Published by the North Carolina Institute of Medicine and The Duke Endowment

North Carolina
MEDICAL JOURNAL
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Contemporary **Issues** in **Rural** Healthcare

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North Carolina
MEDICAL JOURNAL

Founded by the North Carolina Medical Society in 1849
Published by The North Carolina Institute of Medicine and The Duke Endowment
(ISSN 0029-2559)

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Co-Sponsors of the Journal are: The Carolinas Center for Medical Excellence, formerly Medical Review of North Carolina / North Carolina Academy of Physician Assistants / North Carolina Association of Pharmacists / North Carolina College of Internal Medicine / North Carolina Dental Society / North Carolina Health Care Facilities Association / North Carolina Hospital Association / North Carolina Medical Society / North Carolina Nurses Association

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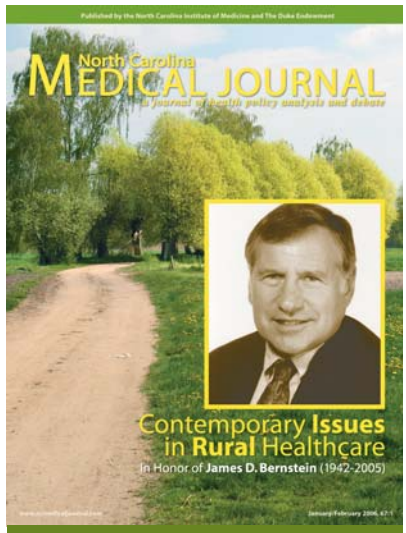

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Co-Publisher of the *North Carolina Medical Journal*

In 1983 the North Carolina General Assembly chartered the North Carolina Institute of Medicine as an independent, nonprofit organization to serve as a nonpolitical source of analysis and advice on issues of relevance to the health of North Carolina's population. The Institute is a convenor of persons and organizations with health-relevant expertise, a provider of carefully conducted studies of complex and often controversial health and healthcare issues, and a source of advice regarding available options for problem solution. The principal mode of addressing such issues is through the convening of task forces consisting of some of the state's leading professionals, policy makers and interest group representatives to undertake detailed analyses of the various dimensions of such issues and to identify a range of possible options for addressing them.

Members of the North Carolina Institute of Medicine are appointed for five-year terms by the Governor, and each task force convened by the Institute typically includes at least one-third of its membership from among the appointed members. Topics to be addressed through task force efforts are chosen following requests from the Governor, the General Assembly or agencies of state government. In some cases, topics are selected on the basis of requests from a number of stakeholder organizations across the state where this type of analytical process is considered to have potential value.

The North Carolina Institute of Medicine assumed the role of publisher of the *North Carolina Medical Journal* in January 2002 through an agreement with the North Carolina Medical Society, which founded the Journal in 1845. The Institute views the *North Carolina Medical Journal* as an extension of its mission. The Journal provides a forum for stakeholders, healthcare professionals, and policy makers and shapers to study and discuss the most salient health policy issues facing our state. Like many states, North Carolina is grappling with issues such as an increasing number of uninsured, the unmet health needs of the growing Latino population, a critical shortage of nursing personnel, the health risks of tobacco and obesity, rising prescription drugs costs, mental health system reform, the increasing societal burden of chronic illness care, the threat of bioterrorism and the necessity of assuring adequate public health preparedness—all in the midst of an economic downturn. Each of these issues presents unique challenges to healthcare providers and state policy makers. Yet, a fully implemented task force to consider each of these sets of issues is not feasible. The Journal makes it possible to present an organized and balanced overview of some of these issues, six times per year, and allows interested persons the opportunity to engage in the ongoing discussion of these issues throughout the year. The Institute hopes that our readers of the *Journal* will, in this way, become involved in the continuing debate about the most promising avenues for assuring the highest standards of health and healthcare for all North Carolinians.

health policy

North Carolina Institute of Medicine

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In 1940, the North Carolina Medical Society began re-publishing the *North Carolina Medical Journal*, which was founded by the Society in 1849. In its 20th century reincarnation, the Journal intended to promote communications among physicians. It was a noble cause then and remains so today. In 2002, the North Carolina Institute of Medicine assumed responsibility for publishing the Journal, expanding both its scope and its readership to include all the healthcare professions.

The Duke Endowment recognized the importance of the Journal, not only to the physicians of North Carolina, but also to the medical and health communities in general, and so an association was formed between The Endowment and the Institute of Medicine to financially support the Journal. That relationship was solidified further in 2005 when The Endowment became co-publishers with the Institute of Medicine to produce the Journal on a bi-monthly basis.

The Endowment recognizes the historical significance of the Journal and hopes to build on that base by expanding its audience and contents. Today, each Journal features a particular healthcare theme, and includes articles featuring ideas and programs addressing those issues. The topics are designed to be relevant to physicians, physician assistants, nurses, dentists, pharmacists, public health officials, hospital administrators, healthcare decision makers, policy makers, and philanthropists.

The Endowment's goal in this partnership is to improve and provide a literary journal that will aid communications among the healthcare providers and to assist them in understanding health and policy issues as well as learning of successful programs being funded by this and other foundations. We invite others to join us in this venture through subscriptions to and/or advertisements in the *North Carolina Medical Journal*.

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January/February 2006, Volume 67, Number 1 **Published by the North Carolina Institute of Medicine and The Duke Endowment**

James D. Bernstein
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CAPRELA (Cancer Prevention for Latinas): Findings of a Pilot Study in Winston-Salem, Forsyth County

Alejandra E. Koval, MA, MPH, Alicia Alemán Riganti, MD, and Kristie Long Foley, PhD

Abstract

Objective: *To evaluate knowledge and attitudes that affect cervical and breast cancer screening among uninsured Hispanic women.*

Study Design: *Cross-sectional, descriptive study of uninsured Latino women in Forsyth County, North Carolina.*

Data Sources/Study Setting: *A convenience sample of Hispanic women who immigrated to the United States within the last ten years, primarily from Mexico (N = 70).*

Data Collection Methods: *Two trained lay health advisors (promotoras) administered in-person, structured surveys to 70 women in the community. All interviews were conducted in Spanish. Additionally, two focus groups were conducted in Spanish to elucidate cultural beliefs and barriers to cancer screening not otherwise captured in the standardized surveys. Quantitative data were analyzed using logistic regression analysis. Qualitative data were transcribed and analyzed using a multi-step framework approach to identify and validate themes.*

Principal Findings: *Of 70 women, 42 (60%) reported a Pap smear within the last year; 26 (37%) reported two exams within the past three years. Among women aged 40 and older, 10 of 18 (56%) reported ever having a mammogram. Being married (OR=4.05, CI 1.07-15.25) and having the same healthcare provider (OR 5.64, CI 1.04-30.56) predicted better Pap smear screening in multivariate analyses. Limited knowledge about breast cancer and needing an interpreter to communicate reduced the likelihood that women received a mammogram. Qualitative results indicated that women had poor prior experiences with Pap smears, held several misconceptions about cancer etiology and risk factors, and expressed distinct gender roles for Latina women and men that may affect healthcare utilization.*

Conclusions: *Screening rates for cervical and breast cancer are low among uninsured Latina women. Therefore, community and clinic-based interventions are needed to improve underutilization of and satisfaction with cancer screening practices among uninsured Latina women.*

Introduction

Cancer is the leading cause of death for women between 40 and 79 years of age and the second leading cause of mortality in American women of all ages. Even with reduced incidence rates, there remain significant disparities in the incidence and mortality rates of cervical cancer among women of color, when compared to rates among white women. The incidence of cervical cancer among Hispanic women is 16 cases per 100,000, compared with nine cases among white women.[1,2] Breast cancer incidence is low among Hispanic women compared with non-Hispanic white women, but a greater proportion of Hispanic breast cancer patients experience a longer duration of symptoms and are more likely to die from the disease.[3,4] Having both a longer duration of symptoms and excess mortality point to the lack of adequate care received for breast cancer in this population. It may be expected that breast cancer incidence rates among the Hispanic population will increase due to changing exposures associated with increased acculturation.[5]

Disparities in breast and cervical cancer screening are at least partially to blame for the excess morbidity and mortality experienced by Hispanic women. Only 67% of Hispanic females

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(over age 40) report having had a mammogram within the past two years, which is 4.7 percentage points lower than non-Hispanic whites. Differences in screening rates appear to be declining. There is a 9.7 percentage-point decrease in today's rates from those ten years ago.[6] Low income, lower levels of formal education, race, ethnicity, culture, insurance status, and age all contribute to underutilization of breast cancer screening.[7] Similarly, although Pap smear screening rates are rising for ethnic minorities, Hispanic women consistently report lower rates of cervical cancer screening than non-Hispanic women or African American women. Twenty-five percent of Hispanic women have never had a Pap smear, compared with 9% of non-Hispanic women. Fifty-one percent of Hispanic women 40 years and older and 43% of Hispanic women between 18 and 40 years of age reported not having a Pap smear during the previous year.[8]

While Hispanics are generally treated as a homogenous group, there is great variability in screening patterns among various Hispanic/Latino subgroups. In a comparison of three cancer screening practices (Pap smear, mammogram, and clinical breast exam) among five subgroups of Hispanic women, Zambrana et al[9] determined that Mexican women were the least likely to be screened with any procedure. Additionally, using data from 1990-1992 National Health Interview Survey (NHIS), Peek[6] reported mammography rates of 35% among Mexicans, 43% among Puerto Ricans, 41% among Cubans, and 47% among other Hispanics. Further, regional variations exist: 45% of Mexican Americans in Texas had been screened for breast cancer compared to 60% of Mexican Americans in California.[6]

This study evaluates breast and cervical cancer screening patterns among uninsured Hispanic/Latino women living in North Carolina, primarily of Mexican origin. Our goal was to evaluate screening practices and barriers to early detection among women who had recently immigrated to the United States and who had limited financial resources, yet had access to free mammography and Pap smear services through a local free clinic.

Methods

Setting

This study was conducted in Forsyth County, North Carolina. This county was home to 19,577 Latinos as of 2000. New arrivals are mainly from the rural areas of Mexico, such as the states of Guerrero and Oaxaca, where access to healthcare services is limited. The average level of education among Hispanics/Latinos who immigrate to the United States is fifth grade, a lower attainment level than for Hispanics at the national level. More than one quarter of North Carolina Latinos live in poverty (27.4%).[10,11] The study targeted an apartment complex with 260 occupied units, where 90% of the residents are of Hispanic origin.

Data Collection

Upon Institutional Review Board (IRB) approval, the study team identified, contacted, and established a rapport with two *promotoras* (lay health advisors). The selected *promotoras* were of Mexican origin to reflect the majority of Latina immigrants in the Forsyth community. They act as a bridge between researchers and the target population and are able to develop a sense of trust in the participants of a community program. They are often the best recruiters, not only of participants, but also of other community health workers.[12,13,14]

The *promotoras* were paid to attend two training sessions, which entailed how to: inform the women about the purpose of the study and the target populations and instruct them about confidentiality issues and consent procedures. Training also familiarized *promotoras* with the questionnaire and provided a mock interview session. In addition, *promotoras* received an operations manual. Because the survey included the use of color-coded cue cards, we taught *promotoras* how to manipulate the cards as they were reading the questions.

Promotoras recruited women who met the following criteria: (a) an adult (at least 18 years of age); (b) uninsured; and (c) a resident of the United States for less than ten years. *Promotoras* maintained a roster where they indicated the number of attempts they made until they were able to reach the participant, as well as contact information for them and intent to participate in a focus group. The average number of attempts was 1.34 (± 0.90), range 1-5.

Sample

The *promotoras* conducted 70 in-person, structured, Spanish interviews within eight weeks during the Spring 2004. The average time to complete the survey was 30 minutes. Surveys were conducted either in homes (95%) or at the workplace (5%). Participants received a gift card to a grocery store when they completed the survey.

The principal investigator (PI) and a co-PI also facilitated two focus groups with seven and eight women, respectively. For the first focus group, women between 20 and 40 years of age were recruited. The goal of the second focus group was to include women 40 years old and older, but the research team experienced difficulty locating and recruiting older women to participate. Only two women over age 40 participated in the focus group.

We used a model apartment that was made available by the management of the property. Food and childcare in a nearby location were provided. Although the initial goal was to stratify the women by age group, we were not able to recruit enough women age 40 and over for the second session, so we invited women who were younger in order to meet the minimum necessary for a fruitful focus group experience.

Focus group questions addressed knowledge, beliefs, myths,

barriers to screening practices, *familismo*[a] and *machismo*,[b] and probed into the women's interest in participating in an educational intervention. The goal of the focus groups was to provide greater insight into the cultural impact of cancer knowledge and screening behavior. The discussions were taped, transcribed, and then translated into English. Women received a gift card to a grocery store for their participation in the discussion.

Measures

We selected the survey constructs based on a review of the literature and previously established surveys[15,16] used among low-income women. We also modified them to be culturally relevant to Hispanic women, based on input from our two Hispanic study team members, the co-PI, and a nurse practitioner who works in the Hispanic community.

Cancer Screening Practices. The dependent measures in this study included Pap smear screening behavior and mammography screening behavior. Pap smear screening behavior was divided into the following categories: ever had a Pap smear, having had a Pap smear within the last year (since 2003), and whether they had received at least two Pap smears within the last three years (since 2001). This latter measure was calculated to establish whether the women had adopted regular Pap smear screening behavior.

Mammography screening behavior was measured among women 40 years old and older and included: ever had a mammogram, having had a mammogram within the last year (since 2003), and whether they had received at least two mammograms within the last three years (since 2001). Similar to Pap smear screening, our goal was to establish whether regular screening behavior occurred.

Demographics included age (less than 24 years, 25-32 years, 33-39 years, and greater than or equal to 40 years), place of origin, and length of residence in the United States (less than or equal to three years, three and one half to six years, greater than or equal to seven years). For marital status, we categorized all responses into: married/living together, and residing without a partner (single, divorced/separated, widowed, and never married). We also determined the total number of children in the home, but dichotomized the variable into (any children vs. no children.). We stratified educational attainment as sixth grade or less, seventh through 11th grade, and high school graduate or more. We measured employment status as follows: housewife, volunteer (no job), part-time job, full-time job, unemployed (job hunting), unemployed (not seeking job), retired, can't work (disabled), and other. We computed the total number of people in the household (continuous measure). Women were asked if they typically see the same provider when they go for healthcare (yes/no). We asked women to determine how well they spoke English (very little and need interpreter, enough to manage without an interpreter, and fluently). Because no one responded that they spoke English fluently, the item was dichotomized.

Knowledge of cervical cancer was a summary measure of six items. For each correct response, respondents received a score of 1. A total score of 6 was possible on the cervical cancer knowledge scale. They were asked whether they agree or disagree with the following statements: (1) "Cervical cancer runs in the family;" (2) "Hispanic women have a higher cervical cancer risk than other women;" (3) "Young women are at higher risk of developing cancer than older ones;" (4) "Women smokers are at higher risk of developing cancer;" (5) "Having sex without a condom increases the risk of cervical cancer;" and (6) "If the Pap test is positive, they will have to remove my uterus." A maximum score achieved among the women was 5 out of 6. We totaled and divided the scores into low knowledge (0-1), moderate knowledge, (2-3) and high knowledge (4-5) for analytical purposes."

Knowledge regarding Pap smear screening was a summary measure of seven items, with each correct item scored as 1. A higher score on the total scale indicated greater knowledge. The women were asked (1) "Do you know whether there is a test for cervical cancer?" Women who said yes and could either name or describe the procedure were coded as 1. We also asked (2) "How often do you think a healthy woman should have a Pap test?" Women who responded that they should have a Pap smear at least once per year were considered correct and assigned a value of 1. Women were also asked to indicate whether they agreed or disagreed with the following statements: (3) "I feel ok; I don't need a Pap;" (4) "If a woman no longer has menstrual periods, she doesn't need to have a Pap any more;" (5) "After a few negative Paps you don't need a Pap any more;" (6) "Women who have had their uterus removed don't need a Pap;" and (7) "Only women who have had several sex partners need a Pap." Women who correctly responded to these questions were scored a 1. Again, we totaled and categorized the scores into low knowledge (less than or equal to 3), moderate knowledge (4-5), and high knowledge (6-7).

Barriers to Pap smear participation included three items: (1) "Getting a Pap can hurt;" (2) "No cure for cancer, so why bother getting a Pap;" and (3) "I don't have time to get a Pap." The scores were then dichotomized into having at least one or more barriers (1,0).

Knowledge of breast cancer was a summary measure of five yes/no items. Women were asked whether they agreed or disagreed with the following: (1) "Hispanic women are at greater risk for breast cancer than others," (2) "Older women are at higher risk for breast cancer than younger women," (3) "The only treatment for breast cancer is surgery that removes the breast,"(4) "Women

a The concept of *familismo* (familism) is used to describe a high degree of interpersonal bonding within the Latino family, resulting in greater identification with the group and dependence on the family.

b *Machismo* (as opposed to Marianismo, which defines the role of the ideal woman modeled after the Virgin Mary, as based on chastity, abnegation, and sacredness, while reinforcing obedience and virginity) characterizes the male gender role in Latino society. It stresses virility, independence, physical strength, and sexual prowess. *Machismo* is socially constructed, and promotes and reinforces a particular set of behaviors. The influence of *machismo* and *marianismo* on sexuality and gender roles leads to the exaltation of penetrative sexual behavior and to women's ignorance about their bodies and about sexuality.

who have never had children are at lower risk for breast cancer," and (5) "Breast cancer runs in the family." The possible range of scores was 0 to 5. Scores were categorized into low knowledge (0-1), moderate knowledge (2-3), and high knowledge (4-5).

Knowledge about mammography screening was a summary measure of five items, with each correct item scored a 1, and a maximum possible score of 5. A higher score on the total scale indicated greater knowledge. The women were asked, (1) "Do you know whether there is a test for breast cancer?" and (2) "How often do you think a woman your age should have a mammogram?" They were also asked whether they agreed or disagreed with the following statements: (3) "A woman over 40 who feels well does not need a mammogram;" (4) "mammography radiation can cause cancer;" (5) "After a few mammograms that show everything is ok, you don't need to continue having them." We categorized scores into low knowledge (0-1), moderate knowledge (2-3), and high knowledge (4-5).

In order to explore ***barriers to mammography screening***, we asked women whether they agreed or disagreed with the following statements: (1) "It's difficult for me to get an appointment for a mammogram," (2) "The technician does not treat me with respect," (3) "It is too complicated to go somewhere else for a mammogram," (4) "I have no money for a mammogram," (5) "I don't know where to go for a mammogram," (6) "I'm embarrassed to have a mammogram done," and "(7) It hurts to get a mammogram." Scores assigned were yes = 1 and no = 0. We ranked barriers into low (0-3), moderate (4-5), and high (6-7).

Data Analysis

Quantitative. We computed descriptive statistics for all variables in the study. Measures of central tendency (e.g., mean, standard deviation) were obtained for continuous variables and frequencies for nominal and ordinal data. We conducted bivariate analyses using chi-square tests to evaluate the correlations between all independent and dependent variables (screening behavior). Multivariate analyses using logistic regression were conducted to evaluate the effect of knowledge of cervical cancer and barriers to Pap smear on Pap smear screening behavior within the last year. Due to a limited sample size of women age 40 and older, mammography screening behavior could not be evaluated using logistic regression techniques. All quantitative analyses were conducted using Stata 7.0.[17]

Qualitative. Transcripts of focus groups were analyzed using a multi-step framework approach.[18] The first step involved familiarization and immersion in the raw data. Two investigators who were present during the focus groups independently read the transcribed interviews and extracted key comments associated with how individuals ascribed meaning to the cancer experience. The second step was identification of a thematic framework. The investigators met to discuss the abstracted information and identified themes that emerged. This process was also reviewed by a third and independent reviewer. Third, the thematic framework, including all themes, was applied to all data.[18]

Results

Descriptive Statistics

Seventy-eight women were approached, 70 (90%) completed the survey. Table 1 describes the demographic characteristics of the survey. Women were, on average, 32 years of age (± 9.2; range 19-52). They had eight years of formal education (ranging zero to 15), which is slightly higher than the average for new immigrants into the state,[11] yet lower than the national average of high school attainment.[10] Most women were married or living together (72%) and less than half were employed outside the home (46%). The mean number of years of residence in the United States was 5.2 (range 0.5 to 9.5). The sample was predominately of Mexican origin (97%) and Catholic (79%), with limited knowledge of English. Almost everyone (93%) responded that they need an interpreter during a medical visit. Most of the women typically received healthcare at a local free clinic (62%) or a local university-owned community clinic

Table 1.
Characteristics of the Study Population

Demographics (N=70)	**%** *(unless otherwise noted)*
Age	32.2 (9.2)
[mean, (standard deviation), range]	19-52
Years in the United States	5.2 (2.8)
[mean, (standard deviation), range]	0.5-9.5
Years of formal education	8 (3.1)
[mean, (standard deviation), range]	0-15
Country of Origin	
Mexico	97.0
Guatemala	1.5
Venezuela	1.5
Marital Status	
Married	48.6
Living together	22.9
Divorced/Separated	11.4
Widowed	2.9
Never married	14.3
Work Status	
Homemaker	47.1
Employed part-time	24.3
Employed full-time	21.4
Unemployed	5.7
Disabled	1.4
Religious Affiliation	
Catholic	78.6
Pentecostal	5.7
Christian (not otherwise stated)	14.3
Children	
No Children	16.2
Any Children	83.8
Continuity of Care	25.7

Table 2.
Knowledge and Screening Practices for Cervical and Breast Cancer

	Pap Smear (N=70) %	Mammogram[a] (N=18)
Ever screened	90	56
Screened within the last year	60	33
Screened regularly	37	11
Knowledge regarding screening[b,c]		
Low	14.9	0
Moderate	35.8	25.0
High	49.2	71.4
Average	5.01 (1.58) Range 0-7 71% accurate	4.33 (1.02) Range 0-5 87% accurate
Knowledge regarding cancer	Cervical (n = 65)	Breast (n = 18)
Low (score: 0-1)	16.4	39
Moderate (score: 2-3)	65.7	50
High (score: 4+)	17.9	11
Average Cervical Cancer Knowledge Score	2.49 (1.06) Range 0-5 42% accurate	2.0 (1.23) Range 0-5 40% accurate

a Only includes women who were at least 41 at the time of the interview to ensure that they had at least one year since their 40th birthday.

b At least two within last three years and not in same year. For mammography, the women had to be at least 43 years of age to be included in the calculation.

c Pap smear scores were categorized as follows: low (0-3), moderate (4-5), and high (6-7). Mammogram scores were categorized as follows: low (0-1), moderate (2-3), and high (4-5).

(17%). Approximately one-in-four women (25.7%) reported that they typically see the same healthcare provider for care.

