North Dakota | 2,661 | 7 | 1.7 | 6,051 | 3.6 |
| Ohio | 2,493 | 13 | 27.2 | 5,667 | 61.9 |
| Oklahoma | 2,139 | 35 | 6.8 | 4,867 | 14.2 |
| Oregon | 2,312 | 24 | 6.5 | 5,260 | 15.3 |
| Pennsylvania | 2,536 | 12 | 30.5 | 5,763 | 69.6 |
| Rhode Island | 2,707 | 5 | 2.7 | 6,153 | 6.4 |
| South Carolina | 1,689 | 50 | 6.0 | 3,842 | 15.2 |
| South Dakota | 2,322 | 23 | 1.6 | 5,278 | 3.7 |
| Tennessee | 2,262 | 28 | 11.3 | 5,145 | 27.9 |
| Texas | 2,192 | 32 | 37.4 | 4,987 | 88.9 |
| Utah | 1,784 | 46 | 3.1 | 4,062 | 7.5 |
| Vermont | 1,956 | 41 | 1.1 | 4,448 | 2.7 |
| Virginia | 2,076 | 37 | 12.9 | 4,724 | 34.4 |
| Washington | 2,311 | 25 | 11.1 | 5,258 | 27.3 |
| West Virginia | 2,088 | 36 | 3.8 | 4,752 | 7.8 |
| Wisconsin | 2,449 | 17 | 11.9 | 5,567 | 26.9 |
| Wyoming | 1,756 | 47 | 0.8 | 3,996 | 1.6 |
| **United States** | **$2,425** | | **$605.9** | **$5,515** | **$1,476.5** |

*Source:* State Policy Reports; *Vol. 9, Issue 1, p. 18; and LEWIN/ICF Health & Sciences International Co. for the Families U.S.A. Foundation and Citizen Action, Washington, D.C.*

***A hospital bed is a parked taxi with the meter running.***

— GROUCHO MARX

years of life.[13] This is true regardless of age, since accidents and illnesses occur throughout lifetime and may require large expenditures whenever they occur. Still, the elderly do account for large portions of health care costs. "Today, those over 65 account for about 11 percent of the population and consume 35 percent of all health care dollars," *BusinessWeek* magazine reports. "By 2040, those over 65 will account for 20 percent of the population and will use an even greater proportion of health care expenditure, since many medical technologies are aimed at prolonging their lives."

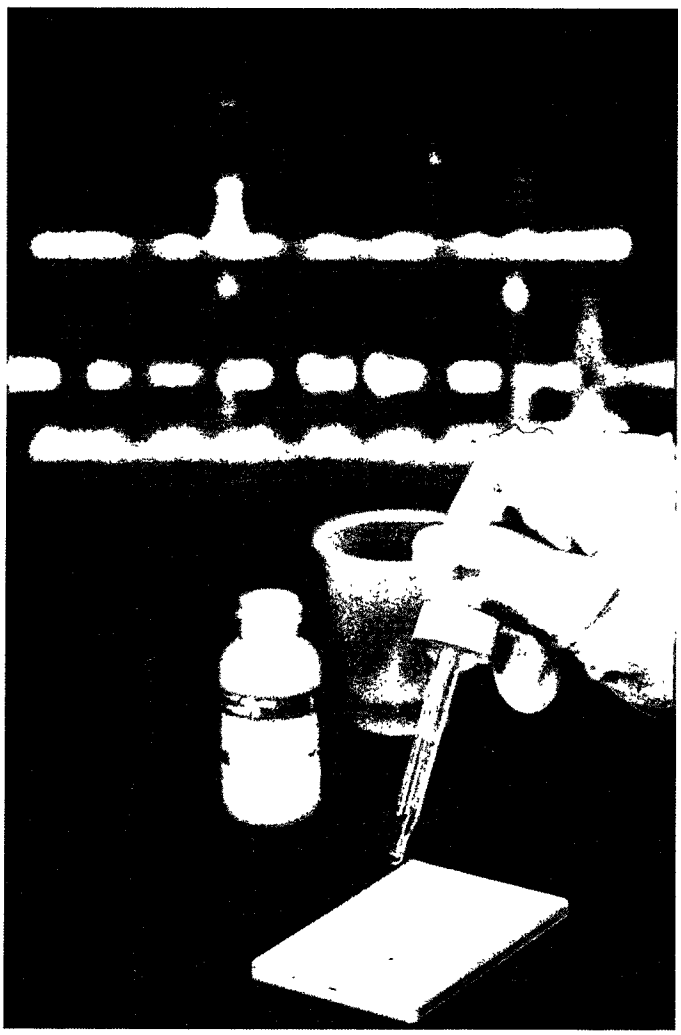
3. *The American Psyche:* Most American citizens believe that alongside life, liberty and the pursuit of happiness is the right to the best and newest in American medicine (see article on page 109 for more). A 1987 Harris Poll found that nine out of every 10 Americans believe that everyone deserves care "as good as a millionaire gets"[14]

4. *Mental Health Coverage:* Depression, substance abuse, and stress-related health problems rank among the top 10 health problems in the work force. Once inaccessible to the average employee, expanded medical coverage for these problems now accounts for about 10 percent of employer medical plans.[15]

5. *Health Care Worker Wages:* From 1977 to 1987, wages in most industries failed to keep pace with inflation, but health care workers did better, outpacing employees in the rest of the economy by 6.8 percent per year compared to 5.5 percent for other workers. Economists consider these wage increases a significant factor in the rapid rise of health care costs. Recent improvements in wages for nurses, who provide the bulk of patient care but who have been in short supply until recently, are likely to continue in order to keep health care facilities operating and viable.

6. *Physician Fees:* The overall rise in physician incomes has played its part in the rising cost of health care. The net income of physicians grew 8.1 percent per year compared to 5.5 percent for other workers from 1977–1987. In 1987, the typical income for a physician was $116,000, but the median income for specialty physicians was nearly three times that amount.[16] Rising incomes are *not* related to increased productivity. On the contrary, physicians are seeing 8 percent fewer patients per week than 10 years ago despite—or because of—an increase of 44 percent in the number of physicians over the same period.

7. *Malpractice and Defensive Medicine:* When physicians order tests or other services in order to protect against charges of malpractice—rather than because they believe those services to be of value to their patients—they are practicing *defensive medicine.* Extensive record-keeping and



*Karen Tam*

unnecessary patient testing reduce physician productivity and increase costs. Some studies indicate that up to 25 percent of doctors' procedures are done for defensive reasons.[17]

8. *Benefit Administration:* Physicians and hospitals face a bewildering array of insurance plans which require substantial numbers of clerical personnel to handle the large volume of paperwork. The greatest growth in health care employment has been in the offices of physicians and surgeons, where employment has been increasing at an average rate of 7.6 percent annually.

9. *Health Care Marketing:* Increased competition among providers for paying consumers of health care has meant marketing, advertising, new computer systems, management consulting, and the like. These additional costs are not likely to result in an increase in the quality or quantity of health care delivered, but they do increase the overall cost of delivering care.

10. *Growth of Outpatient Settings:* In hope of reducing overnight hospital stays for routine treatment, medical insurers and employers encouraged the use of a variety of programs to increase outpatient care in doctors' offices and clinics. The result is that today, those outpatient settings contain laboratory, diagnostic, and surgical equipment that once was available in hospitals only. This proliferation of equipment, combined with advances in surgical techniques, has reduced *inpatient* hospital care.

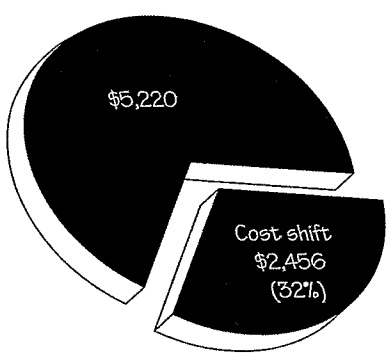
That's the good news. The bad news is that the cost of health care has continued to rise, particularly costs for *outpatient care.* In 1988, outpatient costs rose 25 percent. One reason for the rise in costs may be third-party payers' failure to control utilization of outpatient care. Outpatient services generate numerous bills, as opposed to a single itemized bill for a hospital stay, and that makes it difficult to track total costs for a specific procedure. From 1985 to 1990, outpatient billings have risen from 20 percent of total health care costs to 50 percent.[18]

**Blue Cross and Blue Shield of North Carolina estimates that in 1991 the average hospital admission will cost $7,676; of that, cost-shifting accounts for $2,456—32 percent of the total.**

11. *Cost Shifting:* Charges that can't be collected from third-party payers or from patients who can't pay for their care are shifted to paying patients and their insurance carriers. As payers tighten payment policies and the ranks of the medically indigent rise, the size of the cost shift to paying patients snowballs. How much does it amount to? Blue Cross and Blue Shield of North Carolina estimates that in 1991 the average hospital admission will cost $7,676; of that, cost-shifting accounts for $2,456—*32 percent of the total.*[19]

12. *Price Insensitivity:* Although the experts may disagree on the relative importance of each of the cost components, there is a consensus that the core of the cost problem is price insensitivity for patients who consume the services, physicians who order the services, and insurers who process payments for services. Consumers of care pay a relatively small portion of the cost of their care and have little incentive and little information to shop for low-cost health services. The doctor who orders the care has no financial incentive to use cost-effective services and suffers no consequences for ordering unnecessary procedures. The insurer simply passes the cost back to the employer or the consumer. No one feels the financial impact of the decisions and choices they make.

**Figure 1. 1991 Average Hospital Stay Cost**




Total Average Cost: $7,676

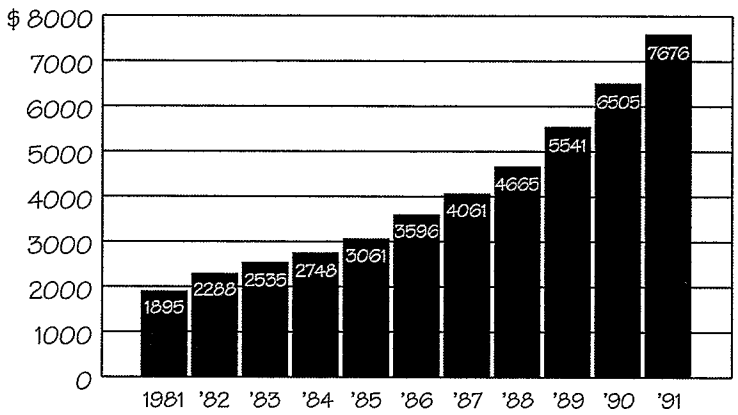
*Source: Blue Cross and Blue Shield of North Carolina*

## Table 3. Most Expensive Medical Procedures in North Carolina, 1988–1990

| Medical Case | October 88–September 89 | October 89–September 90 | Percent Change |
|---|---|---|---|
| Heart Transplant | $88,496 | $139,773 | + 57.9% |
| Respiratory System Diagnosis with Tracheostomy | 78,099 | 88,293 | + 13.1% |
| Extensive Burns with Operating Room | 70,544 | 65,466 | - 7.2% |
| Cardiac Valve Procedure with Pump without Catheter | 47,846 | 55,494 | + 16.0% |
| Kidney Transplant | 38,089 | 42,769 | + 12.3% |
| Other Cardiothoracic or Vascular Procedures with Pump | 39,352 | 41,700 | + 6.0% |
| Cardiac Valve Procedure with Pump with Cardiac Catheter | 37,962 | 40,244 | + 6.0% |
| Craniotomy for Trauma | 28,781 | 35,292 | + 22.6% |
| Coronary Bypass with Cardiac Catheter | 29,417 | 33,643 | + 14.4% |
| Extreme Immaturity/ Respiratory Distress Neonate | 21,908 | 33,542 | + 53.1% |

*Source: N.C. Medical Database Commission*

**Figure 2. Average Hospital Charge per Admission, in Dollars**




*Source: Blue Cross and Blue Shield of North Carolina*

## Cost Containment Strategies

Efforts to gain control of health care costs have been underway since the 1970s. Generally, efforts have focused either on making consumers more aware of costs, or tightening controls on costs that insurers and other third-party payers, like the government, will pay for health care. These efforts fall within five categories: A) increasing the consumer's share of costs, B) increasing third-party payer control, C) creating incentives for efficiency, D) encouraging competition among health care providers, and E) controlling the supply of services and facilities through Certificate of Need programs.

An additional category—strengthening and expanding prevention programs to improve health and reduce demand—ought to be on every state's agenda, argues Ron Levine, a physician and the State Health Director. "The public health perspective, that is, prevention as a strategy to contain health care cost, is conspicuously absent," notes Levine, but programs adopted in North Carolina and five other states, including Virginia, may pay benefits in cost containment efforts.[20]

A. *Increase the Consumer's Share of the Cost.* The first approach has been to change the behavior of consumers by requiring them to pay a larger portion of the cost of their care. Obviously, larger employee deductibles (the amount of health care costs employees must pay before insurance payments kick in) and higher co-payments (fixed portions of health care costs that employees must pay on certain procedures) reduce costs for employers. The State Employees Health Plan, for example, saved $37 million by raising co-payments and deductibles for state employee health insurance. The increased co-payments and deductibles will cost state workers an average of $756 annually in coverage for their family health insurance in the coming year. But this approach poses some risks as well. Shifting costs to enrollees may deter them from obtaining care in the early stages of health problems, perhaps leading to a need for more expensive care later. The lower the employee's income, the greater the risk. In addition, once treatment is sought, increased deductibles and co-payments have little impact on a provider's medical decisions.

B. *Increase Third-Party Payer Control.* The second approach seeks to limit demand for health care by discouraging providers—doctors, facilities, insurers and other payers—from providing unnecessary or costly care through what euphemistically are called "utilization controls." These include *pre-admission certification,* which means patients must be approved for elective medical procedures prior to admission; *concurrent review* for inpatient stays, which means medical committees must review individual cases to determine if

patients should continue to stay in the hospital after a certain period; requiring *second opinions* from at least one more doctor before approval for elective surgery; and the like.

Utilization controls have become a standard feature of health insurance programs. Today, Medicare, state Medicaid programs, and more than 72 percent of employer-sponsored health plans make use of utilization controls. Despite their widespread use, there has been little systematic study of these mechanisms, and the evidence that they actually reduce spending is limited.[21]

C. *Create Incentives for Efficiency.* A third approach to cost control is to induce providers to make cost-saving changes by providing incentives for greater efficiency. An example of this approach is Medicare's DRG system—an acronym for *Diagnostic Related Groups*—which pays hospitals a fixed payment per case based on the patient's diagnosis. That keeps the government's costs down. And if the hospital can provide the service for less than the amount government will reimburse the hospital, the hospital can keep the difference.

Critics of this system claim that tightening the belt in one area tends to cause costs to balloon in another area. Hospital charges the DRG system fails to pay are shifted to other third-party payers, or to the taxpayer. For this reason, savings for one payer may not translate into system-wide savings.

D. *Encourage Provider Competition.* A fourth approach to cutting health care costs is to encourage consumers to choose among competing health plans. This approach assumes that consumers will pick the best health care value for their dollar just as they do when buying any other commodity. The validity of this assumption may be the key to the success or failure of this approach. There are two key programs competing in this arena—a) Health Maintenance Organizations (HMOs) and b) Preferred Provider Organizations (PPOs).

a. *Health Maintenance Organizations* represent a major effort to introduce a market orientation to the health care field.[22] HMOs provide a fixed package of health services for a fixed price that is independent of the use of the service. HMOs emphasize preventive visits in the hope of avoiding more costly treatment in the future. Services usually include ambulatory care and inpatient hospital services. Because the HMO assumes financial risk or gain in the delivery of the services, the HMO has a financial incentive to reduce unnecessary procedures and make the most of cost-saving practices. With HMOs, costs for health care are capped for the employer or insurer by contract. Consumers pay a relatively small fee, if any, for a service within the package. However, services outside the HMO package are paid for by the consumer only.

Nationwide, the number of HMOs has more than doubled over the past decade. Over the same period, enrollment has more than tripled, serving nearly 15 percent of the nation's population. Ten HMOs have been licensed in North Carolina since their introduction in 1984. By 1989, a total of 266,199 persons—more than 4 percent of the state's population—were enrolled in HMOs statewide. Most (71 percent) of the state's HMO participants live in the five largest metropolitan counties (Mecklenburg, Guilford, Wake, Forsyth, and Durham).[23]

b. *Preferred Provider Organizations* are also growing, having trebled in number since 1984, and serving more than 26 million persons nationally by 1991. Preferred Provider Organizations can take a variety of forms. Unlike HMOs, they take none of the risk for providing care, but act as brokers to negotiate contracts among employers, doctors, and patients.

PPOs can be organized by physicians or hospitals or a combination of both providers. Insurance companies, employers, and third-party administrators also establish PPOs. Some common elements apply to most. The broker negotiates an agreed-upon discount from the providers' normal fee schedule. Preferred providers may be physicians, pharmacies, hospitals and others. Discounts typically vary from as little as 5 percent to as much as 30 percent off the cost of conventional services.

Employers and insurers give consumers incentives to use the preferred provider, but patients are not restricted to PPO providers for health care. For example, the employer may be willing to pay the full cost of care from a physician on the preferred provider list but require employees to pay co-payments for services from other physicians. In this way, the insurer or employer basically sets a cap on the payment for a given service.

E. *Limit Supply of Services and Facilities.* Federal legislation enacted in 1974 created the Certificate of Need process, which was designed to control health care costs by limiting facilities and services. Costly new facilities and services could be offered only after issuance of a formal Certificate of Need—with a formal finding that the service or facility was needed to meet health care needs (for more, see page 60).

## What Are Other States Doing?

Beyond these four broad system-wide strategies for controlling costs, various state governments have attempted to impose mechanisms to come to grips with rising costs—or at least to gauge how fast and how high costs are rising. In July 1991, the N.C. Center for Public Policy Research conducted a telephone survey of each of the 50 states' chief health planning agencies in an effort to learn what steps the states were taking in health care cost control. The results are summarized in Table 4.

State efforts fall into three categories—1) health data collection, 2) Certificate of Need approval processes, and 3) rate-setting commissions. Together, these three activities symbolize the overall attitude states share towards government regulation of the private health care system.

As Table 4 indicates, a few states create a highly regulatory environment in which private hospitals must operate, most of them in the northeast. The remainder prefer free competition, leaving little room for government regulation and involvement in health care cost containment.

North Carolina is among those states with relatively little government regulation in controlling health care costs. The state does collect data on hospital discharges, but so far does not collect the sort of financial data that other states use as a comparative basis to make decisions about cost containment and to inform consumers. North Carolina also has a Certificate of Need program, but has not seriously considered a rate-making commission.

1. *Health Data Collection Systems:* In the age of rising health care costs, more and more

### Table 4: State Data Systems and Regulatory Approaches

| State | (1) States with Data Collection Systems | | (2) States with Certificate of Need Laws Requiring Approval for Health Care Facilities | (3) States with Mandatory Rate-Setting Mechanisms for Hospitals |
|---|---|---|---|---|
| | A. Hospital Financial Data | B. Hospital Discharge Data | | |
| Alabama | N | N | Y | N |
| Alaska | Y | N | Y | Y |
| Arizona | Y | Y | N | N |
| Arkansas | N* | N | Partial | N |
| California | Y | Y | N | N |
| Colorado | Y | Y | N | N |
| Connecticut | Y | Y | Y | Y |
| Delaware | N** | Y | Y | N |
| Florida | Y | Y | Y | Y |
| Georgia | Y | Y | Y | N |
| Hawaii | N | N | Y | N |
| Idaho | N | N | N | N |
| Illinois | Y | Y | Y | N |
| Indiana | N | N | Partial | N |
| Iowa | N | Y | Y | N |
| Kansas | N | N | N | N |
| Kentucky | N | N | Y | N |
| Louisiana | N | N | Partial | N |
| Maine | Y | Y | Y | Y |
| Maryland | Y | Y | Y | Y |

| State | (1) States with Data Collection Systems | | (2) States with Certificate of Need Laws Requiring Approval for Health Care Facilities | (3) States with Mandatory Rate-Setting Mechanisms for Hospitals |
|---|---|---|---|---|
| | A. Hospital Financial Data | B. Hospital Discharge Data | | |
| Massachusetts | Y | Y | Y | Y |
| Michigan | N*** | N | Y | N |
| Minnesota | Y | N | N | N |
| Mississippi | N | N | Y | N |
| Missouri | N | N | Y | N |
| Montana | N | N | Partial | N |
| Nebraska | N | N | Y | N |
| Nevada | Y | Y | Y | N |
| New Hampshire | Y | Y | Y | N |
| New Jersey | Y | Y | Y | Y |
| New Mexico | N | Limited | N | N |
| New York | Y | Y | Y | Y |
| **North Carolina** | **N** | **Y** | **Y** | **N** |
| North Dakota | N | Y | Y | N |
| Ohio | N | Y | Y | N |
| Oklahoma | N | N | Partial | N |
| Oregon | Y | Y | Y | N |
| Pennsylvania | Y | Y | Y | N |
| Rhode Island | Y | Y | Y | Y |
| South Carolina | N | Y | Y | N |
| South Dakota | Limited | N | N | N |
| Tennessee | Y | Y | Y | N |
| Texas | Y | N | N | N |
| Utah | N | N | N | N |
| Vermont | Y | Y | Y | N |
| Virginia | Y | N | Partial | Y |
| Washington | Y | Y | Y | Y |
| West Virginia | Y | Y | Y | Y |
| Wisconsin | Y | Y | Partial | Y |
| Wyoming | Y | N | N | N |
| Total | Y: 28<br>N: 22 | Y: 29<br>N: 21 | Y: 39<br>N: 11 | Y: 13<br>N: 37 |

* Arkansas: Legislation has been approved for data collecting.
** Delaware: In the process of developing a data collection system.
*** Michigan: Financial data collected by an independent agency.

*Partial:* States with a partial CON process are included in total of 39. The term "partial" is used to indicate states which have a CON that does not apply to all health care facilities, hospitals and nursing homes. Rather, the CON process only applies to particular facilities, for example, just hospitals and not nursing homes, or only to long term care beds and other specialty beds.

*Sources: N.C. Center for Public Policy Research Telephone Survey of Public Health Departments and Health Planning Agencies in all 50 states.*

*Chart Prepared by Center Intern Ellen Breslin*

states are engaging in *financial* and *discharge* data collection. Financial data include information on hospital charges and other medical service costs, while discharge data include extensive information on hospital use and occupancy. Of the 50 states, 35 have adopted health data collection systems in an effort to contain health care costs. Of these, 29 collect discharge information only, and 28 collect financial information only. Only 22 states collect *both* discharge and financial data. State officials clearly see the existence of a health data collection system as one of the less intrusive measures a state might impose.

In North Carolina, the General Assembly established the Medical Database Commission in 1985 out of concern for the state's increasing health care costs.[24] The commission collects discharge data, and is authorized by statute to collect financial data as well. The commission does collect some cost information, such as average charges for diagnoses, but dissemination of that information is limited.[25]

**North Carolina is among those states with relatively little government regulation in controlling health care costs.**

Janis Curtis, director of the N.C. Medical Database Commission, says the discharge information is essential to making sound policy decisions and in directing the state health care resources to the problems. "The more we are faced with limited resources, the more we need to use data to make our decisions," notes Curtis.

In general, state discharge data bases consist of information pertaining to every inpatient stay in a non-federal hospital. In 1991–92, the commission expects to develop an outpatient data base of information and in the future expects to develop a financial data base.

2. *The Certificate of Need Process.* Many states try to control the *supply* of care available to patients, usually through a Certificate of Need (CON) process that limits facilities and equipment. The view that medical utilization was driven by the very existence of an excess supply of medical resources led to the CON approach in the 1970s. First established in 1964 in the state of New York, health planning and Certificate of Need programs were eventually mandated for all states by Congress in 1974 in the Health Planning and Resources Development Act.[26] At last count, 39 of the 50 states, including North Carolina, have some type of Certificate of Need process. The federal requirement was eventually repealed in 1986, and so was federal support for state health planning programs and the CON process.

Nationwide, health planning and Certificate of Need programs have had mixed outcomes. In North Carolina, as in the nation, CON's biggest success has been in limiting the growth of nursing home beds. Because the heavily state-funded Medicaid programs (one-third of the costs are borne by the state and local governments) are the chief source of payment for nursing home care, the CON process is a major factor in Medicaid cost containment. Bob Fitzgerald, assistant director of the Department of Human Resources' Division of Facility Services, says the process has also provided for "more equitable distribution of health care resources across the state, particularly in the areas of nursing care for the elderly and the developmentally disabled."

Inappropriately applied, however, CON may reduce choices without affecting costs for medical care. For example, the CON process has been used to limit the availability of kidney dialysis services in the state. However, since Medicare pays a set fee for Medicare recipients of the service, limited availability of dialysis stations has no effect on the costs, but does limit patient choice and drive up the value of the provider's facilities. Lee Hoffman, director of the Certificate of Need section, says that in the last three years, the state has granted all the CONs applied for by existing dialysis providers, but has not approved CONs for new providers.

3. *The Rate-Setting Process.* Rate-setting is common in industrialized countries such as Canada and West Germany. Uniform rate-setting systems generally set rates by establishing a total budget for a hospital during the year, or by establishing a rate for total treatment of a case. In isolation, this approach does not necessarily halt spiraling costs. In a study of states with rate-setting systems during the period 1976 to 1986, actual per capita savings were found to be marginal because the rate-setting states failed to take steps to simultaneously reduce inpatient admissions.[27]

Only 13 states have set up mandatory rate-setting commissions, as Table 4 indicates. Most of these states are located in the Northeast. The closest to North Carolina are Virginia, West Vir-

Wake Medical Center

ginia, Maryland, and Florida. North Carolina does not have a rate-setting process, nor does it collect the type of information required to set rates. If the state decided to enact such a process, the Medical Database Commission would have to begin collecting financial data from the hospitals.

Clearly, the Center's survey indicates that among its peers, North Carolina is doing more than a few states in an attempt to cope with health care costs, but far less than other states that have gone in for more government involvement. There are those who suggest North Carolina should seriously consider hospital rate-setting. Leigh H. Hammond, a former North Carolina Utilities Commissioner and now director of the N.C. Association of Retired Government Employees, told a legislative committee in 1991 that a rate-setting procedure similar to the utility commission's would help control costs. That, said Hammond, would ensure that "an extensive examination of their costs of doing business" would be considered and that rates would be accurately set.[28] But N.C. legislators traditionally have been cool to the notion of government rate-setting in health care, and few expect the proposal to head the legislative agenda in the near future.

## Future Prospects

What's to be done? In an era of tighter state revenues and increasing demands for spending on education, environment, infrastructure, and a host of other public issues, how do policymakers plan to tackle health care costs?

The nation's governors have recently adopted plans to deal with costs by advocating a three-part strategy: 1) pushing for more managed health care systems (see description of "utilization controls," pages 56-57, for more), deregulating health care providers, and making prices and quality information more available to consumers; 2) developing a new system of health-care payers (such as a national health care system) and providing private health insurance for unemployed citizens not eligible for Medicaid; and 3) creating a uniform electronic billing system to reduce administrative overhead for providers and for consumers.[29] But beyond this broad strategy, what specific steps might state policymakers consider in coming years?

The list of potential targets includes, but is not limited to:

1. *Tighter Physician Payments.* New limits on physician reimbursements are one of the likelier strategies in coping with rising costs. The Medicare program is exploring modifications to its reimbursement system for visits to doctors that resemble the DRG payment system for hospitals.

2. *Increased Out-of-Pocket Costs for Patients.* Consumers of medical care can expect rising out-of-pocket expenses for health care as well. Business executives indicate that shifting increased costs to consumers will be their primary strategy for containing costs. To support their position, they point to a Rand Corporation study of health cost management which found that participants required to pay a $500 deductible cut usage by 25 percent, compared with those who paid no deductible; and those who paid a $1,000 deductible cut usage by 39 percent. After five years of tracking the health status of 8,000 people in the study, no significant health differences were found between

Wake Medical Center

groups that used the most health services and those that used the least.[30] Some North Carolina companies, like Nucor of Charlotte, are using much higher employee contributions to control costs.[31]

3. *Restraining System Growth.* Efforts to hold down the supply of health care resources may be strengthened and renewed. Limits on growth in the number of physicians and limits on expansion of medical care facilities and equipment can be expected in the future. But limiting the number of physicians could cause big problems in rural areas of North Carolina where health care costs may be one problem, but a lack of physicians is an even greater concern. In these areas, lack of facilities and professionals is a continuing problem (see article on rural health, pages 67–92, for more).

4. *Increased Pressure for National Health Insurance.* Farther out on the horizon, a growing number of business leaders have begun joining the ranks of advocates for national health insurance. While there hardly is unanimity on the subject, it is clear that many business leaders believe that some sort of national health care program should be created to provide a minimum, uniform measure of care. Some 30 percent of polled executives favor a government-sponsored program, 45 percent oppose such a program, and 25 percent take neither position. But of that same group, a whopping 77 percent believe that national health insurance will be instituted within the next five to 10 years.[32]

Some experts believe that business and industry have simply run out of time to make the alternatives to national health insurance work. Businessmen are not the only segment of society calling for national health insurance. In May 1991, the conservative American Medical Association added its voice to the call for universal health insurance, which would use public and private funding sources. Unfortunately, the AMA had few suggestions about how to restrain costs under the current system. But U.S. Sen. George Mitchell (D-Maine), the Senate majority leader, has proposed one such plan with cost control provisions in it (see page 15 for more on this plan).

5. *Assessing High-Tech Medical Procedures.* In the long run, some experts believe that successful cost containment strategies will inevitably focus on weighing the costs and benefits of technology. For that reason, there is growing interest in technology assessment that balances the cost of a procedure against its safety and effectiveness.

For example, Duke University medical economist David Eddy touched off a storm in 1989 when he suggested that annual mammograms may not be worthwhile because high false-positive rates

(incorrect diagnoses of breast cancers) would cost about $1 billion dollars annually. Eddy believes that health care policymakers need to examine the pros and cons of a procedure and give priority to practices that bring the most benefit for the resources they consume.

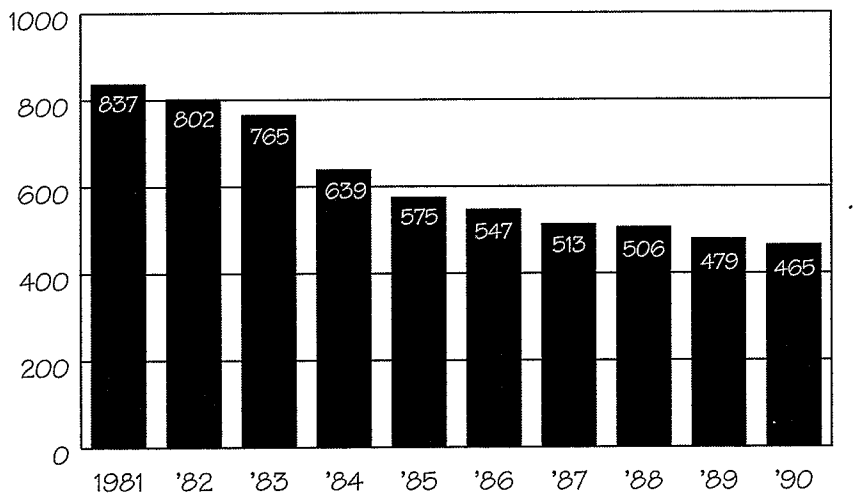
To some extent, the health care industry is already using medical evidence to evaluate safety and effectiveness and then promote or discourage certain procedures or techniques through their reimbursement policies. For example, evidence that modified mastectomies were just as effective to treat breast cancer prompted Blue Cross and Blue Shield in some states, though not North Carolina, to withdraw reimbursements for more radical procedures.

6. *Rationing Health Care.* One new antidote to soaring costs is rationing. This is among the most controversial of proposals, because it would limit health care resources for some patients in order to serve others—the notion of the highest public good for the greatest number. Rationing could (a) limit care to the elderly because many treatments offer little hope of sustained improvement, (b) provide less care to patients whose behavior brings on the illness (such as smoking or drinking heavily), (c) provide unlimited access to preventive care such as prenatal care and immunizations but limit high-tech care for the very ill, or (d) provide palliative care only to the terminally ill and use the remaining resources for prevention and treatment. Rationing formalizes what some critics say we already have—rationing care, in effect, based on a person's ability to pay.

Efforts to ration care on some other basis are underway. The state of Oregon may become the first state in the nation to implement rationing and make its health care priorities explicit. In 1987, the Oregon legislature voted to stop spending Medicaid money on costly organ transplants and to divert funds to preventive care for the poor. Since that time, Oregon has been struggling to rank treatments in order of importance and the state's most recent set of priorities is fraught with controversy. But the very fact that such an effort is underway is an indicator of the state of alarm about health care.

7. *Cutting Benefits and Eligibility for Medicaid.* The Medicaid program (paid for in North Carolina with federal, state and local funds, though other states do not require a local contribution) is always a likely target for state budget cost-cutting. In recent years, federally mandated coverage for some of the uninsured population, in addition to

**Figure 3. Average Hospital Days per 1,000 Population**




*Source: Blue Cross and Blue Shield of North Carolina*

***While most policymakers can easily identify cost containment strategies and tactics, the real difficulty lies in putting those devices into place so they will have an impact.***

medical inflation, has sent program costs skyrocketing. In 1991 alone, after cutting the proposed Medicaid budget by 17 percent, the N.C. General Assembly had to come up with $113 million to meet continuing costs. State policymakers, concerned about the poor and the ill and reluctant to shift costs to other payers, have avoided wholesale cuts in optional services and beneficiaries. For one thing, reductions in eligibles increases the number of uninsured, which contributes to cost-shifting, further increasing costs. In an era of limited state revenues, the struggle to fund the Medicaid program intensifies the pressure for some sort of national health insurance.

8. *Cutting State Employee Benefits, Raising Employee Contributions, and Raising Co-payments and Deductibles.* The N.C. General Assembly increased spending on state employee health plans by $75 million in 1991—another whopping increase despite decreased benefits. Deductibles were raised 67 percent and co-payments were doubled. Spending on state worker and teacher health care plans has risen rapidly in recent years, and legislators say privately these programs may get increased scrutiny in future years.

## From Here, Where?

While most policymakers can easily identify cost containment strategies and tactics, the real difficulty lies in putting those devices into place so they will have an impact. Once any of these devices takes effect, the citizenry will be affected in various ways—some will get greater coverage, some less; most patients will pay more, and some will pay a lot more.

In 1990, the National Governors' Association took note of this difficulty in health care reform, identifying six key realities about health care, financing, and coverage:

1) the public doesn't really favor the kinds of hard choices we need to make to reduce health spending;

2) Americans say they support health care cost solutions as long as they don't lead to dramatic changes in their own coverage;

3) the public still isn't sure whether it wants the country to have a mostly public or mostly private universal health care system;

4) Americans are willing to pay only a modest tax increase for a universal health plan;

5) the public is ambivalent about using the welfare system to provide medical care for the poor; and

6) although the public says it wants the federal government to *create* a national health care system, it doesn't have confidence in the government's ability to *operate* it properly.

Cost containment concerns obviously are on Americans' minds these days. *The **Polling** Report,* a newsletter reporting various polling data, said recently that 91 percent of Americans "believe we face a national health care crisis" and that 85 percent believes the health care system should be reformed. One in every four said they could not afford adequate health care in the past year; a majority of workers said they paid more for health plans than they did in 1989, and many said the prospect of losing their health insurance prevented them from changing jobs.[33]

How can legislators and other policymakers cope with these public attitudes on the one hand, and health care needs and cost containment problems on the other hand? No one seems to know for sure. State Sen. Russell Walker (D-Randolph), a leading legislative advocate for improved health care, says the legislature has not yet considered the cost containment question because it was dealing first with questions of access. "At this point," says Walker, "there is no answer to it. It is a state problem and a national problem, and we are going to have to have a solution."

Some proposals may develop from a task force of the N.C. Institute of Medicine, which is exploring ways to improve access to care for the uninsured and underinsured. "Affordable care, and access to care, are the two big questions we face, and this report is being scheduled with the short session in mind," says Walker. "My feeling is that there is at least going to be an attempt to look at it" when the 1992 General Assembly reconvenes to consider changes in the state budget.

No one is publicly proposing such features as rate-setting or Oregon-style rationing of services.

"If the problem got a lot worse very quickly, we might have to deal with it more drastically," adds Senate President Pro Tempore Henson Barnes (D-Wayne), "but we hope in the meantime that it will improve." Barnes said the legislature devoted considerable time to cost-containment proposals in the past three sessions, and was not satisfied with the approaches taken by other states. Future strategies might include providing a set sum for health insurance that state workers and teachers could use to purchase insurance, but there are problems with such a plan, said Barnes. For another approach, the state might set a cap on how large an increase it will fund for state employees' health insurance, "but what that does is just limit coverage," notes Barnes.

Privately, some legislators are talking among themselves of beefing up the Certificate of Need Program, of requiring employers to provide more coverage, and of making consumers pay more of their health care costs. The N.C. Hospital Association has gone on record as calling for a new general tax to pay for indigent care, but after raising taxes during the 1991 legislature, many lawmakers may be hesitant to support another tax increase.

"Nothing has really jelled yet," says Walker. "We're just going to have to wait and see." Adds Barnes, "We're pretty much in the position of a person up to his neck in a swamp full of alligators. It's hard to discuss proposals for draining the swamp until you get out of that situation."

## FOOTNOTES

[1] "Emergency! Rising Health Costs in America, 1980-1990-2000," A Families USA Foundation Report in cooperation with Citizen Action, Washington, D.C., October 1990, p. 1.

[2] "Semi-Annual Hospital Inpatient Data Statewide Trend Report," N.C. Medical Database Commission, June 18, 1991, p. 1.

[3] "The 1990 National Executive Poll on Health Care Costs and Benefits," *Business and Health,* April 1990, p. 26.

[4] Sandra B. Greene, paper presented to Duke Symposium, March 21, 1990, pp. 3–4.

[5] Sandra B. Greene, "The Economics of Improved Access to Health Care: A Focus on North Carolina," Carolinas Medical Center Spring Symposium, Charlotte, N.C. April 30, 1991.

[6] "State and County Profiles of Hospital Patient Utilization, Oct. 1, 1989–Sept. 30, 1990," Report Number H901201, N.C. Medical Database Commission, p. 26.

[7] "Health Care Costs," A Position Paper of the North Carolina Hospital Association, Summer 1991, page 1 of 4 unnumbered pages.

[8] "Americans Pay More for Health Care," *Health* section, *The Washington Post,* Nov. 15, 1990, page 5.

[9] Joan O'C. Hamilton, "High-Tech Health Care: Who Will Pay?" *BusinessWeek,* Feb. 6, 1989, p. 78.

[10] *Ibid.,* p. 74.

[11] M.R. Chassin *et al.,* "Does Inappropriate Use Explain Geographic Variations in the Use of Health Care Services?", The Rand Corporation, *Journal of the American Medical Association,* Vol. 258, No. 18, Nov. 13, 1987, p. 2535.

[12] Hamilton, p. 76.

[13] Hamilton, p. 77.

[14] Humphrey Taylor, *Making Difficult Health Care Decisions, Vol. 1—The National Survey,* Study # 874003, Louis Harris and Associates, Inc., June 1987, p. 31.

[15] Rodger Thompson, "Curbing the High Cost of Health Care," *Nation's Business,* Sept. 22, 1989, p. 22.

[16] *Ibid.,* p. 24.

[17] Victor Fuchs, The Health Sector's Share of the Gross National Product," *Science* magazine, Vol. 247, No. 4942, Feb. 2, 1990, p. 537.

[18] Ellen Paris, "Got a moment? How about some knee surgery?" *Forbes,* July 10, 1990, p. 58.

[19] Sandra B. Greene, "North Carolina Health Care Trends," April 1991, Exhibit 11.

[20] For more on prevention as a cost containment stratagem, see Karen Davis *et al.,* "Paying for Preventive Care: Moving the Debate Forward," *American Journal of Preventive Medicine,* Vol. 6, No. 4, 1990, pp. 1–32; Report of the Legislative Research Commission on Preventative Medicine, N.C. General Assembly, Dec. 12, 1986; and "Statewide Health Promotion Program Report to the Human Resources Subcommittees of the House and Senate Appropriations Committees," N.C. Department of Human Resources, March 15, 1989.

[21] Mark Merlis, *CRS Report for Congress: Controlling Health Care Costs,* Congressional Research Service, The Library of Congress, Jan. 26, 1990, pp. 6–7.

[22] For more on HMOs, see J. Kolimaga, ed., "Health Cost Management Handbook, Strategies for Employers," N.C. Foundation for Alternative Health Programs, Inc., 1984, pp. 19–28.

Also see Robert Conn, "Health Maintenance Organizations Arrive in North Carolina," *North Carolina Insight,* Vol. 7, No. 3, pp. 58–70.

[23] The Status of Health Maintenance Organizations in North Carolina, compiled by the N.C. Foundation for Alternative Health Programs, Inc. for the N.C. Department of Insurance, April 1989.

[24] G.S. 131E–10. The commission was scheduled to expire July 1, 1991, but its life was extended in Chapter 689 of the 1991 Session Laws.

[25] For more on health care costs, see generally Marianne M. Kersey *et al.,* "Comparing The Performance of For-Profit and Not-For-Profit Hospitals In North Carolina," N.C. Center for Public Policy Research, 1989, pp. 81–118.

[26] P.L. 93–641. According to "State Health Planning Report," State Issues Forum, July 1989, p. 1, 39 states including North Carolina continue to operate CON programs.

[27] C.J. Schieber and J.P. Poullier, "International Health Care Trends, 1987," *Health Affairs,* Vol. 8, No. 3, Fall 1989, pp. 169–177.

[28] Ken Otterbourg, "State-Set Hospital Rates Proposed," *Winston-Salem Journal,* April 12, 1991, p. 1.

[29] "Health Care Reform," report of the Health Care Task Force and the Executive Committee, The National Governors' Association, Aug. 18, 1991, pp. 3–5.

[30] E.B. Keeler *et al.,* "The Demand for Episodes of Medical Treatment in the Health Insurance Experiment," The Rand Corporation, March 1988, p. 72.

[31] For more on this subject, see Susan Shackelford, "Making It Hurt," *Business North Carolina,* July 1991, p. 16.

[32] *Business and Health,* p. 26

[33] Frank Newport and Jennifer Leonard, The Gallup Organization, "The Health Care Crisis," *The Polling Report,* Aug. 12, 1991, p. 1.

*Wake Medical Center*

# Rural Health Care in North Carolina: Unmet Needs, Unanswered Questions

by Jeanne M. Lambrew and Jack Betts

*The use of North Carolina's rural hospitals has declined in the past decade, leading to questions about the future of health care delivery in rural areas. To examine these issues, the staff of* Insight *and graduate students from the Department of Health Policy and Administration at the University of North Carolina at Chapel Hill explored several different facets of the state's rural health care system. The article focuses on utilization and services of the state's rural hospitals and identifies 16 North Carolina hospitals that are at risk of failing to meet their service objectives.*

If you drove through the heartland of North Carolina along the superhighways of the most populous areas, and if you were to have an accident requiring medical care and hospitalization, you couldn't be in a better place. In Raleigh, there's the vast Wake Medical Center and at least two other fine hospitals; in Durham, the world-renowned Duke Medical Center and Durham Regional; in Chapel Hill, the huge University Hospitals system. Further to the west, the major medical centers of Greensboro, Charlotte, and Winston-Salem are well stocked with physicians, nurses, CT Scanners, Magnetic Resonance Imagers, and all sorts of Buck Rogers equipment—sprawling facilities offering cutting-edge technology and the most sophisticated expertise in the world.

But if you were to travel the backroads of the Piedmont, or spend time in the western and particularly the less-populous eastern reaches of North Carolina, it's a different story entirely. The problem is not a lack of hospitals, or insufficiently skilled doctors and nurses. There are a lot of hospitals in North Carolina, even in rural areas. Of the state's 100 counties, 82 have at least one hospital and several of them have more than two. But in the state's 75 rural counties, some hospitals are in severe financial trouble and eight of them are showing some signs of vital distress in serving

*Jeanne M. Lambrew is a research associate for the North Carolina Rural Health Research Program within the Cecil G. Sheps Center for Health Services Research at UNC–Chapel Hill. Jack Betts is editor of* North Carolina Insight. *Assisting in the research for this article were Lori Bastian, Gibbie Harris, and John Pauk of the Department of Health Policy and Administration at UNC–Chapel Hill, with the support of the U.S. Office of Rural Health Policy.*


*Jack Betts*

their communities successfully on at least three of five key measures. Another 14 hospitals show at least one symptom of distress. These hospitals range in size from tiny Sea Level Hospital (16 beds) in Carteret County to Davis Community Hospital (149 beds) in Iredell County. Rural hospitals, pillars of local health and economic systems alike, are failing.

This increasingly grim picture is hardly unique to North Carolina. "Throughout rural America, small hospitals are closing their doors," says Arthur Caplan, director of the Center for Biomedical Ethics at the University of Minnesota. "They cannot compete with their regional, suburban, and big-city rivals. Doctors, especially new ones, go where the jobs are. There is simply more money to be made in the city than in the country."[1]

The problems in rural health go far beyond hospital closings. "Many rural residents face difficulty in obtaining health care," notes the Center on Budget and Policy Priorities in Washington, D.C. "Access to health care for these residents may be limited by economic as well as geographic barriers and by a shortage of medical providers in rural areas."[2] The report also notes that rural residents usually are not as healthy as their urban counterparts, and they use medical facilities and seek medical care far less often.

With the dramatic urban growth of North Carolina in recent years, it's easy to forget that much of the state remains rural. More than four out of every 10 N.C. residents live in a rural area, some of them in isolated geographic pockets. Others are isolated by poverty or lack of transportation. Though most rural residents live close to one of the many small towns that dot the state's landscape, the barriers to access traditionally associated with the remote rural areas are appearing in these communities as well.

Jim Bernstein, director of the state's Office of Rural Health and Resource Development in the Department of Human Resources, says the rural health care problem extends to many of these small towns. "Because we are a densely populated rural state, with a significant portion of its population in small towns, there already are a number of problems in towns of around 2,500. And it won't be long before we see these problems in towns of up to 10,000."

These problems include:

- a lack of medical personnel (particularly family practice physicians, nurse practitioners, and physicians' assistants);
- a lack of resources and supporting institutions for rural hospitals, including fund-raising and medical support organizations;

■ low rates of health insurance coverage for rural residents and an insufficient number of employers with health insurance plans and other third-party payers to pay for care for rural citizens;

■ the growing disparity between large urban counties that are better able to afford care for their indigent citizenry, and the rural counties that are disproportionately poor and far less able to provide an adequate level of care;

■ and a disproportionately large number of the working poor in rural areas—which means that many rural residents, who work full time at regular jobs but don't qualify for government health programs, don't earn enough to buy private insurance.

"We've got hospitals in trouble, we don't have enough doctors, especially primary care doctors, and we have a payment system that is out of whack," says Bernstein.

In the face of huge financial pressures, competition, and the changing nature of health care, the traditional small rural hospitals may disappear. What's going to happen to North Carolina's rural hospitals? If a rural hospital goes out of business, what steps could the local county take to provide essential, minimum services? And will there be enough health professionals to deliver these services?

In the following pages, *Insight* examines the health of the health-care system in rural areas. Much of the research was undertaken by participants in a Practicum in Health Policy Analysis conducted by the Department of Health Policy and Administration and the N.C. Rural Health Research Program at the University of North Carolina at Chapel Hill, at the request of the N.C. Center for Public Policy Research.

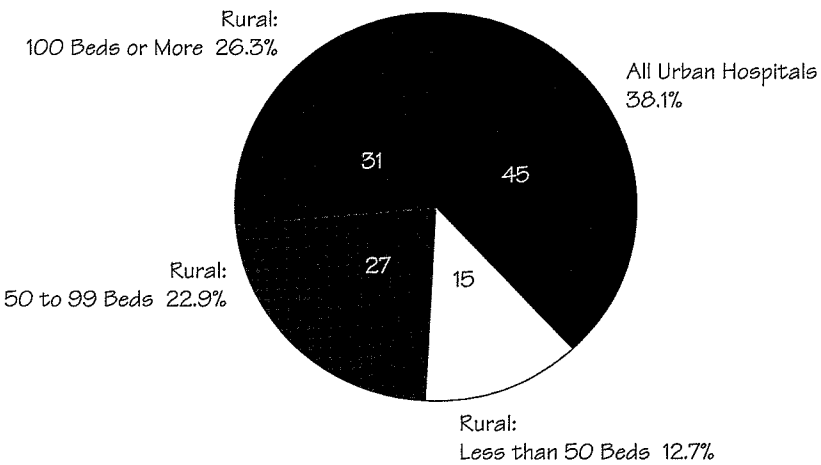
## Overview: North Carolina Hospitals

Currently, North Carolina's complement of 118 general acute-care hospitals is fairly widely dispersed, with no hospital more than 35 miles from another.[3] Though some metropolitan areas have more than two or three hospitals, 18 counties, all of them rural, do not have a hospital (see Table 1 for a list of rural counties and their hospitals).

Seventy-five general acute-care hospitals are located in non-metropolitan counties, meaning

— *continued on page 72*

**Figure 1. Urban-Rural Distribution of North Carolina Hospitals, 1989**




*Note:* Hospitals that are members of systems often are reported in aggregate rather than as individual hospitals; thus, this is a conservative count.

*Source: N.C. Center for Health and Environmental Statistics;* Health Facilities Data Book: Hospital Summary Report, 1989

*Prepared by N.C. Rural Health Research Program, Cecil G. Sheps Center for Health Services Research, UNC–CH*

# Table 1. Rural Hospitals in North Carolina

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|
| County | County Population | Hospital | Type of Ownership | Staffed Beds in Use | Staffed Beds % Occupied | | % Discharges From County | |
| | 1990 | | 1989 | 1989 | 1980 | 1989 | 1980 | 1989 |
| Alleghany | 9,590 | Alleghany County Memorial Hospital | NPA | 46 | 46.0 | 50.1 | 67.2 | 64.0 |
| Anson | 23,474 | Anson County Hospital | CNTY | 52 | 81.0 | 43.3 | 57.0 | 49.0 |
| Ashe | 22,209 | Ashe Memorial Hospital | NPA | 57 | 63.8 | 41.5 | 64.3 | 50.9 |
| Avery | 14,867 | Charles A. Cannon Jr. Memorial Hospital | NPA | 79 | 54.1 | 45.1 | 41.2 | 32.1 |
| | | Sloop Memorial Hospital | NPA | 38 | 64.1 | 57.7 | 37.9 | 42.4 |
| Beaufort | 42,283 | Beaufort County Hospital | CNTY | 117 | 69.3 | 48.2 | 58.4 | 51.7 |
| | | Pungo District Hospital | NPA | 47 | 56.2 | 72.4 | 19.7 | 14.6 |
| Bertie | 20,388 | Bertie Memorial Hospital | CNTY | 49 | 61.5 | 25.1 | 32.6 | 18.1 |
| Bladen | 28,663 | Bladen County Hospital | CNTY | 42 | 91.6 | 65.0 | 46.7 | 49.3 |
| Brunswick | 50,985 | Brunswick Hospital | PROP | 60 | 39.4 | 38.8 | 24.5 | 24.3 |
| | | J. Arthur Dosher Memorial Hospital | TWNSHP | 40 | 55.9 | 35.8 | 16.4 | 17.8 |
| Caldwell | 70,709 | Caldwell Memorial Hospital | NPA | 97 | 74.4 | 73.7 | 40.5 | 51.9 |
| Camden | 5,904 | | | | | | | |
| Carteret | 52,556 | Sea Level Hospital & Extended Care | NPA | 16 | 72.3 | 36.2 | 14.5 | 5.7 |
| | | Carteret County General Hospital* | CNTY | 117 | 75.5 | 67.6 | 65.5 | 69.6 |
| Caswell | 20,693 | | | | | | | |
| Chatham | 38,759 | Chatham Hospital | NPA | 46 | 71.6 | 67.0 | 40.7 | 33.3 |
| Cherokee | 20,170 | District Memorial Hospital of SW N.C. | DIST | 52 | 40.5 | 66.3 | 39.4 | 27.3 |
| | | Murphy Medical Center | AUTH | 50 | 52.6 | 41.0 | 41.4 | 45.8 |
| Chowan | 13,506 | Chowan Hospital | CNTY | 70 | 91.6 | 47.0 | 74.5 | 74.3 |
| Clay | 7,155 | | | | | | | |
| Cleveland | 84,714 | Crawley Memorial Hospital | NPA | 51 | 52.5 | 66.0 | 7.7 | 1.6 |
| | | Kings Mountain Hospital | NPA | 92 | 78.2 | 40.5 | 14.0 | 11.3 |
| | | Cleveland Memorial Hospital* | CNTY | 239 | 74.8 | 65.6 | 65.0 | 62.4 |
| Columbus | 49,587 | Columbus County Hospital* | CNTY | 136 | 87.5 | 80.0 | 69.0 | 70.5 |
| Craven | 81,613 | Craven County Hospital * | NPA | 276 | 92.0 | 78.7 | 82.5 | 83.0 |
| Currituck | 13,736 | | | | | | | |
| Dare | 22,746 | | | | | | | |
| Duplin | 39,995 | Duplin General Hospital | CNTY | 60 | 60.2 | 64.7 | 35.2 | 41.4 |
| Edgecombe | 56,558 | Heritage Hospital | PROP | 127 | 59.9 | 49.1 | 37.8 | 39.5 |
| Gates | 9,305 | | | | | | | |
| Graham | 7,196 | | | | | | | |
| Granville | 38,345 | Granville Medical Center | CNTY | 66 | 59.0 | 48.6 | 38.5 | 41.6 |
| Greene | 15,384 | | | | | | | |
| Halifax | 55,516 | Halifax Memorial Hospital | DIST | 171 | 84.8 | 87.3 | 64.5 | 62.7 |
| | | Our Community Hospital | NPA | 20 | 37.7 | 33.2 | 3.6 | 1.4 |
| Harnett | 67,822 | Betsy Johnson Memorial Hospital** | CITY | 77 | 69.4 | 68.3 | 33.3 | 31.0 |
| | | Good Hope Hospital** | NPA | 72 | 93.7 | 67.8 | 17.5 | 16.0 |
| Haywood | 46,942 | Haywood County Hospital | CNTY | 152 | 61.2 | 61.8 | 78.0 | 70.1 |
| Henderson | 69,285 | Margaret R. Pardee Memorial Hospital | CNTY | 155 | 71.8 | 65.2 | 68.7 | 58.1 |
| | | Park Ridge Hospital | NPA | 103 | 65.6 | 63.0 | 16.9 | 17.3 |
| Hertford | 22,523 | Roanoke-Chowan Hospital | NPA | 100 | 81.7 | 75.6 | 86.1 | 82.0 |
| Hoke | 22,856 | | | | | | | |
| Hyde | 5,411 | | | | | | | |
| Iredell | 92,931 | Davis Community Hospital | PROP | 149 | 70.5 | 44.1 | 24.1 | 16.6 |
| | | Iredell Memorial Hospital | CNTY | 183 | 84.1 | 80.5 | 39.4 | 49.3 |
| | | Lake Norman Regional Medical Center | PROP | 113 | 76.6 | 34.8 | 18.9 | 17.4 |
| Jackson | 26,846 | C.J. Harris Community Hospital | NPA | 86 | 71.4 | 61.9 | 75.3 | 70.6 |
| Johnston | 81,306 | Johnston Memorial Hospital* | CNTY | 114 | 66.9 | 70.6 | 45.9 | 40.1 |