The majority of the sample reported that they had at least one Pap smear, but only 60% were examined within the last year (see Table 2). Only 37% had regular screenings (at least two consecutive Pap smears within the last three years and not in the same year). Among the 18 women age 40 and older, ten (56%) had a mammogram once, six (33%) had a mammogram within the past year, and only two (11%) reported at least two mammograms during a three-year time frame.

Respondents answered an average of two and one half (± 1.1) out of five questions correctly on the cervical cancer knowledge scale and five (± 1.6) out of seven questions correctly on the Pap smear knowledge scale. Approximately one half of the sample (49.5%) experienced at least one barrier to Pap smear screening. The most commonly cited barrier to Pap smear was pain associated with the screening test (38%). An additional 19% indicated that they don't have the time to get screened. Of the possible three barriers, the average number of barriers reported was 0.6 (± 0.8).

Women were able to correctly answer an average of two (± 1.2) out of five questions related to breast cancer knowledge and four (± 1.0) out of five questions related to mammography knowledge. On average, women reported 1.9 (± 1.5) barriers to mammography. The most common barriers were: no money for a mammogram (61%), too complicated to go to a different place (28%), and too embarrassed to have a mammogram (22%).

Bivariate analyses revealed significant associations between greater Pap smear knowledge (p = 0.03), having children (p = 0.02), being married (p = 0.007), and being seen by the same provider (p = 0.02) with Pap smear screening behavior. Using these variables, we conducted a multivariate analysis. We utilized this simplified model due to the limited sample size and reduced statistical power to include many covariates. Greater knowledge about Pap smear (OR 4.3, 95% CI 0.8-22.9) and having any children (OR 5.0, 95% CI 0.9-27.9) showed a non-statistically significant association with recent Pap smear completion when controlling for marital status and having the same healthcare provider. Married women (OR 4.05, 95%CI 1.07-15.25) and those who had typically seen by the same healthcare provider (OR 5.64, 95% CI 1.04-30.56) were more likely to have had a Pap exam within the past year (see Table 3).

Bivariate analyses also demonstrated that women who stated that were able to communicate with a healthcare provider without an interpreter were significantly more likely to have received a mammogram within the past year (X2 4.57, p = 0.05). Higher knowledge scores were also marginally associated with having a recent mammogram (X2 24.57, p = 0.10). No multivariate analyses were conducted regarding mammography due to small sample size.

Table 3.
Adjusted Odds of Having Had a Pap Smear within the Last Year

Indicator	OR	95% CI
Pap Knowledge		
Low	—	
Moderate	0.83	0.15-4.56
High	4.33	0.82-22.87
Married	4.05	1.07-15.25
Any Children	5.04	0.91-27.87
Same provider	5.64	1.04-30.56

Note: Odds ratios from the multivariate logistic regression equation, adjusting for Pap knowledge, marital status, children, and receiving care from the same provider.

Focus Group Results

Several themes emerged from the transcribed focus groups. These include themes specifically related to the Pap smear experience, knowledge about cervical and breast cancer etiology and risk, and the importance of gender roles on healthcare utilization.

Focus groups revealed that the primary reason women sought a Pap smear was for contraception or pregnancy-related planning or care. This provides some explanation as to the higher rates of Pap smear among married women and women with children in this sample. Some women reported that they found the providers who performed the Pap smear to be impersonal and uninformative. Women reporting impersonal or uninformative providers had very little understanding as to the purpose of having the Pap smear; they were simply complying with the provider's request. One study participant said:

> She didn't tell me anything. That is, she only told me that … they had to see … to see that each month the cells got better … or worse…. I tell her [her friend] "maybe the doctor is waiting until I get the illness pretty bad…. I don't know. Because I … I mean, she didn't give me any medication or anything. She didn't tell me this … nothing, nothing, nothing … that's why … I don't know what causes cancer, nor anything of that sort. And they haven't … told me anything….

Some women complained that they never receive results of the Pap test, which led them to worry unnecessarily and to avoid going for Pap smears in the future. "*Si estás bien … olvídate. Ni una llamada ni nada. Si te hablamos es que tú estás mal. Pero como nunca hablan.…*" (If you're ok … forget about it; not even a call, nothing. If we call you, it means you're unwell. But since they never call….")

Women had very little knowledge about breast cancer etiology and risk factors. Some misconceptions revealed during the focus groups were that milk clots may form during breast feeding, which can lead to breast cancer. Some women also thought that eating nuts or seeds and using antiperspirant deodorant could lead to breast cancer. In regard to cervical cancer, some of the women said that certain birth control methods can produce cysts which, in turn, can become cancerous. Although they identified a few accurate risk factors and behaviors, women never identified age as a risk factor. There was no understanding that uterine, vaginal, and cervical cancers are different. Some of the barriers to seeking a Pap smear or mammogram included procrastination, lack of information or recommendation from the healthcare provider, lack of time, cost, and language/communication barriers with their healthcare provider. Fatalism was also described as a barrier to cancer screening. "*…de todos modos, cuando Dios dice: 'Te toca' … es porque te toca.*" ("When God says, 'It's your turn,' it means it is your turn)" and "*Para mí el cáncer es la muerte.…*" (For me … cancer is death.").

We also inquired about gender roles and *machismo* as a barrier for cancer screening. Some women stated that many husbands do not want their wives to be examined by a male doctor, which could be a major barrier to screening, especially when women have little control over who provides their healthcare. Other participants stated that their husbands care about the health of their family, but do not play an active role in it. Being screened or taking the children to the doctor is the wife's duty; "À la Mexican," they commented.

Discussion

This study provides preliminary evidence that uninsured women of Hispanic origin have low rates of regular cancer screening and healthcare utilization. This has serious public health implications for Hispanics, the fastest growing population in the United States, as well as the healthcare system that serves this population.

The structured survey and focus group data suggest that barriers to both breast and cervical cancer screening reported in this study are consistent with results observed in previous research among Hispanic women.[1,10,19,20] These women are likely to receive an initial Pap smear to obtain birth control. They are not likely to have regular Pap smears, however, which may be due to their considerable dissatisfaction with the Pap smear experience and the lack of follow-up regarding their results. This may be one explanation for the very low rates of maintenance Pap smear behavior.

Women who regularly see the same healthcare provider were 5.5 times more likely to have repeat Pap smear exams. Together, these results suggest that seeing the same provider may help build rapport and trust and improve communication surrounding the Pap smear experience. Free clinics could greatly improve the care that they deliver to the uninsured population by identifying a core group of healthcare providers who regularly conduct Pap smears for their patients. Focus group data also suggest that female healthcare providers may be more desirable among this population.

Focus group data also reinforce previous literature, which has demonstrated that Latinos hold negative conceptions of cancer as being a death sentence, something to avoid talking about, and a form of punishment from God, and they believe that there is little one can do to prevent it.[21] Because of their fatalistic view and fear associated with the disease, many Hispanics are reluctant to find out information about cancer or to get screened for the disease. In this regard, Burgess Wells et al. observed that there is a high correlation between purpose-in-life and breast health behavior. Purpose-in-life is significantly related to self-efficacy (having the knowledge and ability to care for oneself),[22] which may explain why Latinas delay seeking healthcare. This has significant implications for intervention development and should be incorporated into strategies to promote Pap and breast cancer screening among Latina women.

Although this study had a very limited sample of women ages 40 and older (18), the results suggest very low breast cancer screening rates for uninsured Hispanic women. This may be due to limited knowledge about breast cancer and poor communication with the healthcare provider. Women who did require an interpreter were significantly less likely to receive a mammogram. Myths about breast cancer also pervade (e.g., eating nuts may cause breast cancer), which also need to be debunked in order for women to have adequate breast health and screening behavior.

The results of this study should be interpreted with caution, as they were derived from a small, convenience sample of uninsured Hispanic women. *Promotoras* were able to recruit only 18 women ages 40 and older, thus limiting the interpretation of data regarding mammography utilization. Older women were also difficult to recruit for the focus groups, which limits the generalizability of the findings to a younger population of recent Latina immigrants. Additionally, the presence of an academic institution and a free medical clinic in the community from which these women were recruited may have influenced access to cancer screening services. Although the results could be safely generalized to low-income, Hispanic women in Forsyth County who have recently immigrated to the United States, they may not be generalizable to other counties in North Carolina.

Conclusion

Despite these limitations, this study is an important preliminary evaluation of breast and cervical cancer screening patterns among uninsured Hispanic women and the factors that contribute to poor regular screening behavior in this population. Interventions should be targeted not only to educating women about cancer and early detection, but also to the healthcare providers likely to provide care to these women. Cultural beliefs that underlie their screening behavior (e.g., lack of 'prevention' concept, machismo) need special attention when designing Hispanic-friendly interventions. Additional research is necessary to replicate these findings in larger populations of uninsured, Hispanic women, with more attention given to the healthcare delivery system and its contribution to poor screening behavior. **NCMedJ**

Acknowledgements: This pilot study was supported by the Piedmont Alliance for Cancer Research and Education (PACRE) grant, 1 P20 CA91434-01A1, and by the National Institutes of Health, Fogarty International Center International Maternal and Child Health Training grant, 1D43 TW05492 02. The study was approved by the IRBs of Wake Forest University Health Sciences and Winston-Salem State University. Informed consent was obtained from all participants.

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Racial Disparities in Birth Outcomes Increase with Maternal Age: Recent Data from North Carolina

Paul A. Buescher, PhD, and Manjoo Mittal, PhD

Abstract

Background: *Racial disparities in birth outcomes persist in North Carolina and the United States. We examined patterns of birth outcomes and women's health measures in North Carolina by race and age to portray the largest disparities. We wanted to see if our data were consistent with the "weathering hypothesis," which holds that the health of African American women may begin to deteriorate in early adulthood, with negative effects on birth outcomes.*

Methods: *We conducted a descriptive analysis of 1999-2003 North Carolina live birth and infant death records and 2001-2003 Behavioral Risk Factor Surveillance System survey data. Birth outcome measures examined were low birth weight, very low birth weight, infant mortality, neonatal mortality, and postneonatal mortality. Women's health measures examined were obesity, self-reported health status, high blood pressure, high cholesterol, current smoking, and smoking during pregnancy. Rates for whites and African Americans were compared for each of three age groups.*

Results: *Racial disparities in birth outcomes increase with increasing maternal age. African American teens often experience better birth outcomes than older African American women. Racial disparities in measures of women's health also increase with increasing age.*

Conclusions: *Health problems among older African American women of reproductive age may contribute substantially to racial disparities in birth outcomes. Improving the health of older African American women may be an effective strategy to reduce the overall racial disparities in birth outcomes.*

Introduction

There are longstanding disparities in birth outcomes between whites and African Americans in North Carolina and the United States. For infant mortality and low birth weight, African Americans have rates at least two times those for whites, and the gap has been increasing over time. Arline Geronimus has proposed a "weathering hypothesis" to help explain this pattern.[1,2] The weathering hypothesis proposes that the health of African American women may begin to deteriorate in early adulthood as a physical consequence of cumulative socioeconomic disadvantage. As a result, the racial differential in infant mortality, for example, is larger at older maternal ages than at younger ages. A conclusion from this is that improvements in health among adult African American women would help reduce their infant mortality rate. This report examines recent North Carolina data to see if these data are consistent with this hypothesis.

Many studies suggest that women's preconceptional health is an important determinant of birth outcomes. Chronic health conditions, substance abuse, and other health problems cannot all be fixed after a woman becomes pregnant. In this study, we look at patterns of women's health measures and birth outcome measures by maternal race and age. Since we present only parallel, descriptive data, this study cannot demonstrate that women's health problems cause poor birth outcomes. However, a number of previous studies suggest that this is the case. For example, other researchers have found that maternal chronic hypertension,[3,4] obesity,[5,6,7] smoking,[8,9,10] and high cholesterol[11] are associated with subsequent adverse birth outcomes. One study suggests that the excess incidence of maternal chronic hypertension among African American women, including hypertension preceding pregnancy, contributes to the racial disparity in pregnancy outcomes.[3] Since smoking cessation interventions during pregnancy have had limited success,[9] efforts should be made to reduce smoking among all women of reproductive age as a

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strategy for improving birth outcomes. Postpartum maternal smoking strongly increases the risk of Sudden Infant Death Syndrome (SIDS) and is associated with other infant health problems.[12]

Methods

We examine several 1999-2003 birth outcome measures for non-Hispanic African Americans and whites for the maternal age groups 15-19, 20-34, and 35 years and older: percentage low birth weight (less than 2,500 grams), percentage very low birth weight (less than 1,500 grams), infant deaths (first year of life) per 1,000 live births, neonatal deaths (first 27 days) per 1,000 live births, and postneonatal deaths (28-364 days of age) per 1,000 live births. These measures pertain to the entire five years of birth and infant death data combined, 1999 through 2003 inclusive. The percentage low birth weight and the infant mortality rate are standard overall measures of birth outcome, though the causes of low-weight births and infant deaths are heterogeneous. The vast majority of very low-birth-weight births and neonatal deaths are preterm deliveries, while more than half of postneonatal deaths result from SIDS, birth defects, and injuries/accidents.

We also present selected 2001-2003 health indicators from the North Carolina Behavioral Risk Factor Surveillance System (BRFSS) for non-Hispanic African American and white women for ages 18-24, 25-34, and 35-44: obesity, self-reported health status, high blood pressure (2001, 2003 only), high cholesterol (2001, 2003 only), and smoking. These measures pertain to the entire three years of BRFSS data combined, except those for blood pressure and cholesterol, which are for two years of data combined (these two questions were not asked on the 2002 BRFSS survey). Previous studies have shown these measures to be associated with adverse birth outcomes. The BRFSS is an ongoing random telephone health survey of adults in North Carolina.

The 15-19 year-old age group was used for the birth and infant death data because this is an age category commonly used for analysis of teen birth statistics; there are very few births to girls under age 15. The BRFSS survey interviews only persons ages 18 and older, and so the 18-24 year-old age group was used to define young adult females.

Several years of vital records and BRFSS data were aggregated to yield large enough numbers for meaningful analyses by race and age. All numerators of the race-age specific birth outcome measures are greater than 30, and most are much larger than 100. All numerators of the race-age specific BRFSS measures for females except one (African American women ages 18-24 with high cholesterol) are 20 or greater. African American/white ratios of the birth outcome and women's health measures were computed for each of the three age groups. Statistical significance of the racial differences was assessed using the chi square test. For the BRFSS measures, statistical significance was calculated using the SUDAAN software, which accounts for the complex sample design of the BRFSS when computing the errors of the estimates. A p value of less than 0.05 indicates a statistically significant difference at the 95% confidence level.

Birth weight is reported very accurately on birth certificates in North Carolina, and maternal smoking during pregnancy is reported fairly accurately.[13] An infant death was ascertained by an infant death certificate that matched to the live birth certificate. These matched records are needed because maternal race and age are recorded only on the birth certificate. Less than 1% of the 1999-2003 birth records were missing information on maternal race, age, or smoking or on birth weight.

The BRFSS data are self-reported by the respondents over the telephone and, thus, are subject to some bias. However, if the degree of bias does not differ much by race and age, the basic results here will not be affected. Overall in North Carolina, approximately 5% of households do not have a telephone. A higher percentage of African Americans than whites live in poverty; therefore, it is likely that a higher percentage of African Americans do not have a telephone. A result of this would be that health problems among African American women, as measured here, are more understated than for white women, since the poorest women (without telephones) have the most health problems. Therefore the racial differentials in the BRFSS measures in this study may be somewhat understated. Less than 1% of the 2001-2003 BRFSS records for females ages 18-44 were missing information on age, race, health status, blood pressure, or cholesterol. Approximately 10% were missing information on Body Mass Index (BMI), which was used to measure obesity.

On the birth certificate, mother's race and ethnicity are self-reported by the mother around the time of delivery, usually while in the hospital. In the BRFSS, race and ethnicity are self-reported over the telephone by the adult survey respondent. Self-report is the preferred method of collecting data on race and ethnicity.[14] The race reported by the mother on the birth certificate is sometimes reclassified to a standard category according the coding rules of the National Center for Health Statistics.[14] However, this will have little impact on the results of the present study since the data here are limited to non-Hispanic whites and African Americans.

Results

Table 1 shows the distribution of live births in North Carolina during the period 1999-2003 for non-Hispanic African Americans and whites, by maternal age. Twenty-eight percent of all live births shown in Table 1 were to African Americans, while 44% of the teen births (ages 15-19) were to African Americans. Table 1 reveals that teens comprised 18.7% of African American births, compared to 9.2% of white births.

Table 2 shows differences in selected birth outcomes by maternal race and age. The general pattern is that the percentages and rates of adverse birth outcomes for African Americans increase with increasing maternal age, and the racial disparities increase with increasing maternal age. Most of the racial differences shown in Table 2 are statistically significant at $p < 0.0001$. The two measures that are most associated with preterm delivery, the percentage very low birth weight and the neonatal death rate,

have the largest racial disparities at the older ages. The teen postneonatal death rates are the same for African Americans and whites (3.8), but for mothers ages 20 and older, the rates for African Americans are more than two times the rates for whites.

Table 3 shows differences in selected women's health indicators by maternal race and age. We include several chronic disease indicators and two measures of smoking, a behavioral risk. The general pattern here is similar to that for the birth outcomes: the measures for African American women increase with increasing age, and the racial disparities in these indicators increase with increasing age. All of the racial differences at age 35-44 except one are statistically significant at $p < 0.05$. For four of the measures—percent with fair or poor health, percent with high cholesterol, percent who currently smoke, and percent of mothers who smoked during pregnancy—African American 18-24 year-olds have lower rates than white 18-24 year-olds (two of these are statistically significant). But the African American rates increase substantially with age, so that by ages 35-44 African American women have higher rates than white women for all but one of these four measures.

Table 1.
North Carolina Resident Live Births by Maternal Race and Age, 1999-2003

	African American		White	
Age Group	Number	Column %	Number	Column %
15-19	26,065	18.7	32,659	9.2
20-34	101,249	72.8	276,536	77.6
35+	11,783	8.5	47,259	13.2

Table 2.
Selected Birth Outcome Measures by Maternal Race and Age for North Carolina Residents, 1999-2003

	Age 15-19	Age 20-34	Age 35+
Percent low birth weight (<2,500 grams)			
African American	14.4	13.5	16.7
White	9.5	7.1	8.3
Ratio: A.A./White	1.52	1.90	2.01
p value for racial difference	< 0.0001	< 0.0001	< 0.0001
Percent very low birth weight (< 1,500 grams)			
African American	3.2	3.5	4.4
White	1.8	1.3	1.6
Ratio: A.A./White	1.78	2.69	2.75
p value for racial difference	< 0.0001	< 0.0001	< 0.0001
Infant deaths per 1,000 births			
African American	14.3	15.0	15.3
White	10.7	5.8	5.5
Ratio: A.A./White	1.34	2.59	2.78
p value for racial difference	< 0.0001	< 0.0001	< 0.0001
Neonatal deaths per 1,000 births			
African American	10.5	10.7	12.1
White	7.0	4.1	4.0
Ratio: A.A./White	1.50	2.61	3.03
p value for racial difference	< 0.0001	< 0.0001	< 0.0001
Postneonatal deaths per 1,000 births			
African American	3.8	4.2	3.1
White	3.8	1.7	1.5
Ratio: A.A./White	1.00	2.47	2.07
p value for racial difference	.708	<.0001	<.0001

Discussion

A much higher percentage of births occur to teens among African Americans than among whites (19% vs. 9%). Also, African American teens often experience better birth outcomes than older African American women. Though perhaps controversial, Geronimus raises the question of whether African American communities adjust their fertility-timing norms and expectations to emphasize childbearing at the ages when women are the healthiest or may have the greatest social support available.[1]

The BRFSS data presented here show that selected health indicators for African American women worsen substantially with age, and racial disparities in measures of women's health increase with age. Geronimus found sharp increases with age in the African American/white ratios of hypertension and high blood lead level prevalence among women.[1] These results suggest the

Table 3.
Selected Women's Health Indicators by Race and Age for North Carolina Female Adults, 2001-2003 Behavioral Risk Factor Surveillance System (BRFSS) Data

	Age 18-24	Age 25-34	Age 35-44
Percent obese (body mass index 30)			
African American	24.2	32.2	43.9
White	12.4	18.7	19.1
Ratio: A.A./White	1.95	1.72	2.30
p value for racial difference	0.014	0.0001	< 0.0001
Percent who report their health as fair or poor			
African American	4.5	7.7	21.1
White	7.1	6.7	12.2
Ratio: A.A./White	0.63	1.15	1.73
p value for racial difference	0.212	0.617	0.0039
Percent with high blood pressure (2001, 2003)			
African American	11.9	16.5	32.0
White	6.1	5.5	12.7
Ratio: A.A./White	1.95	3.00	2.52
p value for racial difference	0.137	0.0002	< 0.0001
Percent with high cholesterol (2001, 2003)			
African American	5.2	17.0	25.3
White	13.6	17.4	22.9
Ratio: A.A./White	0.38	0.98	1.10
p value for racial difference	0.071	0.929	0.580
Percent who currently smoke			
African American	16.8	15.8	23.1
White	34.1	25.8	32.5
Ratio: A.A./White	0.49	0.61	0.71
p value for racial difference	0.0001	0.0003	0.006
Percent who smoked during pregnancy*			
African American	8.3	11.4	14.5
White	31.1	16.5	11.0
Ratio: A.A./White	0.27	0.69	1.32
p value for racial difference	< 0.0001	< 0.0001	< 0.0001

*This measure is based on 1999-2003 birth certificate data; age groups are 15-19, 20-34, and 35+.

importance of targeting health interventions to African American women in their 20s and 30s as a means of reducing the overall racial disparity in low birth weight and infant mortality. This is consistent with the overarching Healthy People 2010 goal of reducing health disparities.

A limitation of this study is that it presents only descriptive statistics, without other control variables. Therefore the differences that are attributed here to race and age could be due substantially to other factors (such as education, income, social support, or medical conditions) that are associated with race and age. Also, the similarity in the race/age patterns in the data on women's health and birth outcomes does not prove that women's health problems cause adverse birth outcomes.

The observation that racial disparities in neonatal mortality widen with maternal age is consistent with the view of aging as a "weathering" process, which may involve life circumstances that undermine women's health in ways that can affect reproduction.[1] Racism, poverty, crime, and environmental problems disproportionately take their toll on the health of African American women,[15] leading to increasing health disparities as age increases. A recent North Carolina study suggests that unequal treatment based on race has negative effects on adult health, and African Americans are much more likely than whites to experience unequal treatment based on their race.[16] Eighteen percent of African American adults reported having emotional upset and/or physical symptoms due to treatment based on race, compared to 4% of white adults; 7% of African Americans reported experiences worse than other races when seeking healthcare, compared to one percent of whites.[16] There is evidence that prolonged, active coping with social injustice may exact a physical price.[1] High levels of stress may have negative effects on health, and stress can affect maternal behaviors such as smoking, nutrition, and substance use.[17] Strategies to improve the health of older women of reproductive age should include measures to provide protective resources for women at earlier ages to prevent health problems when they become older.