*Source: N.C. Center for Health & Environmental Statistics;* Health Facilities Data Book: Hospital Summary Report & Patient Origin Reports, 1980; 1989;

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|
| County | County Population | Hospital | Type of Ownership | Staffed Beds in Use | Staffed Beds % Occupied | | % Discharges From County | |
| | 1990 | | 1989 | 1989 | 1980 | 1989 | 1980 | 1989 |
| Jones | 9,414 | | | | | | | |
| Lee | 41,374 | Central Carolina Hospital | PROP | 137 | 59.9 | 55.0 | 63.6 | 59.2 |
| Lenoir | 57,274 | Lenoir Memorial Hospital* | CNTY | 226 | 85.2 | 76.0 | 80.9 | 78.1 |
| Macon | 23,499 | Angel Community Hospital | NPA | 81 | 66.7 | 57.2 | 65.0 | 62.9 |
| | | Highlands-Cashiers Hospital | NPA | 27 | 19.8 | 14.0 | 7.3 | 5.2 |
| Madison | 16,953 | | | | | | | |
| Martin | 25,078 | Martin General Hospital | CNTY | 49 | 70.4 | 46.0 | 42.9 | 37.7 |
| McDowell | 35,681 | McDowell Hospital | NPA | 65 | 71.0 | 74.5 | 53.1 | 63.8 |
| Mitchell | 14,433 | Blue Ridge Hospital System | NPA | 70 | 56.8 | 54.9 | 68.5 | 62.5 |
| Montgomery | 23,346 | Montgomery Memorial Hospital | NPA | 50 | 64.7 | 46.3 | 64.5 | 46.6 |
| Moore | 59,013 | Moore Regional Hospital* | NPA | 312 | 85.0 | 85.6 | 86.6 | 81.3 |
| Nash | 76,677 | Community Hospital of Rocky Mount | PROP | 50 | 54.4 | 54.9 | 7.5 | 6.8 |
| | | Nash General Hospital* | CNTY | 282 | 88.4 | 76.5 | 61.0 | 60.2 |
| Northampton | 20,798 | | | | | | | |
| Pamlico | 11,372 | | | | | | | |
| Pasquotank | 31,298 | Albemarle Hospital* | CNTY | 137 | 68.9 | 80.1 | 93.5 | 93.5 |
| Pender | 28,855 | Pender Memorial Hospital | CNTY | 43 | 78.1 | 56.6 | 37.7 | 31.4 |
| Perquimans | 10,447 | | | | | | | |
| Person | 30,180 | Person County Memorial Hospital | NPA | 54 | 77.9 | 36.4 | 46.4 | 27.2 |
| Pitt | 107,924 | Pitt County Memorial Hospital* | CNTY | 501 | 84.1 | 94.7 | 86.7 | 94.2 |
| Polk | 14,416 | St. Luke's Hospital | NPA | 52 | 56.1 | 81.0 | 69.1 | 69.2 |
| Richmond | 44,518 | Hamlet Hospital | PROP | 64 | 38.9 | 43.8 | 9.9 | 17.7 |
| | | Richmond Memorial Hospital | CNTY | 88 | 58.1 | 61.0 | 55.3 | 42.4 |
| Robeson | 105,179 | Southeastern General Hospital* | NPA | 281 | 77.5 | 70.1 | 65.3 | 64.6 |
| Rockingham | 86,064 | Annie Penn Memorial Hospital | NPA | 90 | 75.7 | 81.1 | 38.7 | 29.9 |
| | | Morehead Memorial Hospital | NPA | 85 | 63.0 | 76.8 | 31.7 | 34.3 |
| Rutherford | 56,918 | Rutherford Hospital* | NPA | 145 | 72.3 | 52.4 | 64.9 | 68.1 |
| Sampson | 47,297 | Sampson County Memorial Hospital | CNTY | 116 | 76.5 | 60.3 | 62.5 | 60.1 |
| Scotland | 33,754 | Scotland Memorial Hospital | NPA | 124 | 50.7 | 53.9 | 71.7 | 66.2 |
| Stanly | 51,765 | Stanly Memorial Hospital | NPA | 124 | 67.2 | 56.8 | 56.0 | 59.8 |
| Surry | 61,704 | Hugh Chatham Memorial Hospital | NPA | 58 | 55.5 | 66.3 | 15.4 | 14.3 |
| | | Northern Hospital of Surry County | DIST | 116 | 96.0 | 61.0 | 42.9 | 47.4 |
| Swain | 11,268 | Swain County Hospital | NPA | 46 | 64.7 | 40.8 | 56.2 | 41.0 |
| Transylvania | 25,520 | Transylvania Community Hospital | NPA | 94 | 54.7 | 55.0 | 63.6 | 59.9 |
| Tyrrell | 3,856 | | | | | | | |
| Vance | 38,892 | Maria Parham Hospital | NPA | 78 | 66.0 | 74.0 | 66.9 | 58.1 |
| Warren | 17,265 | | | | | | | |
| Washington | 13,997 | Washington County Hospital | CNTY | 49 | 60.5 | 32.9 | 56.7 | 52.5 |
| Watauga | 36,952 | Blowing Rock Hospital | NPA | 28 | 50.0 | 50.1 | 10.6 | 6.0 |
| | | Watauga County Hospital | CNTY | 141 | 52.5 | 51.3 | 71.8 | 68.8 |
| Wayne | 104,666 | Wayne Memorial Hospital* | NPA | 261 | 73.1 | 76.9 | 82.0 | 79.8 |
| Wilkes | 59,393 | Wilkes General Hospital | CITY | 111 | 72.1 | 77.8 | 59.6 | 64.0 |
| Wilson | 66,061 | Wilson Memorial Hospital* | NPA | 277 | 84.6 | 74.3 | 91.6 | 81.8 |
| Yancey | 15,419 | | | | | | | |

* indicates a Rural Referral Hospital

indicates no hospital in the county

** Harnett County hospitals have been designated as urban for Medicare reimbursement and thus are not included in the analyses of rural hospitals

**Key to Ownership:** NPA: non-profit association; CNTY: county; PROP: for-profit proprietary; TWNSHP: township; AUTH: hospital authority; DIST: district

and U.S. Census, 1990. *Prepared by Jeanne Lambrew, N.C. Rural Health Research Program, Cecil G. Sheps Center for Health Services Research.*

counties that are not part of a Metropolitan Statistical Area, or MSA. An MSA is defined as an integrated area with a central city of 50,000 population or greater within an urbanized area of 100,000 or greater. Two of North Carolina's non-metropolitan hospitals are not classified as *rural* by the U.S. Health Care Financing Administration (HCFA)—Betsy Johnson Memorial and Good Hope Hospital, both in Harnett County—because they are adjacent to a metropolitan area (Wake County); only the 73 hospitals reimbursed by the HCFA are considered in this analysis.

Of the 118 hospitals, 45 are in metropolitan areas; of the remaining 73 rural hospitals, 15 hospitals have fewer than 50 beds; 27 have 50–99 beds; and 31 have 100 or more beds (see Figure 1). So the term *rural hospital* does not necessarily mean *small* and rural. It can also mean fairly large and not-so-rural—as in the case of 501-bed Pitt Memorial Hospital in Greenville or 261-bed Wayne Memorial in Goldsboro.

## The Average Rural Hospital

The average rural hospital in North Carolina had 109 staffed beds in 1989, compared to a nationwide non-metropolitan average of 83 beds. Thirteen percent of all North Carolina's non-metro hospitals had fewer than 50 beds in 1989 compared to 17.8 percent in the United States in the same year. By comparison, urban hospitals are nearly three times larger than rural hospitals—averaging 280 staffed beds in North Carolina and 245 beds nationally in 1989.[4] Staff complements for several categories of health professionals are listed in Table 2.

Fewer than 10 percent of rural hospitals in North Carolina are proprietary or operated on a for-profit basis, with 49.3 percent owned by not-for-profit organizations, and 41 percent owned by some unit of local government (county, township, district, or hospital authority). This pattern of ownership is comparable to that of non-metropolitan community hospitals nationwide, of which 10 percent were for-profit in 1987, 48 percent were nonprofit, and 41.3 percent were under government ownership.[5]

## Rural Hospital Trends

One of the most alarming national trends of the last decade has been the closure of rural hospitals, including three in North Carolina since the mid-1980s—Warren County General in 1985, Robersonville Community in Martin County in 1989, and Blackwelder Hospital in Caldwell County in 1988.[6] These closures usually can be anticipated by financial difficulties, but financial troubles may be symptoms and not the root causes of hospital failure. *Utilization—declining hospital utilization—is a major cause of hospital failure.*

The stability and success of a hospital depend on the number and characteristics of the people who use it. In the past decade, a nationwide decline in inpatient hospitalization occurred. The American Hospital Association reports that between 1979 and 1989, the number of inpatient hospital days declined by 11.3 percent nationally.[7] This is only partly attributable to the recession of the early 1980s and the increase in outpatient surgery.

In particular, the federal government's Prospective Payment System for Medicare, introduced in 1983,[8] was instrumental in changing the nature of hospital stays. The Prospective Payment System made it unprofitable to extend a patient's stay beyond the length of time designated for a particular diagnosis. It also provided strong disincentives for unneeded admissions to hospitals. As a result, hospitals experienced the *quicker and sicker* phenomenon, where only those more critically ill were admitted to hospitals, and once there, they stayed a shorter period because there was no additional payment for additional days. That has had a strong influence on hospital viability.

The typical patient using the rural hospital also changed during the 1980s. Increasingly, younger and more affluent county residents have stopped patronizing their local hospitals, leaving a patient population that is mostly elderly and indigent. In the same way that rural residents travel to more urban areas for their work or shopping, health care "outshopping" implies that, except for emergency care, rural residents uncouple their basic health needs from the local hospital and seek care in urban hospitals.

But there's more to it than a shopping analogy, says James R. Queen, administrator of Our Community Hospital in Scotland Neck. "Most residents leave rural area hospitals because they need care that their local facility does not and cannot deliver," says Queen. "For example, Our Community Hospital has not performed surgery or delivered babies in seven years, so residents with these needs must go elsewhere. It is not a matter of choice."

Rural hospital administrators are proud of the job they do with the services they have. "You can


*Jack Betts*

get good health care with the physicians here and with the specialties represented here," says Duplin General Hospital Chief Executive Officer Richard E. Harrell. But for some serious illnesses, he adds, "We will send patients to a hospital in another county."

Rural hospitals, like urban hospitals, are treating more patients who cannot pay for their care. The amount of uncompensated care in all U.S. hospitals has increased, with non-metropolitan hospitals treating 26 percent more medically indigent in 1987 than in 1984.[9] However, the bad-debt patient at an urban hospital represents a small percentage of gross revenues; at a rural hospital, bad debt may be high enough to lead to insolvency.

Critical to the understanding of the rural hospital problem is the financial condition faced by most rural hospitals. All hospitals, regardless of location, faced problems such as higher debt burden, higher cost per patient discharged, and a shortage of cash in the period following the 1983 change in Medicare reimbursement polices. The North Carolina Hospital Association reported that the average hospital wrote off more than one-fourth of its Medicare charges in 1988; the rural hospitals wrote off approximately 36 percent of their Medicare charges.[10]

## Hospital Utilization in Rural North Carolina

To assess the trends in rural hospital utilization in North Carolina, five measures were examined: occupancy, days of care, total patient discharges, percent of discharges of patients 65 or older, and percent of a county's total discharges from the county's hospital, a measure of market share.[11] The data were taken from reports filed by the hospitals themselves with the state Division of Facility Services and the N.C. Center for Health and Environmental Statistics.

■ **Occupancy Rate.** A hospital's occupancy rate is calculated by dividing the total days of care in a year by the number of staffed beds, multiplied by 365 days. This estimates the annual percent occupancy of all staffed beds. As such, it describes the extent to which the capacities of the hospital are fully utilized.

Since 1980, the average occupancy rate for all types of hospitals has declined, in North Carolina

*—continued on page 76*

## Table 2. Rural Hospitals in North Carolina: Number of Providers

| | | RNS | RNS | OB/GYNS | | All MDs | |
|---|---|---|---|---|---|---|---|
| **County** | **Hospital** | **1980** | **1989** | **1980** | **1989** | **1980** | **1989** |
| Alleghany | Alleghany County Memorial Hospital | 11 | 15 | 0 | 0 | 7 | 7 |
| Anson | Anson County Hospital & Skilled Nurs. | 32 | 53 | 0 | 1 | 14 | 11 |
| Ashe | Ashe Memorial Hospital | 18 | 26 | 0 | 0 | 8 | 13 |
| Avery | Charles A. Cannon Jr. Memorial Hospital | 33 | 24 | 0 | 0 | 13 | 21 |
| | Sloop Memorial Hospital | 10 | 20 | 0 | 0 | 10 | 11 |
| Beaufort | Beaufort County Hospital Association | 75 | 110 | 4 | 3 | 33 | 37 |
| | Pungo District Hospital | 13 | 13 | 2 | 0 | 5 | 4 |
| Bertie | Bertie Memorial Hospital | 12 | 12 | 0 | 0 | 7 | 6 |
| Bladen | Bladen County Hospital | 20 | 44 | 0 | 0 | 8 | 10 |
| Brunswick | Brunswick Hospital | 20 | 46 | 0 | 2 | 15 | 33 |
| | J. Arthur Dosher Memorial Hospital | 22 | 19 | 0 | 0 | 10 | 13 |
| Caldwell | Caldwell Memorial Hospital | 53 | 125 | 2 | 4 | 46 | 63 |
| Camden | | | | | | | |
| Carteret | Sea Level Hospital & Extended Care | 9 | 10 | 0 | 0 | 7 | 6 |
| | Carteret County General Hospital* | 76 | 143 | 3 | 4 | 47 | 43 |
| Caswell | | | | | | | |
| Chatham | Chatham Hospital | 27 | 46 | 1 | 1 | 17 | 11 |
| Cherokee | District Memorial Hospital of SW N.C. | 13 | 21 | 0 | 0 | 11 | 9 |
| | Murphy Medical Center | 25 | 29 | 1 | 2 | 14 | 17 |
| Chowan | Chowan Hospital | 29 | 53 | 1 | 2 | 36 | 22 |
| Clay | | | | | | | |
| Cleveland | Crawley Memorial Hospital | 14 | 9 | 0 | 0 | 4 | 3 |
| | Kings Mountain Hospital | 40 | 44 | 1 | 1 | 14 | 19 |
| | Cleveland Memorial Hospital* | 127 | 152 | 7 | 7 | 63 | 81 |
| Columbus | Columbus County Hospital* | 92 | 143 | 2 | 3 | 27 | 27 |
| Craven | Craven County Hospital* | 140 | 298 | 7 | 8 | 84 | 110 |
| Currituck | | | | | | | |
| Dare | | | | | | | |
| Duplin | Duplin General Hospital | 45 | 61 | 0 | 2 | 17 | 15 |
| Edgecombe | Heritage Hospital | 38 | 63 | 0 | 2 | 24 | 24 |
| Gates | | | | | | | |
| Graham | | | | | | | |
| Granville | Granville Medical Center | 24 | 78 | 1 | 2 | 10 | 17 |
| Greene | | | | | | | |
| Halifax | Halifax Memorial Hospital | 75 | 163 | 3 | 5 | 30 | 51 |
| | Our Community Hospital | 5 | 10 | 0 | 0 | 3 | 2 |
| Harnett | Betsy Johnson Memorial Hospital** | 51 | 69 | 1 | 2 | 21 | 36 |
| | Good Hope Hospital** | 22 | 39 | 1 | 0 | 16 | 16 |
| Haywood | Haywood County Hospital | 82 | 109 | 3 | 2 | 54 | 60 |
| Henderson | Margaret R. Pardee Memorial Hospital | 117 | 183 | 4 | 4 | 63 | 84 |
| | Park Ridge Hospital | 67 | 97 | 2 | 3 | 26 | 41 |
| Hertford | Roanoke-Chowan Hospital | 57 | 103 | 0 | 3 | 30 | 39 |
| Hoke | | | | | | | |
| Hyde | | | | | | | |
| Iredell | Davis Community Hospital | 120 | 115 | 6 | 9 | 38 | 56 |
| | Iredell Memorial Hospital | 109 | 357 | 5 | 7 | 46 | 69 |
| | Lake Norman Regional Medical Center | 82 | 96 | 2 | 3 | 13 | 44 |
| Jackson | C.J. Harris Community Hospital | 35 | 101 | 1 | 3 | 27 | 40 |
| Johnston | Johnston Memorial Hospital* | 73 | 103 | 3 | 1 | 37 | 50 |

| County | Hospital | RNS 1980 | RNS 1989 | OB/GYNS 1980 | OB/GYNS 1989 | All MDs 1980 | All MDs 1989 |
|---|---|---|---|---|---|---|---|
| Jones | | | | | | | |
| Lee | Central Carolina Hospital | 60 | 84 | 2 | 4 | 36 | 50 |
| Lenoir | Lenoir Memorial Hospital* | 125 | 209 | 7 | 7 | 73 | 57 |
| Macon | Angel Community Hospital | 35 | 54 | 2 | 0 | 19 | 27 |
| | Highlands-Cashiers Hospital | 9 | 7 | 0 | 0 | 8 | 4 |
| Madison | | | | | | | |
| Martin | Martin General Hospital | 25 | 48 | 1 | 1 | 13 | 11 |
| McDowell | McDowell Hospital | 31 | 58 | 0 | 2 | 17 | 24 |
| Mitchell | Blue Ridge Hospital System | 40 | 50 | 0 | 0 | 16 | 28 |
| Montgomery | Montgomery Memorial Hospital | 33 | 32 | 0 | 0 | 9 | 11 |
| Moore | Moore Regional Hospital* | 186 | 384 | 4 | 8 | 81 | 100 |
| Nash | Community Hospital of Rocky Mount | 36 | 66 | 0 | 3 | 41 | 63 |
| | Nash General Hospital* | 158 | 346 | 10 | 10 | 97 | 116 |
| Northampton | | | | | | | |
| Pamlico | | | | | | | |
| Pasquotank | Albemarle Hospital* | 93 | 150 | 4 | 5 | 41 | 44 |
| Pender | Pender Memorial Hospital | 19 | 32 | 3 | 0 | 10 | 9 |
| Perquimans | | | | | | | |
| Person | Person County Memorial Hospital | 27 | 31 | 1 | 0 | 19 | 10 |
| Pitt | Pitt County Memorial Hospital* | 353 | 928 | 13 | 21 | 156 | 319 |
| Polk | St. Luke's Hospital | 40 | 42 | 0 | 1 | 26 | 23 |
| Richmond | Hamlet Hospital | 19 | 33 | 0 | 0 | 13 | 16 |
| | Richmond Memorial Hospital | 61 | 97 | 1 | 3 | 29 | 21 |
| Robeson | Southeastern General Hospital* | 122 | 168 | 7 | 5 | 63 | 95 |
| Rockingham | Annie Penn Memorial Hospital | 85 | 111 | 1 | 2 | 30 | 33 |
| | Morehead Memorial Hospital | 63 | 106 | 3 | 4 | 28 | 34 |
| Rutherford | Rutherford Hospital* | 81 | 119 | 4 | 3 | 34 | 44 |
| Sampson | Sampson County Memorial Hospital | 85 | 106 | 2 | 2 | 44 | 36 |
| Scotland | Scotland Memorial Hospital | 69 | 118 | 3 | 4 | 27 | 35 |
| Stanly | Stanly Memorial Hospital | 64 | 86 | 3 | 3 | 34 | 41 |
| Surry | Hugh Chatham Memorial Hospital | 42 | 74 | 1 | 1 | 23 | 20 |
| | Northern Hospital of Surry County | 91 | 137 | 3 | 2 | 27 | 39 |
| Swain | Swain County Hospital | 12 | 12 | 0 | 0 | 6 | 13 |
| Transylvania | Transylvania Community Hospital | 24 | 45 | 2 | 2 | 26 | 28 |
| Tyrrell | | | | | | | |
| Vance | Maria Parham Hospital | 29 | 49 | 3 | 4 | 26 | 36 |
| Warren | | | | | | | |
| Washington | Washington County Hospital | 20 | 20 | 0 | 0 | 7 | 8 |
| Watauga | Blowing Rock Hospital | 10 | 13 | 0 | 0 | 3 | 4 |
| | Watauga County Hospital | 90 | 122 | 3 | 4 | 27 | 43 |
| Wayne | Wayne Memorial Hospital* | 157 | 270 | 5 | 6 | 84 | 77 |
| Wilkes | Wilkes General Hospital | 81 | 123 | 2 | 3 | 30 | 58 |
| Wilson | Wilson Memorial Hospital* | 182 | 307 | 5 | 6 | 84 | 75 |
| Yancey | | | | | | | |

* indicates a Rural Referral Hospital

** Harnett County hospitals have been designated as urban for Medicare reimbursement and thus are not included in the analyses of rural hospitals.

indicates no hospital in the county

**Key:** RNS = Registered Nurses; OB/GYNS = Obstetrics/Gynecologists; All MDs = total medical doctors.

*Source:* N.C. Center for Health & Environmental Statistics; Health Facilities Data Book: Hospital Summary Reports, 1980; 1989. *Prepared by Lori Bastian.*

and nationwide. Large rural hospitals saw their occupancy rates decrease by nearly 20 percent between 1980 and 1985; the average mid-size rural hospital's rate decreased by 27.3 percent; and the average rural hospital with fewer than 50 beds experienced a 33.4 percent drop in its occupancy rate. Nationally, between 1984 and 1988, rural hospital occupancy rates declined at nearly twice the rate of urban hospitals, to a low of 55 percent occupancy; small rural hospitals in North Carolina had an occupancy rate of around 45 percent in 1989, while large rural hospitals' occupancy rates averaged 70 percent. All North Carolina hospitals did experience a general improvement in occupancy rates during the latter part of the 1980s, but not enough to overcome the large declines earlier in the decade (see Table 1, columns 6 and 7).

These occupancy rates fail to meet state-set targets for hospitals. The Department of Human Resources' Division of Facility Services says small hospitals should have at least a 70 percent occupancy rate for *licensed* beds; mid-sized hospitals should have at least a 75 percent occupancy rate; and large hospitals should have at least an 80 percent occupancy rate.[12]

■ **Days of Care.** Days of care is a count of the total days of inpatient care provided by a hospital. It is comparable to discharges as a measure of utilization, but reflects the amount of care delivered in terms of time and not just people. One

# *A Dearth of Doctors in North Carolina—Urban and Rural*

by Gibbie Harris

By nearly everyone's measure, there simply aren't enough doctors in North Carolina—and prospects for getting more are not all that great. In March 1991, the North Carolina Academy of Family Physicians reported a shortage of between 476 and 542 family physicians for North Carolina, including hundreds of general physicians in rural parts of the state.[1]

And in July 1991, researchers at UNC–Chapel Hill reported that the state's corps of medical doctors, primary care physicians, and dentists continued to be well below the national averages, particularly in rural areas, although the number of registered nurses was above the national average.[2] The report said one physician was available to provide care for every 623 N.C. residents in 1990—well below the U.S. average of one physician for every 545 residents in 1989, the most recent year for which statistics were available.

Lise Fondren, the UNC report's coordinator, said that while the number of health professionals is below the national average in almost every specialty, rural areas are particularly hard hit. "Rural areas of the state—particularly in the east—continue to experience health personnel distribution problems," she said. "In some parts of the state, for example, doctors must send patients two hours away to receive certain treatments while at least four counties didn't even have a full-time practicing dentist in 1990."[3]

The shortage of such care-givers has grown because fewer medical students are interested in going into general medical practices aimed at serving families. Physician-patient ratios deteriorated in 60 counties between 1983 and 1988, and 37 counties experienced a net loss of family-care physicians in the same time period. Only about 12 percent of medical school graduates are choosing to pursue family medicine.[4]

Rural communities are dependent on these primary care specialties and this shortage constitutes a significant barrier to health care for rural residents in our state. Elinor Ezzell, director of the federally funded Goshen Medical Clinic in Faison

*Gibbie Harris is a family nurse practitioner and a graduate student in health policy and administration at UNC–Chapel Hill.*

hospital may have high volume and low length of stay, another low volume and high length of stay; thus, both indicators are necessary to present an accurate picture of utilization.

All North Carolina hospitals have experienced decreases in the number of days of patient care provided. The days of care at rural hospitals in North Carolina decreased by 17.6 percent from 1980 to 1989—four times the decrease (3.7 percent) experienced by the state's urban hospitals. This decrease was especially pronounced for the small rural hospitals, which delivered one-third fewer days of care in 1989 than in 1980.

■ **Total Patient Discharges.** A hospital's total number of patient discharges is a more direct measure of volume than an occupancy rate. The number of discharges can give a sense of the hospital's productivity and viability. High volume will mean a greater base over which fixed costs can be spread.

Across all categories of hospitals, North Carolina hospital discharges declined from 1980 to 1989. The smallest rural hospitals had the greatest decline: there were 29.9 percent fewer discharges in 1989 than in 1980, from an average of 1,464 to 1,026 discharges per year. All other hospitals saw approximately 17.5 percent fewer discharges in 1989 compared to 1980. As with the occupancy rate trends, the number of discharges fell more

*—continued on page 80*

in Duplin County, says the need for health professionals is constantly growing. "I need two more doctors," she says. "I need them today. We've just been overrun [with patients] this summer."

A number of factors encourage or discourage physicians from practicing in rural areas. Economic incentives are widely believed to be particularly influential. The patient market for physicians, especially specialists, is more lucrative in urban and suburban areas. And the health care reimbursement system encourages physicians to specialize and to locate in the more populated areas through higher payments for specialty services in urban settings. Concurrently, increased specialization within the medical profession demands a broad population base for those providing services other than primary care.

The high cost of medical education deters many rural youths from entering the profession. Those who can afford it frequently choose the higher-paying urban practices. Also, medical education focuses on the use of technology which promotes a dependency on the equipment and facilities more commonly found in large, urban health care institutions than in rural settings. These factors, when added to the increased specialization and the pull of the urban market, contribute to a critical manpower shortage in rural health care.

In considering where to locate, a physician may weigh mostly economic conditions such as projected income, amount of debt already incurred while in medical school, and projected practice costs. Once in a rural community, however, other circumstances which affect the day-to-day lives of these physicians become important considerations in physician retention. The rural physician often practices solo or with one or two colleagues. That dictates large workloads with few opportunities for relief and back-up and can lead to a sense of professional isolation. The relative lack of cultural, educational, and economic opportunities in rural communities also affects the members of the physician's family.[5]

Government recruiting programs and federally financed clinics have helped alleviate shortages of personnel, but sometimes the doctors recruited to fulfill a scholarship obligation don't stay in the rural community for very long. "Sometimes they are an asset and sometimes a liability," says Richard Harrell, president and CEO of Duplin General Hospital in Kenansville. "We really need physicians who come and put down roots in Duplin County and develop a caseload."

Most states and the federal government have taken various actions to alleviate this situation. Common strategies include: 1) selecting medical students from rural areas because they are most likely to return to a rural community to practice; 2) paying physicians to practice in rural, underserved areas either through direct subsidies or through differences in insurance reimbursement; 3) supporting rural physician practices through increased access to technology and continuing education;

*— continued on page 78*

and 4) providing scholarship and loan programs to medical students willing to practice in rural areas.[6]

## Current Programs Affecting North Carolina

**1.** ***Federal Initiatives.*** The National Health Service Corps recruits physicians for underserved areas through loan forgiveness and scholarships. In 1985, the corps had 1,600 health professionals available for service in underserved areas. Less than 135 are anticipated in 1991. According to the N.C. Office of Rural Health and Resource Development, the corps supplied 54 physicians to North Carolina in 1984–1985. The number of placements declined in ensuing years, to just five in 1989–1990. This drastic decline is a direct result of funding cuts over the past several years in the national program. In 1980, for example, the National Health Service Corps had its peak appropriation of more than $153 million for field programs and scholarships for health professionals. But funding declined every year following until it bottomed out in 1988 with $39.6 million. In 1989, appropriations had risen to $42.8 million, to $50.7 million in 1990, and to $91.2 million in the current year.[7]

"When people talk about the rural health crisis, they tend to talk about the lack of physicians, and that's the glaring thing," says Tom Ricketts, director of the N.C. Rural Health Research Program at UNC–Chapel Hill. Doctors simply "are not being placed" in rural areas.

Another important federal initiative is the Omnibus Budget Reconciliation Act of 1989, which mandates the reform of Medicare payments to physicians. This reform includes 1) increased payments for evaluation and management of patients; 2) increased payments for most rural practices; and 3) incorporation of high practice costs into payment for services. Medicare has also implemented a 5 percent incentive payment for all services provided in a rural Health Professional Shortage Area.[8] One intent of these reforms is to remove the financial disincentive attached to rural primary practice.

**2.** ***State Initiatives.*** There are two types of state initiatives in North Carolina—public initiatives and private ones. In the public arena, the *Office of Rural Health and Resource Development,* formed in 1973, is a state agency that has been involved in recruitment and retention of primary care providers. A branch of the N.C. Department of Human Resources, it supports the development of community health centers in rural areas staffed by physicians or mid-level providers. The office offers technical assistance in office management, reimbursement, and quality assurance to rural practitioners in the centers as well as in private practice.

The first such state office in the nation, the agency began with $437,000 in state funds in 1973 and in 1991 had an appropriation of $2.8 million. "Since 1973, the office has helped to establish 50 rural health centers, has recruited more than 900 physicians to underserved communities in the state, and has provided technical assistance to 17 community hospitals," says Jim Bernstein, director of the office.

This agency is also administering a new federal/state loan repayment program targeted towards physicians willing to practice in underserved areas. Incentives for physicians, instituted in January 1991, include: 1) a signing bonus; 2) a bonus program for locating in a high needs service area; 3) an honorarium for North Carolina medical residents who complete part of their training in a rural site; and 4) incentives to extend group practices in rural areas.

North Carolina also has a strong Area Health Education Center system (AHEC), which is administered by the University of North Carolina at Chapel Hill. These 10 regional centers have medical faculties and support staff, are based in large community hospitals, and are affiliated with the four medical schools in the state. They provide rotations for medical students, residency programs for a number of specialties (including primary care disciplines), and continuing education opportunities for health professionals. These strategies have been employed in an attempt to increase the numbers of students choosing a primary care specialty and to decrease the professional isolation experienced by the rural physician.

All four medical schools in North Carolina—Duke in Durham, UNC–Chapel Hill, Bowman Gray in Winston-Salem, and East Carolina in Greenville—are involved to varying degrees in attempts to alleviate the rural health manpower shortage. The UNC School of Medicine is making

curriculum changes to encourage more interest in primary care disciplines, which include family medicine, pediatrics, internal medicine, and obstetrics. The new curriculum provides opportunities for one-month, ambulatory care rotations in non-traditional sites. The Duke Medical Center also places students in rural areas, East Carolina University has a network of rural family practices, and Bowman Gray School of Medicine is involved in a multi-disciplinary training program. Duke and Bowman Gray, of course, are private schools, but cooperate in a variety of training programs and placement services with the state.

In 1988, the North Carolina General Assembly passed the Rural Obstetrical Care Incentive Act.[9] In an attempt to improve access to obstetrical services in rural areas, this legislation compensates family physicians and obstetricians for a portion of their medical malpractice insurance costs.[10]

The most significant private initiative specifically targeted to address the problems of rural health professionals is the Kate B. Reynolds Community Practitioner Program operated through the N.C. Medical Society Foundation. Activities include consultation with community individuals and groups regarding their health care needs, repayment of loans, and negotiation with area practices to establish satellite offices in rural areas. The Medical Society has the flexibility to provide financial support and technical expertise to rural practices that otherwise would not be available. Other activities of the program include efforts to provide support for rural physicians through professional networks and the provision of temporary manpower relief.

Although North Carolina has been relatively aggressive in responding to the health manpower shortages in rural areas, the problem continues. From 1974 to 1990, the Office of Rural Health and Resource Development says, 917 physicians were placed in rural areas, but since then, the numbers have steadily declined. As of February 1991, there were 131 recruitment sites (Health Professional Shortage Areas) in the state with 322 primary care openings and 117 specialty openings.

Are rural health problems a sign of recent demographic and economic changes? Consider this finding:

> "When one comes to view the total picture of rural health and medical care, the shortage of essential health personnel stands out as probably the most striking deficiency. Today's crisis—for it is hardly less—reflects the steady trend of urbanization which has left rural communities relatively disadvantaged economically and culturally. It is intensified by the constantly expanding technology of modern medical science, demanding for its application increasingly complex equipment and facilities. Clearly, many factors are at play, but beneath all of them lies the handicap of rural poverty."[11]

It applies to 1991, but it was written in 1948.

## FOOTNOTES

[1] Thomas L. Speros, "Who Will Take Care of Our People?" N.C. Academy of Family Physicians' Health Care Manpower Task Force, March 1991, p. 5.

[2] "North Carolina Health Manpower Data Book," Cecil G. Sheps Center for Health Services Research, UNC–Chapel Hill, October 1990, pages 7, 9, and 13.

[3] Fondren interview with Mike McFarland, UNC News Services, as reported in "Is there a doctor in the house?" *The Herald-Sun* of Durham, July 31, 1991, p. A1.

[4] Speros, p. 5.

[5] For more on these considerations, see B. Gibbens and D. Olsen, *Rural Health Professional Shortages: Legislative Strategies,* University of North Dakota Rural Health Research Center, May 1990.

[6] For a thorough discussion of techniques and approaches to recruit physicians, see L.A. Crandall, J.W. Dwyer, and R.P. Duncan, "Recruitment and Retention of Rural Physicians: Issues for the 1990s," *Journal of Rural Health,* January 1990, pp. 19–38.

[7] Figures were supplied from unpublished data by the U.S. Department of Health and Human Services, Health Resources and Services Administration, Bureau of Health Care Delivery and Assistance. See also the U.S. General Accounting Office, *National Health Service Corps: Program Unable to Meet the Need for Physicians in Underserved Areas,* report number GAO/HRD-90-128, August 1990.

[8] P.L. 89-97. For more about the impact on North Carolina, see N.C. Academy of Family Physicians, "Incentive Payments to Physicians for Services Rendered in a Health Manpower Shortage Area," NCAFP News Brief, July 10, 1989.

[9] Chapter 1100 (SB 257) of the 1987 Session Laws (Second Session 1988).

[10] D.H. Taylor, T.C. Ricketts, J.L. Berman, and R. Langholz, *A Response to the Professional Liability Crisis: The First Three Years of North Carolina's Rural Obstetrical Care Incentive Program,* Cecil G. Sheps Center for Health Services Research, UNC–Chapel Hill, September 1991.

[11] F.D. Mott & M.I. Roemer, *Rural Health and Medical Care,* McGraw-Hill, 1948, p. 212.

steeply between 1980 and 1985 than between 1985 and 1989.

The decline in discharges was paralleled by a national decline in hospital admissions, which between 1984 and 1988 was two and one-half times greater for rural hospitals than for urban hospitals. Since 1979, all U.S. hospitals have experienced a decline in admissions of 11.3 percent.

■ **Percent of Discharges of Patients Older than 65.** The percent of total discharges of people 65 years or older can mean several things. First, it may reflect a higher-than-average elderly population in the community. Second, it could indicate that the younger people in the county are no longer using the local hospital. In a third, more indirect way, it can give information about the financial condition and stability of the organization. The percent of elderly discharges can be viewed as a proxy for the Medicare income of the hospital. Commonly, heavy reliance on Medicare has been viewed as negative, particularly when rural hospitals received a cut in reimbursement under the Prospective Payment System immediately after the program's implementation in 1983. However, this theory is disputed by a recent report suggesting that Medicare-dependent hospitals are not at a greater risk of closure than hospitals with a smaller Medicare population.[13]

All North Carolina hospitals saw the older-than-65-years percentage of their discharges increase between 1980 and 1989. The large rural hospitals saw that percentage increase by slightly more than one-third, while the small and mid-sized rural hospitals had an increase of approximately 37 percent. In 1989, 52.9 percent of the smaller rural hospital's discharges were elderly, compared to 41 percent of the mid-sized rural hospitals discharges and 34.1 percent of the large rural hospital's discharges. Urban hospitals also cared for a greater percentage of elderly patients, with an increase in elderly discharges of 26.3 percent between 1980 and 1989; in 1989, the elderly represented 32 percent of all discharges.

■ **Percent of County's Total Discharges from the County's Hospital.** This statistic reflects the local residents' use of the local hospital. It is calculated by dividing the number of county residents discharged from a particular hospital by the total number of that county's residents discharged from all hospitals. This statistic is not as meaningful for urban counties or counties with several hospitals, since the local discharges are divided among several local hospitals. Though the county's boundaries often are different from a hospital's service area, this measure nonetheless identifies rural counties that have an out-migration


*Jack Betts*

for hospital care. Excessive out-migration is a major sign of trouble for a rural hospital; if a county's own residents don't seek care at their home county hospital, where will patients for that rural hospital come from in the future?

Rural North Carolinians often seek health care outside their home counties; 25 percent of the rural hospitals treated fewer than a third of their county residents, with seven of the 15 small rural hospitals treating fewer than 20 percent of the county residents who were hospitalized in 1989. Seventeen of the largest urban hospitals provided half of all the inpatient care for North Carolinians, rural and urban.

## Will Rural Hospitals in North Carolina Close?

The N.C. Hospital Association in 1989 released a survey of its members anticipating that by the year 2000, as many as 20 hospitals will close, representing a net loss of 530 beds.[14] Bernstein, the director of the state's Office of Rural Health and Resource Development, says, "A number of our smaller hospitals don't have any other option but to close over the next few years."[15]

And a U.S. Government Accounting Office report has predicted that hospitals with fewer than 50 beds were 12 times more likely to close than hospitals with 200 or more beds; hospitals with occupancy rates of less than 20 percent are nine times more likely to close than hospitals with a 61 percent occupancy rate.[16]

If current utilization trends continue, some small rural hospitals in North Carolina are likely to fail. While most people might define failure as the total shutdown of services, a hospital also may be considered a failure if it does not meet its mission. A for-profit hospital may be considered a failure if it has a negative net income. For a county-owned hospital, low use of the facility by county taxpayers may represent a failure. To the local citizen, the true measure of whether a hospital is successful depends upon whether it adequately serves the community, regardless of the institution's fiscal viability. The widespread number of local subsidies, bond referendums, tax districts, and general philanthropy toward local hospitals confirms that people do not consider the hospital as just another business.[17]

Which hospitals may be failing? Using the indicators described above, an analysis of each rural hospital was conducted to assess whether it is in jeopardy compared to hospitals of similar size. Failing hospitals can be identified by significantly lower utilization rates than the average of hospitals in its size group. These measures include:

- low occupancy rates, suggesting that services and facilities aren't being used to their fullest capacity;
- low number of days of care, indicating declining use;
- low discharges, also indicating declining use and growing difficulty in meeting fixed costs;
- high percentage of patient discharges who are 65 years or older, implying a high Medicare dependency and potentially greater risk of financial difficulties; and
- low percentage of its county's discharges, suggesting patient out-migration for hospital care and loss of market share, with long-term adverse consequences for a hospital's future.

The term *low* (or *high* for the fourth measure, patient discharges who are 65 or older) in this analysis refers to a hospital's performance in comparison to all others of similar size. Those hospitals which are abnormal on three or more of the five indicators are classified as *substantially at risk* of failing to meet their service missions. Those hospitals which have abnormally low statistics (or high on the category of discharges 65 years old or older) on two of these utilization measures indicates that the hospital is *moderately at risk.* Those hospitals abnormal on only one measure are not categorized as *at risk* hospitals, but they bear watching by hospital and state officials.

Using the 1989 utilization averages (see Tables 3 and 4), each rural hospital was compared to the average performance of all other hospitals in its group on the five indicators described above. The analysis used standard statistical techniques to determine the *standard deviation,* which measures the variation of each hospital's values from the group average. Those hospitals whose performance was at least one standard deviation from the average were categorized as *abnormal* on that indicator.

As Table 3 indicates, eight hospitals had abnormal scores on three or more measures and are classified as *substantially at-risk* hospitals. These hospitals include four small hospitals (fewer than 50 beds), three medium-sized hospitals (50–99 beds), and one large hospital (100 beds or more). The four small hospitals are Blowing Rock Hospital in Watauga County, Highlands-Cashiers Hospital in Macon County, Our Community Hospital in Halifax, and Sea Level Hospital in Carteret

## Table 3. North Carolina Rural Hospitals at Substantial Risk

| | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| | % Occupancy 1989 | Discharges 1989 | Days of Care 1989 | % Disch. ≥ 65 yrs. 1989 | % County Disch. 1989 | Net Income 1989 |
| **Hospitals with Fewer than 50 Beds** [1] | 45.5 | 1026 | 6709 | 52.9 | 28.0 | |
| *(standard deviation)* | (-17) | (-552) | (-3314) | (+13) | (-20) | |
| Blowing Rock Hospital | 50.1 | 390 | 5116 | 66.2 | 6.0 | $144,513 |
| Highlands-Cashiers Hospital | 14.0 | 339 | 1383 | 67.9 | 5.2 | ($529,405) |
| Our Community Hospital | 33.2 | 123 | 2425 | 82.1 | 1.4 | ($130,855) |
| Sea Level Hospital & Extended Care | 36.2 | 386 | 2111 | 61.4 | 5.7 | ($23,111) |
| **Hospitals with 50 to 99 Beds** [2] | 56.7 | 2405 | 14586 | 40 | 43.7 | |
| *(standard deviation)* | (-14) | (-1133) | (-5676) | (+9) | (-18) | |
| Ashe Memorial Hospital | 41.5 | 1527 | 8632 | 54.8 | 50.9 | $32,836 |
| Crawley Memorial Hospital | 66.0 | 262 | 12288 | 66.0 | 1.6 | ($111,766) |
| Person County Memorial Hospital | 36.4 | 1010 | 7176 | 58.0 | 27.2 | ($902,524) |
| **Hospitals with 100 or more Beds** | 66.9 | 6716 | 46254 | 34.1 | 61.9 | |
| *(standard deviation)* | (-14) | (-3726) | (-32230) | (+7) | (-20) | |
| Lake Norman Regional Medical Center | 34.8 | 2843 | 14346 | 42.6 | 17.4 | $535,445 |

These eight hospitals were more than one standard deviation away from the average on three or more measures. Shaded areas indicate that the hospital is more than one standard deviation from the mean in the direction that may indicate distress. A standard deviation "(±)" shows the dispersion of the values around the average; it is the square root of the average of the squared deviations from the sample mean. For example, the average occupancy rate for large rural hospitals was 66.9%; its standard deviation was 14. Thus, hospitals with less than 52.9% occupancy are more than 1 standard deviation from the average, and labeled abnormal.

Parentheses in column 6 indicate negative net income; figures without parentheses show positive net income.

[1] The average occupancy rate for each group was calculated by averaging the individual occupancy rates; an alternative method to calculate the measure is:
(Group's Total Days of care)/(Group's Total Beds in Use X 365)

[2] Averages for this size group were calculated without Crawley Memorial Hospital because of its extreme values

*Source: N.C. Center for Health & Environmental Statistics;* Health Facilities Data Book: Hospital Summary Report, 1989. *Prepared by Jeanne Lambrew & Glenn Wilson, N.C. Rural Health Research Center, Cecil G. Sheps Center for Health Services Research, UNC-Chapel Hill.*

County. The three mid-sized hospitals are Ashe Memorial Hospital, Crawley Memorial Hospital in Cleveland County, and Person County Memorial Hospital. The large hospital is Lake Norman Regional Medical Center in Iredell County.

In the second tier of hospitals rated as only *moderately at risk* (see Table 4) are another eight hospitals, including one small hospital (Bertie Memorial Hospital); three mid-sized hospitals (District Memorial Hospital and Murphy Medical Center of Cherokee County and Kings Mountain Hospital of Cleveland County); and four large rural hospitals (Beaufort County Hospital, Davis Community Hospital of Iredell County, Heritage Hospital in Edgecombe County, and Park Ridge Hospital in Henderson County).

The designation of these *at-risk* hospitals does not predict or assume that any of the hospitals will close, or that they cannot thrive in the future. For instance, Sea Level Hospital already is changing from an acute-care hospital to an extended care facility (see page 85–86 for more). And even the sole hospital that is abnormal on all five measures, Highlands-Cashiers, is in no danger of closing. "Highlands-Cashiers, no matter what the numbers say, is not at risk of closure because the wealthy population it serves will most likely not allow that to happen," notes Bernstein of the state's Office of Rural Health and Resource Development. Adds Tim Size, a national expert on rural hospitals and director of the Rural Wisconsin Hospital Cooperative, "Most rural hospitals are not in danger of closing."

A third group of six hospitals measured abnormal on only one of the five measures, and thus are not at risk. They could join the at-risk list in the future if their performance deteriorated. These six include four mid-sized hospitals (Anson County Hospital, Hamlet Hospital, Hugh Chatham Memorial Hospital, and Montgomery Memorial Hospital) and two large rural hospitals (Rutherford Hospital and Watauga County Hospital). Some hospitals in this grouping may be nearly normal like Watauga and Rutherford, which barely were abnormal on the occupancy measure and which are in good financial condition with positive net patient revenue and net income. But other hospitals, like Anson County Hospital, bear watching. Anson was abnormal on the days of care category, and also had negative net income in 1989.

Several of the hospitals designated as abnormal on one or more measures objected to some of the figures used. Several hospitals said they had supplied the wrong data to the state, and that if the numbers they should have reported had been used, they would not have measured abnormal on some indicators. However, the data used in the study were taken from the figures the hospitals themselves reported to the state.

In addition, administrators of small rural hospitals pointed out that their hospitals used "swing beds" that could be designated as either long-term beds or acute-care beds, depending on the needs of the hospital at the moment. This is a strategy designed both to meet local health care needs and to improve the viability of the institution. Had those beds been included when computing occupancy rates, these hospitals would not have been rated abnormal on that measure.

For instance, Blowing Rock Hospital in Watauga County had a 16.3 percent occupancy rate in 1990 based on acute care beds only. But if occupancy of the hospital's long-term care beds plus its swing beds had been counted, its occupancy rate would have swelled to 84.9 percent. A number of hospital administrators complained that by using only acute-care statistics, their facilities' actual use was understated. But until the data for swing bed use are consistently reported to the state, correctly assessing this utilization measure will be difficult.

Other administrators felt that the results were somewhat predictable because small rural hospitals always have faced a financial and service struggle. Shannon Elswick, president and CEO of Highlands-Cashiers Hospital, put it this way: "One would have to assume that Highlands-Cashiers Hospital has been considered 'at risk' since the hospital opened in 1952. As with many other small rural facilities constructed in the Hill-Burton era, it was built to provide primary care to the residents of the immediate area. Providing an adequate level of care to the residents has never been an easy task, but has been accomplished throughout the years."

## Financial Condition

An additional indication of hospitals in distress is financial condition, and again the numbers are instructive. Most of the at-risk hospitals are losing money, judging by figures from the U.S. Health Care Financing Administration on net income. Net income is calculated by subtracting all expenses from total revenues from all sources—including government subsidies, private endowments, and income from investments.

## Table 4. North Carolina Rural Hospitals at Moderate Risk

| | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| | % Occupancy 1989 | Discharges 1989 | Days of Care 1989 | %Disch. ≥ 65 yrs. 1989 | % County Disch. 1989 | Net Income 1989 |
| **Hospitals with Fewer than 50 Beds** [1] | 45.5 | 1026 | 6709 | 52.9 | 28.0 | |
| *(standard deviation)* | (-17) | (-552) | (-3314) | (+13) | (-20) | |
| Bertie Memorial Hospital | 25.1 | 471 | 4481 | 50.1 | 18.1 | ($402,782) |
| **Hospitals with 50 to 99 Beds** [2] | 56.7 | 2405 | 14586 | 40 | 43.7 | |
| *(standard deviation)* | (-14) | (-1133) | (-5676) | (+9) | (-18) | |
| District Memorial Hospital of Cherokee | 66.3 | 992 | 12586 | 49.8 | 27.3 | ($75,730) |
| Kings Mountain Hospital | 40.5 | 1837 | 13601 | 41.4 | 11.3 | ($118,670) |
| Murphy Medical Center | 41.0 | 1828 | 7477 | 44.2 | 45.8 | $898,959 |
| **Hospitals with 100 or more Beds** | 66.9 | 6716 | 46254 | 34.1 | 61.9 | |
| *(standard deviation)* | (-14) | (-3726) | (-32230) | (+7) | (-20) | |
| Beaufort County Hospital | 48.2 | 3658 | 20576 | 44.2 | 51.7 | $277,917 |
| Davis Community Hospital | 44.1 | 3702 | 23975 | 22.9 | 16.6 | ($292,227) |
| Heritage Hospital | 49.1 | 3269 | 22754 | 28.9 | 39.5 | ($648,898) |
| Park Ridge Hospital | 63.0 | 2303 | 23688 | 37.7 | 17.3 | $412,649 |

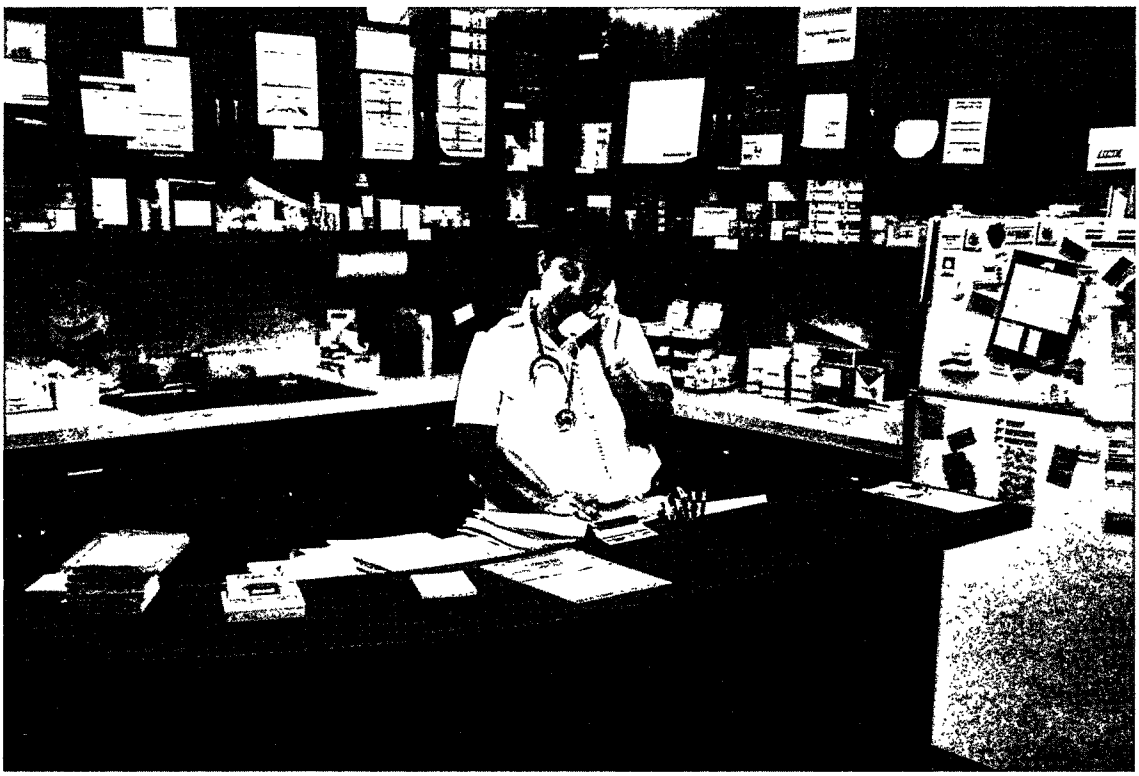
These eight hospitals were more than one standard deviation away from the average on two measures. Shaded areas indicate that the hospital is more than one standard deviation from the mean in the direction that may indicate distress. A standard deviation "(±)" shows the dispersion of the values around the average; it is the square root of the average of the squared deviations from the sample mean. For example, the average occupancy rate for large rural hospitals was 66.9%; its standard deviation was 14. Thus, hospitals with less than 52.9% occupancy are more than 1 standard deviation from the average, and labeled abnormal.

Parentheses in column 6 indicate negative net income; figures without parentheses show positive net income.