As Geronimus states: "While most Americans take for granted their good health during their young and middle adulthood—indeed these ages are referred to as the 'prime' of life and the 20s as the 'prime childbearing ages'—our findings suggest that among African American women in poverty, health deterioration may begin on an accelerated course in the mid-20s, and reproductive disadvantage may intensify."[1]

In conclusion, an effective strategy to prevent infant deaths and reduce racial disparities in birth outcomes must include measures to improve women's health before they become mothers and to sustain their health throughout the reproductive years.[18] Future research on racial disparities in birth outcomes should examine differential exposures to risk and protective factors not only during pregnancy, but over the life course of women.[19] **NCMedJ**

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POLICY FORUM

Contemporary Issues in Rural Healthcare, In Honor of James D. Bernstein (1942-2005)

"State government could not merely issue edicts or dangle money; it had to engage in meaningful partnerships, be prepared to make long-term investments in communities and nurture the leadership needed to deliver the desired improvements."
— Jim Bernstein

COMMENTARIES

INTRODUCTION

Policy Forum:
Contemporary Issues in Rural Healthcare
In Honor of James D. Bernstein (1942-2005)

To a state like North Carolina, there are few topics as central to the concerns of those responsible for the development of health and healthcare policies as rural health. But even in North Carolina, where a number of innovative approaches to the delivery of personal healthcare services and the education of healthcare professionals have been developed, special arrangements have been necessary to ensure rural residents could access care and that adequate numbers of professional healthcare providers were available.

Most of the nation sees North Carolina as a state that has embraced the challenges of rural healthcare and made substantial progress in addressing the most pressing problems in rendering services to the state's rural populations. Many other states have looked admiringly at the accomplishments of North Carolina's four medical schools in training a generation of physicians who have chosen careers in primary care and to practice in North Carolina. Many of our state's graduates locate in smaller, non-metropolitan communities. Likewise, the state's Area Health Education Centers Program has become the national model for how to organize regional systems to: provide continuing education for healthcare professionals, bring the benefits of specialty consultation to smaller communities, and educate students from multiple disciplines in community-based settings to help attract newly educated healthcare practitioners to become permanent community members and participants in local healthcare delivery systems. But, perhaps the single reason North Carolina is so highly respected for its accomplishments in the arena of rural health and healthcare derives from the efforts led by James D. Bernstein (1942-2005) and the program he began in the early 1970s, then known as the Governor's Rural Health Program (and the North Carolina Office of Rural Health).

In contemplating a special issue of the *North Carolina Medical Journal* in which we would take stock of lessons learned over the past three decades or more about the problems of assuring access to quality healthcare for rural communities, and reflecting on current issues and problems in relation to rural health still needing attention, the Editors of the Journal decided to dedicate this installment of the Journal in honor of Jim Bernstein, our beloved colleague, friend, mentor, and national leader. Jim set the pace and defined the direction of much of what we would consider the nation's rural health agenda for the 21st Century. Jim's untimely death this past year brought to Chapel Hill hundreds of individuals who wanted to visit with Jim one last time, to share his wisdom and good humor, to share stories of battles won (and lost), and efforts made in behalf of rural communities in North Carolina and elsewhere. Several hundred of his friends and admirers attended the memorial service in his honor. For all of this, Jim would have been (and was) very grateful. But, he would be most pleased to know that we took this opportunity to reflect on what has been learned from our years of concentrated effort, to analyze current issues still needing attention, and to re-dedicate our individual and collective efforts to keeping these issues in the forefront of national, state, and local health policy deliberations for the decades ahead. It is our hope that this issue of the Journal will be an additional step in that direction.

A Personal Reflection on Jim Bernstein

I hope that our readers will allow me this brief opportunity to print a few words about a close friend and colleague, who has been a constant source of inspiration and intellectual stimulation throughout my 35 years in North Carolina.

When Jim arrived in North Carolina near the beginning of the 1970s, there was no way that he

could have known what a tremendous influence he would have in this state, in the nation, and among his colleagues at the University of North Carolina at Chapel Hill (UNC-Chapel Hill). Although he knew he wanted to work on the special problems in rural healthcare, he could not have known what serendipitous events would give him the opportunity to launch *the single most extensive and effective program in rural health anywhere*. Nor could he have known what great personal influence he would have on the people served by the program he spawned or among the colleagues he assembled to make these things happen.

Jim did not begin the program in rural health in North Carolina by writing on a "blank slate." There was a rich history of efforts to develop the resources and capacities of several communities and prominent healthcare facilities in this state, which he and his colleagues were able to bring into closer working relationships with one another. Moreover, there were a number of outstanding health professionals with whom Jim established personal relationships, and together, they forged an effective alliance that worked well for many years. Thomas Ricketts, himself a national figure in rural health research at the Cecil G. Sheps Center for Health Services Research at UNC-Chapel Hill, offers a detailed overview[1] of this history and the pillars of personality and professional esteem on whose shoulders Jim was able to stand in building the program for which he is so well known.

Jim Bernstein managed to make the task we were all engaged in, and the process of getting the job done, both stimulating and fun. There are few people like Jim Bernstein we will meet in this life, and we are fortunate to have been some of the many who have known him well. He will always be a part of our lives and careers, despite how much we will miss him every day, and for that, we must be very thankful.

Jim was always an unselfish person—willing to share (or *give*) the credit for almost everything he did to some other member of his colleague group. Even as he "retired" from some of the roles he previously played in North Carolina state government, he had a hard time taking credit for many of the things he caused to happen. He only wanted to talk about his colleagues and the pride he had in assembling such an effective team.

Jim was one of the two or three people I met and got to know well when I arrived in North Carolina in 1971. A year or so after my arrival here, Jim "decided" (and then *gently* told me) that now that I had a PhD *degree*, what I needed was a "real education" because I knew "next-to-nothing about contemporary healthcare policy and program development." He proceeded to help me acquire the understanding clearly missing from my previous degree program and my brief professional experience in medical sociology. He set up a series of luncheon discussions for the two of us with Glenn Wilson, then the Associate Dean of the UNC School of Medicine. The *quid pro quo* in all of this was that Jim and I would get a chance to ask questions of one of the most knowledgeable people in American healthcare, and Glenn would get lunch prepared by the two of us. It was a wonderful education for us, but Jim was ahead of me in that he had come to know Glenn in Cleveland when Glenn was Vice President of Kaiser, and he had experienced a couple of years of service with the Indian Health Service before coming to Chapel Hill. He had far more information and background than did I, so I learned from the *two of them* … something I have continued to this day. In a very real sense (and this is something I said to him, but to few others until now), were it not for Jim Bernstein, I think I would have spent my career very differently. One can never repay that level of influence.

Over the years, as I have tried to make my way in the field of health services research, Jim and I teamed up on many levels to obtain grant funding, to lend technical assistance to various organizations, to address policy issues at the state and county levels, or just to share our interest in several areas of our work.

I only regret that I did not help get him appointed to more boards and committees where I had a role. Few people could enrich a discussion, a meeting, or a complex organizational task like Jim Bernstein.

INTRODUCTION—continured on page 24

As Editor of this Journal, I am very grateful to Jim's good friend and colleague, Donald Madison, for writing in this issue an overview[2] of Jim's remarkable career and a description of how North Carolina's rural health program took shape and continues to have great influence in the field of rural health at a national level.

Contemporary Issues in Rural Healthcare

In our attempt to identify and clarify some of the more complex and demanding issues in rural health and healthcare with this issue of the Journal, we hope to honor Jim Bernstein in a way he would consider useful. It is our hope that publications like this one can help keep the initiatives he and others started in forward motion and help raise their visibility as public policy issues of our time.

Those who have examined the differential health indicators for both rural and urban communities in the United States have come to the conclusion that, when the effects of age, gender, and other covariates are "controlled" through statistical adjustments, the once clear disadvantage of rural areas in terms of both mortality and morbidity is no longer apparent.[3] Disease and mortality differences between metropolitan and non-metropolitan areas in this country are more likely associated with racial and ethnic or socio-economic characteristics of populations than with the size or remote location of place. Yet, the accessibility of healthcare services for those with virtually any disease or disability is far less certain in rural areas of the United States. Moreover, rural residents consistently are more likely to describe their health as "poor" or "fair" than are residents of more urban areas.[3] These observations, coupled with the urbanization of the population as a whole and the "aging" of United States rural populations in general, will make the task of assuring the availability and accessibility of quality healthcare services for rural populations an even greater challenge for future healthcare policy and program development.

Despite these seemingly paradoxical findings of non-differential urban-rural differences in critical health indicators (when other factors are taken into account) and the lack of access to basic healthcare services in rural areas, wide variations in health status indicators of the nation's rural areas exist. Geographic areas characterized by low socio-economic status or minority racial, and ethnic group concentrations are likely to have far worse health status indicators, as well as more restricted access to healthcare services.

These wide variations and the implications of limited access to basic healthcare services have caused most states to give special attention to these issues. In North Carolina, since the early 1970s, this effort has revolved around the work of the Office of Rural Health, or what is now known as the Office of Research, Demonstrations, and Rural Health Development, within the North Carolina Department of Health and Human Services. In this issue of the Journal, it is our intent to give special focus to a number of the key issues confronting this state and others in the first decade of the 21st century. For some of these issues, it will seem as though little or no progress has been made. For others, considerable forward movement has taken place.

One observation worth noting is that rural health policy, after several decades, is now a matter of significance in national health policy. Jeanne Lambrew, one of President Clinton's chief health policy advisors, describes the current political landscape and illustrates evidence of the how rural health constituencies have been influential in recent national policy development.[4]

In a broad brush examination of contemporary rural health issues, there are several issues that still seem to be the defining issues of the field. The first of these relates to the healthcare professional workforce and its distribution. Concerns regarding an adequate supply of healthcare professionals are perhaps as important now as they were three decades ago, especially with regard to certain professions (e.g., dentistry), and yet, these issues have become intertwined with others, such as reimbursement (payment) policies, practice act limitations on non-physician providers, and practice organization arrangements. There are still significant issues related to how we recruit and retain healthcare professionals in small and remote communities. Examples include considerations of how newly trained physicians, dentists,

nurses, pharmacists, and others are incentivized to consider practice locations in rural communities through educational loan repayment programs, scholarships, and other financial inducements. Donald Pathman[5] offers a detailed discussion of ways in which these programs have had an impact and how lessons learned from past decades of experimentation with financial and obligated service placements can be used to further refine programs. Robert Seligson and Pam Highsmith[6] of the North Carolina Medical Society Foundation provide a description of the Community Practitioner Program, which was developed under the Foundation with support from the Kate B. Reynolds Charitable Trust and the Society's own membership. The Program's purpose is to help rural communities acquire the medical personnel needed to sustain primary care services when recruitment and retention have proven to be a problem. This is an initiative that has worked "hand-in-glove" with the activities of the state Office of Rural Health and helps to explain why so many North Carolina communities, formerly without primary care services, have achieved success in starting and maintaining such programs in recent years.

A second major dimension of efforts to address the nation's rural health problems involves a complex set of factors that determine which rural communities will be able to address these issues most successfully. The North Carolina Office of Rural Health, under Jim Bernstein's leadership, put the majority of its emphasis on facilitating communities who had the leadership capacity to organize viable local efforts in response to these problems. As a result of decades of intense collaboration with local communities across North Carolina, there is now a body of knowledge and experience that has proven to be useful in assuring the success of local health services planning efforts. Torlen Wade and his colleagues[7] provide an overview of the basic approach to the establishment of local community and state governmental partnerships in rural health program development that has characterized the modus operandi of the Office of Rural Health since its inception. Rita Salain,[8] a person who has worked both in North Carolina and now in Georgia, adds to this discussion by illustrating in greater detail the various components of community development that have been shown to be essential and effective in making organized approaches to rural health issues possible.

In the discussion of the program development aspects of rural healthcare, practicing physicians play a critical role, both as direct providers of care and as leaders through the restructuring or development of local healthcare services to ensure greater effectiveness and long-term organizational and financial viability. Steve Crane[9] provids a useful discussion of the potential role physicians may play as these discussions take place, building on the experience in three of the western-most counties of our state. Leadership of rural community development efforts and the skills involved in identifying appropriate and effective leaders for such efforts were among the most important aspects that many have identified as a central feature of the way Jim Bernstein and the Office of Rural Health were able to facilitate the development of so many separate rural health programs across our state. In this issue of the Journal, we are pleased that one of Jim's many colleagues, Tim Size[10] from Wisconsin, offers a perspective on the importance of leadership and its development based on his many years of developing rural community-hospital networks in southern Wisconsin.

In every effort to bring greater coherence and organizational effectiveness to rural health services, a vital function is associated with local or regional hospitals. Jeff Spade, Executive Director of the North Carolina Hospital Association's Rural Health Center, and Serge Dihoff, Assistant Director for the North Carolina Office of Research, Demonstrations and Rural Health,[11] provide an overview of the way in which North Carolina hospitals have become closely involved with small rural communities in the effort to facilitate these developments.

A discussion of rural healthcare programs and priorities would not be complete without consideration of the difficulties these communities face in meeting the challenges of mental health and substance abuse services. Given the enormous impact of efforts to restructure mental health services in our state, there are many opportunities for persons with serious and persistent mental health problems to fall through the cracks and to have their needs go unmet. In this issue of the Journal, John Gale and David

Lambert[12] of the University of Southern Maine provide a discussion of the problems associated with assuring access to such services in rural communities. In addition, a sidebar illustration of a successful program offering mental health and substance abuse services in North Carolina has been contributed by Denise Levis.[13] Levis describes how mental health and substance abuse services have been integrated with the Community Care of North Carolina (CCNC) Program, a set of networks across the state through which the care of Medicaid enrollees is managed in an effort to achieve both quality of care and cost-containment objectives.

The area of major concern to all who have focused their work in the rural health arena that is absent in any detail from these pages is the matter of financing rural healthcare services and programs. However, these issues are raised parenthetically throughout these discussions. It is clear that the patchwork of federal and state programs to cover the cost of particular rural health programs and needs does not reflect a comprehensive approach to meeting these national health challenges. It has, more often than not, been possible to address rural health needs through public financing only when specific rural-urban comparisons are made visible and raised to a level of importance that justifies specific targeting of new funds. Today, more funds are available to meet the broad spectrum of rural healthcare needs than were three decades ago. However, much work remains to be done to help rural residents benefit equally from the modern healthcare capacities that residents of more urban areas have.

We hope that these papers will be of interest and encouragement to those who have worked long and hard to address the fundamental problems of rural health. We also hope that our readers will find stimulation among these papers for further efforts toward the goals embraced by these authors and enunciated on so many occasions by Jim Bernstein, to whose memory this issue of the Journal is respectfully dedicated.

Gordon H. DeFriese, PhD
Editor-in-Chief

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The Work of James D. Bernstein of North Carolina

Donald L. Madison, MD

It is fairly common that someone's extraordinary service to the state be commemorated with a named building—commonly a dormitory on a state university campus—a park, a street, a stretch of interstate, even sometimes with a new, man-made lake. But such commemoratives are reserved ordinarily for governors, senators, or other long serving elected politicians. Their service to the state is doubtless deserving of such recognition; but so, often, is that of certain bureaucrats who over an extended period managed to change the face of North Carolina in some significant way—not by votes collected or bills signed, but simply by their vision, creativity, and long, hard work.

That North Carolina has led the nation in production of bright-leaf tobacco for many years is widely known. And the names of some of those responsible for the manufacture of tobacco products—Hill, Duke, Reynolds, Gray—are also well-known, if not by the nation as a whole, then at least by North Carolinians. The same can be said for textiles and furniture and banking, where this state has also been in the lead or threatens to place or show. But rural healthcare, which is neither a product, a highly marketed service, nor even a recognized "field" of labor or keen academic interest, is yet vitally important to the well being of this still predominantly rural state. And it is also linked to North Carolina in the minds of all those who know of it. For North Carolina leads the nation in rural healthcare and has for a good while—at least since the late 1970s.

There are several reasons, but the indisputable main one is the work of the late James D. Bernstein (1942-2005) and that of the superb staff he assembled. For his labors on behalf of the people of North Carolina, Jim Bernstein deserves to have a dam or a bridge named after him, at least a byway that branches off from some blue highway and leads to one of the approximately 85 rural community health centers for which his North Carolina Office of Rural Health is responsible for helping groups of local citizens establish. In addition, that Office collaborated with or followed some other agency—federal, state or philanthropic—or one of the universities in the state, in building, repairing, or helping stabilize several other community health programs. We should also recognize Jim Bernstein's work on the national level, for leading change in both the Medicaid and Medicare legislation to permit more equitable reimbursement for rural health centers and hospitals, and his leadership of national organizations devoted to the interests of rural health. Finally, and as important, historically, is the example that the North Carolina Office of Rural Health set for other states, that example activated by a national grants program of the Robert Wood Johnson Foundation with Bernstein at its helm. These efforts and more are his legacy to the state of North Carolina and the nation, and all were done from a home base in state government in Raleigh.

He was not a native North Carolinian. In fact, Jim Bernstein came to Chapel Hill temporarily; that, at least, was the plan. He had been an officer in the United States Public Health Service in Santa Fe, New Mexico, where he served as administrator of the Santa Fe Indian Hospital and Director of the Indian Health Service for Northern New Mexico.

Jim grew up in Westchester County, just outside New York City. His paternal grandfather was treasurer of Loews, the nation's oldest theater chain, which for a time, before the Justice Department intervened, also owned the lion's share of Metro-Goldwyn-Mayer (the pun is acknowledged and accurate). Jim's father manufactured advertising clocks, including those with the image of a certain grocery chain store pig with the "Piggly Wiggly" legend on the face. His mother, Jacqueline, was the family intellectual as well as the main attraction for most visitors to the Bernstein household—visitors who often included celebrities, especially artists and actors. Once people visited the Bernstein home, says Sue Bernstein, they were glad to return. And that was mainly because of Jackie Bernstein, who during the week regularly drove her Chevy Nova, alone, into northern Manhattan to work with needy children. As a youth, Jim was an athlete: swimmer, football player, hockey player—and later a hockey coach—first a playing "head coach" for the Johns Hopkins club team—"Fightin' Jim Bernstein," the college newspaper called him. Later in North Carolina, not a traditional hotbed of hockey, he served as a coach to youngsters.

After graduating from John Hopkins with a degree in political economy—and where he volunteered some of his time as a teacher of prison inmates—Jim applied for and was accepted

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into the third class of Peace Corps volunteers. The core training for his assignment, at Princeton University, was followed by a brief French language immersion in Quebec. A group of volunteers then headed for their two-year terms in Morocco, where Jim would become an English teacher, and also as it turned out, the physical education instructor for boys at the Lycee Ben Barra, a high school in Taza. Not his top choice, Taza was only about 280 miles from Tangier and the Mediterranean coast. Jim preferred going to the far south of Morocco, to the desert. But the need was in Taza. Lycee Ben Barra was a state-run boarding high school for young people who lived in the sparsely populated countryside, in places that were too rural to have a local high school. Several Peace Corps volunteers were assigned to Taza, but only one other—Susan Dill, a native of the San Francisco Bay Area—was a teacher; and like Jim, she taught English and physical education (for girls) at the Lycee Ben Barra. As the two Americans at the school, Jim and Susan became friends; and when Jim ignored the Peace Corps' warning to avoid Moroccan French pastry and came down with a severe bout of gastrointestinal inflammation, Sue prepared soup and other light fare until his digestive tract had healed. Upon recuperating from his illness, Jim built up an appetite so voracious that, says Sue, he soon "looked like a butterball."

Those bacteria-induced events led to an even closer friendship between the English teachers Bernstein and Dill, and during the latter half of their term in Taza, they were married. As it does virtually everywhere, marriage in Morocco involves certain articles of written certification, but in Taza, Jim was taken aback to learn while filling out the requisite form that he would be permitted to take up to three additional wives. He was, however, obliged to certify with his witnessed signature that he would not exceed this limit.

After Morocco, Jim applied to graduate programs in hospital administration and attended the School of Public Health at Ann Arbor. From there he went to Cleveland for a yearlong administrative residency at Mt. Sinai Hospital. After that he entered the Public Health Service, requesting an Indian Health Service assignment. His two preferences were Anchorage, Alaska, and Santa Fe, New Mexico. When she learned that Jim had marked Alaska first on his preference list, Sue responded, "We need to talk." He learned the next day that it was still not too late to change his first choice to New Mexico, and soon the Bernsteins were on the road to Santa Fe.

In 1969, along with nearly two-dozen other young PHS officers with ambitions to be leaders in the broad field of public health, Jim was awarded a fellowship in "Global Community Health." The Public Health Service described what it had in mind for these Fellows:

> *The Global Community Health Fellows are bridging the gaps of our time by respecting tradition but refusing to be bound by it. These men and women from all parts of the United States have been making special contributions to federal, state, local agencies, and private organizations in the United States and developing nations. Each brings to his or her fellowship assignment a sensitivity and commitment to*

(Above) The burka-clad Susan Dill. (Below) Newlyweds posing by the wedding cake, a traditional French croquembouche, which consists mainly of a decorative "tree" made of creampuffs held together by caramel syrup.

alleviate the health problems of the community. During their concentrated exposure to the mosaic of health, its interlacing problems on all levels, and academic pursuits, the Fellows gain invaluable practical knowledge for the transmutation of the health system.

Looking past the rococo metaphors, this is in fact an accurate representation of what Jim did during his three fellowship years and the work he continued beyond that time.

The fellowship allowed these young PHS officers to follow their muses wherever they might lead. They could arrange to study some aspect of community health virtually anywhere in the world. The fellowship usually included an advanced degree program in something, perhaps one of the fields of public health or public policy or administration. Slightly more than half of the fellows in Jim's group were physicians; the others were administrators, environmental engineers, dentists, and nurses. Administrator Bernstein, who had already spent two years in Morocco, and who had a master's degree in hospital administration, wished to pursue an advanced degree in public health and study the problems of rural health in America.

From looking at some basic statistics from the census, Bernstein learned that Texas, Pennsylvania, and North Carolina had the most rural towns (those with 2,500 population or less) of any of the states. And so he considered these three first. Texas, he said, interested him; but although it had many, many small towns, it also had several large cities. Pennsylvania had Philadelphia and Pittsburgh. North Carolina, on the other hand, had no large city. (In the early 1970s Charlotte was not yet considered large, not at least by the rest of the nation.)

The doctorate Jim was seeking would perhaps be in administration or possibly in epidemiology. According to Glenn Wilson, whose friendship with Bernstein began in Cleveland while Jim was doing his hospital administrative residency there (and where Glenn was Vice President of the Kaiser Health Plan, in charge of the Ohio region), Jim called Glenn from Santa Fe to tell him that he was thinking of enrolling in a doctoral program in epidemiology at the University of Texas School of Public Health in Houston.

Glenn says that he told Jim: "Well, It's alright for you to go to Houston, but Sue and the baby can't go with you." (The first of Jim's three children, Lori, was born in Santa Fe; Eric, two years younger, and Donna, six years younger than Eric, were both Tar Heels born.)

I asked Glenn why he would say that about Houston?

"Have you been there?"

I had; but I'd also lived in the Los Angeles basin in the 1950s, and so my impression of the air pollution in Houston was considerably less graphic than Wilson's. Jim, however, apparently took Glenn's point.

"You need to come to Chapel Hill and talk to Cecil Sheps," Wilson told him.

At the time Glenn was still in Cleveland but was completing negotiations to relocate to Chapel Hill to become Associate Dean of the School of Medicine for Community Affairs, where he would later launch the North Carolina Area Health Education Centers (AHEC) program.

Bernstein in his summer USPHS uniform, Santa Fe, New Mexico.

Bernstein had first entered the Public Health Service, as had many of his generation of healthcare professionals, because of the Vietnam War. He went to Santa Fe in 1966, which was the year when the draft accompanying the Vietnam buildup accelerated sharply, the year when virtually every medical graduate of the class of 1965 (my class), having just completed internship, would be drafted (unless they were deferred for residency training). Wilson says, "The only good thing I can say about the Vietnam War is that it diverted Jim. He was going to be a hospital administrator … in civilian life … somewhere. But the specter of the draft stood in the way. And with some assistance from me, but more from Congressman Charles Vanik [of Cleveland], he ended up in the Indian Health Service."

While Jim was in Santa Fe, he had become interested in an idea that Professor Bob Oseasohn, an epidemiologist and chair of Family and Community Medicine at the University of New Mexico in Albuquerque, had launched as an experiment and for which he asked Jim to serve on the planning committee. The experiment called for a nurse to deliver primary care for a small town—Estancia—backed up on the telephone, mainly, by physicians in Albuquerque, 62 miles to the northwest. Oseasohn later left New Mexico to become Associate Dean of the University of Texas School of Public Health in Houston. And when Jim became a Global Community Health Fellow, Dr. Oseasohn tried to recruit him as a doctoral student, thus, Jim's interest in Houston.

Why, I asked Wilson, did he want to get a PhD?

"All I remember was what he told me as he was getting out of the PHS. He had finished his two-year term, and this opportunity (the fellowship) had come along, and he had decided he wanted to get a PhD and become a teacher. I think that the experience in the Indian Health Service persuaded him that he didn't want to be a hospital director, nor, as best as I recall, a line bureaucrat in the federal government. He wanted something different than that. So that may have been part of the motivation to do something else. It was not very well defined."

But, pollution aside, why did you bad-mouth Houston to him?

"Well," Glenn said, "I have the highest respect for Bob

Oseasohn. As you know, I tried to recruit him here later. But I really doubted that Jim would be happy in Houston, and I wanted him to talk to Cecil, which he did. Now why he wanted to do the PhD, I still don't know."

Jim's own version of his visit to Chapel Hill is worth quoting. This is from the remarks he made at the memorial service for Cecil Sheps in May of 2004.*

"[Taking Glenn Wilson's advice], I called Cecil Sheps, and he said, "You need to come to Chapel Hill to see me." Don Madison picked me up at the airport and took me to Cecil's office, which was in the South Building. After a brief introduction, Cecil handed me an agenda, which included interviews with Don, Conrad Seipp (Deputy Director of the Health Services Research Center), a professor in Health Policy and Administration, and John Cassell (Chair of Epidemiology). He said that after I was through with all that we would meet at his house. My plan was to combine academic coursework with a rural practicum at the Health Services Research Center. My first interview at Health Policy and Administration was not encouraging. The professor I spoke with only wanted to tell me that my grades would probably not meet the high admissions standards of the program…. Next I went to see John Cassell in Epidemiology. It was graduation day and Cassell was putting on his cap and gown to go to the ceremony. Cecil had obviously put in a good word for me. Dr. Cassell asked me to walk with him to the graduation ceremonies so we could talk. By the time we reached Memorial Hall he said that he wanted me in his department if I wanted to come. Later that afternoon, I met Cecil at his house, where he said, 'Let's take a swim in the pool.' Within 20 minutes, he had laid out my next three years as a part-time student in epidemiology and a Research Associate at the Health Services Research Center."

I recall that Jim seemed to enjoy his coursework and classmates and appeared to be a well-motivated, serious public health student.

Glenn Wilson remembers, however, that he "…didn't want to settle down and write a dissertation. He never did write very much, as a matter of fact…. He and I and Gordon [DeFriese, then an Assistant Professor of Sociology and a Research Associate in the Health Services Research Center] used to have lunch about once a week when my office was in MacNider. That dissertation project fell apart to some extent. I'm not sure he would ever have finished it anyway, because he wanted to do something practical and they wanted some theoretical paper. That's how it was described to me. And as the weeks went by I could see it unraveling. And then when Cecil came by and said: 'Walstonburg,' away Jim went."

That is probably an accurate reading of Jim's motivation, although it is incorrect chronologically, because according to Jim, the Walstonburg project began almost immediately upon his arrival in North Carolina: "When I arrived in Chapel Hill, in July, I went to see Cecil, and he informed me that I was to be in Wilson, NC, the next day to meet Dr. Edgar Beddingfield, and that night to be in Greene County to meet with a group of citizens who wanted to build a health center."

Walstonburg, a small town without a doctor, was representative of hundreds of others in North Carolina, and perhaps thousands throughout the south and midwest by the late 1960s and early 1970s. But it had something special going for it: It was less than 20 miles from Wilson, where Dr. Edgar Beddingfield was affiliated with the Wilson Clinic. Beddingfield was a past-president of the North Carolina Medical Society, but his influence in the state went well beyond medical society office-holding and even medical affairs. He was widely respected as a statesman. Early in his career he had gone to Stantonsburg, a small town between Wilson and Walstonburg, had entered general practice, and was still practicing there, albeit on a part-time basis (the rest of the time he was doing occupational health work through the Wilson Clinic).

Beddingfield had long been interested in the problems of the small town without a doctor, and he was intrigued by the possibility of relief offered by the physician assistant (which had more or less been invented by Dr. Eugene Stead, the legendary chair of medicine at Duke) or the family nurse practitioner, which was just then being advanced by the nursing school at Chapel Hill and its Dean, Lucy Conant, with the strong backing of Dr. Sheps, Director of the University of North Carolina at Chapel Hill (UNC-Chapel Hill) Health Services Research Center, or some other type of trained "intermediate level" practitioner supervised by a physician, such as the Medex program, at the University of Washington and Dartmouth, where ex-military corpsmen, Vietnam veterans, were trained to perform essentially the same duties.

James D. Bernstein, 28, has been in the Indian Health Service where he served as Administrator of the Santa Fe Indian Hospital and as Service Unit Director for health facilities which serve the Indian population of Northern New Mexico and Southern Colorado. He has developed a particular interest in the design, implementation and improvement of health care delivery systems for the rural poor largely as a result of this experience.

Before joining the Public Health Service, Jim was the administrative resident at the Mt. Sinai Hospital of Cleveland. The twelve month residency program was a requirement for the degree of Masters in Hospital Administration which he received in 1968 from the School of Public Health at the University of Michigan.

Jim spent two years as a high school teacher in the Peace Corps in Morocco after graduating from the Johns Hopkins University where he received a B. A. with a concentration in Political Economy and Sociology in 1964.

This fall Jim will be a research assistant at the Health Services Research Center at the University of North Carolina and a student in Epidemiology.

The Public Health Sevice published a booklet introducing its class of Global Community Health Fellows, devoting half a page to each. This is the entry for Jim Bernstein.

* The remarks at the Sheps memorial are published in James D. Bernstein, "Cecil Sheps Was My Mentor," in Donald L. Madison (editor), *Cecil G. Sheps Memorial Volume*. Chapel Hill: Cecil G. Sheps Center for Health Services Research, The University of North Carolina at Chapel Hill, 2005. All other quotes by Bernstein that appear in this article are taken from a long interview recorded by Nan Rideout in 2004 and transcribed by the author.

All of these "intermediate' level practitioners required some defined clinical protocols, plus telephone and occasional personal clinical support and backup by a reasonably nearby physician, and, of course, intensive training. And in the case of Walstonburg, Beddingfield, who believed strongly in the concept, but who himself had no personal experience with it, was interested in providing the necessary medical backup. He also knew something about small rural communities and how to approach them. Bernstein credited Beddingfield as the "real father" of the North Carolina Office of Rural Health largely because of his support and critical political interventions. But Jim already knew, or at least had the instincts that told him, much of what he would have to do.

Walstonburg became Jim's "field work," supervised by Cecil Sheps. I told Wilson my take on this experience, as I remembered it, and then asked him to respond: If you look up Greene County in the Atlas of North Carolina, the 1967 version published by the UNC Press, you would find, I told him, that it was not the poorest county in the state, although it did rank toward the lower end and it was one of eight counties in the state with a majority African American population. Jim was going down there all the time, probably not every other day, but it seemed like it. He had this plan of educating the population, and so he goes over to North Carolina State to the School of Design to find students who could create a sort of cartoon book that would explain the health center and what a nurse practitioner would do. He was just a bundle of energy and ideas (some of which I thought were just short of wacky). But how, I asked Wilson, do you explain all that?

"Well," he replied, "I think it was several things: One, Walstonburg was a clean slate; there's nothing there. So there's a chance to do something, and he got caught up in that. And then there was another kind of challenge, and that was to show the doubters—there were a couple of them in that general area, who quietly scoffed at this Jew from New York and what he was attempting to do; and he took that as a challenge. And so he started. And he was accepted. This was the beginning of his rare talent of sitting down with people, all kinds of people, and listening to them, and putting factions together. Now, not in the sense that he would always do what they wanted. He would bring in others to lead them away from some stupid mistake they were about to make. But Walstonburg is where he learned that. And he came back every week just full of himself, at what they, the community, could do. I told him it was crazy to take these design students to Walstonburg, but he didn't always listen to me. And then we had a long conversation about what could be done for those people, and I reminded him of my friend Henry Daniels' statement [Daniels was a career labor union executive with the health program of the United Mineworkers of America] that when you try and do something for people, you usually end up doing it *to* people. You've got to do it *with* them. And they've got to buy into it, and they've got to put up some money. So we had a long discussion about getting them to put up some money. I think I learned that with the Mineworkers clinics, in Canada [with the Steelworkers], and in Cleveland [in organizing the Community Health Foundation]. And Jim became an evangelist of that notion. And most importantly—this is another important trait of his—he never took the credit. And that's one reason that the Office of Rural Health under his leadership worked so well."

Did you go out to Walstonburg?

"Yes, a few times. And as you said, there wasn't anything there, except a few poor people, mostly black, who had a magical relationship with a guy named Bernstein. Remember, this was 1971 or 1972. It wasn't that far removed from the days of segregation."

I asked Glenn what he could tell me of the relationship between the blacks and whites on the board that had to be formed—or I guess it had already been formed when Jim got there?

"You know, I think that was the first Bernstein magic. Because at that time, there was Klan activity, at least there were Klan signs up and down that road, to my certain knowledge, because I was traveling through that area, including Greene County, frequently—I didn't have any business in Greene County, but I traveled through there to visit hospitals in the east, to learn the state (we were beginning the AHEC effort then), and I was mostly wandering around on my own, usually taking the long way to Wilmington. But the Walstonburg board members got along with great civility. I must have gone to maybe half a dozen meetings in that community.

"This was the same time," Wilson continued, "that a community hospital in the east and another in the piedmont wanted to see pictures of the medical students we were going to send them—for obvious reasons. And we refused. So it wasn't yet the era of enlightenment across the state. We finally told them that we weren't going to do business with them on those terms. We would send them qualified students, who might be female or black. But those meetings in Walstonburg were far more congenial than anything I saw in my work with the community hospitals. And I never asked Jim how he put it together. So I don't know. But that same pattern ensued in all of the rural health centers. Remember, though, you had not only black and white, but also rich and poor, who often don't speak to each other—in civil terms. How did he do it? I don't know, but he did. And as far as I'm concerned that's the reason the Office of Rural Health was such a smashing success."

Dr. Edgar Beddingfield

So Jim had Greene County, which was essentially a medical vacuum. He had a community board. He had Dr. Beddingfield to back up the nurse practitioner. But he didn't have a nurse. As Bernstein explained: "The idea for the program was that we would ask the boards in these communities to locate a nurse that they thought highly of. The kind of person they'd go to at night when people were sick. And then we would send that person to school, pay for them to go back to Chapel Hill or, later, to Greenville or Asheville. And they would then come back to the community where they lived and their family lived, and they then would stay there. They wouldn't leave. That was a really good concept. But in Walstonburg, it didn't turn out that way. So we had to search for somebody from the outside. And we finally found a nurse practitioner in Colorado. And she came here. Donna Shafer was her name. She did a really nice job. Donna was just a good one to be there—she was very unassuming, not aggressive. Which was what we needed at the time. So they just couldn't get mad at Donna. It worked very well."

Entrace to Walstonburg, NC

In fact, Donna, who later married an Englishman and moved to the United Kingdom, became a close personal friend of the Bernsteins, who named their youngest daughter after her.

I asked Torlen (Tork) Wade, who now directs the Office of Rural Health, how, in fact, the staff found the nurses who would be trained as practitioners in the early days.

"It was a combination," said Tork. "Some were hospital nurses, but most were nurses in doctors' offices. That made it a lot easier to sell the model because they would be backed up by that same doctor. Those were the ones who really worked well —taking a nurse out of the practice, sending her to Chapel Hill, and having her come back to work with that doctor. It was a very good model. But, it's funny; today it doesn't work nearly as well. You know, the level of education is much higher now. Most of them have master's degrees. But it's much harder to get them out into the community. And there isn't that confidence on the part of the doctors, because they haven't worked with them over a long time already. They're just hired. Maybe they're better trained, but having a local person be the provider was critical in the early days. Betty Queen in Black River was the first nurse practitioner there. Everybody knew her in the whole county. They loved her. They didn't really care if she was a nurse practitioner or even what that was; what they knew was that she could help them."

I knew that Glenn Wilson would remember how the Office of Rural Health came about.

"Well, it was Cecil. The committee of the legislature came to me, because we were preparing to reapply to the federal government for renewal of the AHEC support, and I said, 'How about making this statewide?' And they agreed to that (with state money). Meanwhile, Cecil had gone to Governor Holshouser and put this rural program in as part of the AHEC program. Chris [Fordham, then Dean of the UNC School of Medicine] and I went over there to see the Governor and told him, 'You really can't do that.' (Because medical schools don't do these kinds of things very well anyway, and we'll be seen as being in competition with the local doctors, and it will all blow up.) 'You need to set up something separate for this.' Holshouser said, 'But there isn't time.' And so at about 11:00 that night, it landed in the Governor's Office. And then the question, who would run it? It was very clear—that fellow from Walstonburg. It was settled that night, in my presence. And the Governor called Bernstein."

Jim's own account is not inconsistent with Wilson's, but it leaves out the organizational questions and the University's concern about combining it with AHEC.

"James Holshouser had just been elected Governor of North Carolina.… Cecil, in his unique fashion, calls up the Governor-elect to tell him that he has this terrific health program that is going to help solve the health access problems of rural North Carolina. He then asks the Governor-elect when he should come see him. Later, Cecil describes to the Governor his concept of a rural heath program built around community-operated health centers staffed by family nurse practitioners and physician assistants. When the Governor asks how he is supposed to make this happen, Cecil tells him that will be no problem—just leave it to him. Cecil then calls me into his office to tell me that he has figured out what I need to do next with my career. I am going to Raleigh to set up this new health program."

The program was announced publicly by the Governor and the Secretary of Human Resources, David Flaherty, who introduced the 30-year-old Bernstein at a news conference on Monday, June 19, 1973. Earlier the Legislature had appropriated $456,000 for the program—for the first five clinics. But the Governor's announced goal was to have 15 new clinics established within 26 months. Obviously, this goal anticipated further appropriations.

Soon after the announcement, Jim went to see Flaherty to negotiate his job. The conversation went well, although, as Jim said: "We didn't come to any resolution in his office, but it looked like we would come to some kind of understanding. And then he surprises me, and says, 'Oh, by the way, before you leave I want you to talk to this group.' Well, what he had done, when the notice had gone out from the Governor about the program, and it was in all the newspapers and on television, he had gotten all these letters of protest, most of them from physicians. And so they had invited all the people who had questions or who were mad to meet in this auditorium in one of the state buildings in Raleigh. I've forgotten which one. So he marches me on the

stage, and there must have been 150 or 200 people in that room—lots of Board of Medical Examiners people and all these types. And he gets up there and says: 'Now I've invited all you people here who have criticisms or questions about our program, and here's the guy who can answer all your questions, he's the new director of the program.' So I took question by question by question. And you know something? When you're younger, in a lot of ways it's easy. You think you know more than you know. And it was such a new kind of thing, they didn't know if I was wrong or right. So when I said there is evidence around that the doctor can be in a different spot than the nurse or nurse practitioner, seeing patients with protocols, and it's worked in other places—I'd seen it in New Mexico and other places, but they'd never had any experience with it. So it was difficult for them to tear it down. I went through question by question by question for about an hour and a half until everybody wore down and went home."

That opposition was one obstacle. A second one was getting a law passed that would permit nurse practitioners and physician assistants to practice in these clinics at the level for which they were trained to practice. Bernstein explained: "Dr. Beddingfield was doing this in Walstonburg without a law to back him up. So we had to get a law through, and that was the next big fight. And I was sort of the floor manager, since I was the only one there who knew much about it. So I was hooked up with key legislators that Senator Royal and some of the others had put together. And we had our battle. And if it weren't for people like Dr. Beddingfield we wouldn't have won that battle. He was key to the whole thing. Anyway, at the end, when the bill was going through, and I was watching from the top, looking down, some legislator, I won't say where he was from, made a motion to fire Jim Bernstein. And the Speaker of the House said he was out of order. Because the legislature doesn't have the authority to fire a named person. They have the authority to get rid of a job, but not a named person. So I survived."

Having escaped that episode of parliamentary chicanery, Bernstein had to organize a statewide program. It was one thing to work, as he had done day and night, on the Walstonburg project. But now he was committed to be a wholesaler.

In this story, there are three Jims—Bernstein, Holshouser, and, later, Hunt. The young Bernstein, just beginning his work in Raleigh, once told me about a phone call he'd received at home the night before. It came from Atlanta, as best I remember, but it could have been from someplace else where a national governors' conference was then being held. The conversation left Bernstein in mild shock, which lasted at least until the next day when he told me about it. From this phone call, he learned that he had made the big time. The dialogue began like this: "Hello." "Jim?" "Yes." "This is Jim." (silence—then): "Jim who?" "Jim Holshouser."

Glenn Wilson notes one crisis Jim's Office was about to face: "I should remind you that the office was up and running and Jim was scrambling around the state. I know that while Jim was scrambling around the state, it wasn't that long before we had a change in administration. And he and I had concluded that Jim Hunt would not continue that program on which his Republican opponent had campaigned. And Sarah Morrow, who was Secretary of Human Resources under new Governor Hunt, thought this was something the local health departments should be doing. And so Jim Bernstein went to see Jim Hunt. He was accompanied by Mrs. Warren of Prospect Hill, who was a friend of Jim Hunt's—I think Glenn Pickard may have called her. Anyway, she called Jim Hunt and got him to come up there and see the Prospect Hill Clinic. I think Jim Bernstein went with him. And he had some support in some communities, not a lot at that point because it was still getting off the ground, but some, enough so the Democratic Administration was persuaded that it was a good idea. What Governor Hunt saw at Walstonburg and Prospect Hill and Snow Camp and one or two other places was some real community support and, potentially, a powerful political force, and he wasn't about to put it in the health departments or do anything to Jim Bernstein."

Along with Governor Hunt, Dr. Morrow would also become one of the program's most ardent supporters.

But, Glenn added, "…as for the overall operation. At the beginning, I wouldn't have given you a nickel for the chances of that succeeding. High visibility programs like that, programs that are cooked up by administrations usually don't survive when there's a change, I don't think. But here was an exception to that rule."

Bernstein needed a staff. First to join was Terry Alford, an architect recently graduated from North Carolina State University. Terry was a North Carolina native who had helped on Walstonburg as a student. He stayed on Jim's staff for a couple of years before going out on his own, although he continued working on rural health clinics in North Carolina and all over the nation. The Office of Rural Health helped build new buildings, but renovations were generally less expensive, and Jim's principle that the local community be required to come up with part of the money (a small part—the state put up the majority share on a five-to-one match) suggested a need for economy. So most of the earliest buildings were renovations, and, as Tork Wade remembers, "Terry Alford would put those blue awnings on some otherwise ugly building and make it look spectacular." In fact, Terry quickly became famous among those of us who knew his work because of those blue awnings. They became his motif.

But Jim also needed field staff, people who would do essentially the same job he himself had done in Walstonburg—attend board meetings, decide what technical assistance was needed and find it, help procure a nurse to be trained as a practitioner, arrange for physician back-up, and any number of other tasks that went into organizing a community health center. These people had to be self-starters with a talent for community organization, but also have a practical working knowledge of primary healthcare—not the clinical skills, but a knowledge of the things clinicians needed to perform their craft and a feel for how the relations among clinicians and the other staff and between the staff and the board and the community of patients should work.

First, Bernstein found Fred Hege, who had been director of the local Office of Economic Opportunity (OEO) Community

Action Agency (the basic local building block for President Johnson's War on Poverty) for Vance, Warren, and Franklin Counties. The Community Action Agencies were then being slowly dismantled (along with most of the other parts of the War on Poverty) by the Nixon Administration, under the leadership of OEO Director Donald Rumsfeld and his special assistant Dick Cheney. From this job, Fred had acquired the requisite community organizing experience, but he was also a former Moravian minister—a "missionary" in a sense, who by nature was an organizer of people and their efforts. Fred also had experience in state government. Soon afterward, Jim found Tork Wade and Burnie Patterson. Like Jim, Tork had been a Peace Corps volunteer (in Malaysia and on the Island of Borneo). He was just completing his master's degree in public health at Chapel Hill and for his fieldwork, had assisted Jim with the Walstonburg Clinic. Burnie was a social worker from Dare County, who met Jim while he was organizing a clinic on Nags Head. Burnie had earned his master's degree in social work at UNC-Chapel Hill. At about this time (1973-1974), I was teaching, through the School of Public Health, a reading seminar on rural health services, which I continued for about five years. It met once a week for two hours, and the assignments were formidable, since I included nearly all of both the recent and historical literature on rural healthcare in America. Jim sent Terry, Tork, and Burnie to take the course.