[1] The average occupancy rate for each group was calculated by averaging the individual occupancy rates; an alternative method to calculate the measure is:
(Group's Total Days of care)/(Group's Total Beds in Use X 365)

[2] Averages for this size group were calculated without Crawley Memorial Hospital because of its extreme values

*Source: N.C. Center for Health & Environmental Statistics;* Health Facilities Data Book: Hospital Summary Report, 1989. *Prepared by Jeanne Lambrew & Glenn Wilson, N.C. Rural Health Research Center, Cecil G. Sheps Center for Health Services Research, UNC-Chapel Hill.*



Jack Betts

The HCFA figures show that of the eight N.C. hospitals designated as *substantially at risk,* five of them (62.5 percent) showed negative net income in 1989, the most recent year for which figures are available. The five were Crawley Memorial, Highlands-Cashiers, Our Community, Person County, and Sea Level.

Of the eight hospitals considered *moderately at risk,* five (again, 62.5 percent) also had negative net income in 1989. The five were Bertie Memorial Hospital, Davis Community Hospital, District Memorial Hospital, Heritage Hospital, and Kings Mountain Hospital. And finally, of the six hospitals abnormal on only one measure, only one hospital—Anson County—had negative net income for 1989.

Hospitals with net negative income for one year are not necessarily in danger of closing, but their status is another indicator of possible difficulty in survival. It is worth noting that of the 16 hospitals designated as either *substantially at risk* or *moderately at risk,* 10 of them, or 62.5 percent, lost money in 1989. Column 6 in Tables 3 and 4 provides a clearer picture of the sums involved for the *substantially at risk* and *moderately at risk.*

The need for rural hospitals, and the finances involved, transcend utilization and balance sheets, notes Elswick of Highlands-Cashiers. "From an economic standpoint, it may be sensible to eliminate half of the hospitals that are termed at-risk or inefficient hospitals," observes Elswick. "In terms of lives saved each year, however, what is the value of the hospital to the people of those communities? Do we arbitrarily close rural hospitals? Do we look for alternative ways to provide care? Or do we continue to provide primary medical care?"

Dan C. White, chief executive officer of District Memorial Hospital, predicts, "Small rural hospitals will continue to struggle as cost of care, managed care programs, and quality of care issues become of more importance to the customers. Those hospitals that plan well and respond to the needs of the community will add to their longevity. Those that do not will soon (one to three years) vacate the market place."

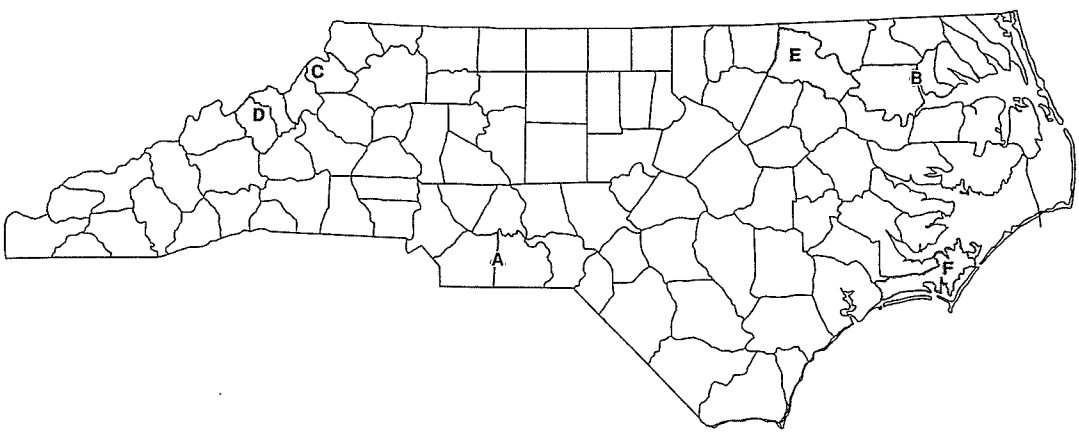
The state already has taken note of the fact that many of these hospitals are in serious difficulty. It has been approved for a new federal program designed to help them stay open and serve rural needs. North Carolina is one of seven states that will participate in the Essential Access Community Hospital Program. Under this program, six rural hospitals will become Rural Pri-

mary Care Hospitals offering limited services, but will develop formal relationships with larger rural hospitals. The primary care hospitals will shut down most of their beds, serving chiefly as outpatient and emergency care clinics, while their partner hospitals will provide care for more severe or complicated cases that require an inpatient stay of longer than 72 hours.

Six of the hospitals approved for this program show at least one sign of *at-risk* distress. Figure 2 shows the Rural Primary Care Hospitals (RPCH) on the left side and their partner Essential Access Community Hospitals (EACH) on the right. The number in parentheses following the hospital name indicates the number of measures on which the hospital is abnormal, according to the Center's analysis.

Administrators of small hospitals recognize that the program would help assure a level of care in communities that are threatened with the loss of

**Figure 2. Hospitals Approved for the Federal Essential Access Community Hospital Program.**




| Network | Rural Primary Care Hospital | Essential Access Community Hospital |
|---|---|---|
| A | Anson County Hospital (1) | Richmond Memorial Hospital |
| B | Bertie County Memorial (2) | Chowan Hospital |
| C | Blowing Rock Hospital (3) | Watauga Hospital (1) |
| D | Burnsville Hospital | Spruce Pine Hospital |
| E | Our Community Hospital (4) | Halifax Memorial Hospital |
| F | Sea Level Hospital (3) | Carteret General Hospital |

Numbers in ( ) indicate number of abnormal measures of hospital utilization.

*Source: N.C. Office of Rural Health and Resource Development, N.C. Department of Human Resources.*

facilities. Charles Y. Davis, administrator of Bertie Memorial Hospital, told *The News & Observer,* "The fact that these beds are no longer needed is evident. They're empty."[18] Asked about his hospital's financial condition, Davis had one word: "Critical."

James R. Queen, administrator of Our Community Hospital in Halifax County, notes that the new Rural Primary Care Hospitals would be able to provide care to stabilize injuries and provide initial treatment before transferring patients to the Essential Access Community Hospitals. "The patient truly gets an appropriate level of treatment, and that's what people really want," Queen told *The News & Observer.*[19] "They don't expect that we're going to have surgeons waiting."

Tom Ricketts, director of the N.C. Rural Health Research Program at UNC–Chapel Hill, says more and more rural hospitals will shift their focus from the old way—attempting to offer the full complement of services—to new arrangements that will more accurately satisfy the needs of the community. "Medicine has changed so drastically just in recent years alone," notes Ricketts. "It was logical 30 years ago to have a 30-to-60 bed hospital" in many rural communities, but financial pressures and service patterns make it hard for those hospitals to survive today. To do so, rural hospitals must offer what the community needs, not try to compete with the huge mega-medicine centers in Chapel Hill and Durham and Charlotte. "I'm a big advocate of regrouping services," Ricketts adds.

At Heritage Hospital in Edgecombe County, officials are working to provide new programs and specialists to cope with the problems of viability. Randy Beaman, Heritage's assistant administrator, says an aggressive physician recruitment program with a focus on specialists may help stem patient out-migration. "We are also developing new services such as MRI, cardiac catheterization, cardiac rehab, [an] inpatient rehabilitation unit, and also have a skilled nursing unit in place and have expanded our Level II nursery, which is the only one in our area."

Jim Bernstein of the state's Office of Rural Health points out that despite distances and costs, many rural patients prefer a big-city hospital. "We just can't have so many rural hospitals with their patient population going to urban areas. What they [rural hospitals] need to do is to find their niches of care."

Bernstein suggests that such niches include care for the elderly—"Nursing homes will not be sufficient in the future, and children are going to want better for their parents," he says—and better primary care and maternal and child health care. "Raleigh can't do that for Warren County," Bernstein adds. "Warren County will have to do that for Warren County" and leave high-tech medicine to large hospitals.

In June 1991, one hospital which had closed made a reappearance as an outpatient clinic. Robersonville Community Hospital, which closed in 1989, reopened after two doctors agreed to move to the Martin County town. Similarly, a clinic is operating at the old Warren County General, where the county health department and a community health center offer services. Other small hospitals should begin preparing for such a future, Bernstein says. "Some counties will position themselves to provide care and thrive," predicts Bernstein, "but others won't, they won't have care, and they're just going to dry up. They won't have health care."

As the economic climate worsens, medical sophistication increases, and rural health problems persist, the rural hospital as we know it may disappear, evolving into new types of organizations like primary care hospitals, rural health networks, and extended care clinics that can weather the problems and maintain essential services in rural North Carolina.

## FOOTNOTES

[1] Arthur Caplan, "Simple changes could help ease rural health-care crisis," *The News & Observer* of Raleigh, May 9, 1990, 12A.

[2] Laura Summer, "Limited Access—Health Care for the Rural Poor," Center on Budget and Policy Priorities, Washington, D.C., March 1991, p. xi.

[3] This count of 118 hospitals reflects the number of hospitals reporting to the state for licensing; several of these are systems whose members report their statistics in aggregate, so this count of 118 is conservative. In 1990, the N.C. Department of Human Resources reported there were 127 acute-care hospitals in North Carolina.

[4] *AHA Hospital Statistics: 1990–91,* American Hospital Association, Chicago, 1990.

[5] U.S. Congress, Office of Technology Assessment, *Health Care in Rural America,* 1990, pp. 111–113. See also Marianne M. Kersey, et al., *Comparing the Performance of For-Profit and Not-For-Profit Hospitals in North Carolina,* N.C. Center for Public Policy Research, 1989.

[6] For more, see Jack Betts, "North Carolina Hospitals Succumb to Ills of Health Care Industry," *The Investor-Owned Hospital Movement in North Carolina,* N.C. Center for Public Policy Research, 1986, pp. 50–51.

[7] *AHA Hospital Statistics: 1990–91.*

[8] P.L. 89–97. For a list of Diagnostic Related Groups, see the *Federal Register,* Vol. 49, No. 171, Aug. 31, 1984, p. 34777.

[9] For more on uncompensated care, see Marianne M. Kersey, et al., *Comparing the Performance of For-Profit and Not-For-Profit Hospitals in North Carolina,* N.C. Center for Public Policy Research, 1989. The Center's research showed that for-profit hospitals performed 27 percent less health care for the indigent than did not-for-profit hospitals.

[10] N.C. Hospital Association, "Report on Rural Hospitals and Medicare," October 1989, p. 9.

[11] For more detail on the computations and analysis, see Jeanne M. Lambrew, "North Carolina Hospitals: Utilization Trends by Urban-Rural Location and Size," N.C. Rural Health Research Program Working Paper, UNC–Chapel Hill, September 1991.

[12] *N.C. State Health Planning, 1990–91, State Medical Facilities Plan,* Division of Facility Services, Department of Human Resources, 1990, p. 44.

[13] *Rural Hospitals: Federal Efforts Should Target Areas Where Closures Would Threaten Access to Care,* U.S. Government Accounting Office, Washington, D.C., 1991, p. 43.

[14] Report of the N.C. Hospital Association Summer Meeting, July 1990, pp. 3–4.

[15] Tinker Ready, "Program may help hospitals," *The News & Observer* of Raleigh, Sept. 11, 1991, p. 1B.

[16] *Rural Hospitals: Factors That Affect Risk of Closure,* U.S. Government Accounting Office, Washington D.C., 1990, p. 7.

[17] For more on foundation giving to hospitals and on the success rate of local hospital bond referenda, see Marianne M. Kersey, et al., *Comparing the Performance of For-Profit and Not-For-Profit Hospitals in North Carolina,* N.C. Center for Public Policy Research, 1989, pp. 163–65 and pp. 182–194.

[18] Ready, p. 1B.

[19] *Ibid.*

*Wake Medical Center*

# *If Hospitals Close, Then What?*

by Jeanne M. Lambrew and Glenn Wilson

*If these or other rural hospitals were to fail, what would happen to these communities? Or more realistically, what should these hospitals and their communities do?*

Suppose the hospital in a small, rural community of 2,000 population were forced to shut down? And suppose that community were fairly isolated from other communities and had the average array of other providers, including a county health department and nursing and rest homes. And suppose that the town's only physician were thinking of moving to the city to join a big lucrative practice.

Suppose all that, and consider four questions: (1) What minimum set of services is needed locally? (2) How can these essential services be organized? (3) How much money is needed to support them? (4) And what recommendations for structure and services might be considered by a typical rural community?

To determine what sort of care a rural area should have in the absence of a general, acute-care hospital, researchers in health policy at the Cecil G. Sheps Center for Health Services Research interviewed a group of health care professionals and officials for a discussion of the minimum services that should be available in all rural communities. That led to development of several models and configurations for a rural health service if a hospital were to close. Tables 5 through 7 show the results of this exercise, and Table 6 shows how figures were derived.

## Minimum Services

For the most part, health experts say minimum services should include two categories: emergency services and primary care services. *Emergency services* have a particular importance in rural communities because of the distance from urban and rural hospitals alike. Citizens who had been used to the security of an emergency room for years before losing a hospital perceive the need for local emergency services more acutely than do people in places where there never had been a hospital.

Emergency services identified as both essential and feasible to provide in small settings are:

- stabilization of acute conditions and cardiac management;
- emergency baby deliveries;
- treatment of lacerations and shallow wounds;
- immobilization of fractures;
- X-ray and laboratory services.

To ensure access to emergency services, an on-call physician or mid-level provider (a nurse practitioner or physician assistant), who could at least stabilize a patient and provide advanced life support until transport to a hospital, should be available or on duty 24 hours a day. The local Emergency Medical System (EMS) should operate at a sophisticated and responsive level. An Emergency Medical System is an organized network of personnel, vehicles, equipment, and facilities which provides medical care to those with unexpected or emergency needs. EMS means

*Jeanne M. Lambrew is a research associate for the N.C. Rural Health Research Program within the Cecil G. Sheps Center for Health Services Research at UNC–Chapel Hill. Glenn Wilson is professor of social medicine at UNC–Chapel Hill.*

more than simple transportation, and a secondary, perhaps volunteer system to shuttle non-emergency cases to and from the nearest hospital or physician's office would be needed.

*Primary care services* are those often-used services that are organized for the treatment of acute but non-emergency illness, for chronic disease management, and for health maintenance. This includes treating minor conditions ranging from colds, backaches, and infections, to minor accidents, and low-intensity surgical procedures.

The network of different types of health care providers in the county as well as regional and urban hospitals in nearby counties can often be linked with a primary care center in a rural community to ensure access to a broader range of services. Such a situation occurred in Warren County after the hospital closed in 1985. The community health center began providing primary care services in the vacated hospital facility, and currently the renovated hospital building houses both the community health center and the local health department. This new arrangement has attracted more physicians than the county has ever had before—a total of 10.

Inpatient beds may not be needed in every rural community, though they can be beneficial. Inpatient beds benefit the local nursing homes and rest homes which depend on local hospitals to treat those cases which aren't severe enough to refer to bigger hospitals. However, the need depends on the community, and if a good network with a larger hospital is in place, inpatient beds might not be needed at all.

A locally owned, rural primary-care clinic is the best option to deliver essential services. But such clinics might consider developing an administrative relationship with the closest large or mid-sized hospital. Management could be provided by the larger hospital because it offers both expertise in management and access to a full array of services. In turn, the larger hospital would benefit from the referrals from the rural community.

Provisions should be made for around the clock services. In addition to regular workday office hours, a realistic scenario would be for extended clinic hours to be from 5 p.m. to 10 p.m. on weekdays and from 9 a.m. to 1 p.m. on Saturdays. Emergency care at other hours (early morn-

*—continued on page 92*

## Table 5. Minimum Hours and Staffing for a Rural Community Primary Care and Emergency Care Center

| | Regular Hours | Evening Hours | Saturday Hours | On-Call Hours |
|---|---|---|---|---|
| **Hours Open** | 9AM–5PM | 5PM–10PM | 9AM–1PM | Weekdays: 10PM–9AM<br>Saturday: 1PM–9AM<br>Sunday: 9AM–9AM |
| **Minimum Staffing** | | | | |
| Health Providers | 2 | 1 | 1 | 1 |
| Certified Medical Assistant | 2 | 1 | 1 | 0 |
| Office Manager/Billing | 1 | 0 | 0 | 0 |
| Receptionist | 1 | 1 | 1 | 0 |

*Prepared by Jeanne Lambrew and Glenn Wilson, N.C. Rural Health Research Program, Cecil G. Sheps Center for Health Services Research.*

## Table 6. Cost Estimates for a Hypothetical Rural Community Primary & Emergency Care Center

| | | Number of Personnel | Salary | Costs |
|---|---|---|---|---|
| **Health Providers** | | | | |
| OPTION 1: | Physicians | 2 | $80,000 | $160,000 |
| OPTION 2: | Physicians | 2 | $80,000 | $160,000 |
| | Mid-Level Providers | 2 | $40,000 | $80,000 |
| OPTION 3: | Physicians | 3 | $80,000 | $240,000 |
| | Mid-Level Providers | 1 | $40,000 | $40,000 |
| **PROVIDER COSTS:** | | | OPTION 1 | $160,000 |
| | | | OPTION 2 | $240,000 |
| | | | OPTION 3 | $280,000 |
| **Non-Provider Personnel** | | | | |
| Certified Medical Assistant | | 2 | $24,000 | $48,000 |
| Office Manager/Billing Person | | 1 | $20,000 | $20,000 |
| Receptionist | | 1 | $16,000 | $16,000 |
| **NON-PROVIDER COSTS*:** | | | | $84,000 |
| **OPTIONS 1 & 2: Other Costs** | | | | |
| Office Expenses | | | | $68,200 |
| Medical Supplies | | | | $33,800 |
| Medical Equipment | | | | $15,000 |
| Liability | | | | $36,800 |
| Other | | | | $48,600 |
| **OPTIONS 3: Other Costs** | | | | |
| Office Expenses | | | | $102,300 |
| Medical Supplies | | | | $50,700 |
| Medical Equipment | | | | $22,500 |
| Liability | | | | $55,200 |
| Other | | | | $72,900 |
| **OTHER COSTS:** | | | OPTIONS 1 & 2 | $202,400 |
| | | | OPTION 3 | $303,600 |
| **TOTAL COSTS:** | | | **OPTION 1** | **$446,400** |
| | | | **OPTION 2** | **$526,400** |
| | | | **OPTION 3** | **$667,600** |

Assumptions for Calculation of Costs:

1) **Number of personnel, hours and salaries** are rough estimates.

2) **Non-personnel costs** are averages reported for the the South Atlantic Region in the American Medical Association's *Socioeconomic Characteristics of Medical Practice 1989.*

* Total non-physician staff costs calculated were $84,000, between 27–52% lower than the AMA's averages. Although some of the discrepancy might come from the AMA model's lack of control for rural or regional variations, the estimate above excludes other non-provider personnel such as custodial staff or a telephone answering service.

*Prepared by Jeanne M. Lambrew and Glenn Wilson, N.C. Rural Health Research Program, Cecil G. Sheps Center for Health Services Research*

## Table 7. Size of Community Needed* to Support A Clinic with Operating Costs of $500,000

| Revenue per Visit | Number of Visits | Community Size |
|---|---|---|
| $30 | 16,667 | 3,546 |
| $40 | 12,500 | 2,660 |
| $50 | 10,000 | 2,128 |

* Assuming that patients make 4.7 visits each year (the 1988 average of patient-doctor contacts in the South) and that 100 percent of patients can pay their bills in full or are fully covered. These assumptions are not realistic, but the table indicates the considerations in planning a community clinic.

*Source: Prepared by Jeanne M. Lambrew and Glenn Wilson, N.C. Rural Health Program, Cecil G. Sheps Center for Health Services Research*

ing and weekends) could be handled through an on-call system (see Table 5).

Several staffing configurations could serve such a center. At least two physicians for a clinic in a community of roughly 2,100 residents, or up to two or three physicians in combination with nurse practitioners or physician's assistants in a community of about 3,150 population, probably are the minimum number of health care providers needed for a community clinic. Though more physicians would be preferable since their turnover rate is somewhat lower than other health professionals, physicians are more expensive and difficult to recruit.

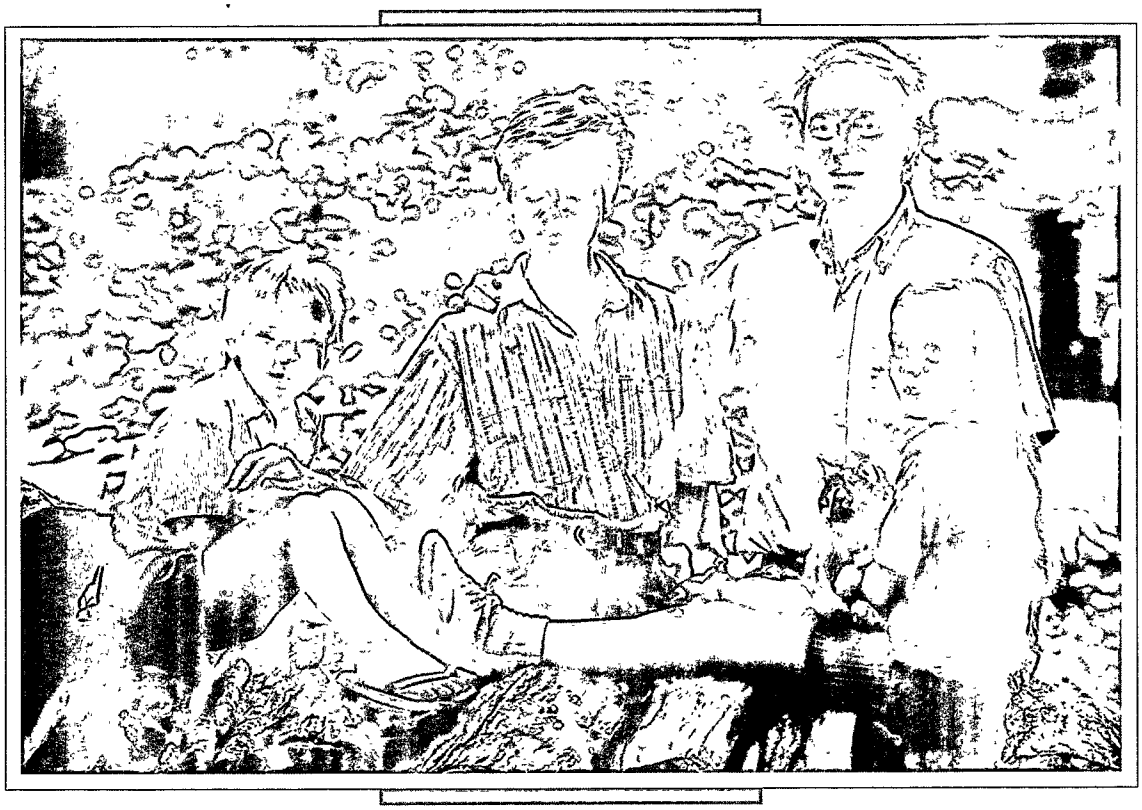
## Funding to Support Essential Services

Depending on the number of physicians in the clinic, operating it might cost anywhere from an estimated $446,400 to $667,600 per year (see Table 6). This appraisal includes rough estimates of North Carolina salaries and expenses based on the average expenses for physicians in the South Atlantic region in 1989. This estimate does not include any capital costs for building renovation or major equipment purchases. Because these are figures attached to a hypothetical case, they may fit only a few communities in North Carolina. On the other hand, they do illustrate some of the costs and considerations that would be involved in running such a clinic.

The size of the community necessary to support a clinic with an annual budget of $500,000 is between 2,083 and 3,472, based on the national average of 4.8 contacts with a physician per person per year (see Table 7). This means that if most of the residents in the area used the clinic—and that all those patients were insured or otherwise could pay their bills—the patient revenues would support the clinic.

But that assumption is highly unrealistic. While a high proportion of patients might patronize the center, others still would go elsewhere. In the rural South, the number of physician contacts may be lower. And there is no evidence to support an assumption that most would have health coverage or the ability to pay their bills in full. Without sufficient patient use or patient payment, outside support would be necessary. Such outside support might come in the form of subsidies from local governments, from the state, or from other health care institutions. In any case, subsidies would be a major public policy questions for the General Assembly and local governing agencies to debate.

Is such a proposal realistic? Dr. Thad Wester, deputy state health director, believes such a strategy could be developed only by a consensus of "the existing private health care provider system, community leaders, local government" and others. "Such a direction would have a profound impact on the medical and health care for the involved community for many, many years," says Wester.



Karen Tam

***The McLaurin family, some 14 months after Tim's bone marrow transplant: Christopher, Katie, Tim, and Meaghan.***

# When High-Tech Hits Home: A Writer's Fight with Cancer

by Mike McLaughlin

North Carolina Insight *has looked at health care policy from almost every angle —from cost containment to access to care to the role of the states in assuring that citizens get adequate health care. In this article,* Insight *examines the impact of a high-tech medical procedure on Chapel Hill author Tim McLaurin. McLaurin has written two novels,* The Acorn Plan *and* Woodrow's Trumpet, *and memoirs titled* Keeper of the Moon. *He needed a bone marrow transplant as treatment for multiple myeloma, an unusual form of cancer. When his insurance company determined this treatment was experimental and thus ineligible for coverage, McLaurin got a taxpayer-financed transplant at the Veterans Affairs Medical Center in Seattle.*

Tim McLaurin strode away from the entrance to the Veterans Affairs Medical Center, heading for the rental Chevy Geo parked in a small sea of cars. He walked fast, his jaw set firmly, and said almost nothing, as though he had somewhere to go and something to leave behind.

It would be hours before he learned if the many blood transfusions he had received in a bout with a life-threatening illness had left him HIV positive—possibly carrying the virus that causes AIDS. McLaurin claimed he wasn't worried, despite a symptom that caused concerned doctors to order up a blood test.

It was the same attitude McLaurin had taken when first diagnosed with multiple myeloma almost two years earlier. He had clenched his jaw and vowed that he would lick this rare form of cancer—one way or another.

"I've always liked a good fight," McLaurin had told the doctor who had diagnosed his illness.

"Well," the doctor had replied, "you've got one now."

The early rounds had all gone to McLaurin. He gained remission through chemotherapy within six months of diagnosis. He got up from a bone marrow transplant after only 15 days in the hospital. A year later, he was returning for a battery of tests that would tell whether he could be weaned from the drugs that puffed out his face. And now came this AIDS threat.

McLaurin had thought the eye exam would be all but routine. But his ophthalmologist clearly was concerned about the white spots that showed up in the exam. "We see them with a lot of things," the doctor told him. "Most often these days we see them with AIDS patients."

And so McLaurin and his wife Katie had to spend the afternoon waiting to learn whether he would face yet another fight with a potentially fatal illness. The phone finally rang in the McLaurins' rented apartment in downtown Seattle. It was the bone marrow transplant unit. The test came back negative, the voice on the phone reported. Score another round to McLaurin.

> *When under attack, a person can either draw in his limbs and roll into a ball and hope for amnesty or lash out with fury and strength. I decided in that first minute I would not face this disease in a passive mood, but would confront it as an intruder.*
>
> — *Keeper of the Moon* by Tim McLaurin

Tim McLaurin is a snake-fancying writer who has made the hard South his stock in trade. This is the South of grits and pit bulldogs and fist fights and beer bellies—of lives of hard labor and hard luck. McLaurin, 37, has published two novels—*The Acorn Plan,* the story of a young man fighting his way out of East Fayetteville; and *Woodrow's Trumpet,* a tale about what happens when the New South threatens a way of life in a farming town.