Other members of Jim's staff, who joined a year or two later, included the third ex-Peace Corps member, Roger Hagler, who had been an original volunteer—one of the group that had been sent off by President Kennedy with a ceremony in the Rose Garden. Roger, in fact, had been Tork's supervisor in Malaysia. There was also a second "missionary"—Gail Kelly, an ex-Maryknoll nun in Bolivia and Ecuador, where she had been a "do everything" healthcare provider—the general practitioner for an entire community; and Nan Rideout, who came from the western part of North Carolina and whose background was in teaching and hotel management (with a master's degree in the former, a bachelor's in the latter, and work experience in both).

Fred Hege was considerably older than Jim and provided a complimentary set of skills and experience. Nan Rideout had this to say about them: "The synergy that worked with Fred and Jim was amazing. I remember saying to them, 'I wish I could think the way you guys do.' And Fred said, 'you forget, there's two of us working at it, not just one.' There were so many things to deal with in terms of politics in local communities, politics in the General Assembly, as well as moving ahead with our goals for developing health services, and then the medical society also. Fred, I remember as being invaluable in that way, while Jim was completely involved in moving these projects ahead. Fred was also very instrumental in training those of us who came in later. I think Fred's background as a pastor and his ability to deal with people, understand people, was also invaluable. He used it well, because none of us ever saw him as a preacher, but he had those skills, which he used very adroitly. With many of the early office staff, it was a push-pull relationship, because Fred was very demanding, but he was very instrumental in shaping the office and those of us who came in."

Other early staff members, included Joan Peacock, who stayed on as Jim's assistant until she retired, and Judy Howell, who remains on the staff.

"You know," Nan continued, "I think that one of the most significant things about Jim was his ability to hire people. Regardless of their backgrounds or anything else, he hired really good people, and he wasn't afraid to take a risk if he thought someone, at a gut level, was right for the Office. He, in fact, eschewed those people with a background that would seem to fit because he wanted to take a new approach. He didn't want people to come in with preconceived ideas."

So people with degrees in health services administration?

"That was a definite negative. You'd have to prove to him that you could think outside the box."

Although later on, he did take people with those backgrounds, from the UNC School of Public Health and a few from the policy school at Duke. Tork says that the Office had a steady stream from there for a time and that they still have a couple, but that "the bread and butter came out of the School of Public Health."

"In addition to Jim's hiring good people," Nan says, "he was able to instill in us a sense of mission. We were focused on what we were doing. We didn't think of ourselves as part of state government. Jim was wonderful in isolating the office and letting it develop and percolate on its own. He was a wonderful buffer. And I have examples of times he really stood up for us. You could count on him when the chips were really down. And he also kept us stimulated and gave us enough independence in those early days. All of the original core field staff stayed with him at least 20 years, until we retired. There was virtually no turnover. I think that he hired people who were devoted to the mission and not to achieving status. And while we may have had some desires for the responsibility of running an Office, the greater desire was to see if we could accomplish something and achieve change. And that's why those of us in the early days never thought about leaving. It was a little frustrating to him because of that, maybe."

You mean he wanted you to go?

"Well, we all had other opportunities, and when we'd talk to him about them, he'd say, 'Go.' But nowhere else could one envision having the combination of responsibility for achieving a product like a health center and seeing the effect on a community, and

I think we were much more motivated by that than by the status of running a program. Jim was self-confident, but I didn't feel that he had any vanity or arrogance at all. He respected people for what they offered. And once I looked around the office, and I said to myself, 'My God, do you see how many tall women Jim has here?' (And tall men, too.) But it's unusual to find a person of short stature who's entirely comfortable surrounding himself with people who are quite tall. But I don't think he thought about that for a minute. It never occurred to him."

Well, he married a tall wife.

"I guess that was a good sign."

But there were those who didn't stay. Jim set down a set of principles. And many of them concerned the work of the field staff:

He started by saying: "We weren't going to run anything.… They, the community, would be primarily responsible, and we would provide the pieces that they couldn't put together themselves, as well as the know-how to make it work. Nor were we going to push ourselves or come out from Raleigh saying, 'We've got this new idea for your community and this is what you should do: You should have a health center; you should have a nurse practitioner; it should be run by the community.…' We acted only where we had a request. We might get a call saying, 'We haven't had a doctor in a long time and we're interested in just talking to you.' Then we'd send a staff person out. So that was another principle: Don't tell the community what they need. If they don't want what we have, that's fine. The next thing was to be able to put together all the pieces that were needed to do the job. So if a community wanted to do it, we had the ability to make it happen. And the most important part of that was our field staff … the people who interfaced with community folks. Our philosophy was, we go to them. So our field people were on the road all the time, meeting at whatever hour the community group could get together, whether it was Sunday afternoon or Monday night. And most of those meetings were at night. So we were going to be an agency that went to the community; very rarely did a community person ever have to come to Raleigh. And the staff person had to be able to deliver the goods. So if the community group wanted to explore this idea and then develop it, the staff person had to put together all the pieces. If a building was needed the staff person had to have access to an architect, which is why we had our own architect—and our own media person to back up our staff people. It was important that the community didn't see the staff person as someone who had—we didn't have much—a little bit of money to sprinkle around, but rather as someone who could actually help them get healthcare in that community. So the field staff had to learn about erecting buildings, they had to learn about medical records, and most important, they had to learn to work with communities and had to have community organizational skills, which are something, I've come to conclude, that you can't teach very easily. They are somethings you either have or you don't have."

Bernstein continued: "People—potential staff—who came by mistake to this office (versus another office), who were looking for a cookie cutter kind of job, something they could do every day, didn't make it in our Office. It just didn't work. And in the beginning, it was really hard on those people who would say, 'What's my job? What do I do?' Well, you've got to get on your feet out there. But there's a lot of support from the staff back home; you know, myself and the other staff people would kick around with you about how you're going to deal with your problems in that particular community—because always there were problems. None of it was easy. But if you were looking for someone who used a workbook and went out to a community and said, 'This is how we're going to do step one,' just like that, it wasn't going to work. You had to be a person who could think on your feet and make decisions and move forward on your own. Most of the people who could adapt to that kind of style, who liked it, stayed for years. Others, who didn't fit, didn't last long. They just left. Because they were uncomfortable in that kind of a role."

During the first year, Tork Wade remembers, the field staff identified five communities to work on: East End, Bakersville, Bladenboro, Newton Grove, and Westfield. Tork described, in general terms, the method that the field staff followed: "We'd kind of have these steps we'd follow. It might start with a call that said our doctor is retiring. They didn't want a nurse practitioner, per se, they just wanted a doc. But we'd go out and meet with them—and we didn't really have a physician recruitment program yet at that point—so we'd tell them what we had, what the requirements were, and they might not be interested. So it was, 'Thank you, and who else can we call?' There were a number of those. But once there was interest, where they would say your program does look like it might fit our needs, then we would do a market study and compile all kinds of preliminary statistics—you know, to decide whether there would be enough demand to make it work. And once we went through that and decided there would be demand and that the market was OK, it generally went through. It might have taken a while, but I just can't think of any that failed after it went that far. There might be delays, for example, to get the physician support. I remember places where the docs would object to the program simply because it was from government. You know, that was usually the biggest barrier—getting the back-up physician lined up. But they would usually come around in time. You might have to move on to another doctor. But they would come around, finally. And there would often be pressure from the community for them to respond."

"We might say, 'Well, Dr. Pickard would be glad to come in and talk with you.' Physician-to-physician, you know, and that would often turn them. Glenn Pickard [internal medicine at Chapel Hill] was the primary one who did that. Terry Kane [family medicine at Duke] went out some. And Zell Hoole [internal medicine at Chapel Hill], I think, once or twice. And Rob Sullivan [internal medicine at Chapel Hill and then at Duke]. And Larry Cutchin [internal medicine and pediatrics at the Tarboro Clinic] did some, too. But the major share of it was Pickard. He would go anywhere we needed him to go. He connected so well with the docs, and he was from North Carolina. Plus, he was the pioneer on all of that—along with Betty Compton [family nurse practitioner at Prospect Hill]. And then

on the legal issues, Dave Warren [Duke Law] would go to assure them they weren't taking on a huge liability. We had wonderful support out of Chapel Hill. And then Jim had that connection with Beddingfield on Walstonburg. And that was huge. Because he was a big shot who all the docs respected. He was from the country, and a former president of the state medical society. And he was not an academic. But he carried a tremendous amount of weight. He didn't go around and speak, but he would pick up the telephone and talk at association meetings. But those were contributions without which the program wouldn't have gotten off the ground. A lot of that Jim pulled together. But some of those people came on their own initiative, because they believed in it. But Jim never had any problem asking, either. He knew it was important."

Over the 30-odd years of its existence under Jim Bernstein's direction, the Office of Rural Health established more than 80 health centers. But there were some additional programs where the Office did not take the lead, at least not initially (another agency—a foundation, the federal government, or perhaps another state agency—began the program or provided the initial funding and technical assistance), but the North Carolina Office of Rural Health usually either worked alongside or followed up later when there were problems. A good example

The Bernstein Family: Donna, Eric, Lori, Sue, and Jim

is the Hot Springs Health Program in Madison County, started by Linda Mashburn (nee Ocker), a nurse with experience throughout Appalachia and in India; and Jerry Plemmons, former head of the local rural electric cooperative, who did the initial community organizing; and with assistance from the Health Services Research Center at Chapel Hill and major funding from the Appalachian Regional Commission (ARC). After a modest beginning, some early success; several crises; three decades of growth and change; assistance along the way from the UNC School of Medicine, the Mountain AHEC, the Office of Rural Health, several foundations, and an influential local politician, the Hot Springs Health Program is now a countywide primary care program (in a county with no hospital) that has more than filled the gaps left when the aging private physicians in the county could not replace themselves as they retired or died. It may be unique in the nation in this respect or at least one of a very few.

In its early days, the program got off to a good start, but then got into trouble—political, administrative, clinical, and fiscal. Jerry Plemmons is now chair of the board. I asked him what Jim Bernstein's role in all this was.

"He was the fixer."

And, indeed, when the Hot Springs Health Program seemed on the verge of "going down the toilet" (Linda Mashburn's description), Jim sent Gail Kelly from the Office of Rural Health staff, who practically lived in Madison County for the better part of four months. Linda, who by this time was no longer the executive director, but was still employed by the program as a home health nurse, says that she talked with "all the board—over the phone and in person, behind the scenes, and then I called Jim and said, 'Help, help, help!' And Gail Kelly, when she came up to do her work, stayed at our house. She came on the heels of this airlift of medical personnel [from Chapel Hill, because the program was, by then, without a doctor], and it was obvious that we could not survive long doing that. The airlift was a short-term thing, and we needed a long-term plan, and so Gail was there to work that out."

Jerry Plemmons added, "She made many of the decisions that an executive director would have made. She served in that role without being in that role. She put together … a plan to include an expansion to Marshall and the development of a Marshall clinic.… A part of that, as I recall it, was that the five-year ARC funding cycle was due to expire. And the program could not sustain itself without some outside support."

Linda explained why: "Because it had too small a service area, and it was operating in the poorest area of the county. Also, the major thing that had changed by the time Gail was there was that one of the two elderly physicians in Marshall had completely retired, and the other one was only half time and was looking to retire within the year. When I started the program in Hot Springs, Marshall did have medical services, but by this time those services were gone or going."

"What happened," Jerry said, "was that the board and the community supported expansion of the program into the Marshall area, which was Gail's recommendation. There was already a clinic in Walnut, which is maybe eight miles from Marshall, and that clinic was to be moved in the direction of Marshall. It ended up being about half way between the two communities, which then expanded the program's service area to include Marshall. And then, of course, the docs in Mars Hill were still active and were still opposed to.…"

"But they were coming around a little bit," added Linda. "Because during the time I ran the home health agency for Hot Springs, and it was a county-wide home health agency, so I had many of the patients of the physicians in Mars Hill that I visited and had to deal with them for orders and such, and at least they saw some value in all of that. They were less hostile, let me put it that way."

Plemmons said, "That did do a lot to at least cool them down a little bit, but it certainly didn't change their attitude toward socialized medicine, which the Hot Springs Health Program was in their minds."

Did they use that term? I asked.

"Oh, my yes! Very definitely."

"Within a period of four months," Jerry said, "we were having an organizing meeting in Marshall—of community people. And it was at that kind of meeting that you [Linda] and I got elected to the board. When they changed the bylaws to include Marshall, then you and I went onto the board together; and we were on the fund-raising, planning committee for the new Marshall facility. The Office of Rural Health provided architectural services. Taylor Barnhill from Jim's staff—that was his entry into Madison County, and he did the architectural work. We had done a business plan, believe it or not, which said we could pay for the building in seven years. This would have been Gail's doing. None of us would have paid any attention to something like that."

"The next thing," added Linda, "was that I organized a door-to-door volunteer fund-raising campaign and got the volunteers to do it so that every single resident in the whole Marshall area was visited by a volunteer and told about the new facility and asked to pledge or donate to it. We raised about $25,000 that way, maybe a third or almost of the total cost."

Jerry remembers that the total renovation of the building, "…so that we could start the down payment of it and so on, was around $80,000. But what we learned early on from that fund-raising was … and we did that in order to have some match for some foundation monies. But we learned that by giving the community an opportunity to donate, they felt a greater sense of ownership and were more likely to use it if they felt it was theirs…. We maintained that philosophy throughout the years.

"But then Liston got us a state grant." Liston Ramsey was from Marshall and represented Madison County in the state legislature. He was, at the time, Chairman of the House Appropriations Committee and, later, for six years, Speaker of the House. He is a political legend, not only in his former district, but statewide.

I would be interested, I told Jerry (who is the consummate storyteller) in hearing how that happened.

"Well, one morning one of the fund-raising committee members ran into Liston down on the street in Marshall. And Liston said, 'I see where you fellas are trying to raise some money for a new clinic.' And he said 'yeah.' And Liston said, 'Well, do you'uns need a little state help?' And he said 'Well, yeah, I guess we could use a little state help, if the state has any money to give us.' And it just so happened that we were having a meeting of that committee that night—at my house. So he invited him to come, and he did come. We talked for maybe 45 minutes or an hour, just general conversation. And he thanked us. And we said, 'Well, do you need a proposal from us?' And he said, 'No, but them people in Raleigh, they like to see them articles of incorporation and bylaws. If you'll send that to me, that should be enough.' And we said, 'What do you think we might get from the state?' And he said, 'I really don't have any idea,' he said, 'Normally, them fellas don't cut me any more than half of my request.' He said, 'If I ask for 40, I might get 20.' So we were operating on the assumption that the state was going to kick in about $20,000. And the articles of incorporation and bylaws were sent to Raleigh. Didn't hear another word from Liston. Didn't see nothing in the paper about the Hot Springs Heath Program getting any money. The legislative session was over. Still nothing. And Liston's pattern then was that every Monday morning, he'd go by the post office at Marshall, pick up his mail, and go to Raleigh. Even when the Legislature wasn't in session, he would be in Raleigh most of the week. And one Monday morning one of the committee members ran into Liston, and he said, 'Well, I guess you fellas heard that we was able to get you fellas a little money.' He said, 'No, hadn't heard that.' Liston said, 'Well, we'll get you a check in a while.' He said, 'It takes the state a little while to write them things, but we'll get 'em to ye.' And so, the next Monday morning, I was in the post office at nine o'clock, when Liston came in for his mail. Liston said, 'Did you hear?' And I said, 'Yeah, Liston, I heard that you'd been successful, but didn't hear how much.' He said, 'Oh, I was pretty fortunate this time.' He said, 'I asked for $80,000 and got all of it.' And so with that our building was completely paid for. We had gotten so excited about that. And we had found out that when we switched from ARC funding to Public Health Service 330 monies, that we were then eligible for bricks and mortar from ARC, and we said, 'That's great. Let's see how we can use some of that money.' So, the original facility at Laurel was a 100-year-old farmhouse that had no insulation in the walls, and we had to put a radio in every exam room so the doctor could turn the radio up while he was interviewing his patient so that the confidential information didn't flow around and feed into the grapevine. And we decided that it was time to replace that facility. So we went to ARC and went to the community, and we got…. We opened the new Laurel facility and the new Hot Springs facility both in 1984. And not only did we get ARC money, but Liston, who by this time was Speaker of the House, helped too. He'd say, 'Well, a lot of people call it pork, and they's welcome to do that, but Madison County don't have any large state university or no large state employers or any state buildings, and if I can bring some state money back to help my people help themselves, then I'm proud to do it.' That was his line, and it was a good one. Because ours was a poor county, the poorest or second poorest in the western part of the state. And for many years it was the poorest in the Appalachian Regional Commission area."

"The new Hot Springs facility, which included a dental program, opened in '84, and then in '86 in Mars Hill, there was the community clinic staffed by three private physicians. There was also a solo practitioner across town. And by '86, one of the physicians in the clinic had moved to Florida to practice, another had died, and the third wanted to retire. And what ended up happening was—he wouldn't sell his facility directly to the Hot Springs Health Program…, so in '86 the Program bought the Mars Hill Medical Center through a convoluted deal with Mars Hill College. He'd given the facility to the College with the understanding that the College would sell it to us. And one of the significant things that happened was that MAHEC (Mountain Area Health Education Center) began graduating family physicians in '79, and we got a person out of their first graduating class—Chipper Jones."

That's before he went off to play baseball?

"Yeah. He only does that in the summer.* But recruiting physicians became easier. We can recruit physicians a hell of a lot easier than we can recruit dentists, that's for sure. And about as easy as we can recruit nurses. When we opened up the Mars Hill facility, that meant that we were the only primary care provider in the county. There were no private practice doctors. And that's still the case. I will say that the first two years we were in the Mars Hill facility, we did rent space to Dr. Whitson, who wasn't fully ready to retire. But that helped, because he retired gracefully, and he was not anti-Hot Springs Health Program."

Linda remembers the first time Jim Bernstein came to Hot Springs. "In the very early days, even before we got the grant from the Appalachian Regional Commission, this would have been in 1972, probably. You brought a whole planeload of folks out from Chapel Hill to Hot Springs, including Cecil Sheps, and I think Jim was on that trip. I know there was someone from Public Health Nursing along, too. This would have been in the first six or seven months I was there."

I remember that trip, I told her. The money from the ARC looked certain by then, and I wanted to see what kind of help might be available from Chapel Hill, which I had more or less assured the people at the ARC would be forthcoming. Jim would no doubt have been along because he was our "fellow" in rural health. So I took him with me everywhere I went—Wise and Clinton, Virginia; Harlan, Kentucky; Logan, Man, and Buffalo Creek, West Virginia, I remember. And to a conference in Davis, California, on rural health that I had helped organize for The Robert Wood Johnson Foundation. (Linda was at that conference, too.) And when I started the Rural Practice Project for The Robert Johnson Foundation—by this time Jim had begun the Office of Rural Health—I insisted that he be on the board. The Foundation officers objected because none of them had heard of him, but they gave in. I told them I needed someone local whom I could rely on for advice and feedback, and I trusted both Jim's experience and candor.

Jerry added to Linda's comment about Jim earliest visit to Hot Springs, speaking about that program's later years: "Every groundbreaking, every dedication, anything of that significance, Jim Bernstein was always there. You didn't have to beg Jim to come. He wanted to be there. He wanted to take part. And he was very generous in his comments at those events. I don't have a lot of stories about Jim that I could tell, other than to say that. But in later years I became amazed thinking back over those times…. I became chair of the Hot Springs Health Program, I think in '79. In those early years, I had gotten to know Jim, but not too well. But I felt comfortable in calling him anytime there was a question or an issue. No matter how elementary or simple it was. Jim would take all the time in the world to talk me through it and give me advice, and if someone else should be involved, he made sure that they were involved too, and were well informed. And I must admit, before I got involved in some other things, that I thought Jim had a really plush job, that all he did was sit down there in Raleigh and wait for me to call him. Because if I called, and he was on the other line or out of town or in a meeting, it didn't matter what, within 30 minutes to an hour, I could expect Jim to return the call. And later on I realized, of course, that he had a fantastic ability to keep a lot of balls in the air at one time. I'm glad I didn't know all of the things Jim was involved in because I wouldn't have called him. And I would have been the lesser for it. But he never made me think that I was taking his time or that he had other things to do. I'm sure that many times he had to rearrange his schedule to come up for our groundbreakings and dedications and things of that nature. But I never knew that. He never indicated that."

Another example, perhaps the best one, of joint programming was with the North Carolina Medical Society Foundation and its first Director, Harvey Estes, who took that position upon his retirement from the Duke University medical faculty in 1989. As Harvey remembers, "I was sitting there with four and a half million bucks in the bank from Kate B. Reynolds and with a mandate to do precisely what Jim had been mandated to do all along. And as I sat around thinking of my task, it became plain as the nose on your face that it made no sense to compete with a program that is already out there and successful. Well, we began to have weekly meetings at the Office of Rural Health, which became, I think, the most productive piece of my program and maybe of Jim's as well, because we began to sit around and think of what we could do together, me with my pot of money, he with his pot of money, to jointly tackle problems that neither of us could solve by ourselves."

Because of the limitations of the two pots?

"Yes, but mainly his. Ours had few limitations. We could spend it for most anything we wished. So we put together an advisory committee, which was a widely divergent group of practitioners and policy makers. It was a good group. And Jim, of course, already had lots of advisors, with the state and the University and the Sheps Center [previously referred to as the UNC Health Services Research Center], that he called on regularly. So we began to work together—not just occasionally, but every day, there would be something that the two of us talked about, a circumstance, some problem, something. And in our working relationship, we quickly became integral to each other.

"But I will say that I have never seen an office of any type that ran with more noses to the grindstone that they're supposed to be getting polished with than Jim's. Everybody on that staff was attuned to what they were doing, not to who's in charge, or the money. The money was important, but that was Jim's job. Their job was to go to Jim and say, 'Jim, I've got to have so many more thousand dollars because we've got to have it to do this thing that needs doing.' And then Jim would scratch his head

* For the uninitiated and those who will find this reference confusing, Dr. Chipper Jones, who must have heard and responded to this joking reference hundreds of times (and for which I apologize for my inability to resist repeating it yet again) does not play baseball for the Atlanta Braves.

and worry about where that money was going to come from, whether it came out of this pot or that pot. He knew his sources and he knew—he had this Foundation by then, and he could operate that mechanism. But he played all those things like a well-tuned orchestra. And our piece of money became another major instrument in the orchestra. And that was fine, because what we were really doing was for Bertie County or Hoke County and not for Jim or his Foundation or ours or anybody else. And never once was I under the impression that we were being courted for being a funding source.