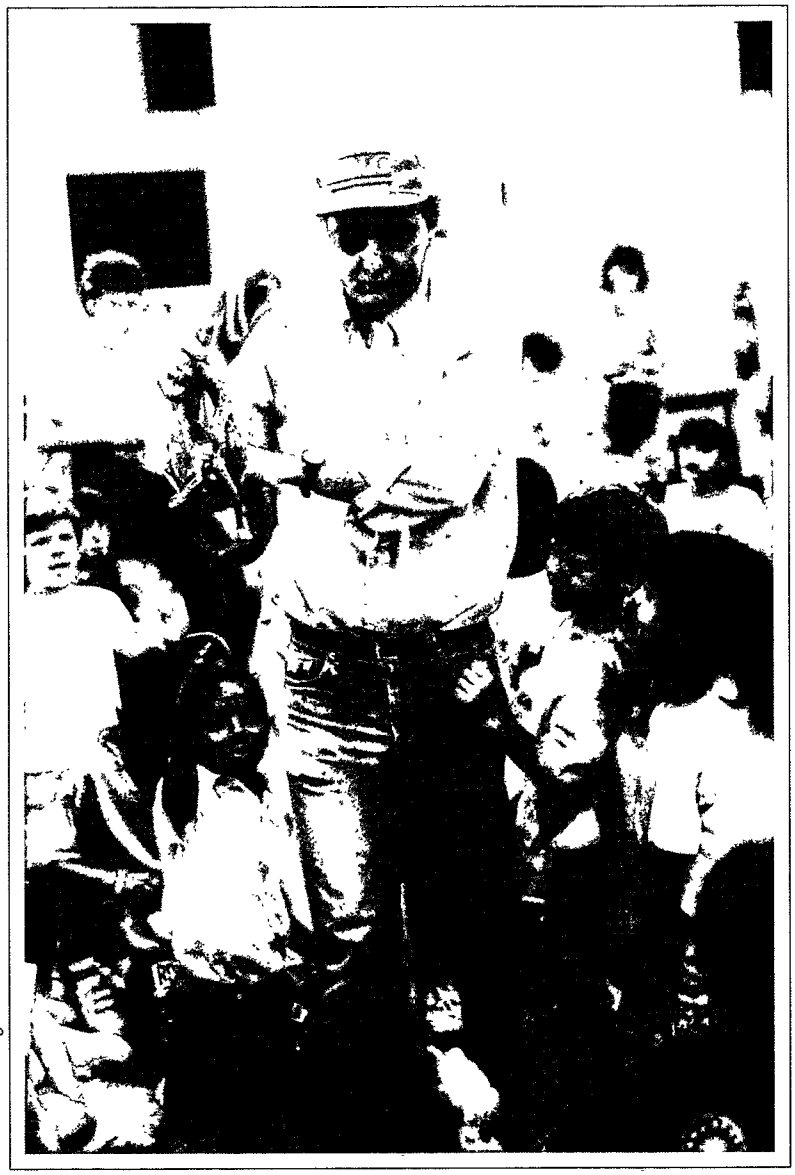
McLaurin also has found his own life to be a rich vein for nonfiction. An ex-Marine, he operated a carnival snake show and then volunteered for the Peace Corps before settling into a career as a writer. McLaurin has a penchant for telling the unvarnished truth, no matter what the subject. His writing career was just taking off when he was diagnosed with a cancer that threatened to send it crashing down. But in some ways, he approached it as just another story—a new set of experiences for a self-proclaimed adventurer.

Edison Liu, a professor and cancer researcher at the University of North Carolina at Chapel Hill Medical School, first diagnosed McLaurin's illness. Liu became McLaurin's attending physician and friend. He thinks McLaurin's attitude helped him survive. "The way I see it, the way he rebounded from this wraps around his concept of life," says Liu. "Everything is a journey to him . . . the military, the Peace Corps, and this became a journey for him."

The bout with cancer would prove to be McLaurin's most challenging odyssey yet. He would experience an expensive, high-tech medical procedure and see the changes it would work on his body. He would see the impact of his illness on his family—his wife Katie and two young children, Meaghan and Christopher. He would lie in a hospital bed in faraway Seattle and dream of returning home to his beloved South. And finally, he would share the experience—like the carny barker who woos a wary public into his tent, or a

---

*Mike McLaughlin is associate editor of* North Carolina Insight.



Mike McLaughlin

***Tim McLaurin takes his "Last Great Snake Show" to the public library in Hillsborough.***

young boy who heard myths about snakes and set out to explode those myths.

There are myths about cancer, too, and one of them is that it can't be beaten. McLaurin believes his own father fell victim to that myth, and it was another myth McLaurin wanted to destroy. McLaurin would treat the disease with respect. But he was determined to beat the damned thing.

* * *

McLaurin talked about his illness in the spring of 1991—almost two years after he was diagnosed with cancer and about a year after his bone marrow transplant. In one interview, he had just returned from a whirlwind trip to New York to negotiate a contract for his latest book—memoirs titled *Keeper of the Moon.* McLaurin seemed weary. He was slung back in a recliner in the living room of his Chapel Hill home. The house is a 1960s-style ranch with a carport at one end cluttered with old fishing poles, bicycles, small engine parts, and even a broken telescope.

The front door opens on a living-dining room combination with "This End Up" furniture arranged on marred hardwoods. A cat laps the leftovers from a bowl of cereal on the table. McLaurin just ignores it.

The cancer diagnosis, he says, came June 7, 1989, his ninth wedding anniversary. "I was running right up until a couple of days before I went into the hospital," McLaurin says. "My endurance was a little down and I had an erratic heartbeat." Tests showed McLaurin had a rare kidney disease that might indicate cancer. He and Katie had already canceled the barge trip in France they had planned to celebrate their anniversary. A bone marrow biopsy confirmed the diagnosis.

McLaurin took the news in stride. He left the hospital on an overnight pass and had dinner and a bottle of wine with Katie to celebrate the anniversary. "It just didn't seem real to me," he would say later. "I never took it seriously. I had too much going on."

The day after McLaurin's cancer diagnosis, the treatments started—four days of chemotherapy a month.

* * *

Katie and Tim had met a decade earlier in a clogging class in Fayetteville. Katie ran a bookstore there shortly after she graduated from

*I remember the shine of fear in my father's eyes the day he was told he had lung cancer, how on that day he accepted his fate and was dead weeks later.... Cancer killed people and if the doctor said he had cancer, it was time to die.*

— *KEEPER OF THE MOON,* TIM MCLAURIN

Davidson College with a Bachelor of Arts in African studies. Tim—a few years out of the Marine Corps—was working blue collar jobs and licking his wounds from his failed first marriage. In this case, opposites did attract. "We're both risk-takers," says Katie. "Maybe each of us saw the other one as something of a risk—a good risk, a wonderful risk."

When the two joined the Peace Corps and took off for Tunisia, their parents were not sure who was to blame. "His family was sure he talked me into it, and my family was sure I talked him into it," says Katie. Katie would deliver her first child in Tunisia, and Tim would get an emergency appendectomy that he swears he never needed, but they stuck to their two-year commitment.

Tim writes of life in the hard South. Katie directs International Projects Assistance Services, a nonprofit agency that helps get medical treatment to Third World women suffering the health effects of illegal abortions. Tim does a lot of the cooking and tends to the children when Katie travels.

Katie was with Tim for his diagnosis, and in many ways she took an opposite approach to his illness. While Tim listened for the chance that he would live, Katie heard the overwhelming odds that he would die. "His mental attitude from the beginning was I have a challenge, and I'm going to meet it and overcome it," says Katie. "I had to prepare myself and my children in a way that would be most positive for them."

That meant preparing her children for the fact that their father might not survive his bout with cancer. Katie attached particular importance to this for reasons that were personal. Her own father died when she was nine. She had barely been told he was sick. "The way society approached illness and death then and now is significantly different," says Katie. "This time I had a chance to get it right. He died and I was completely unprepared for it. My family was protective of us to shield us from that."

* * *

McLaurin's doctors also took his diagnosis seriously. They rushed him into treatment immediately. His cancer was in advanced stages, and hopes were slim. "He had myeloma in virtually every bone in his body," says Liu, his oncologist. "His tumor burden was very high. The abnormal proteins were already damaging his kidneys, so we started him on an aggressive regimen of chemotherapy. Obviously, if we were going to do anything to save his kidneys, we had to do something fast."

But the chemotherapy drove the cancer from McLaurin's body with virtually none of the side effects one typically associates with the treatment. He hardly even lost his appetite, much less his hair. "Within two or three sessions, he was in complete remission," says Liu. "That's something you rarely get."

Still, Liu knew the chemotherapy fix was only temporary. Without more drastic action the cancer would return—and return with a vengeance. And so he recommended a bone marrow transplant.

"It's a real aggressive disease," said McLaurin. "It's something you don't live with a terribly long time." Liu gave McLaurin the odds, and the decision wasn't all that difficult. Without the transplant, McLaurin likely would be dead in a year or two. He had a 75 percent chance of surviving the transplant and at best a 50-50 chance that if he lived through the procedure the cancer would not recur.

McLaurin felt an odd exhilaration. Here was a chance for a cure. "It was a big decision," says McLaurin. "I had responded so well to chemotherapy that I might have gone on for five years or 35, but the statistics did not support that. I just opted that if I was going to gamble, I'd gamble right then."

Katie immediately sought other opinions. "I got four medical opinions—from oncologists here, in Richmond, Dallas, and Seattle," says Katie. "They all agreed. This was the best course to take. If he didn't have the transplant, he would die." Katie says the opinions were unqualified, and the doctors agreed

the timing was perfect. "The best time to do it was in the first strong remission," she says.

But if the McLaurins had come to terms with their decision, their insurance company had other ideas. The company determined that bone marrow transplants had been performed too few times on multiple myeloma patients and were thus experimental and ineligible for coverage. Since multiple myeloma mostly strikes older men—considered too frail to withstand the trauma of a transplant—the procedure hadn't been tried much for McLaurin's ailment.

Philosophically, McLaurin knew that insurance companies are profit-making enterprises. He knew they must weigh the cost of a procedure against the hope of a cure in deciding what to cover. Still, he wanted his transplant. For purposes of this procedure, he might as well have been uninsured.

Now the McLaurins were stumped. A bone marrow transplant could cost upwards of $200,000. "None of the hospitals will consider you without insurance unless you're able to come up with anything from $40,000 to $100,000 up front with a guarantee of the rest of the money through some type of security," says Katie.

While the McLaurins worried about how they would come up with the money for a transplant, the clock was ticking. The transplant needed to be done while the disease was in remission, and no one was sure how long that would be. Then somebody suggested that Tim try the Veterans Affairs Medical Center system. He did, and things suddenly started falling into place.

Ordinarily the McLaurins would not have qualified for VA care. "The VA has gotten so tight they only do things that are service-related, active service, or hardship," says McLaurin. McLaurin had gotten out of the Marines healthy after a two-year hitch in 1974. And the McLaurins had far too much income to qualify on financial grounds.

But here the peculiar nature of McLaurin's illness actually worked in his favor. Doctors at the bone marrow transplant unit at Seattle's VA hospital were studying how young men with multiple myeloma respond to bone marrow transplants. They accepted Tim for a transplant, and the McLaurins started laying plans for a long summer in Seattle.

* * *

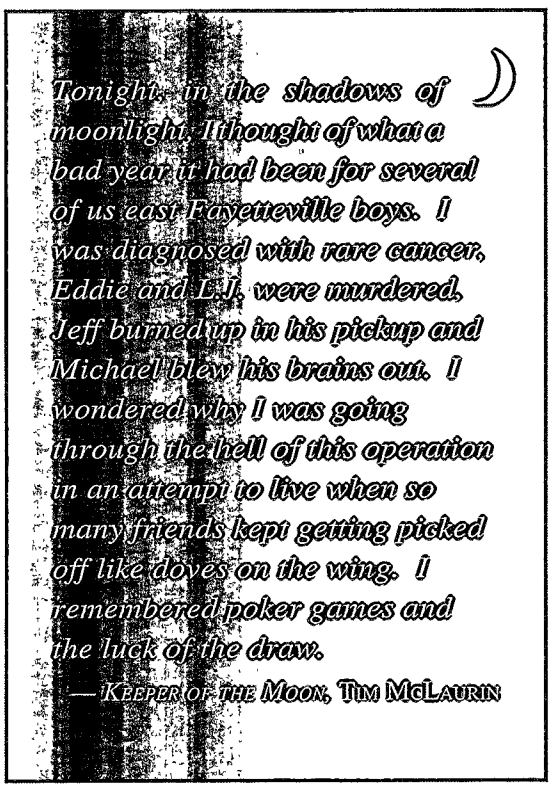
Part of the ordeal for any transplant patient is finding a donor. There's about a one-in-four chance that an immediate family member will provide a genetic match. If the recipient must look outside his immediate family, the chances of any single donor providing a match are about one in 20,000. Again, McLaurin was lucky. He found a match in his brother Bruce.

Except for Tim, all the McLaurin siblings live within hollering distance of home in rural Cumberland County. At one point, five of the six children slept in the same bedroom. For 14 years, Bruce and Tim shared the same bed. "And then he's the one that matches me with bone marrow," says McLaurin. "It's kind of ironic."

The two brothers had drifted their separate ways—Tim into the Marine Corps and to college and the Peace Corps, Bruce sticking close to home, marrying his high school sweetheart, and taking a job driving a truck for Roadway.

The transplant brought the brothers back together again. "It was a bonding type thing," says McLaurin. After the transplant, there would be biological changes that would bring them even closer. "My blood type has changed over to his blood type," says McLaurin. "I was a B positive. Now I've changed over to A."

Bruce had gone out to Seattle solely to donate bone marrow and wound up staying almost three



months. Tim's body would not manufacture platelets so Bruce stayed in Seattle to provide blood transfusions.

For Bruce's second wife Claudia, the ordeal was particularly stressful—as though her family were torn between two places. Tim and Katie paid Bruce's salary while he was out of work, but the logistics of it all proved difficult for Claudia. "It was hard," she says. "It was very hard. There was no doubt that Bruce had no choice, but it was hard on the kids and hard on me. We were being pulled."

Bruce, on the other hand, had hoped he would be the donor from the start. "I wanted to be the one, but at the same time I was worried," he says. "I didn't know what I was getting in to." Bruce had heard horror stories about the procedure: that you couldn't be put to sleep while the marrow was being drawn—false, and that it was extremely painful—again, false.

To draw out the marrow, doctors use a large-gauge, hollow needle to punch through the skin and open up a series of holes for access. Then they make 200 to 300 separate bone punctures with the needle to draw out the marrow. "They take it right out of your beltline," says Bruce. "It's like somebody stuck an ink pen in your back or something. I've got six little holes." Bruce says the procedure was much less painful than expected, although it did leave him stiff and sore.

After donating the marrow, Bruce's job during his stay in Seattle would be going down to the Puget Sound Blood Center to give blood. The yellow-gold platelets would be spun out in a centrifuge and transferred in a plastic IV bag over to Tim.

* * *

To get a bone marrow transplant at the VA hospital requires at least a 100-day stay in Seattle. First, there is the preparation—the heavy dosages of drugs or radiation required to kill off the cancerous cells, then the marrow transplant, and finally the post-transplant period in which the immune system slowly recovers. "What they do is, they bring you as close to death as they can without killing you, and then they start bringing you back," says McLaurin.

Katie McLaurin knew immediately she wanted to be with Tim during this period—and she wanted her children there. "It was important for them to

***Tim McLaurin with his brother Bruce on the family farm near Fayetteville.***

*Mike McLaughlin*

be there for the transplant—to see the changes and be there in the event that he didn't survive—so that when he came home and he didn't have hair and he was bloated from the Prednisone—that they would know that he was their father. And it was like I needed them as much as they needed me."

That meant setting up a household in another city. The children would enroll in special schools. Katie would set up a makeshift office in their temporary home. It was awkward, but it helped Katie keep up with her work. Katie's mother and stepfather came out for the duration to offer their support, and Tim's family members also were frequent visitors. "It was a small, three-bedroom house, adequate, but cramped," says Katie. "There were six of us there all the time, and then Bruce had to come back. So there were seven people in a small house—a lot."

Katie found this family support particularly helpful, despite the sometimes crowded conditions. "Tim focused on what he needed to do," says Katie. "He wasn't able to provide emotional support going out."

Bruce and Tim spent their first few days in Seattle under a medical microscope. Doctors at the VA Medical Center wanted to ensure that they were indeed a good genetic match. Then Tim's ordeal began in earnest with four days of outpatient chemotherapy. "It was heavy duty, real intense," says McLaurin. "I had to take just these handfuls of pills. They were real salty."

On the fourth day of this treatment came the first crisis. Katie had been out running some errands, and Tim's mother was at home with the children. Katie pulled into the drive to find chaos. Tim—despite no history of this kind of problem—had suffered a seizure. "The children were in the front yard screaming and Tim's mother was in the house not knowing what to do," says Katie. "She called 911 but she didn't know the address so she hung up. Fortunately, it was interactive."

The emergency response system was set up so that calls can be traced and addresses found, even if the caller hangs up. While an ambulance sped toward the house, Katie struggled to calm Tim, who was rolling around incoherently on the floor. "Finally he and I wound up facing each other on the floor," says Katie. "We were hugging each other, and he was still in the midst of this seizure. It was the weirdest sensation. He was there, but he was gone. His eyes were open and he was moving around, but he clearly wasn't there."

The seizure, though frightening to the McLaurins, was not life-threatening. It was caused by the combined impact of drinking and Busulfan, a drug used in chemotherapy. "The patient was drinking about a six-pack a day prior to his admission to the hospital," read McLaurin's medical records. "It is thought that alcohol withdrawals as well as Busulfan contributed to the seizure."

McLaurin's main worry was that the seizure would affect his scheduled transplant. He was halfway through the chemotherapy and didn't relish starting over. That worry was for naught. He was treated for the seizure and trundled right in for the next phase of his treatment—four days of inpatient chemotherapy.

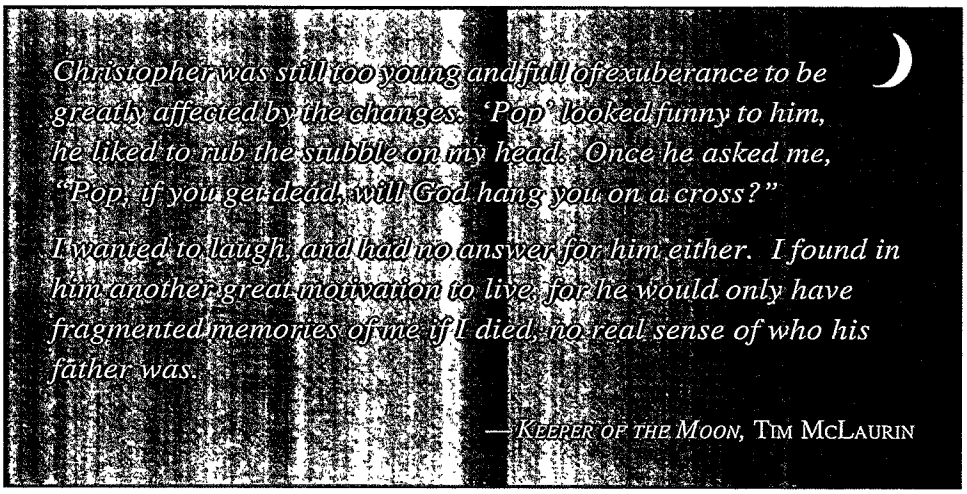
McLaurin had already been fitted with a Hickman catheter—a flexible rubber tube that was inserted through an incision in his chest into a vein that led straight to his heart. That was so nurses could pump medications right into his blood stream without having to stick his arms over and over. He now got a different kind of catheterization—a tube up his urinary tract to irrigate his bladder and prevent bladder damage from chemotherapy.

For four days, nurses would inject high doses of Cytoxan—a potent drug used in chemotherapy—straight into McLaurin's Hickman catheter. "On the fifth or sixth day of chemotherapy, I started hallucinating," says McLaurin. "I was watching this picnic take place on the roof of the building next door, and they were driving these little cars around—four-wheel dune buggies. But there won't nobody there."

Bone marrow is highly sensitive, so the chemotherapy kills it. But healthy marrow is mandatory for replenishing the blood and for survival. If no donor can be found, it is possible to remove marrow from the person being treated and replace it after chemotherapy. A transplant from a matched donor such as the one McLaurin received is preferable and is known as an allogeneic transplant.

His eight days of chemotherapy over, McLaurin was now ready for his transplant. Family members gathered in his room for the procedure. A snapshot recorded the moment for posterity. "They bring it into your room in an IV bag," says McLaurin. "It just drips into your arm and it knows to migrate to your bones. It's very anticlimactic."

Next would come the slow process of bringing McLaurin back. "If you haven't died from the chemotherapy, you're in a very dangerous place," McLaurin says. "You have no immune system. Your platelet count, your white blood cell count, and your red blood cells have fallen to nothing." With no bone marrow to produce infection-fight-




ing cells, infection is more difficult to control and can be fatal.

The best-case scenario is that the new bone marrow will take up its normal function—reproducing the cells that make up healthy blood. It becomes a waiting game, with four different counts to watch: the white blood cells, which fuel the immune system; the red blood cells, which carry oxygen throughout the body; the platelets, which help the blood to clot; and the polys, blood cells that kill bacteria and fight infection. "They go down, down, down," says Katie of the blood counts. "You want to see them go up, up, up."

Tim's recovery came quickly at the start. He moved from inpatient to outpatient status within 15 days—the second fastest of anyone who ever had been transplanted at the Center. But 10 days later he was back in the hospital. "My biggest problem was my platelets didn't want to manufacture," says McLaurin. "If your platelet counts are real low, you can bleed internally. You can have strokes in your head that cause your blood to start leaking out."

So McLaurin got the daily transfusions of platelets, which helped him get through his most serious complication. "Finally," says McLaurin, "my platelets started reproducing, and I got off that threat." Through heavy dosages of drugs, McLaurin had thus far also dodged other threats, such as chronic graft-versus-host disease, a disease in which the new bone marrow recognizes the recipient's body as foreign and sends out T-lymphocytes to attack it.[1] Still, what was left of his recovery was no picnic. "My nails fell out," says McLaurin. "The skin peeled off of the bottom of my feet. I had rashes on my skin and my bladder was infected. It was really a tough time."

The accumulated impact of medications and muscle-tone loss left McLaurin so weak he had to pull himself up from the toilet. He constantly had to urinate, and often passed large blood clots. Getting to the bathroom got to be too much for him and he started using a sink in the bedroom as a urinal. That, McLaurin says, was one of the few times Katie lost patience with him. "It seemed kind of trivial at the time," he says. She didn't even know about the times he was too exhausted even to get up and just let the burning urine flow out onto a towel on the bed.

McLaurin pushed himself hard as a patient throughout this ordeal. He was determined that if he was going to die it was not going to be in Seattle. In the early days after the transplant, he lay in bed staring at the cold, distant profile of massive Mt. Rainier and picturing the pine trees of home. He envisioned the yard swing where he and his mother would rock back and forth and talk, and the cabin he had built on an isolated corner of the farm to write and get away from things. "The Cascades were throwed up like a big wall in front of me," says McLaurin. "I was determined to get over them. If I had to take my American Express card and rent a Lear jet, I was going to get home to North Carolina."

But first McLaurin had to finish the outpatient phase. He would return to the hospital each day for treatment and examination, but the rest of the time he was on his own. That meant going out into the world hairless, his features puffed out beyond recognition, wearing the white surgical mask that is the emblem of a transplant patient. "He didn't have any hair on his face," says Bruce. "It [his face] was real puffy, and he had to wear that breathing mask everywhere he went. People would just do a doubletake."

McLaurin confesses that the changes in his looks hurt. "To me, it was one of the hardest parts of the whole thing," says McLaurin. "I looked like Uncle Festus on 'The Munsters.'"

* * *

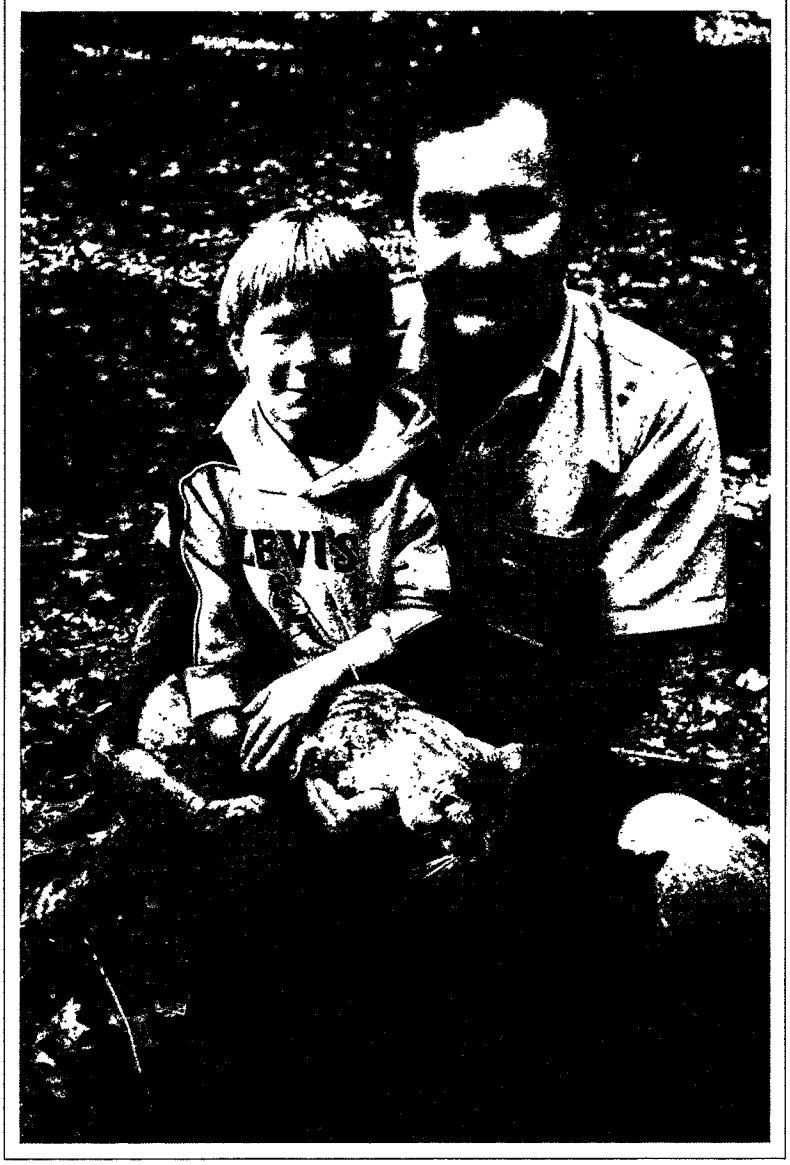
Near the end of the standard 100-day stay in Seattle, doctors decided McLaurin was well enough to go home. Of the 12 people who had received new bone marrow at about the same time he did, four had died. McLaurin's leaving Seattle meant he had passed another milestone in his recovery. "Usually if you survive the first 100 days the odds go up a lot higher of surviving the transplant," he says. Although McLaurin would still need constant monitoring and medication to prevent infection, his main worry now would be recurrence—the nearly three-to-one odds that his disease would return.

But McLaurin faced yet another fight soon after his return home. The insurance company, which had refused to pay for his transplant, now balked at paying his after-care expenses. The McLaurins had thus far suffered little financial fallout from their collision with high-tech medicine. A fund-raiser conducted by McLaurin's literary friends in Chapel Hill had raised $15,000, and Katie's family had pitched in $10,000. That covered the $25,000 in expenses not paid by the VA. Now they faced medical bills of $5,000 a month. The McLaurins had little choice but to hire a lawyer to argue their case with the insurance company. Ultimately, the company agreed to pay.[2]

As best he could, McLaurin resumed his normal activities. A few weeks after his return from Seattle, he built a snakeshed in his carport and resumed his snake collecting—a hobby he had pursued since his youth. In the dead of winter, there was a three-day canoe trip to publicize the need for bone marrow donors. And McLaurin returned to teaching creative writing part-time at North Carolina State University and reading and lecturing around the Triangle. Occasionally, he would haul out his snakes, ice them down in a beer cooler, and carry them to a public library or school for exhibition.

On April 29, 1991, roughly one year after his transplant, McLaurin was to return to Seattle for a

***Tim and son Christopher, about a year before his trip to Seattle for a bone marrow transplant.***




*Karen Tam*

battery of tests to see if he was still disease-free and if he could be weaned from his heavy drug regimen. "I'm dreading walking up to the front of that building because I've been there so many times," he said before his scheduled return.

* * *

McLaurin walked into the bone marrow transplant unit about an hour later than expected on the Monday of his week of tests, wearing faded blue jeans, a flannel shirt, and leather tennis shoes. Doctors and nurses who remembered him from his transplant stopped him with hugs and greetings. Then he got his schedule of tests. The day's list called for a routine physical and bone marrow and skin biopsies. Performing the honors would be Dr. Jeff Matous, a senior fellow in hematology at the University of Washington.

For McLaurin, the schedule meant he would get the worst part of his week over with first. Matous directed him to a tiny room where he stripped down to his shorts and lay stomach down on the examining table. A technician wheeled in a cart full of instruments, and Matous got down to work. "Tim, you like to be talked through it?" Matous asked.

"Yeah, I like to know what's going on," McLaurin answered.

Tim has had his share of bone marrow biopsies. To him the worst part is the injection of lidocaine intended to numb the lining of the bone. Matous describes the pain of the injection as "like a bee sting."

"Bee sting," McLaurin snorts. "It's more like a wasp sting."

Matous smears on an iodine solution to sterilize Tim's skin. Then comes the needle. "Here's comes your wasp sting, Tim. OK? Here's the part you remember."

McLaurin tenses as the needle finds its mark. "Sorry Tim," says Matous. "Was that sharp?"

"I felt it," McLaurin responds, which is the closest he will come to a complaint.

Matous uses an aspiration needle to punch through the bone and draw out a syringe full of liquid marrow. The technician will smear this on slides to go under a microscope. The teaspoon or so of fluid is filled with boney spicules that are visible to the naked eye. "That's a good one," says Matous, indicating the blood-red sample. "That's the bone marrow."

Next comes the procedure many patients dread most—a bone marrow biopsy. "First one?" asks McLaurin.

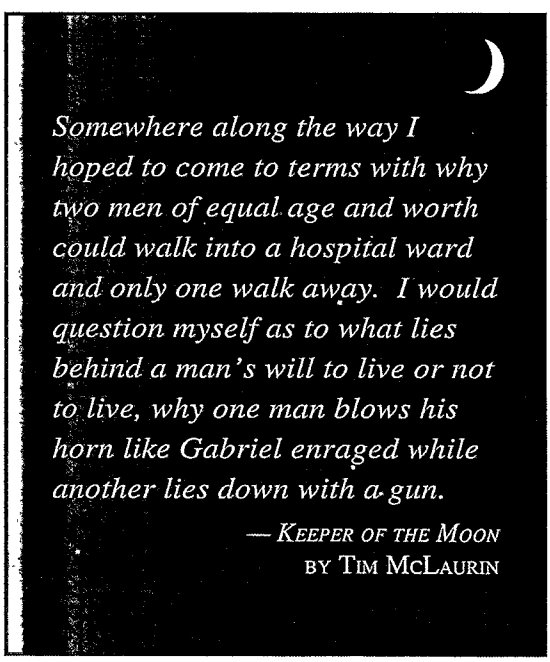
"My very first one," Matous deadpans. Actually he's performed dozens of them.

Matous picks up a chrome-colored instrument called a jamshidi, equipped with finger loops that make it easier to handle. He punches it through the skin and tissue and down to the bone, then twists it to core out a sample of bone and marrow, two-and-a-half centimeters long. McLaurin never even murmurs. "Tim's doing great with this procedure," says Matous. "It's an uncomfortable, deep feeling. You can't always totally anesthetize for it."

"You've got tough bones, Tim," says Matous as he twists the jamshidi. Within seconds, he has his sample—a bloody, bony cylinder about the size of a basketball needle. He deposits it in a petri dish on the technician's cart. "That's part of the pelvic bone," says Matous, "the iliac crest."

The samples will be sent off to a laboratory for analysis to determine whether the bone marrow is functioning properly and whether there has been a recurrence of multiple myeloma. "The plasma cells are the bad actors," says Matous. "We'll be looking to see if any of them are there."

"They just did the critical test," McLaurin says later over lunch at the VA cafeteria. "If anything will show bad, it will begin to show there." McLaurin munches quietly on cold cuts. He confesses that he's a little down. "I'm just kind of bummed out. It's a big hassle and a lot of



Mike McLaughlin

***McLaurin administers drugs through an IV at home near the end of his treatment regimen.***

money," he says of the return trip. "Always in the back of your mind is the possibility they could find myeloma."

After lunch, McLaurin returns to the bone marrow unit for his checkup. Stripped to his underwear, he looks pale and insubstantial in the bright lights of the examining room. On his bicep is a jewel-toned tattoo that features a heart, a rose, and the names of his wife and children. The slightly built Matous does a strength test on McLaurin, pushing on his forearm and forcing him off balance. He examines McLaurin's eyes and mouth and skin.

Matous offers few opinions on McLaurin's overall health. He mostly just takes down information. He mentions that the eye, which is bloodshot and bulging, needs a second look from an ophthalmologist. An eye exam is scheduled for Tuesday anyway, so no special arrangements are required.

McLaurin thinks he is through for the day and is on the way out the door when Jeff Almgren, the unit's pharmacy supervisor, collars him. Almgren wants to run over McLaurin's drug regimen with him and make sure he's taking all the right medications. The list of drugs is enough to fill up a legal-sized sheet. There is potential for dangerous interactions. Almgren is disturbed that McLaurin ran out of Septra six weeks earlier and never got a refill. The drug prevents PCP pneumonia, which without Septra is a big killer of transplant patients. "I don't like to see you get an inch from the finish line and get tripped up," says Almgren.

* * *

Katie has caught a later flight to Seattle. She arrives at the bone marrow unit on Tuesday, bearing greetings for all her old friends and a satchel full of work, and resuming her old place in the family waiting room while Tim gets his eye exam. For her, entering the hospital again is like stepping through a doorway to another world. "It's like a way station in a strange science fiction movie," she says. "I thought I could sort of breeze in and not have it affect me. Now I'm not so sure."

The eye exam is taking far longer than expected, and Katie asks the receptionist to check on him. He is still with the ophthalmologist.

Finally he walks into the family room. That's when Katie learns about the white spots. He soft-pedals the notion that they might signal HIV infection, despite the dozens of blood transfusions he's had from anonymous donors. Tim calls the chances slight and says the blood test is only a precaution.

Katie can tell by the set of his jaw that it's more than that. She is worried but doesn't press him on the subject. Away from the hospital Tim reveals that given the spots, the test may be more than routine.

The afternoon drags on until the phone finally rings and Katie answers to hear the good news. Now there is something to celebrate. Later that night, over drinks in a trendy Mexican restaurant, Katie ponders this latest scare. "I told Tim it would be the irony of all ironies to have the cure kill you," she says.

But Tim, who has given up on his margarita because the salt stings the sores in his mouth, is still stoic about the threat of contracting AIDS from blood transfusions. If he had any fears, he won't admit them now. "Oh," he says. "I never thought I had AIDS."

* * *

A few days after the McLaurins return from Seattle they receive a full report on Tim's tests. He gets a clean bill of health—almost. The mouth sores are thought to be caused by cytomegalovirus. Doctors prescribe aggressive treatment for six weeks at home with an IV unit. After that Tim can taper off the hated Prednisone.

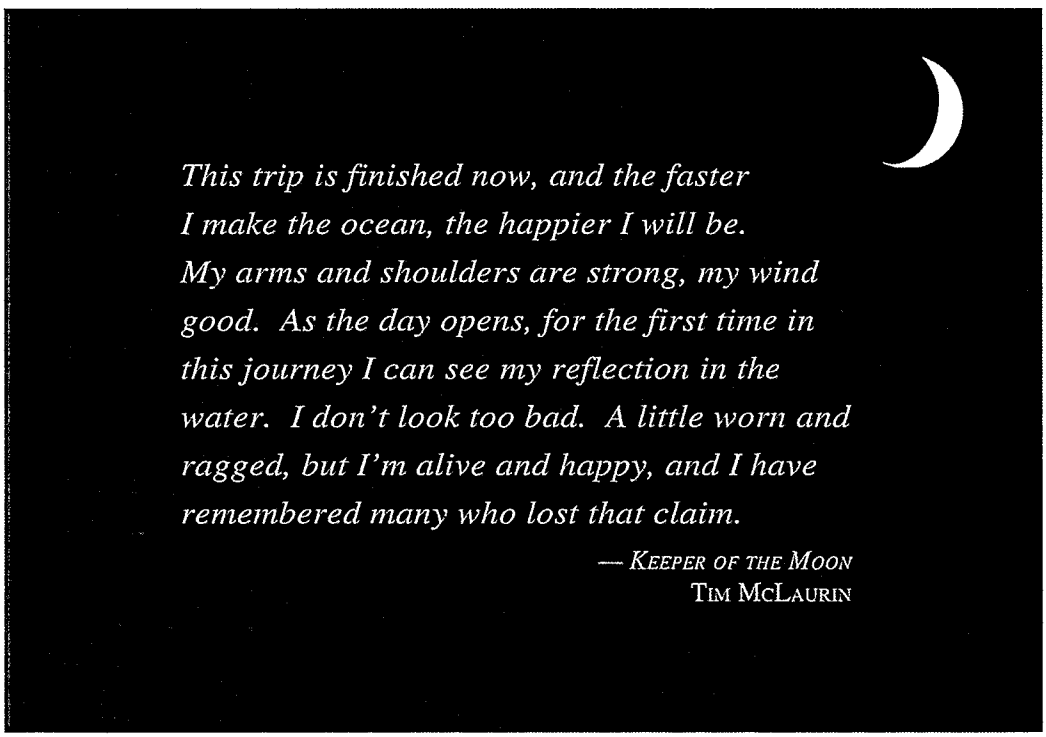
It will be five years before doctors declare McLaurin cured. But with every week that passes, the odds improve that his cancer will not return. In some ways, it's like living with a loaded gun to your head, but McLaurin is philosophical about the chances that doctors will find cancer again. "You know if they do, well, hell, they just do," he says. "There's nothing that I can do about it."

Liu says he has seen a lot of cancer patients, but none like Tim. From the start, Tim has said he wants to be a cancer scholar, not a victim. It's that attitude Liu wishes he could transplant. "I'd like to clone him and put him on the road—and have him build hope."

FOOTNOTES

[1]Janet Leahy, et al., *A Guide to Bone Marrow Transplant,* Veterans Administration Bone Marrow Transplant Unit, Seattle, Wash., p. 30.

[2]As part of the agreement with the insurance provider to cover after-care expenses, the McLaurins agreed not to reveal the name of the company.



# *High-Tech Health Care: A Lifesaver, But How Much Can We Afford?*

by Craig Havighurst

Its trade name is Magnes, after the shepherd who allegedly discovered magnetism. It looks like a small observatory telescope, a sleek white drum with tubes and wires coiling out of one end. It hangs above a bed, on a pivot, from the ceiling of a vault-like containment room. In the space where the eyepiece should be is a concave space designed to fit a human head. Inside the drum, bathed in liquid helium at -269 degrees centigrade, 37 little barrels nestle around the concave indentation, each containing a fiercely sensitive amplifier called a Superconducting Quantum Interference Device.

Never mind how it works. Suffice it to say that instead of sending signals into a body and measuring what comes back out like other imaging devices, Magnes measures the faint electromagnetic fields emitted when pinpoint-sized bundles of neurons wink on and off. Its cost is enormous—well over $2 million—and so is its potential.

Its manufacturer hopes that before long, Magnes will take its place alongside the x-ray machine, Computerized Tomography, Magnetic Resonance Imaging, and Positron Emission Tomography as a standard diagnostic tool. *The Journal of the American Medical Association* reports that the new scanner potentially can aid in the diagnosis of epilepsy, schizophrenia, stroke, and migraines, as well as language, motor, and sensory disorders.[1]

That's the good news. The bad news is that the explosion of health care technologies like Magnes during the past 25 years has been responsible for many of the system's cost problems and, arguably, much of its inequity. Advances in transplantation, intensive care, and diagnostic imaging, to name just a few areas, have sent the cost of caring for the most expensive patients into the stratosphere. While the medical value of these technologies is incontestable, such measures ultimately translate into higher insurance premiums, pricing more and more people out of the market. At the same time, overburdened public health care providers have become less generous as the cost of caring for individual patients has skyrocketed.

Three primary factors drive medical technology's cost momentum.

- First, the cutting edge of medicine represents some of the world's most sophisticated research, so most of it is expensive.
- Second, the way we pay for health care in America invites indulgence in health technology by shielding those who receive the care from its true costs.
- Third, our expectations of what medicine can and should do for any one patient have expanded dramatically through the technological revolution of the past 20 years or so.

***The bad news is that the explosion of health care technologies like Magnes during the past 25 years has been responsible for many of the system's cost problems and, arguably, much of its inequity.***

Making matters more complicated, American medicine is being hit with a technological tidal wave driven by breakthroughs in molecular biology, communications, miniaturization, data manipulation, computer graphics, and lasers. We are cataloging the entire human gene map, promising cures for hereditary illness. The Japanese are spending $100 million per year on micro-robots that one day might sail around the bloodstream removing arterial plaque with lasers. Organ cloning may soon eliminate the problem of rejection after transplants. Companies are devel-

*Craig Havinghurst is a recent graduate of Duke University's Institute of Policy Sciences and Public Affairs and is a writer in the Washington Bureau of* HealthWeek *magazine.*

Biomagnetic Technologies, Inc.

***Magnes, a high-tech diagnostic tool whose potential—and $2 million price tag—is enormous.***

oping bio-chips, little living computers that might exist in symbiosis with the brain.

## Demand Takes Off

These advances promise unprecedented control of the chronic illnesses which kill most of us, such as heart disease and cancer. But this remarkable progress finds itself at odds with the broader public policy goal of making basic health care available to everyone. We expect doctors to provide every ill patient with the best treatment medical science has to offer, but the sheer number of ways to run up a $100,000-plus hospital bill has made that impossible. Very soon, we must recognize that turning every discovery into a clinical use, while possible, is prohibitively expensive—roughly the medical equivalent of a manned space mission to Saturn. We could do it, but we'd have to give up spending on other things like pollution control or replacing infrastructure.

***. . . American medicine is being hit with a technological tidal wave driven by breakthroughs in molecular biology, communications, miniaturization, data manipulation, computer graphics, and lasers.***

Our health care system could not be designed to absorb new technology any faster or more enthusiastically. Indeed, it seems to provide a ready market for any new drug, device or procedure which might offer better, faster, safer, or less invasive care—regardless of its cost.[2]

Hospitals adopt the new almost as fast as our technology-minded society can invent it. To be sure, some technologies replace more expensive ways of doing things and save money in the long run. Magnetic Resonance and CT scans have replaced much exploratory surgery, and half of all surgery is now done on an outpatient basis—saving billions of dollars. More often than not, however, the new technologies are additive, expanding the possible, rede-

fining the state-of-the-art. This in turn sets new standards and expectations as to what could—or should—be done for any paying patient.

The problem is not the technology itself, but the way we pay for it. For decades, our massive and decentralized health care system has hidden the true cost of care from patients and doctors alike. That's because, in most cases, a third party—usually the government or an insurance company—pays the bill. Insured patients might have to pay a deductible on their claim, but they know that whether their hospital bill is $3,000 or $30,000 or even $300,000, they will be covered for the insured procedures and situations outlined in their policies.

***We pay a sort of hidden health care tax every time we end up in the hospital because as much as a third of many hospital bills is devoted to covering the hospital's losses for care given to those who can't pay.***

Because third-party-payer medicine makes the demand for high tech medicine almost insatiable, technology proliferates faster in America than anywhere else in the world. There are more than 900 Magnetic Resonance (MR) scanners in the United States, but only 12 in Canada (which has a national health care system with many cost controls in place). And where technology is abundant, it may be overused. America performs 10 times more coronary bypass operations per capita than the British, and seven times more hysterectomies.[3] American doctors would defend these operations as medically necessary, but it's equally likely that Americans undergo all these operations because it's so easy to get them. Studies have shown similar variations in the frequency of various procedures in the United States.

At a societal level, health care costs are hidden because the system allows them to squeeze quietly into other parts of the economy. Since 1950, while national expenditures on medical care as a percentage of the Gross National Product have nearly tripled, the percentage of after-tax income families devote directly to health care has actually declined.[4] This leaves a gap between what we seem to be paying for cutting-edge medicine and what we're actually paying.

Ultimately, of course, the costs wind up in our lap one way or another. Some are obvious. Federal taxes fund outlays of more than $170 billion per year for Medicare, workers' compensation, veterans' hospitals and more. State and local revenues finance local hospitals, clinics, and state Medicaid programs. All in all, public funding for health care jumped about 150 percent in the 1980s alone.[5]

Other parts of the health care burden are borne in ways we don't even realize. We pay a sort of hidden health care tax every time we end up in the hospital because as much as a third of many hospital bills is devoted to covering the hospital's losses for care given to those who can't pay. Finally, we pay every time we buy anything, because private employers which insure their own work forces pass that cost along to consumers. Consider the Ford Motor Company: It spent one billion dollars in 1989 on employee health insurance,[6] adding $700 to the price of a new car.

America has accepted these hidden taxes for a long time, because it looks as if we're getting something priceless—lifesaving health care—for nothing. But it's an illusion passed off by a giant organization which, as one observer, David Eddy of the Center for Health Policy Research and Education at Duke University, put it, "launders costs to the point of invisibility."[7] We speak of a health care *system* in America, but there really is no such thing. Instead, we make do with a loose, sprawling network of private hospitals, state Medicaid programs, federal regulatory agencies, biotechnology firms, health maintenance organizations, county health clinics, insurance companies, charity providers, pharmaceutical firms, academic medical centers, research foundations and so on. The problem is that there is no mechanism built in to ensure that the $600 billion we spent on health care in 1990 truly reflected how much we actually value the service.

Usually, we leave the job of finding the right amount to spend on goods and services to markets, but the health care industry doesn't behave that way. For one thing, consumers of health care don't make decisions about what they want or need; physicians do. Nor do patients weigh one mode of treatment against another on the basis of cost when the government or an insurer or other third-party payer is picking up the bill. Doctors frequently have less incentive to think about cost than the patient.

## Society vs. the Individual

The specific ways in which high technologies run up costs all spring from a law of our health care system which is about as constant as the law of gravity. Once a cure, or even the promise of a cure, is discovered for a particular ailment, we cannot or will not let it sit unused just because it costs a lot. Because life and health are priceless, we cringe at making price an issue. And it's easy to pursue money-as-no-object health care when it's a third-party payer's money.

Consider the case of autologous bone marrow transplants for metastatic breast cancer. This very new procedure gives otherwise terminally ill women about a 20 percent chance of being cured. Bone marrow is temporarily removed to allow huge doses of chemotherapy. It takes at least three weeks in isolation, puts the woman at about a 10 percent risk of dying from the procedure itself, and costs roughly $150,000.

It's disconcerting to think about, but this is about as clear an example as there is of how modern medicine has pitted the interests of the individual against the interests of society. From the patient's point of view, and her family's, the $150,000 is well spent—an expensive life raft. From society's point of view, that money might be better spent on vaccinations and primary care for hundreds of sick, uninsured children.

The use of radiologic contrast media is another case in point. Prior to some imaging procedures, doctors inject substances into patients which are designed to make tissue or concentrations of chemicals show up on an x-ray or a scan. Until now, out of the 10 million patients receiving contrast media annually, 300 have died from severe allergic reactions. A new agent which is 10 to 15 times as expensive will soon save those 300 lives, while costing the health care system at least $1 billion annually, or over $30 million per life saved.[8]

Successful technology breeds yet another problem. Because measuring the real medical value of a new procedure or diagnostic tool takes many years, dubious technology may become part of the standard medical repertoire. For instance, the use of monitors to keep track of a child's heartbeat prior to, and heartbeat and respiration during, childbirth can be life-saving in high-risk pregnancies. But it has been shown to be virtually useless in normal pregnancies. In addition, many doctors hypothesize that oversensitivity to the machines led to the dramatic increase in caesarean sections over the same period. Nevertheless, widespread use of the procedure is the status quo.[9]

***Former Secretary of Human Resources Sarah T. Morrow puts it this way: "Doctors will continue to save lives at all costs until it becomes accepted by society that we should not prolong death."***

Perhaps the most difficult technology-versus-cost problem springs from our ability to save and prolong the lives of ever-younger premature infants and ever-older comatose patients. Care and research at the frontiers of birth, life, and death cost thousands of dollars a day per patient. Meanwhile, ethical and legal debates rage over whether the care offered is beneficial or just a cruel and artificial prolongation of lives which offer no change and no hope for the future. Former N.C. Secretary of Human Resources Sarah T. Morrow, a physician, puts it this way: "Doctors will continue to save lives at all costs until it becomes accepted by society that we should not prolong death." These questions of ethics may not be settled for years, but, as one futurist writes, "Controlling the high cost of dying will become [a] focus of third-party expenditures in the 1990s."[10]

FOOTNOTES

[1] Andrew Skolnick, "Biomagnetometry Provides a New Compass for Exploring the Brain and Heart," *Journal of the American Medical Association,* Vol. 263, No. 5, Feb. 2, 1990, p. 623.

[2] Victor R. Fuchs, "The Health Sector's Share of the GNP," *Science,* Vol. 247, No. 4942, Feb. 2, 1990, p. 537.

[3] "Warning: doctors can damage your wealth," *The Economist,* Oct. 20, 1990, p. 18.

[4] Joseph D. Bronzino, et al., *Medical Technology and Society,* MIT Press, Cambridge, Mass., 1990, p. 57.

[5] *Health Care Financing Review,* U.S. Health Care Financing Administration, Winter 1990, Vol. 12, No. 2, p. 14, Table 10.

[6] Katherine Barrett and Richard Greene, "Health Care Triage," *Financial World,* June 27, 1989, p. 42.

[7] David Eddy, "The Individual vs. Society: Is There a Conflict?" *Journal of the American Medical Association,* Vol. 265, No. 11, March 20, 1991, p. 1146.

[8] Henry Aaron and William B. Schwartz, "Rationing Health Care: The Choice Before Us," *Science,* Vol. 247, No. 4941, Jan. 26, 1990, p. 206.

[9] Interview with Robert Sprinkle, M.D., Ph.D., assistant professor, Center for Health Policy Research and Education, Duke University, January 1991.

[10] Russell C. Coile Jr., "Technology and Ethics: Three Scenarios for the 1990s," *Quality Review Bulletin,* June 1990, p. 442.

# Realigning Our Thinking in Health Care: What Are Our Rights and Responsibilities?

by Larry R. Churchill

*Is access to health care a right that belongs to all our citizens? And if such care is a right, are we entitled to unlimited care, whatever the expense? In a world of finite resources, such an expectation is unrealistic. So how do we deal with questions of how much care? Do we put the burden on individuals to be responsible for their own behavior and allocate resources based on maintaining a healthy lifestyle? Or should we focus more on redefining our expectations about what the health care system can deliver, based on our needs?*

Do we have a *right* to health care? Most Americans think so. Opinion polls show that more than 80 percent of U.S. citizens think of access to needed care as a right.[1] And 91 percent say they believe that "everybody should have the right to get the best possible health care—as good as the treatment a millionaire gets."[2] This is not surprising. Every industrialized democracy except the United States and the Republic of South Africa recognize the right to health care. In all other countries, universal access to basic health services is assured as a matter of public policy, and care is financed through general revenues.

Though not always called a *right,* health care is seen as a basic good no one should be without. In the United States there is no general, legal right to health services. Still, most U.S. citizens see health care as central to their concept of a good, or even a minimally tolerable, life.[3] Being denied health care services is hazardous to a person's well-being. But of equal importance, denial of health services is an assault on one's self-respect.

In short, while most Americans believe health care is a right, and should be a right, this moral conviction is not reflected in the law or in any organized government program to provide the general health services to the population. The North Carolina Constitution, for instance, guarantees certain rights—to a free education, or a clean environment—but not to health care.[4]

If health care is to become a *tangible* right in the United States, a way must be found to define the scope of that right. A system of health care

*Larry R. Churchill is professor of social medicine at the School of Medicine at the University of North Carolina at Chapel Hill.*

which entitled all citizens to all possible services would be financially infeasible. We spend 11.5 percent of our Gross Domestic Product (GDP) on health care, yet 25 percent of the population is unserved or underserved. If we were to provide health coverage to everyone, health expenditures would consume roughly 18 percent of the GDP. No one believes this is economically possible, let alone practical. Hence, greater equity in coverage can be achieved only if we limit health care services.

***. . . to base allocation or financing decisions on Good Behavior thinking is unwarranted and would result in a system that is punitive to the sick.***

A variety of ways to limit services can be imagined—by a person's age, by the effectiveness of services, by their cost, and so on. Whatever ways are chosen must be ethically coherent. That is, a *right* to health care must be correlated with some sort of *responsibility*. For example, Richard Lamm, the former governor of Colorado, has suggested that age could be used as a limiting criterion for a right to health care. If that were the case, the elderly would have a duty not to use expensive resources near life's end.[5] While many have disagreed with Lamm's proposal, he is correct in suggesting that *duties* or *responsibilities* are critical to any workable health care system.

Simply affirming a right to health care is of no help. The critical move is to discern what a workable right would be, which means specifying the limitations on that right and what those limits require of people morally. This discussion will examine two ways of aligning rights and responsibilities, and will argue for a Response Model over a Good Behavior Model. These are only two of many possible ways to consider the issue, but examining these two ways will help clarify what values we should consider in thinking about allocating resources in our health care system.