"Jim was the most unselfish program leader I have ever worked with. There was nothing that interfered with his interest in the result at the other end. And he believed, vehemently, and he taught me, that you'd never get it to work unless those people are involved in what happens to their own community. And that gets to the fund raising. The amount may be inconsequential in terms of the total that is required, but it is very consequential in terms of getting the loyalty and involvement of people. They have to be involved. And he knew people. This was the thing that was most impressive to me. Here is this guy who sits in Raleigh, and you talk about some county—X County—and he would say, 'Let's go talk to (this guy) because he knows everybody in that county; and he can tell us what the political structure is and who you've got to get involved in order to make it fly.' And we would go to the strangest places. I remember once we flew down to Hatteras Island and landed on the island to talk to one of his old buddies…."

Not the lighthouse keeper?

"No, but it was an amazing experience. And we would go to Troy to meet with one of his old buddies. And we'd talk about his problem over dinner or after dinner. We'd have a cup of coffee, and then we'd drive back to Chapel Hill. Or I would go out with one of his seasoned crew. These were people who lived in the Raleigh area and had as their responsibility a covey of community boards. And they were responsible for the relationship between the Office of Rural Health and that community board. And they would go to the community board meetings, that were always at night. They would travel huge distances and spend the night and go to a board meeting, and meet with the staff, and then they would come home. And we would go with them on these trips, and we would do our business, jointly. Jim would go with us to these meetings. He knew all of these people, and he would meet others. When we came back, Jim's architect would draw up the preliminary drawings. It was a very wonderful and productive relationship, and a happy one. I just had all the admiration in the world for him and his crew and what they were doing. There was not a mean bone in his body, not a bit of selfishness. He just gave all of his effort and time. How his family put up with it I don't know."

So you had a first hand look at the problems of rural medical practice, rural hospitals, that whole scene, I told Harvey. I call it a "first hand look" to contrast it with the kind of look you'd had as an academic leader at Duke—just as important, surely, but different. Plus, you chaired a panel of the National Institute of Medicine on the topic of primary care. But counting all those academic activities, as well as your work with the Foundation and with Jim's Office, you've spent a long time looking at this whole body of problems, enough so that I can ask you as a real expert this question: How have those problems changed? Which ones have been solved or have disappeared?

"I don't think we have solved any of them."

But some have become less important, perhaps?

"Well, they've changed their order of magnitude, but they are still there. We have shifted from one set of problems to another. Manpower is still a major problem, but different than it used to be. Let me refer back to Ed Beddingfield, who quickly immersed himself in a very busy practice in Stantonsburg, doing a lot of OB (obstetrics), doing a lot a primary care, and living upstairs over his clinic. Well, the demand quickly ran away with him. And back then when the practice would overrun a doctor, that doctor would look for a partner, and they would split the work 50/50. I'm on call; you're on call. But that only works if your expectation is that I will work every day, and I will work every other night. Today's crowd is quite different from that. Half of those who aspire to go into primary care are women, or men with young kids, and to them that's not the way it is. You really aspire to work eight hours and to be off 18, or at least 12. Well, primary care does not lend itself to that kind of day for its practitioners. So today it's not the same as it was when Ed Beddingfield was in Stantonsburg, but in some ways it is the same, and we are having difficulty recruiting young men and women into it, because of the demands of the practice and the fact that the practice has to be thought about 24 hours a day. Somebody's got to worry about it. Because people call on the practice 24 hours a day. But the young doctor doesn't want to do that, so you've got to set up some administrative mechanism, some organizational entity, that will take that load, and then you've got to get the clinical load divvied up in eight-hour shifts. So in a way the problem is more complex now, because the demands on the practitioner—or on the practice—are more complex. The practitioner now doesn't have anything to do with business. That's somebody else's job. If the practitioner was handling it all, it would be intolerably complex now. Because he would worry about the business, the schedules, the new partners, who's working where, what the equipment is in that place. If the practitioner were to embrace all that into his activity, he couldn't do it. So we must learn how to do that. Our large medical centers are failing miserably. Because they don't know how to do it.

President Clinton hears about the problems confronting rural hospitals. To Bernstein's left is Montgomery County Hospital Administrator Kerry Hensley.

"Now Jim knew that. His passing is a tremendous loss because people trusted Jim, that he knew what he was talking about. Jim understood the problems I'm relating. But very few others do. Deans think they know. They may think they've got a good primary care service, because it takes care of the poor in their community. But does it take care of the well-to-do in the community? Let's ask that question. Because it doesn't take care of them either; it doesn't answer their basic question, which is 'Who am I going to go to at 12 o'clock at night?' And that's their basic responsibility if they take over primary care.

"Jim did not necessarily come across as a person with great strength. Meeting him the first time, you wouldn't figure that Jim had fiber that was not visible. His staff knew it. And his staff knew that you didn't rile Jim. You got Jim mad and you caught hell. He would lay in to people, read them the riot act. They all understood that it was not a pleasant experience. I never saw it, but they told me. See, I would get in the car with one of his senior staff people, and we would go to some community for two days, drive there and back in the car, and during that time, a lot of things would come up. Or you're there eating dinner and having a beer after dinner, so things come up."

You were one of his senior staff in a sense.

"Exactly."

Going out and doing the legwork?

"Not that Jim was unwilling to go, and he did go if he was needed."

Besides directing the Office of Rural Health, Jim became President of the Foundation for Alternative Health Programs in 1982. It was a non-profit, non-governmental body that could accept grants from private foundations, and its first task was to bring health maintenance organizations and other managed care schemes to North Carolina. In the late 1970s and early 1980s, the overriding concern in North Carolina and around the country was control of healthcare costs, and HMOs were seen as an effective solution. The Foundation was successful in bringing in the Kaiser Health Plan, although after 15 years Kaiser folded it's North Carolina tent and left the state. Later on, the Foundation changed its name to the Foundation for Advanced Health Programs. "Alternative" had, in the interim, taken on an entirely different meaning in terms of healthcare; but the program of the Foundation had also morphed over the years from a focus on managed care programs toward more general issues in medical care. Two of the Foundation's board members are Jerry Plemmons and Don Patterson. I asked Jerry, who has been on the board since sometime in the late 1980s, what the business at hand was when he became a member.

"Access, I think, and Medicaid. But the interesting thing about those meetings was seeing how Jim's mind got around whatever issue came up and thinking about it differently. It was always interesting for me to watch and listen to him, because he was not one to be put off by barriers. He would always see them as a challenge and an opportunity to figure out a different way."

Well, then, I asked him, what was the nature of the interaction between Jim and the board in those meetings? Was he using the board to learn or was he trying to convince the board.

"I think it was an equal kind of thing. It was an open brainstorming time, when an issue would be thrown out and anybody who had any thoughts or ideas or had seen anything similar or had run into anything that might be a problem with it, they would share that, and Jim would absorb it, of course, and then come back at the next meeting and say, 'Now here's what I've done.'

"I remember another thing that Jim got me into in 1993. The Clinton Administration was having a national conference in Little Rock on the Clinton health plan. And the Jackson Hole Group was there. And each state had two representatives. This was focused on rural healthcare. Dr. [Tom] Ricketts from Chapel Hill was there, too."

Jerry, you and Linda seem to agree from your own observations of the Hot Springs Health Program and its history that five years is about the time for a program administrator before burn-out sets in. But I want to remind you that Jim Bernstein was in that position for 30 years. And you, Jerry, made the point about how often he returned your phone calls in 30 or 45 minutes and was at every groundbreaking and so on. I guess my question for you is how do you explain that he didn't burn-out in five or even 15 years?

"I think he was a missionary," said Plemmons. "I think he realized that this was his calling. That's the only way I can explain it. Also, he had developed a heck of a support network. I mean, he knew people everywhere doing everything. And he wasn't at all shy about calling on them. Also, I think that Jim's survival under so many administrations speaks to his professionalism."

Don Patterson, a retired IBM executive and another member of the Foundation board, met Jim after IBM "loaned" him for a year to work for Governor Hunt. During this time he managed personnel administration, which included benefits, and other matters. It was also during Don's year in state government that the legislature started the Foundation, which at the beginning had a board that was appointed by various office-holders, including the Governor. And Governor Hunt appointed Don Patterson to the Foundation board in 1983. Patterson was also a neighbor of the Bernsteins in Chapel Hill, so their relationship became social and personal as well as professional.

"You know," said Patterson, "Jim didn't say a whole lot in those meetings, but when he said something, it was kind of like that old ad you'd see on TV for that stockbroker: When so-and-so spoke, everybody listened. E.F. Hutton, wasn't it? And that's the way Jim was. When he spoke, you knew that what he was saying was the way it would come out; that's what would happen. He didn't want to take a lot of chances. He wanted to make sure that everything was honestly done, and that's why I say he was one of the most ethical persons I ever knew. He did not want to have to report back to one of the foundations that we blew some of their money. It's just marvelous what he's done for this state when you stop and think about it. And not only this state. You go around the country to some of the rural areas … and see how they've patterned themselves after what Jim started here. We'd go to meetings. I remember one time we were down in Boca Raton … the meeting was about rural health, and they knew I was from North Carolina, and I bet you that nearly

everybody said, 'Well, do you know Jim Bernstein?' 'Yes, he's here with us, at this meeting.' 'Oh, I've got to meet him,' they'd say. 'I've never seen so much that he's had a part in starting up.' And I'd say, 'Well come on, I'll introduce you.' You'd think they were meeting the President of the United States or something. That's just the kind of guy he was. He wanted to do everything right. He was willing to take chances, but he wasn't the kind of person who would take risks. He wanted to be sure it was right. It was, 'I don't know if this is going to work, and if it doesn't work we've wasted a lot of money that really isn't ours.' You know, we're up to almost $5 million in our budget now. That's what we distribute out through the state programs now, working with Tork Wade and the Office of Rural Health.

"When I think about Jim, the more I worked with him and saw what he was doing, he just had a knack for picking good people. Really good people. He wasn't a very formal guy. You know, he didn't know a lot about their resume or anything, but he could work with them for a little bit and know that they were going to be a good person and a good worker. He has surrounded himself with a lot of good people. Tork Wade is a good example, and Burnie Patterson. A bunch of those folks, are just good people. And another thing: Jim had no ego. As much as he'd done for this state, he could probably have developed an ego, but he just didn't. He'd say, 'It's part of the job. This is what they hired me to do.' And you never heard him brag about anything. But when you looked carefully at what had been done, you saw that he was the leader, he was the catalyst. But it was never an ego thing. That's what I admired about him."

Tork Wade also reflected on the Bernstein style: "As we got bigger Jim became more Raleigh-based, and it changed the amount that he was engaged with the rest of us on a day-to-day basis. And he delegated to either Burnie or myself a lot of the key operations. He'd do his own thing. He'd take a special interest in hospitals or something like that. And while he was doing hospitals, we were doing health centers. I had a special relationship with Jim, personal, too; it wasn't just work; and Burnie did, as well. So during all that time, we'd have a regular interaction every day during the day. And even at the end, after Jim left here to become Assistant Secretary, he and I talked several times every day. And we got together every day. I think that just the way we had worked for 30 years continued. It was fun. He was so engaging, and full of ideas, and enthusiasm, and laughter. It got so that I knew what he was going to say even before he said it. And the same with me. I didn't have to ask Jim how should we start, because I knew what he would say."

Nan Rideout says, "Jim was the one person we always thought would be there. Part of the esprit in the staff was the feeling of family that he was responsible for. We could always count on him being there for our personal problems and our family problems. And as a result, we thought he always would be there. He was always sensitive to his friends and needs of people in his sphere, but he was equally sensitive in terms of values to the disadvantaged. That was his primary focus, and that communicated a lot.

"Jim would talk with all of us on the staff, but in different ways. Once he told me, 'Burnie is the only one I can tell what I really think.' I think he also valued Tork a lot, because he was always steady, calm. And the women, Gail and I, were the ones who argued with him. He didn't like it, but we knew him and loved him and trusted him enough so that we could get away with it. It was successful so we kept doing it. But we always felt tremendous loyalty to him."

What about office intrigue? I asked Tork. As the staff grew, there must have been some tension.

"You know, we were so busy we didn't have time for any office intrigue, worrying about who was getting ahead of the next person. There were a few people who didn't fit in well. If you were someone who needed a lot of direction, you were up the creek. If you were young and you tagged along with someone that would be fine. But if you came in and were expected to carry your own weight and yet expected to get a lot of feedback … Jim wasn't a person who gave feedback very readily. You'd know if he was mad. But if you were doing a great job you'd hear that from someone else. It would be rare for Jim to say anything. And if he did, it was usually because he had another motive. The people that needed a pat on the back would be unhappy."

I asked Glenn Wilson why he thought Jim took the job as Assistant Secretary.

"Well, he thought for several weeks that he wanted to be Secretary. And we talked about that. I called Bill Friday to intervene on his behalf. The interview, according to Jim, went poorly. He answered all the questions directly. He came back and said, 'I blew it.' And he quickly realized that he didn't want the job."

Well, I don't see Jim as a politician, and when you get that high, you're a politician.

"No, and that's what he understood from the interview."

Why do you think he wanted to be Secretary?

"He wanted to fix things. Now Jim's naiveté was part of his charm."

He did, however, become Assistant Secretary.

"The reason Jim took that job, I think," said Tork Wade "is that Carmen [Hooker Odom] is very, very persuasive, and Jim liked Carmen. She convinced Jim to take the job. While Jim loved working with Carmen, assuming responsibility for large chunks of the health bureaucracy wasn't a great fit for what Jim did best. What Jim liked best and what he did better than anyone else I've known, was working with community and health leaders designing and implementing innovative solutions to difficult health issues. As Assistant Secretary for Health, too much of his time was spent dealing with the demands of a large bureaucracy. I think that was one reason that he elected to retire when he did."

But Carmen has had a hard time, with the budget cuts and all.

"And it was good that she was Secretary during that time because she has no problem making hard decisions."

When she had to make cuts, do you think she cut the right things?

"That's where Jim was particularly helpful. Because of the breadth of his knowledge about so many programs, he could

help her make the best decisions. I have a lot of respect for the job she did during very difficult times."

Was Jim working harder in that job than when he was here?

"No … Jim always worked hard. But he didn't have the passion. He was doing stuff that we were doing out of here—like Medicaid. He still kept his finger in that, and that was fun. But a lot of it wasn't. You know, maybe I need help getting this job through personnel, that kind of stuff. And he'd help Leah Devlin, or he'd help me and other groups. And then he'd have to go give speeches for Carmen. So he'd have to go talk to a group that he had no idea about and had no interest in. He didn't have any problem relating to them because he could always relate to anyone, but it was something that was painful. I was happy when he retired. Happy for him."

After he retired, when did you notice that he was sick?

"Even before he retired he was complaining of stomach problems. And trouble swallowing."

So he never really had a retirement that was a peaceful one?

"I think he felt alright in the fall, but that was really the last time."

"We're going to miss him," says Don Patterson. "He's done so many things, and I hope we can keep his name on the forefront for a long time. We need to help people remember who he was, because I don't want anybody to forget about him. He was too super a person—a great asset to this state—and a great friend, to tell the truth."

You put your finger on something right then, Don. Because in addition to what Jim did in his work and how he worked and chose his staff and the other things you've been talking about, one of his outstanding attributes was as a friend. And we mustn't say that lightly. He would be as concerned about your personal life. And it wasn't like a good boss asking, "How's your family?" It went way beyond that. I've never, ever seen anything like it.

"Well, that's right. My first wife died in '79. She had a brain tumor. And then my present wife had ovarian cancer in '98. And Jim called me about every other day, wanted to know how things were going. Said, "What can I do for you?" I mean he was very concerned all the time. That's just the kind of person he was, concerned for other people, never put himself ahead of anybody. He was a true friend, the kind you needed. And he's raised a beautiful family. Those kids are super kids. And when he decided, look, I'm going to die and there is nothing they can do for me—I think his mother went through a lot with cancer. Anyway, I asked him, 'Jim, are you going to do any more treatment?' And he said, 'No, the kids are going to come home every other weekend to see me.' Because he would rather have a good quality of life with them. And except for his physical limitations because of his disease, I'd say he had a pretty good quality of life up until the day he died, almost.

"And at our board meetings I sometimes catch myself saying 'Now wait a minute, how would Jim solve this one.' Because I had so much respect for his ability to lead the Foundation and do the right things, and I feel obligated to keep doing it the way he would do it. That's out of respect for him and our friendship." **NCMedJ**

Acknowledgements: I am indebted to a number of people who helped me prepare this article: Sue Bernstein, Harvey Estes, Judy Howell, Linda Mashburn, Don Patterson, Jerry Plemmons, Amber Raynor, Nan Rideout, Tork Wade, and Glenn Wilson.

State and Local Partnerships for Meeting the Healthcare Needs of Small and Often Remote Rural Communities

Thomas C. Ricketts III, MPH, PhD

American healthcare has been described as a "non-system," but there have been persistent efforts to coordinate and rationalize how we provide medical care in the United States. These efforts have resulted in what may be called informal systems of care. A perfect example of one of those systems is in North Carolina, a system created for the people of the state's smaller and poorer communities, communities that are most often rural and more often inhabited by racial and ethnic minority citizens.

Almost all of North Carolina could have been called rural at the end of World War II. The 1940 Census classified 72.7% of the state's population as rural or living in communities with fewer than 2,500 residents. A few cities—Charlotte, Durham, Greensboro, Asheville, Raleigh—had modestly large populations, but no city in the state had a population greater than 110,000. The state's economy was strongly linked to agriculture, and the prevailing perception of North Carolina was of a sleepy, rural, somewhat backward state.

World War II created an economic stimulus for the state when military installations were located in North Carolina—shipyards were established in Wilmington to build liberty ships, and facilities were developed to house prisoners of war in the central and the mountain regions of the state. But the war left another legacy beyond economic benefit: the state had experienced the highest medical rejection rate for its draftees of any state in the Union. The causes for rejection were usually chronic problems related to nutrition and poor or unavailable basic medical care and health advice. This embarrassing fact is often cited as the driver of the statewide "Good Health Campaign" promoted in 1949 by prominent North Carolinians, including Kay Kyser, who recruited radio personalities and Hollywood stars to help raise money and direct attention to the healthcare needs of the state. That public effort had a significant impact, but it built on prior efforts to expand health resources. For years, politicians had been debating whether to assist one or both of the private medical schools in the state (Duke University and Bowman Gray) or whether to create a large medical center by expanding the two-year medical school at the state university in Chapel Hill. Governor Melville Broughton appointed a Medical Care Commission in 1944 to study the health and medical needs of the state. That commission recommended the creation of a new, state-supported, four-year medical school in Chapel Hill that would share space with the existing School of Public Health and occupy space adjacent to a new, comprehensive teaching hospital. After years of consideration, the General Assembly supplied construction funds that were combined with money from the Hospital Planning and Construction Act of 1947, the Hill-Burton Act, to build Memorial Hospital in Chapel Hill and to create the teaching hospital. The Hill-Burton program also supported the construction of many North Carolina hospitals and public health facilities in rural communities.

As late as the 1950s, healthcare services in rural North Carolina were considered inadequate. An unflattering review of the quality of general practice in the state was published in the *Journal of Medical Education* in 1956.[1] However, there were examples of excellent medical care in some communities and effective public health structures had long existed in others. The nation's first local health department was established in Guilford County in 1911. Robeson County set up the first professionally managed rural health department in 1912 when county commissioners appointed a full-time county health director charged with the task of creating an administrative unit of county government to ensure the health of the county's citizens. The state's growing appropriations to the state Board of Health soon allowed other counties to organize their own essentially independent public health units.

Walter Hines Page and the Country Life Commission, a national organization committed to "uplift rural folk," helped to bring the problem of hookworm disease in North Carolina and the rural south to the attention of the Rockefeller Sanitary Commission for the Eradication of Hookworm Disease, which in

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1909, began taking steps to eliminate this debilitating infection as one step toward improving the economy of the south. Because state officials considered the direct involvement of the Rockefeller group to be too intrusive on a population distrustful of wealthy northerners, the state Board of Health set up a cooperative Bureau for Hookworm Control to sponsor the campaign in North Carolina. The combined efforts eliminated the hookworm scourge and, in the process, created a lasting focus on public health at the county level. Rutherford County physician, Dr. Benjamin Washburn, who had worked in Wilson County during the hookworm campaign, began forming additional county departments modeled on the Wilson experiment.

A Division of Public Health in the two-year University of North Carolina (UNC) Medical School was created in 1936 with funds from Title VI of the Social Security Act. That Division, under the leadership of Milton Rosenau, continued the tradition of community-based programs and projects, and that orientation became part of the tradition of the independent school of public health that emerged in 1940. This commitment set the tone for the next generation of public health and rural health leaders, both academic- and practice-based, who assumed their positions in the 1940s, 1950s, and 1960s and who viewed the role and mission of state institutions as one of service outside their walls.

Milton Rosenau died unexpectedly in April 1946, soon after being elected President of the American Public Health Association. The University's President Frank Porter Graham, who was largely responsible for the service orientation of the University, followed the recommendation of the School of Public Health's acting directors and named Edward McGavran to become the new dean in April 1947. McGavran—a graduate of Harvard Medical School, a former county health director, director of a Kellogg Foundation public health training program, and a professor of Preventive Medicine at the University of Kansas—firmly fit the mold of the "outsiders" who came to North Carolina to encourage creativity in healthcare delivery and public health.

An addition to the School of Public Health faculty ensured a focus on rural and community-based health services in the state. In 1947, Cecil G. Sheps joined the faculty as an associate professor of public health administration. Sheps, a native of Winnipeg, Canada, and his wife Mindel, a professor of biostatistics, had been involved in the development of the Saskatchewan health insurance system that became the model for the universal, province-based system of healthcare financing in Canada. In a 1953 report to the Medical Society of North Carolina, Sheps maintained that a key ingredient in solving the state's healthcare delivery problems rested on "the development of a program of an extension of services from the University Health System to the state at large … in concert with other similar institutions of the state so far as medical and nursing schools are concerned." That commitment was later to result in discussions that created the Area Health Education Centers (AHEC) concept.

Building AHEC: Bringing Clinical Training to the Community

In 1965, Dr. Reece Berryhill, former dean of the UNC School of Medicine, became director of the new Division of Education and Research in Community Medical Care, created jointly by the UNC Schools of Medicine and Public Health to work in local communities that were forming working relationships with private practitioners. Dr. Berryhill was succeeded in 1967 by Robert Smith, MD, a general practice physician formerly of Guys Hospital in London. In 1967, the Division began an affiliation with Moses Cone Hospital in Greensboro, with financial support from Moses Cone Hospital, to give physicians from UNC-Chapel Hill another local practice option as part of their training in internal medicine and pediatrics. Later, through the Health Councils of Eastern Appalachia, the Division received a grant from the North Carolina Regional Medical Program in 1968 to support additional community-based training and to send clinical specialists to smaller hospitals for teaching and consultation assistance. In 1969, Glenn Wilson, the Vice President of Kaiser Cleveland Health Foundation, was recruited to UNC-Chapel Hill as Associate Dean for Community Health Sciences and as the new Director of the Division of Education and Research in Community Medical Care.