## The Good Behavior Model

Rights, we typically think, have corresponding responsibilities. We have a right to an education in the public schools, but we must abide by a code of conduct as we pass from grade to grade. We have a right to freedom and liberty in our daily dealings, but we must abide by sets of ordinances, statutes, and rules that govern our behavior. Not surprisingly, some parts of our society increasingly perceive a similar responsibility in health care—as a responsibility for good health practices. This notion holds that accountability for our health is justified by what we know about the effects of individual lifestyle choices on health status.[6] Let's call this way of thinking the Good Behavior Model, because in this model *the right to health services is forfeited, or at least weakened, by indulging in behavior damaging to one's health.*

The attraction in this way of thinking is obvious. Individuals clearly do have some control over their own health status and their need for medical services. The extent of this control marks the extent of individual responsibility. Many illnesses and injuries are seen as problems that persons inflict upon themselves through bad health behaviors. Smoking, excessive alcohol consumption, overeating, and high-cholesterol-and-low-fiber diets are only the chief examples. Driving without seat belts, riding a motorcycle without a helmet, and unprotected sexual activity are additional examples of lifestyle practices that are associated with disease and disability.

The problems which result—lung cancer, emphysema, cirrhosis of the liver, coronary artery disease, gastrointestinal cancers, motor vehicle injuries and fatalities, and a variety of sexually transmitted afflictions—are perceived as caused by choices to live in an unhealthy way (see Table 1 for more on mortality rates related to lifestyle choices). Such diseases add both to societal ill health and to health care expenditures.

In the Good Behavior Model, smokers, for example, would have a lesser right to treatment for lung cancer than non-smokers enjoy. They might lose their claim to these resources altogether. Alcoholics would relinquish any claim to liver transplants, helmetless motorcycle riders would be denied access to emergency medical services, drug abusers to coronary care units, and so on.

A central problem with the Good Behavior Model is its exaggerated notion of control. While the Good Behavior model has its roots in the American reverence for self-reliance and individual

responsibility, control over one's health status and the extent of one's need for medical services is far from complete. Some behavioral factors in ill health may be only partially voluntary—for example, addiction to cigarettes, alcohol, or controlled substances. Other behavioral risks are embedded in cultural dietary traditions, or in poor nutrition or living and working environments associated with socio-economic status.

For example, Americans are notorious overeaters, and the traditional Southern regional diet is hardly conducive to good health. Eating grits with butter and fried eggs and bacon or ham for breakfast *every morning,* year in and year out, will produce adverse health consequences. So will working in jobs handling toxic wastes without proper safety precautions, or repairing hydraulic lines near gas-fired chicken-frying vats without turning off the fuel.

An individual's responsibility cannot exceed his or her ability to choose. Hence, assignment of responsibility for health status and the need for medical care must take account of the multiple factors involved in disease causation, whether behaviors contributing to ill health are voluntary or non-voluntary, and whether they are individually chosen or socially sponsored choices.

Efforts to base access to health care (or payment for health services, to be more to the point) on individual responsibility for one's health care are very slippery. Such efforts frequently exaggerate our knowledge of causes or ignore multiple factors in the causes of diseases. They also run the risk of blaming the victim. Dan Beauchamp argues, "Victim-blaming misdefines structural and collective problems of the entire society as individual problems, seeing these problems as caused by the behavioral failures or deficiencies of the victims."[7]

In sum, responsibility for one's health status should be the focus of substantial educational and public health efforts. For example, U.S. Health and Human Services Secretary Louis Sullivan's desire to create a "culture of character," or a way of thinking that actively promotes healthy lifestyles and health habits, is altogether laudatory. Yet to step beyond this educational mission to base allocation or financing decisions on Good Behavior thinking is unwarranted and would result in a system that is punitive to the sick.

Responsibility for individual health-related behaviors is only one dimension of a just overall health policy. If taken by itself, and as way of curtailing rights, it will lead us in the wrong direction.

**Table 1. 1988 Mortality Rates in U.S. and N.C., per 100,000 Population, Related to Lifestyle**

| Cause | U.S. Rate | N.C. Rate |
|---|---|---|
| All Deaths | 535.5 | 570.8 |
| Heart Disease | 166.3 | 173.1 |
| Cancer | 132.7 | 134.7 |
| Liver and Cirrhosis | 9.0 | 9.2 |
| Auto Accidents | 19.7 | 23.9 |
| Other Accidents | 15.3 | 20.1 |
| Suicide | 11.4 | 10.9 |
| Homicide | 9.0 | 8.8 |

*Source: N.C. Center for Health and Environmental Statistics, Department of Environment, Health, and Natural Resources*

***In the face of limited resources, the key individual responsibility in health care is for realistic expectations and wise use of the health care system.***

## The Response Model

In the face of limited resources, the key individual responsibility in health care is for realistic expectations and wise use of the health care system. This is the health-related responsibility of citizenship.[8] It is the obligation to think of health care services not only as an individual and private good but as a social and public good as well.

This connection of a right to health care with responsibility for judicious use can be called the Response Model of linking rights and responsibilities. *Rights to health care are granted by a society, and in response the individual takes re-*

*sponsibility to use only his or her fair share.* Responsibilities are individual expressions of response toward maintenance of the social or common good. Rights cannot stand alone without responsibilities, just as individuals cannot stand alone without social support.

What the Response Model requires is a new way of thinking. It requires assent to the idea that a health care system must give priority to the health needs of the population over personal individual needs and preferences. In many countries, this means tolerance for waiting periods for nonemergency surgery, and curtailment of treatment for some conditions which satisfy personal needs but have no bearing on the health of the population. This includes, for example, treatments for baldness, cosmetic procedures, and other very expensive treatments of marginal utility.

***Rights to health care are granted by a society, and in response the individual takes responsibility to use only his or her fair share.***

Consider Canada: There, the supply of hospitals, surgeons, and intensive care units is limited, so there are fewer solid organ transplants. Or consider the United Kingdom: There are waiting periods for elective surgeries such as hip replacements, and a limited supply of money and facilities for CT scanners. There is less aggressive chemotherapy and radiation treatment for advanced cancer. Yet all citizens of both Canada and the United Kingdom are provided access to a primary care physician. Ultimately, deciding which health services to provide and which to forgo is a public policy question. The point is that in *any* system, some services will have to be limited if there is to be funding left for schools, roads, defense, and the like.

A viable and fair health care system is something in which all citizens have a stake. We all share a common human vulnerability to disease, disability, and death. We are all poor predictors of the time or extent of our need for health services. We all support through tax dollars the creation and maintenance of the various institutions of health care, including hospitals, nursing homes, and the education of health professionals. And we all have a stake in a healthy populace above and beyond the stake we have in our personal health.

This shared vulnerability and investment in creating the means of medical and social assistance point to a responsibility for judicious use of the resources for health that we possess. The responsibilities individuals have is not only for healthy lifestyles but also for their general

## MEDical Treatment Effectiveness Program Poem (MEDTEPP)

*To treat, and how to treat —*
*Two of many hard questions.*
*Does appropriate care involve the stings and perils of invasive tactics?*
*And how shall we reduce those variations in practice?*

*Which patients, and why, come out the best?*
*What was done, when, and what was the test?*
*What personal virtues and values were risked?*
*And, on the other hand, which ones got fixed?*

*Use this drug or that one? That procedure or none?*
*How long did s/he live, and did s/he have fun?*
*What function was gained? What function was lost?*
*And, you may wonder, how much did it cost?*

*In Boston, New Haven, and small areas too.*
*Treatment options are plenty — but data are few.*
*So doctors, patients, and health policy makers*
*Want findings, and guidance, and disseminators.*

*Care providers and payers all want to know*
*Which alternatives are best, and how best to show.*
*So Congress made MEDTEP, whose goal is to state*
*When to aggressively treat, and when to watchfully wait.*

—Claire W. Maklan

Reprinted by permission of The Milbank Quarterly.

expectations and specific demands on a system that is finite.

This responsibility of individuals must be grounded in their awareness that health resources will *always* be scarce relative to needs. No modern society has yet devised a way to meet all the health needs of its citizens. Individuals can help by adopting prudent health habits, but even more so by accepting more realistically priced health insurance, co-payments for the costs of care, and by forming more realistic expectations for what the system can provide.

Individuals will assume responsibility for using and supporting a health care system only when that system is seen as equitable and just. In short, this health-related citizen responsibility will be impossible without a general right of access to adequate health care for all. The current patchwork system which allocates health services by price, by age, and by employment status, and leaves a quarter of the population underinsured or uninsured, cannot inspire a sense of responsibility, either individual or collective. The result is a consumer-oriented approach to health care, one that encourages us to satisfy all of our personal health needs without regard to what effect this has on the well-being of others.

## Conclusion

Developing a viable and fair health care system does not mean simply providing coverage for the medically indigent, important as that is. Given the escalating costs of health care, more of the same for more people is a recipe for economic disaster. Reforms to the system must be accompanied by reforms in our thinking.

One reorientation needed is linking rights to health care with responsible use of the resources, and avoiding the erroneous and punitive Good Behavior Model. The notion that a right has to be earned by good behavior, as this forfeiture model portrays it, undermines it as a right and makes it ultimately a commodity granted to the behaviorally worthy. Such a health care system would be just as wrong as granting a right to health care on the basis of race or gender. The Good Behavior Model, in sum, focuses on the grounds for disqualification, whereas the Response Model focuses on the civic virtues to be exercised in receiving care.

The Response Model allows us to talk of health care as a social good, and not just as an individual good. This opens the way for a non-commercial concept of health care as part of the social and public world—the world, as Hannah Arendt says, which we all hold in common without anyone owning it.[9]

During the next decade, we will likely see profound changes in the organization and financing of health care in North Carolina. Some believe that national health insurance will prevail, while others—looking at the initiatives of Oregon—believe that each state will become its own organizational unit for health policy. In either case, it is clear that realigning rights and responsibilities is essential.

FOOTNOTES

[1] Louis Harris, *Inside America,* Vintage Books, New York, 1987, p. 40.

[2] "Making Difficult Health Care Decisions," Louis Harris and Associates for the Harvard Community Health Plan Foundation and the Loran Commission, June 1987, p. 8.

[3] Arthur Barsky, "The Paradox of Health," *New England Journal of Medicine,* Vol. 318, No. 7, 1988, pp. 414–418.

[4] For more on these rights guaranteed under the N.C. Constitution, see Katherine White, "North Carolina's Constitution Comes of Age," *North Carolina Insight,* Vol. 10, No. 2–3, p. 118.

[5] Richard Lamm, "Critical Decisions in Medical Care: Birth to Death," *Southern Medical Journal,* Vol. 82, No. 7, 1989, pp. 822–24.

[6] An earlier form of this discussion of rights linked to individual responsibility for health was published in *Innovative Partnerships for Affordable Health Care,* program and background papers for the National Governors' Association meeting, Sept. 23–24, 1990, Washington, D.C., p. 48.

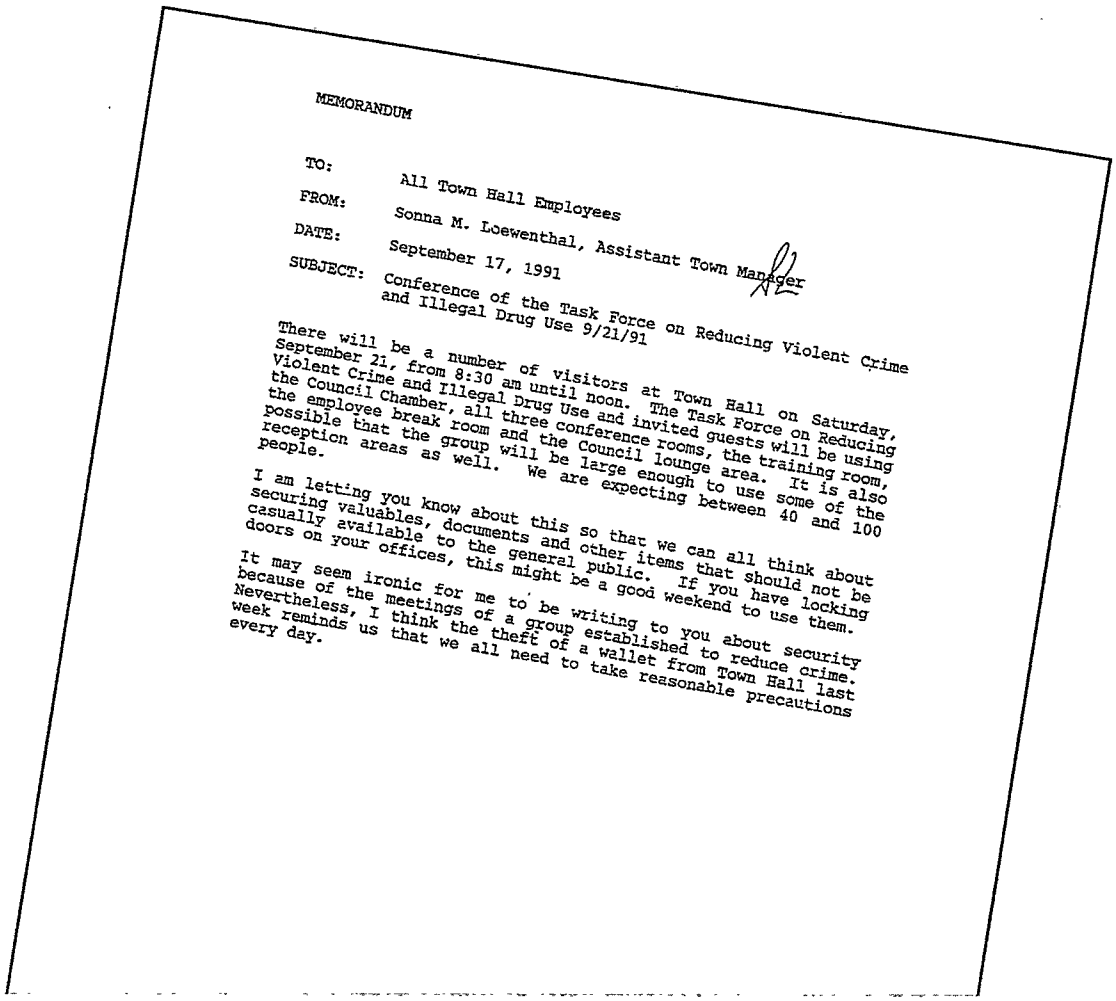
[7] Dan Beauchamp, "Public Health as Social Justice," *Inquiry,* Vol. 13, No. 1, pp. 4–6.

[8] This emphasis on citizenship as an essential aspect of a health care ethic is developed in detail in Marion Danis and L.R. Churchill, "Autonomy and the Common Weal," *Hastings Center Report,* January/February 1991, pp. 25–31.

[9] Hannah Arendt, "Public Rights and Private Interests," in Michael Mooney and Florian Stuber, eds., *Small Comfort for Hard Times; Humanists on Public Policy,* Columbia University Press, New York, 1977, p. 104.

***Given the escalating costs of health care, more of the same for more people is a recipe for economic disaster.***

# MEMORABLE MEMO



MEMORANDUM

TO: All Town Hall Employees

FROM: Sonna M. Loewenthal, Assistant Town Manager

DATE: September 17, 1991

SUBJECT: Conference of the Task Force on Reducing Violent Crime and Illegal Drug Use 9/21/91

There will be a number of visitors at Town Hall on Saturday, September 21, from 8:30 am until noon. The Task Force on Reducing Violent Crime and Illegal Drug Use and invited guests will be using the Council Chamber, all three conference rooms, the training room, the employee break room and the Council lounge area. It is also possible that the group will be large enough to use some of the reception areas as well. We are expecting between 40 and 100 people.

I am letting you know about this so that we can all think about securing valuables, documents and other items that should not be casually available to the general public. If you have locking doors on your offices, this might be a good weekend to use them.

It may seem ironic for me to be writing to you about security because of the meetings of a group established to reduce crime. Nevertheless, I think the theft of a wallet from Town Hall last week reminds us that we all need to take reasonable precautions every day.

## *Steal a Glance at This Memo.*

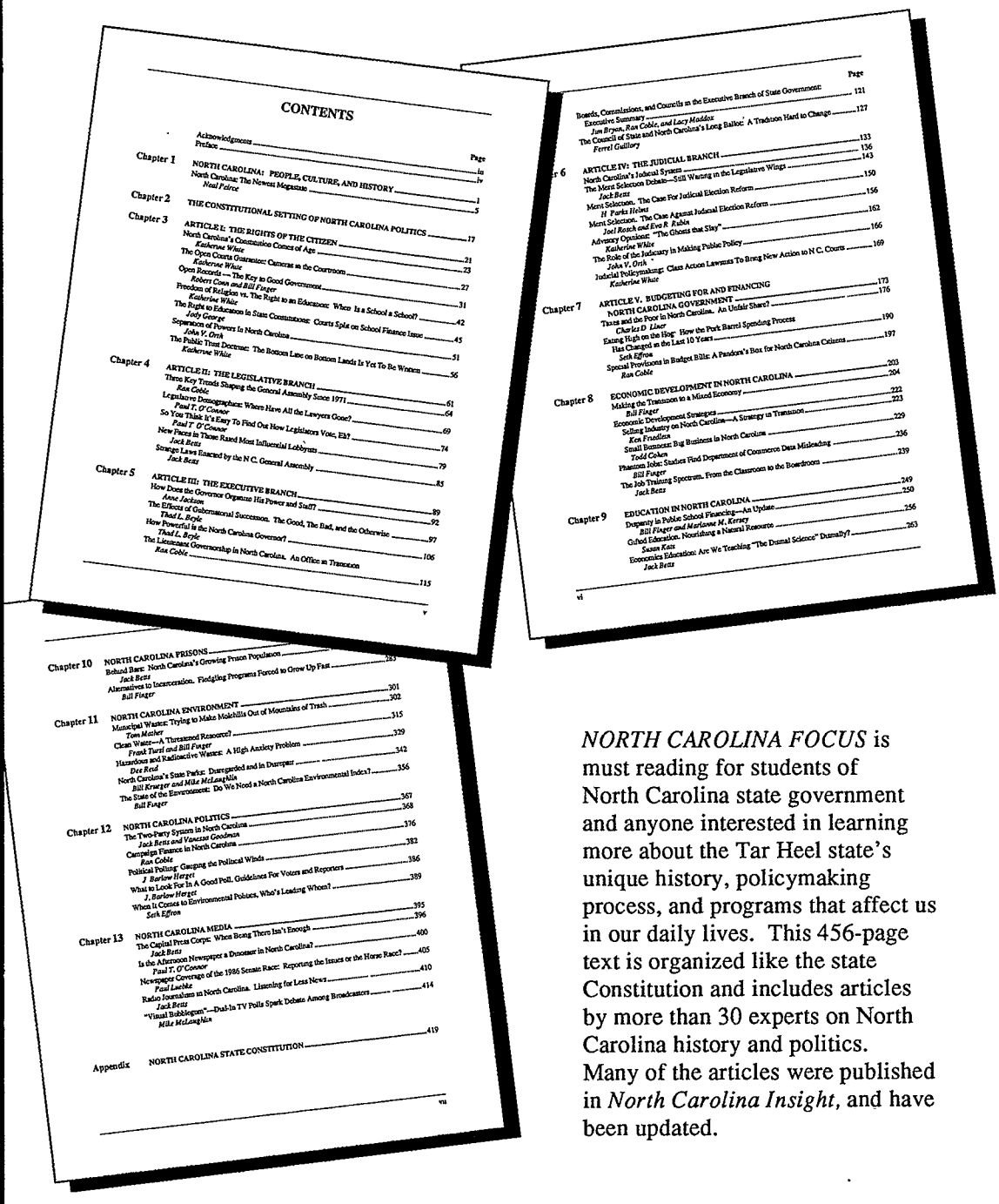
*When the town of Chapel Hill, was getting ready to host a conference on crime, it knew what to expect—and locked up the good silver and other valuables. After all, you know how light-fingered those shady characters on task forces are. Can't trust 'em as far as you can see 'em, y' know. Oughta be a law.*

*Which reminds us. We had a really good memo for you, but someone stole it while we weren't looking. We had planned to put out a reward for its return, but somebody took the reward money, too. Crime doesn't pay, and neither do we. So help us out. Swipe us a good memo. We won't squeal. Honest.*

# NORTH CAROLINA FOCUS

## An Anthology on State Government, Politics, and Policy

*Marianne M. Kersey and Ran Coble, editors*



CONTENTS











*NORTH CAROLINA FOCUS* is must reading for students of North Carolina state government and anyone interested in learning more about the Tar Heel state's unique history, policymaking process, and programs that affect us in our daily lives. This 456-page text is organized like the state Constitution and includes articles by more than 30 experts on North Carolina history and politics. Many of the articles were published in *North Carolina Insight*, and have been updated.

**order, call (919) 832-2839. Cost is $19.95 plus $2.50 postage and handling.**

# *Current Contributors to the N.C. Center for Public Policy Research*

Major funding for the North Carolina Center is provided by:

THE Z. SMITH REYNOLDS FOUNDATION
THE MARY REYNOLDS BABCOCK FOUNDATION
THE CANNON FOUNDATION
THE A. J. FLETCHER FOUNDATION
THE JANIRVE FOUNDATION
THE KATHLEEN PRICE AND JOSEPH M. BRYAN FAMILY FOUNDATION
THE JOHN WESLEY AND ANNA HODGIN HANES FOUNDATION
THE HILLSDALE FUND, INC.
and the
THE GRACE JONES RICHARDSON TRUST

Corporate and Individual support for the Center is provided by:

BENEFACTORS

R. J. Reynolds Tobacco Company
Glaxo, Inc.
The Broyhill Family Foundation
The Charlotte Observer
Josephus Daniels Charitable Foundation,
funded by The News & Observer
General Electric Company
IBM Corporation
Philip Morris, USA

PATRONS

ABB Power T&D Company Inc.
Alcoa Foundation
Branch Banking and Trust Company
Carolina Power & Light Company
Carolina Telephone & Telegraph Company
Ciba-Geigy Corporation
Commercial Credit Corporation
CooperTools
Data General Corporation
Duke Power Company
Ecusta
FMC Corporation, Lithium Division
Greensboro News & Record
The Haworth Foundation
Lorillard Tobacco Company
Lowe's Charitable and Educational Foundation
Macfield, Inc.
National Starch & Chemical Company
Nationwide Insurance
NCNB Corporation
N.C. Natural Gas Corporation
N.C. Retail Merchants Association
PepsiCo, Inc.
Piedmont Natural Gas Company
Public Service Company of North Carolina
Rhone-Poulenc Ag Company
Royal Insurance
Southern Bell
Texasgulf, Inc.
Weyerhaeuser Company
Winston-Salem Journal

## SUPPORTING CORPORATIONS

Alphanumeric Systems
Asheboro Elastics Corporation
AT&T
Bank of Granite
Bristol-Myers Products
Burlington Industries Foundation
Burroughs Wellcome Company
Centura Banks
Consolidated Diesel Company
The Dickson Foundation
Epley Associates, Inc.
First Citizens Bank
Harper Companies International
HKB Associates
Integon Insurance
Kaiser Foundation Health Plan of North Carolina
N.C. Farm Bureau Mutual Insurance Company
N.C. Health Care Facilities Association
N.C. Power Company
Northern Telecom
Nucor Corporation
Occidental Chemical Corporation
Olson Management Group, Inc.
Parkdale Mills, Inc.
Piedmont Aviation Foundation
Sara Lee Corporation
Summit Cable Services
Thomas Built Buses, Inc.
United Carolina Bank
Universal Leaf Tobacco Company
Volvo GM Heavy Truck Corporation
Vulcan Materials Company
Wachovia Bank and Trust Company
WFMY-TV
WTVD-11 Television
WXII-TV
Ernst & Young

## CORPORATE MEMBERS

AEtna Life & Casualty Foundation
Asheville Citizen Times Publishing Co.
Atlantic States Bankcard Association
BASF Corporation
BNR
Capitol Broadcasting Company
Carocon Corporation
The Chapel Hill Newspaper
Chesapeake Corporation
Cone Mills Corporation
The Daily Reflector of Greenville
Dudley Products, Inc.
E. I. duPont de Nemours & Company
Durham Herald-Sun Newspapers
Eastman Chemical Company
K. R. Edwards Leaf Tobacco Company
Fayetteville Publishing Company
FG*I
First Commercial Bank
First National Bank of Randolph County
Florida Atlantic University Foundation
Food Lion Inc.
Georgia-Pacific Corporation
Golden Corral Corporation
Hardee's Food Systems
Hoechst Celanese Corporation
Kelly-Springfield Tire Co.
Lee Iron & Metal Co., Inc.
Liggett Group Inc.
Mallinckrodt Specialty Chemicals Co.
Moore & Van Allen
N.C. Association of Broadcasters
N.C. Association of Educators
N.C. Beer Wholesalers Association
N.C. Cable TV Association
N.C. Institute of Minority Economic Development
N.C. Restaurant Association
N.C. School Boards Association
N.C. Soft Drink Association
N.C. Textile Manufacturers Association
N.Y. Times Company Foundation
Oldover Corporation
Peoples Security Insurance
Phillips Industries, Inc.
PPG Industries Foundation
Raleigh Federal Savings Bank
Rosenberg & Associates Advertising, Inc.
Sandoz Chemicals Corporation
Ralph Simpson & Associates
Southeast Toyota Distributors Inc.
Southern National Bank
Spanco Industries
Square D Company
Stockhausen, Inc.
Takeda Chemical Products USA
The Transylvania Times
Trion Charitable Foundation
TRW, Inc.
Union Carbide Corporation
United Guaranty Corporation
United Transportation Union
Village Companies
Voyager Communications
WSOC Television

## SPECIAL DONORS

Eben Alexander
Linda Ashendorf
Cass Ballenger
Wade Barber
Thad L. Beyle
Nancy O. Brame
William R. Capps
David Sanders Clark
Steve & Louise Coggins
Ruth Cook
George Daniel
Ann Q. Duncan
Charles Evans
Virginia Foxx
Randy Fraser
Joyce Gallimore
Karen Gottovi
William G. Hancock
Wade Hargrove
James E. Harrington Jr.
Bertha M. Holt
V. B. "Hawk" Johnson
Burns Jones
William W. Joslin
William E. & Cleta Sue Keenan
Mary Ann McCoy
Elaine F. Marshall
Charles Meeker
Mr. & Mrs. Robert E. Merritt
William M. Moore Jr.
Kenneth F. Mountcastle
Edward H. O'Neil
William "Cliff" Oxford
Kathy Neal
Mr. & Mrs. Richardson Preyer
H. Smith Richardson Jr.
William C. Rustin Jr.
Richard A. Schwartz
Carol Shaw
Margaret & Lanty Smith
McNeill Smith
Sherwood H. Smith Jr.
Zachary Smith
Robert W. Spearman
Fred Stanback
Geraldine Sumter
H. Pat Taylor
Margaret Tennille
Frances Walker
Cameron West
Ed Williams

**North Carolina Center for Public Policy Research**
P.O. Box 430
Raleigh, North Carolina 27602

Nonprofit Org.
U.S. Postage
PAID
Raleigh, N.C.
Permit No. 1121