The North Carolina General Assembly appropriated $395,000 for a community-based training program for physicians at UNC in 1969 and again in 1971. These funds were used to support fourth-year medical school clerkships in affiliated community hospitals in Wilmington, Charlotte, Raleigh, Rocky Mount, and Tarboro.

The Carnegie Commission on Higher Education, with University of North Carolina President William Friday as a member, issued its report *Higher Education and the Nation's Health* in 1970. This report called for medical schools to devote more of their clinical training time to community settings using a new kind of entity, the Area Health Education Center. The United States Congress responded by authorizing the development of a limited number of community-based health professional educational partnerships under the Comprehensive Health Manpower Training Act of 1971 (P.L. 92-157). That legislation, which surprisingly did not include the term "Area Health Education Center," but used this term only in the conference report that followed enactment, made available federal funds for demonstration projects that would link academic health centers and community-based hospitals in networks focused on the training of multiple health professions as well as the stimulation of professional continuing education of those already in practice. As this new legislation was enacted, Glenn Wilson at the UNC School of Medicine assembled an interdisciplinary team to begin aggressive efforts to work out affiliation agreements with several additional hospitals and medical centers throughout the state for the purpose of applying to be designated as one of the first federally funded Area Health Education Centers Programs. The initial grant to the UNC School of Medicine to develop the AHEC Program in North Carolina was more than $8 million. The North Carolina AHEC Program

would eventually involve collaborative relationships with the four schools of medicine (UNC-Chapel Hill, Duke University, Bowman Gray School of Medicine of Wake Forest University,* and East Carolina University's Brody School of Medicine).

A key element of the AHEC structure was the creation of regional centers that were closer to rural communities throughout the state. There was one completely rural AHEC, termed "Area L AHEC" after the multipurpose regional planning designation for the counties surrounding Rocky Mount and Tarboro. The decision to encourage distributed medical education recognized the state's demographics and gave the medical schools incentives to work with essentially rural hospitals. That initial AHEC focus on rural communities set a pattern for later development and orientation and closely followed the traditions of the University and the state's politics.

For the 1974/1976 biennium, the North Carolina General Assembly appropriated $23,500,000 for capital costs to build regional AHEC centers, $4,548,720 for operating expenses, $1,125,000 for residency grants, and $250,000 for Community Practitioner Stipends. The General Assembly also set targets for training in the AHECs, committing the program to develop 300 new primary care residency positions by 1980. Simultaneous with the establishment of the AHEC program, the state also began funding family medicine training programs. UNC established its Family Medicine Department in 1969 with Dr. Robert Smith as its first chairman, and the Bowman Gray School of Medicine in Winston-Salem opened its department in 1974. Duke University Medical Center added a division of family practice to its Department of Community Medicine in 1972. The General Assembly has continued its support of these programs with direct appropriations and capitated student and resident support.

By 1975, the federal AHEC program had funded programs in 11 states, including North Carolina, where the concept had already received legislative, professional, and public acceptance. There is general consensus that the North Carolina Area Health Education Centers Program was, at its inception, and remains today, the model for the nation, and that is due to the willingness of many partners to cooperate in its development and operations.

North Carolina's Health Services Research Center

Another key element of the rural policy structure fell into place with the founding of the Health Services Research Center at the University of North Carolina at Chapel Hill in 1968. The goal of the proposed center was to help develop more effective ways to "deliver personal health services in community settings" by exploring "new roles for professionals" and productive means to change organizational features of healthcare practice.[2] The Health Services Research Center fit snugly into the rural health policy network because the community-based system it intended to examine was largely devoted to increasing access for rural residents. As sites for its study of experimental comprehensive health centers, the Research Center selected the rural parts of Orange County and all of Caswell County, a 100% rural county. These areas formed the service area for a United States Office of Economic Opportunity (OEO) Neighborhood Health Center that used nurse practitioners. The Research Center soon worked out cooperative research and technical assistance agreements with other clinics being established in Walstonburg, Tarboro, and Hot Springs—all of which were located in very rural sites in the eastern and western parts of the state.

In 1970, three young United States Public Health Service (USPHS) officers (James Bernstein, Ted Parrish, and Michael Samuels) were selected as fellows in the USPHS Program in Global Community Health and were given the opportunity to enroll in graduate programs in the UNC School of Public Health. Each of these young Public Health Service scholars focused their work on problems related to rural primary care and the supply of rural healthcare professionals. All three men were full-time employees of the United States Public Health Service. All three men meshed well with the activities accompanying the development of the Health Services Research Center, with Samuels concentrating on problems of professional recruitment, Parrish on community-based health education, and Bernstein on the appropriate community structure for viable rural health services. Samuels graduated in 1975 and went on to a career in the Public Health Service, during which he served as deputy administrator of the National Health Services Corps and the Health Services and Resources Administration and as deputy to the United States Surgeon General. He later held faculty positions at the Universities of South Carolina and Kentucky. Parrish became active in local North Carolina health program development and is Chair of the Department of Health Education at North Carolina Central University.

James Bernstein took advantage of the commitment to rural communities, which was the focus of the UNC-Chapel Hill Health Services Research Center, where he was mentored by Cecil G. Sheps, the Center's director, and Glenn Wilson, the Associate Dean of the UNC School of Medicine. When James Holshouser became the first Republican governor of North Carolina in the 20th century, he began exploring ways in which he could bring the influence of the governor's office to bear on the extreme shortages of primary medical care in North Carolina's rural communities. He asked Dr. Cecil Sheps, then the acting vice chancellor for health affairs at UNC as well as the director of the Health Services Research Center, to discuss this matter with his colleagues and propose some concrete ways in which the state might address these problems during his four-year term of office. Sheps suggested to the new governor the idea of community-based primary care clinics staffed by advanced practice nurses specially trained to meet the everyday medical care needs of residents, who would be backed up in

* The Bowman Gray School of Medicine is now the Wake Forest University School of Medicine.

their clinical work by local physicians. The governor asked Sheps to elaborate on this idea and present a detailed proposal for how such an initiative might be taken. Dr. Sheps turned to Jim Bernstein to develop the formal proposal document. Once the governor studied the proposal, he concluded that it outlined a viable program, and he gave it his full support. He translated that support into an executive order that became part of his legislative agenda. Subsequently, the proposal drew wide support from politicians of both parties, including the Democratic lieutenant governor, James B. Hunt. Convinced that such a program would greatly benefit the state, the General Assembly created the Office of Rural Health with an appropriation of $456,000 in 1973.

North Carolina Office of Rural Health

A key element in the early success of the Office of Rural Health and its clinics was the support of the North Carolina Medical Society for the use of nurse practitioners. Two prominent physicians, Drs. Glen Pickard (of Chapel Hill) and Edward Beddingfield (of Wilson), convinced the Society to support a nurse practitioner practice act acceptable to the physician community. That support helped build the legal structure that allowed advanced practice nurses (called family nurse practitioners) to be trained, first at UNC-Chapel Hill and later at other institutions, and the new clinics to open. Even with this broad backing, gaining acceptance of the Office within state government remained a struggle.

Professionals in the Department of Human Resources, recently created during a general government reorganization to include the traditional public health functions as well as new and old programs related to health services, did not believe the Office would survive beyond the Holshouser Administration. After its initial placement in the Governer's Office, the legislature placed the Office of Rural Health within the Division of Facility Services, an agency previously responsible for administering the Hill-Burton Program and licensing hospitals. However, Governor Holshouser firmly insisted that the Office was attached to the Division only for administrative purposes and that any policy decisions were to involve consultation with the Governor's office. Prior to passage of the authorizing legislation and subsequent appropriations, the governor and the principal proponents of the program struck an agreement expressly delineating the direct route of accountability to the governor—a surprising agreement since it bucked the current trend toward greater consolidation of government into cabinet departments. This element of policy independence from other agencies in government, consequently, provided the key to the success of the Office and has remained one of its defining characteristics to the present.

The appropriation for the Office of Rural Health almost tripled in its second year to $1,200,000 and jumped to $1,611,000 in the third year. Funding grew much more slowly afterward as the Office gained recognition as a focused programmatic agency with a bounded set of goals. The Office established strong political stability in large part because Governor Hunt, elected to succeed Governor Holshouser, became a strong supporter of the Office and its concepts and because the Office carefully avoided using its policy independence to compete for resources directed to other agencies. The Office continued its independent role during a reorganization of health agencies under the administration of Hunt's Republican successor, Governor James Martin, during which time it was briefly aligned with the state's health planning functions. It became the Office of Rural Health and Resource Development, placed administratively within the Department of Human Resources, after Jim Hunt was elected for an historically unprecedented third four-year term in 1992. The reorganization that resulted in the Department of Health and Human Services (DHHS), under H. David Bruton, who served as Secretary of the newly named Department. At that time, the Office was renamed the Office of Research, Demonstrations, and Rural Health Development (ORDRHD, more often called the Office of Rural Health), to emphasize its role in fostering innovative approaches to health-care delivery and financing. In 2000, when Michael Easley was elected Governor, he appointed Carmen Hooker Odom as DHHS Secretary, and she brought Bernstein into the position of Assistant Secretary for Health. Following Bernstein's retirement from state government in the fall of 2004, Torlen Wade became Director of the Office, and it retains a key place in the structure of the Department.

The accomplishments of the Office include the development of more than 80 rural health clinics; the placement and support of more than 2,500 physicians, nurse practitioners, physician assistants, and dentists; and the creation of the Community Care of North Carolina (CCNC, formerly Access II-III) networks that provide capitated care management for Medicaid eligibles. The office also supports a Migrant Health Program that awards small grants yearly on a competitive basis to local health departments and non-profit agencies for primary care services to farmworkers in high-need areas. This work is coordinated with the North Carolina Association of Community Health Centers, which operates an active regional technical assistance system for the Mid-Atlantic Region, as well as supporting the migrant health centers in the state

The Office of Rural Health may serve as the focus of policy relating to rural health issues, but it does not exercise formal administrative responsibility for oversight or even coordination of programs in other state agencies that serve rural communities or affect rural healthcare delivery. Instead, in part through support from private foundations, combined with the ability to create special programs from time-limited special appropriations, the Office serves as a resource and brokering agency that stimulates coordination among program directors and exerts its capacity to add value to programs and projects with funding flexibility. Consequently, few programs or initiatives in primary or community-based healthcare delivery fail to receive some input from the Office, as much because of its experience in working with almost every aspect of the delivery system as for its policy role and its close political ties to the General Assembly and the Governor's Office.

The North Carolina Foundation for Advanced Health Programs

The North Carolina Foundation for Advanced Health Programs, Inc., (NCFAHP) is a statewide non-profit organization charged with the mission of increasing the availability and affordability of healthcare for North Carolina residents. The Foundation, established in 1982 on the recommendation of a special legislative commission studying the issue of healthcare costs in the state, serves as a catalyst for programs that improve the quality of and access to healthcare while controlling costs. It works with business, medical, and civic leaders throughout North Carolina to explore solutions to healthcare problems and to develop specific approaches that meet community needs.

In the early 1980s, the first major initiative by the Foundation helped to expand the quality and number of competing alternative health plans available to North Carolina residents in a program to improve the healthcare marketplace. As part of that effort, the Foundation worked to bring health maintenance organizations (HMOs) to North Carolina for the first time. The Foundation was also instrumental in establishing Preferred Provider Organizations (PPOs) in the state and has encouraged the formation of locally-formed alternative health plans.

Through the hospital-based Rural Health Project, funded by the Robert Wood Johnson Foundation from 1986-1992, the Foundation helped to organize three hospital alliances, which assisted small rural hospitals in developing more cost-effective methods of maintaining and expanding appropriate medical services. The primary objectives of this program were to improve the financial stability of participating hospitals through the development of programs to improve market share, to enhance reimbursement options, and to increase the quality of, access to, and cost-efficiency of health services for rural residents. As an outgrowth of this project, the Foundation has also developed a model to assist small rural hospitals in their transition from acute care medical centers to primary care and specialty care providers. Our Community Hospital in Scotland Neck converted its 20-bed acute care unit into a 100-bed medical services center offering nursing home care and specialty care for senior citizens as well as emergency care and augmented primary care services for the general population.

The Foundation developed a program to improve the care of Medicaid recipients starting in 1986 with a single county demonstration program, the Wilson County Health Plan. That effort, jointly supported by the Kate B. Reynolds Charitable Trust promoted the concept of a "medical home" for Medicaid recipients in this largely rural county. From that demonstration, the Carolina ACCESS program evolved. This was a collaboration with the North Carolina Division of Medical Assistance to implement a federal waiver to demonstrate regionally the effectiveness of the "medical home" concept using a care manager supported with a per-enrollee fee. The program was successfully implemented in 12 counties with the Foundation providing leadership and management. With the approval of the General Assembly, the program was transferred to the Division of Medical Assistance and implemented on a statewide basis and now operates in 99 counties as Community Care of North Carolina (CCNC).

The Foundation also supports and manages projects intended to improve care for the uninsured poor, including a community-based primary care program that has provided the impetus for the development of new start-up community health centers in Wilmington, Kinston, and Wilson County. The Foundation also coordinated the "Covering Kids" demonstration to increase enrollment of children in Health Check/North Carolina Health Choice. Other projects included efforts to improve the management of health services, for example, supporting the implementation of the Baby Love program in 22 primary care centers to improve prenatal care; support of pharmacy access projects, including the 340-B program in the state; and developing networks among rural hospitals to assist in compliance with quality standards.

The NCFAHP is also the recipient of other grants to supplement the work of the Community Care of North Carolina program in its primary care management systems in rural parts of the state. The NCFAHP is the coordinator for one of five national demonstrations to improve the care of the elderly by improving working conditions for caregivers in the Better Jobs Better Care Program sponsored by the Robert Wood Johnson Foundation. The Foundation also managed the National Program Office for the Practice Sights program. That work supported the development of model recruitment and retention systems in other states using the successful methods and approaches of the North Carolina Office of Rural Health.

The East Carolina University Medical School

An important addition to the rural healthcare delivery structure in the state was the East Carolina University's Brody School of Medicine, in Greenville, North Carolina. Predominately rural, with an economy based on tobacco-dominated agriculture, eastern North Carolina has long projected an image as the state's poorest region and has lagged behind the rest of the state in industrial development. National commissions studying methods to expand the supply of physicians had identified North Carolina as a potential candidate for a new medical school. Politicians appreciated an opportunity to develop a stable economic engine for the east as well as to raise the prestige of the regional state university. However, the decision to create the medical school was a contentious one.

The battle to develop the East Carolina School of Medicine began in 1964 when Dr. Ernest Furguson, a general practitioner from Plymouth, North Carolina, and East Carolina College president Dr. Leo Jenkins agreed that East Carolina College (ECC), as it was then known, should build a medical school. Dr. Jenkins asked local physician Dr. Ed Monroe and ECC Professor Robert Williams to conduct a needs assessment, following which, Jenkins began an arduous campaign to locate a medical school on his campus.

The initial proposal from the needs assessment called for the creation of a two-year medical school that would send students to the UNC School of Medicine for the remainder of

their education, an idea strongly opposed by the three other Schools of Medicine. Jenkins then went to the North Carolina General Assembly, which authorized and appropriated funds in 1965 to plan a two-year medical school at ECC if accreditation could be obtained, ignoring a recommendation from a panel of consultants who preferred to expand the existing ECC allied health programs. When ECC requested, in 1967, that the General Assembly grant it independent status as East Carolina University (ECU), the legislature rejected that proposal and instead made it one of the constituent universities of the consolidated University of North Carolina system, but it also authorized the creation of a Health Sciences Institute at ECU (which became the School of Allied Health and Social Professions.)

The need for more physicians in the state at that time was evident in statistics. North Carolina ranked 43rd of the 50 states in the ratio of physicians to population and 46th in the ratio of medical students to population. Mortality figures identified the state as one of the least healthy regions in the nation. In 1969, a Committee on Physician Shortage in Rural North Carolina appointed by the Legislative Research Commission acknowledged the need for better access to medical care and as a solution, recommended the expansion of the UNC School of Medicine from 75 to 200 graduates a year and the provision of subsidies to Duke University School of Medicine and the Wake Forest University School of Medicine to train North Carolina residents.

Popular support for a medical school at ECU continued, however, and in 1970, the General Assembly appropriated funds to develop a two-year medical curriculum at ECU, which then admitted 20 students to a one-year program.

Leaders in North Carolina's other three medical schools had heavily invested in training specialists, and they argued that if a crisis in access to primary care existed in North Carolina, it could best be addressed by training physician assistants and nurse practitioners. They also claimed that the problem was not a deficiency of medical students, but the lack of capacity for residency training.

In 1972, the UNC Board of Governors appointed a five-member committee headed by Lt. Governor Robert Jordan to advise it on health manpower needs. The committee subsequently recommended paying the Duke University and Wake Forest University Schools of Medicine a per-student stipend to train North Carolina medical students ($5,000 in 1975; $6,000 in 1976), continuing to enroll 20 degree candidates in the one-year ECU program, and commissioning a team of national consultants for a feasibility study.

The most significant body to study the issue of manpower and the possible need for a second, publicly-supported medical school was the so-called "Bennett Commission," which rendered its report in September 1973. That report indicated that the proposal to build a four-year school of medicine in Greenville was "premature" and that the only hope of success was to expand the school of medicine at Chapel Hill. The North Carolina General Assembly, in the end, did not accept the key recommendation of this report and appropriated funds for the development of what is now the Brody School of Medicine at ECU.

The 1974 General Assembly appropriated funds to expand the ECU school, adding a second year emphasizing family medicine and encouraging the recruitment of minorities. In November 1974, President William Friday proposed to the UNC Board of Governors that the ECU School of Medicine become a full, four-year medical school, and the 1975 General Assembly appropriated funds to make his proposal a reality. Enrolling its first class as four-year medical school in 1977, the school set as its central task the training of primary care doctors for rural and eastern areas of the state, with the intention of alleviating apparent shortages of physicians. The school was renamed the Brody School of Medicine in 1999 in recognition of the Brody family, prominent in business in the eastern part of the state.

The ECU Brody School of Medicine has been active in the training of primary care physicians with the support of the Robert Wood Johnson Foundation's Generalist Physician Initiative, the development of rural community-based residency sites, and participation in the Rural Scholars Program, where medical students from ECU and UNC receive focused clinical skills training in rural settings.

The North Carolina Student Rural Health Coalition

The North Carolina Student Rural Health Coalition emerged as an outgrowth of the success of the Tennessee Student Health Coalition that began at Vanderbilt University in 1969 and developed into a family of effective student activist organizations, which included the Appalachian Student Health Coalition and the West Tennessee Student Health Coalition. While he was a fourth-year medical student at Vanderbilt, Grady Stumbo, directed a related, but more professionally-oriented project sponsored by the Student American Medical Association (SAMA) to assist Appalachian communities. Those projects were the result of a general sense of dissatisfaction among medical students with the relationship between organized medicine and formal medical education and the needs of communities. The contrast between the theoretical component of a medical education at Vanderbilt or the University of Tennessee and the reality of the lives led by Appalachian residents in the late 1960s was too stark to be overlooked by concerned students in a period when social activism was the prevailing ethic. Richard Couto describes the origins and development of those Tennessee projects in *Streams of Idealism*,[3] a title drawn from commentary by Robert Coles,[4] who also figured in the development of social activism among healthcare professionals at the University of North Carolina and Duke University and who remains active in both universities working with medical students and faculty. Donald Madison, a medical school faculty physician at UNC-Chapel Hill and one of the staff recruited by Cecil Sheps to begin the UNC-Chapel Hill Health Services Research Center (now named for Sheps) played a substantial role in the development of the North Carolina Rural Health Center movement. Not only did he take a lead role in writing the proposal to fund the Lincoln Community Health Center in Durham and Durham County, but he played an active role with the development of the Hot

Springs Health Center in rural Madison County in the North Carolina mountains. In the mid-1970s, Madison was asked by the Robert Wood Johnson Foundation to lead the Rural Practice Project, a national program in which multi-disciplinary teams of healthcare professionals and administrative personnel were assembled to begin primary care clinical practices in communities having severe access to care problems in several states.[5,6]

In the early 1980s, students from a mix of health sciences schools organized the North Carolina Student Rural Health Coalition in the Durham-Chapel Hill area, with activity centered at Duke University and UNC-Chapel Hill. The Coalition subsequently sponsored health fairs in rural communities, helped place students and professionals in underserved towns and villages, supported public health awareness in rural communities, and agitated for more attentiveness to the rural healthcare and community development needs of rural North Carolina. Eventually, students from the ECU Brody School of Medicine and North Carolina Central University combined to create the current structure of the coalition, which also includes students from the UNC-Chapel Hill School of Public Health and the UNC-Chapel Hill and Duke University Schools of Nursing.

Students have been active in creating or supporting so-called "People's Clinics." Medical students from ECU, UNC, and Duke University and nursing students from North Carolina Central University offer free medical check-ups and other medical services in five community-managed clinics in eastern North Carolina: Fremont in Wayne County; Shiloh in Wake County; Garysburg in Northampton County; Bloomer Hill, which straddles the Nash-Edgecombe county lines; and Tillery in Halifax County. All five clinics are in rural, deprived, predominately minority communities, with few, if any, medical care resources, very high infant mortality rates, and severe economic problems.

Community Practitioner Program

The North Carolina Medical Society Foundation developed the Community Practitioner Program in 1989 with initial support coming from the Kate B. Reynolds Charitable Trust in the form of a $4.5 million grant. The program functions as a coordinating center for the recruitment and support of physicians, physician assistants, and family nurse practitioners who provide primary care in underserved areas in North Carolina. The funds go for loan repayment as well as for practice development. Practitioners receive support in return for five years of service in a qualified community, and they also agree to accept Medicaid and Medicare patients. To date, the Community Practitioner Program (CPP) has assisted 336 primary care physicians, physician assistants, and family nurse practitioners in 126 communities located in 76 economically distressed or medically underserved counties. In 2005, more than 400,000 patients were seen by CPP providers. Of the practitioners who were with the program for the five-year service period, 64% remain in the target communities; 73% continue to practice in rural or economically distressed counties, and 85% remain in North Carolina. In 2006, the program will add a management support capacity, Project Sustain, to continue to assist the community-based practices.

The program has been able to leverage the original Kate B. Reynolds funds to a total of $12 million over the 15-year period. That investment has allowed CCP-supported practitioners to provide approximately $225 million in care to uninsured patients. The CPP is the only non-governmental program of its kind in the nation and other states and medical societies have looked to it as a model for their own efforts.

The North Carolina Hospital Association

The North Carolina Hospital Association created the North Carolina Rural Center in 1996 to help its rural member hospitals cope with the special pressures they face. Initial support from the Center came from the Association's membership and a grant from the Kate B. Reynolds Charitable Trust. Under the leadership of Jeff Spade, the Center musters the resources of current Association members, private consultants, state government agencies, and university faculty to provide support and advice to rural hospitals and communities. Its initial work focused on the support of networks to bring resources to rural communities through links between larger hospitals and smaller rural hospitals. The Rural Center sponsors an annual small and rural hospitals conference that brings together individuals from all sectors of healthcare and community development. The support goes beyond networking to practical technical assistance in quality assurance and information technology, two areas that are at the forefront of the Center's agenda for the 21st century.

The Duke Endowment

One of the largest private foundations in the United States, with $2.5 billion in assets at the close of 2004, The Duke Endowment devotes part of its primary focus to the support of hospitals and healthcare in North and South Carolina. It provided over $39 million in health grants in 2004 and supported almost every rural hospital in North Carolina with funds to cover indigent care and special projects, including grants to renovate the obstetrics department in Ashe County in the rural mountains and to develop an injury prevention center in Kinston in eastern North Carolina. In recent grants, The Endowment has emphasized children's health, with multiple grants to support school-based services. In 2005, its grants were focused on developing access to care for indigent populations with an emphasis on prevention. The Endowment looks to foster cooperation among agencies and organizations to leverage funds for greater impact. For example, specific to rural health, The Endowment, provided core funding for a family practice residency program in Hendersonville, North Carolina. This project involved the joint efforts of the Central and Mountain AHECs, the North Carolina Medical Society, the state's four medical schools, other tertiary care hospitals in the region, and the North Carolina Hospital Association. The Endowment is targeting Health Information Technology in its 2006 health program along with its traditional focus on access to care. For rural North Carolina, the Endowment supports projects in economic

and social development through its "Program for the Rural Carolinas" that recognizes healthcare as an integral part of rural communities.

The Kate B. Reynolds Charitable Trust

The Kate B. Reynolds Charitable Trust was created in 1947 by the will of Mrs. William Neal Reynolds of Winston-Salem and is one of the largest foundations in North Carolina, with assets of more than $500 million. Three-fourths of the Trust's grants are designated for health-related programs and services across North Carolina, and this amounted to $18.2 million in grants in 2004. Many grants have helped support healthcare innovation and service delivery in rural North Carolina as the Trust sought to achieve its primary goal of increasing the availability of health services to underserved groups. The Trust has an explicit emphasis on funding rural areas. A sample of recent grants illustrates this: funds to the Bertie County Rural Health Association and the Tyrell County Rural Health Association for capital projects to support access-oriented facilities; to Blue Ridge Hospital Systems to help improve access in a rural mountain area; to the Pender County Health Department to expand dental hygiene services for low-income children. The Trust works with other funders and agencies to coordinate its work to enhance the impact of its giving; this is facilitated by the participation on its advisory board of leaders in the North Carolina AHEC, the North Carolina Medical Society, North Carolina Hospital Association, and regional civic leaders from across the State.

Bringing It All Together

This brief review has only touched on some of the more prominent of the many people and programs that have helped the people of rural North Carolina receive the healthcare they need. The number and range of programs described here points to a single characteristic of the North Carolina approach to improving rural health: leaders in North Carolina healthcare and public policy have recognized that no one agency, organization or institution could really improve access to care alone—all of the fundamental elements of healthcare delivery had to be involved to truly have an impact. However, to make that happen, there needed to be some focus, some entity that, though it did not "command and control," helped various groups convene and collaborate. That entity was the Office of Research, Demonstrations, and Rural Health Development which, in turn, was supported by a network of connections and relationships that spanned government, the professions, and the institutions involved in healthcare delivery and finance.

The momentum for change was in place before the Office was founded—there were proposals for networks and changes in professional roles when the Office opened. But to make those things work in communities with the effective support of agencies and institutions required some central organization to work out the details at the local level, negotiate with the powers that affected all aspects of healthcare delivery, and, in the end, allow the credit for the small and large victories to be shared. This comprehensive approach was not so much a formal process of consensus, but rather a shared recognition that all stakeholders were invited to join in the work and that these efforts ought to focus at the community level. While large bureaucracies and interest groups might be able to stand apart at the state level, it is in the local community that the dangers and negative effects of isolation and and separation are readily seen. **NCMedJ**

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Building Local and State Partnerships in North Carolina: Lessons Learned

Torlen L. Wade, MSPH, Andrea D. Radford, DrPH, MHA, and John W. Price, MPA

The first state office of rural health was established in 1973 in North Carolina, and over the years, it has evolved into one of the largest of such offices in the nation. Along the way, many lessons have been learned from both successes and failures in the Office's efforts to build local and state partnerships to meet the health needs of rural and underserved communities. This article touches on a few of the key lessons learned.

Guiding Principles

Jim Bernstein, the founding director of the North Carolina Office of Research, Demonstrations, and Rural Health Development, summed up the core belief guiding the Office since its inception as, "If improvement in [health] care or service is the goal, then those who are responsible for making it happen must have ownership of the improvement process." This core belief is put into practice through a state/local partnership approach to projects and a focus on community investment as the cornerstone of all improvement strategies. Jim established five key principles that for more than 30 years have shaped the Office's partnership initiatives and continue to shape them today:

- Ownership is vested with community participants;
- Roles and responsibilities of all participants, both community and governmental, are clearly defined;
- In-depth technical assistance is provided on a continuous basis;
- Accountability is clear and measured; and
- Meeting patient and community needs remains the focus of all activities.

These guiding principles were originally applied, tested, and refined in the work that brought the Office into existence in 1973—the Rural Health Centers Program. Under the Rural Health Centers Program, the Office provided financial and technical assistance to rural communities in developing community-owned and operated primary care centers. In providing this support, the goals were to foster the development of independent community organizations with the leadership, knowledge, skills, and tools to create and manage a community medical center. Unlike the financial assistance provided by the Office, which was viewed as short-term (three to five years) help to communities during the start-up period, the Office's technical assistance was always seen as a long-term commitment. Not only would technical assistance be available to help community boards prepare for their oversight and policy role and to help health center staff carry out their clinical, practice, and financial management responsibilities, it would also remain a key component of the ongoing operation of the center. The principle behind this commitment to long-term technical assistance was that the Office would be more than just a traditional funding

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agency. It would be a partner with the community. While this commitment to partnership began during the feasibility and start-up phases of a new health center, it would continue well after a health center became operational. Office field staff still work with health centers that opened their doors more than 30 years ago. In rural communities, where local resources are limited and where the loss of a clinician can close a health center's doors, being able to turn to the Office for recruitment or emergency fill-in help or for help addressing financial and other crises has been an essential part of the state/local partnership. Each of the 85 health centers developed by the Office as part of the Rural Health Centers Program, is unique. Designed by individual communities to meet their particular needs, the health centers range from single practitioners in remote rural areas to multi-site, multi-provider operations serving several counties.

Throughout the 33-year history of North Carolina's Rural Health Centers Program, there were no major changes in the guiding principles, only refinements. The one significant refinement was an evolving definition of community. In the early 1970s, when there was a critical shortage of primary care providers throughout rural North Carolina, the focus was on securing care for all residents. As the supply of primary care physicians, nurse practitioners, and physicians became more plentiful, the office shifted its attention in the 1980s to providing access to care for low-income and underserved populations. Today, 80% of Rural Health Center Program funds support the direct provision of primary care to low-income and uninsured persons.

Although the principles were originally adopted to guide the Rural Health Centers Program effort, they are now used to guide other community-based initiatives and services within the Office, which are designed to improve the care of underserved and medically vulnerable populations, including the:

- *Medical and Dental Placement Program*, which recruits physicians, nurse practitioners, physician assistants, and dentists to serve in rural and underserved communities. In the last 30 years, more than 2,000 medical and dental providers have been placed in 96 of the state's 100 counties.
- *Farmworker Healthcare Program*, which targets the unique healthcare needs of seasonal and migrant farmworkers across the state by building up local delivery and outreach systems in high-impact areas.
- *Critical Access Hospital Program*, which assists small rural hospitals in securing Critical Access designation and, most importantly, promotes the formation of hospital networks that can improve the quality of services and financial stability. The program also assists partner hospitals with long-range planning, data analysis, grant-writing, and architectural and design assistance;
- *Prescription Assistance Program*, which provides prescription assistance software and technical assistance to community practices that help low-income residents obtain prescription drugs; and
- *Community Care of North Carolina*, which manages the care of Medicaid recipients through community health networks that are organized and operated by local physicians, hospitals, health departments, and departments of social services. Fifteen Community Care networks serve more than 650,000 Medicaid recipients and are creating the management systems needed to achieve long-term improvement in quality, cost, and health outcomes.

Over the Office's history, the importance of the five principles listed above has not changed and perhaps are the most important lessons that can be drawn from the Office's experiences. However, additional lessons have been learned along the way. These lessons can be divided into those that stemmed from work with local partnerships and those learned from work with other state-level partners.

Lessons Learned from Partnerships with Communities

Respect the Community's Perception of Their Needs

While academicians or state officials may have identified a need in a particular community, until the community acknowledges the problem, any attempts toward resolution will have mixed results. Education and outreach may be the necessary first steps in engaging a community to address their healthcare needs. Alternatively, the correct decision may be to step back and wait, but be prepared to step in when the community is ready.

Find and Nurture Local Leaders

Local leaders and champions are critical to developing sustainable healthcare initiatives in communities. Early on, Jim Bernstein recognized that community leadership was the critical component in the success of any community-based initiative. When dedicated leadership was absent, there were almost no prospects for successful community development. On the other hand, strong community leadership can offset other weaknesses in the development process. Leadership was so important that Jim made a concerted effort throughout his career to identify and nurture potential leaders at the community level.

Serve as a Resource

Over time, the Office has developed skill sets in a variety of areas to provide technical assistance to communities. Through this cadre of specialized technical expertise, the Office is able to assist communities in establishing non-profit corporations, organizing fund-raising and community-awareness campaigns, designing and building facilities, recruiting and hiring providers and staff, and overseeing medical operations. Because of the growing complexity of healthcare finance and reimbursement, the Office provides extensive technical support to health centers in all aspects of financial management. Rural health centers, such as Black River Health Services and Saluda Medical Center, developed 30 years ago, still retain a close working relationship with the Office. The Office also serves as a resource to other North Carolina agencies and to staff from other states.

Lessons Learned from Partnerships with State-Level Partners

Find and Create Flexibility within a Traditional Bureaucracy

State governments traditionally do not have a reputation for being the most flexible of institutions with which to work. The Office has balanced the need for reporting and accountability with the need for fast and straight-forward processes. While many policies cannot be changed, the Office has always tried to view rules and requirements from the perspective of those most affected by it. Therefore, whenever possible systems are designed to minimize the impact of bureaucracy while assuring that all state requirements are met.

Learn from Failures as Well as Successes

Not every good idea translates into a successful project. The Office has had opportunities to become involved in healthcare projects that were not tied to its long-term focus on building and supporting community-based systems designed to improve access to care. Although some of these non-core projects went well and made a contribution, other ventures were a struggle because they were not aligned with the Office's core values and skill sets. Non-core projects must be selected carefully to ensure they do not detract from what matters most.

Address Problems at the Appropriate Level, Whether It's Local, State, or Federal

While the Office emphasizes empowering local communities to address their own healthcare issues, there are often regulatory and legislative issues that impact communities, which can only be addressed at the state or national level. The Office has weighed-in on both state and national policy issues. In the mid-1970s, Jim Bernstein was active in developing the Rural Health Clinic Services Act (P.L. 95-210) legislation, which created reimbursement mechanisms for services provided by nurse practitioners and physician assistants in underserved rural communities. More recently, the Office, through the Community Care of North Carolina program, has worked with the North Carolina Department of Medical Assistance to create new provider delivery and reimbursement models that emphasize case management and continuity of care.

Build Bi-partisan Support

Rural health issues when seen from a local perspective are neither Republican nor Democratic issues, they are community issues. By focusing on supporting community-solutions to community problems, the Office has been able to build a broad base of support for its work during both Republican and Democratic state administrations.

Collaborate and Build Partnerships

Much of the Office's work has been accomplished through collaborations and partnerships at both the community and state level. Since its inception, the Office has viewed partnerships and collaborations as an essential part of its mission. Community Care of North Carolina is one example of the importance of collaboration. Its success is dependent on the collaboration and commitment of both state and local organizations. This program has achieved notable improvements in care quality and cost-effectiveness for Medicaid recipients by fostering community-wide collaboration around improved systems of care and by employing disease and case management strategies to improve care. The Office also tries to promote partnerships at the community level among different providers and agencies. In Bertie County, the Office helped to facilitate a closer working relationship between the local hospital, county health department, federally-funded community health center, and regional health system. As a result of this partnership, a multi-agency health campus has been constructed in this rural county allowing residents easy access to several providers and services in one location.

The need for collaborations and partnerships will continue as the Office works with others to address the current and future challenges in providing access to quality healthcare for rural and underserved populations.

Challenges Facing Rural Healthcare

There are several challenges facing rural healthcare. Some have been faced before, while others are new.

Increasing Number of Uninsured

As the traditional employment base of manufacturing and textiles leaves and as increasing numbers of immigrants settle in rural communities, the number of uninsured places additional stress on fragile safety net systems of care.

Aging Infrastructure and Physical Plants

Many of the health centers established by the Office are celebrating 25 or more years of service to their communities. Unfortunately, the physical facilities are beginning to show their age. In addition, the need for up-to-date and reliable computer networks to handle the routine business of healthcare has also increased. Finding significant levels of funding for capital and information technology infrastructure will continue to be a challenge.

Access to Mental Heath Services

Accessing affordable mental health services in rural communities is a growing challenge. Primary care practices and emergency departments often become the providers of last-resort for mental health issues in their communities. There is a growing need to both improve the ability of primary care providers to care for patients with behavioral health needs and to improve the ability of local systems to integrate and coordinate behavioral health services and primary care.

Access to Pharmaceuticals

Even with the implementation of Medicare Part D, many rural residents with limited incomes face challenges obtaining necessary medications. Rural health providers often find themselves cobbling

together solutions from sample medications and pharmaceutical company donation programs to meet their patients' prescription medication needs.

Workforce and Staffing Issues

Rural healthcare faced a physician shortage in the 1970s due to the retirement of large numbers of general practice physicians. This shortage was dealt with in part through enhanced recruitment and retention efforts and by the widespread introduction of nurse practitioners and physician assistants into rural areas. Now rural health is facing another projected shortfall in primary care and key medical specialties, and once again, creative and collaborative solutions will have to be found.

Conclusion

More than 30 years ago, Jim Bernstein shared his vision for what a state office of rural health could be and what it could do. His philosophy of nurturing community-based solutions to community healthcare programs has contributed to the development of more than 80 rural health clinics across North Carolina and the implementation of other initiatives targeted at providing care to the underserved in North Carolina. The lessons learned have come from putting his philosophy and vision into practice. **NCMedJ**

The Heartland's Heartstrings:
The Power, Challenges, and Opportunities of Rural Health Advocacy in Washington

Jeanne M. Lambrew, PhD

The political power of rural health is legendary in Washington, DC. In September 2003, it caused a breakdown in deliberations over the highly-anticipated Medicare drug benefit. Senator Grassley (R-IA) walked out of negotiations with Representative Bill Thomas (R-CA) because rural Medicare provisions were not high enough on the agenda of items to address. The $25 billion, ten-year rural health package almost derailed the ultimate passage of the $400 billion drug benefit.[1] More recently, rural health funding cut-backs contributed to the surprising defeat of the conference agreement on the Department of Health and Human Services appropriations bill. At least seven Republicans voted against the final bill—more than the margin of loss—that, unlike either the House or Senate versions, zeroed out several rural health programs.[2] The $90 million in funding was ultimately restored to the $601.7 billion bill, but not without a major political embarrassment to Republicans who generally have such disagreements behind closed doors.

These stories are dramatic pages in a long history of significant successes in rural health policy. In the post-Depression period, the Farm Security Administration created systems in 41 states to provide accessible care—serving as a model for subsequent national reform plans. In the 1950s and 1960s, health planning took hold, offering a rational model and funding for rural facility development. The federal focus on rural health outreach, training, and delivery system demonstrations accelerated in the 1980s. In the 1990s, culminating in a major investment in 2003, Medicare adopted policies that created special payment categories and rates for an array of rural providers.

In 2006, the power of rural health in Washington is still strong, but changing. Shifts in demographics, economics, and politics pose new challenges to rural health advocacy. In addition, health trends, such as consolidation of insurers and erosion of coverage will likely exacerbate problems facing rural health systems. This commentary reviews why rural health has a strong hold on federal policy, upcoming challenges, and the opportunities that rural advocates have to fundamentally change the United States healthcare system.

Rural Health's Hold on Federal Policy

There is a factual explanation for the power of rural health in federal policy. About 54 million Americans live in rural areas—a number that exceeds the number of seniors nationwide. Generally, rural people face larger and more difficult-to-solve health problems. They tend to be older, poorer, and sicker. They face barriers in accessing needed healthcare. Travel times to providers are generally longer in rural than in suburban or urban areas, and attracting and retaining providers is a perennial challenge. Sustaining hospitals, nursing homes, and other services for people with high needs poses a financial as well as a logistical problem.

"North Carolina has also inspired federal policy. Its creation of the first office of rural health and innovative rural workforce policies has had a major effect on national health policy."

The ability of these problems to merit increased federal

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attention is enhanced by examples of success. Members of Congress are proud of the innovation and adaptation of their local rural health systems. Many of the payment policies in Medicare for rural hospitals originated to expand on models in states like Montana, North Dakota, and Iowa, homes to powerful Senators like Baucus (D-MT), Conrad (D-ND), and Grassley (R-IA). North Carolina has also inspired federal policy. Its creation of the first Office of Rural Health and innovative rural workforce policies has had a major effect on national health policy.

In addition to the facts and success that propel rural health policy, there is an element of mythology. Many Americans still view rural America as emblematic of bucolic life. We envision family-owned businesses, farms, and the values of small-town life: honesty, decency, and simplicity. This is somewhat disconnected from reality; for example, most rural work is in manufacturing or the service industry, and many farmers are immigrants. Nonetheless, these images are evoked with surprising frequency in the halls of Congress as justification of subsidies for rural health.

And, clearly, our democracy is structured to give rural residents a political edge. The Senate, with two representatives from each state irrespective of their size, gives rural populations a clear advantage. For example, California's population is nearly 73 times higher than that of Wyoming, giving each person in Wyoming a much greater ability to influence Senate policy. And, about half of all Americans live in 10 states, making coalition building relatively easy among the 40 other states that have higher proportions of rural residents.

Because of these facts, myths, and structural advantages, rural health advocates may rank among the most cost-effective lobbies in Washington. There is neither a large rural health political action committee nor a largess in rural communities that gives it an edge in the cut-throat world of Washington. Instead, there is a currency to the facts and stories about rural Americans and the health providers who care for them that has created a strong and relatively unique power base.

Challenges Ahead

The advantages of rural health in federal policy may be needed more—and strained more—in the future. The globalization of our economy has taken a heavier toll on rural America. Job growth has been depressed in rural areas more than in others. The lack of job opportunities has contributed to out-migration of young people and the more rapid "graying" of rural America. This overlays persistent poverty in many rural areas, especially in the south.

These economic and demographic trends have affected rural health systems. Demand is up, given the older and sicker population. The nature of the demand is also shifting as rural areas increasingly become recreation areas; accidents and trauma are rising. This combination has meant that healthcare has grown as an important element of rural economies.

There are also two major trends in the health system that could particularly affect rural areas: consolidation and contraction. *Consolidation* refers to the increasing dominance of large segments of the supply of healthcare in the United States. A handful of major private insurers now dominate coverage in the United States. Hospitals and nursing homes are increasingly part of large chains. Even doctors have tended to join larger groups. While this could offer support for some rural providers, it could mean less focus on local needs as regional needs prevail.

Contraction refers to the continued erosion of private coverage. There was a 13% reduction in the proportion of small business workers covered by their employers between 2000 and 2005. At the same time, large establishments that have often crowded out local, small businesses are less likely to offer insurance than they were in the past. This has led to a surge in the number of Americans who lack health insurance—or whose insurance is still leaving them vulnerable to catastrophic costs. Most economists suspect that these trends will continue.

Both supply-side consolidation and contraction of coverage are being accelerated by federal policy. Medicare's new focus on large regions has meant that more rural beneficiaries have access to private plans. Yet, it remains to be seen how rural providers and the people they serve will fare in plans that cover large areas, often multiple states. And, in Medicaid, the budget reconciliation legislation will, according to the Congressional Budget Office, reduce Medicaid coverage through a set of policies that tighten eligibility rules, raise premiums, and make applying more difficult. Rural people rely more on Medicaid than those in urban areas, and thus could be disproportionately affected.

This contraction extends to federal appropriations as well. While the initial conservative approach to policy was to encourage privatization of government functions at all costs, a backlash from fiscal conservatives has emerged that has led to intense pressure to reduce the size (i.e., spending) of government. This generally has been focused on small programs. These programs historically escaped the budget knife by having local champions. But, as Washington roils in investigations of special interest influence, protecting local funding is called "earmarking" and is subject to intense review and criticism. This is exacerbated by a break-down in bipartisanship. The exclusion of Democrats from the conferences on major legislation has meant a loss of numerous rural voices in the crafting of legislation. Moreover, the concentration of power in party leadership could subvert local and regional differences to a larger set of politics.

Opportunities

Despite these challenges, the elements that have empowered rural health policy in the past are intact. There is still a fact-based claim for different treatment. Arguably, the case is stronger given increased need and the economic importance of rural health systems. Evidence also will accumulate on the limitations of blanket solutions at the top of the policy agenda. The challenges of rural healthcare delivery will not be solved by information technology alone. Pay-for-performance may not work to improve value in small rural hospitals as it could in large urban facilities. And, the idea that empowering consumers with information and accounts to shop for healthcare simply cannot work in most rural health delivery systems. Awareness of this "square peg in a round hole" problem will strengthen the case for separate consideration

of rural health needs in public policy.

There is also a new and potentially stronger mythology emerging about rural America. Globalization can allow for new types of economic growth in rural areas. Some areas have focused on regional planning, recasting higher education to train for emerging industries, and taking advantage of the information revolution to remove geographic barriers. If technology has enabled outsourcing to India, why not to rural Indiana, some argue. In addition, as the focus increases on our natural resources, rural Americans may be seen as stewards of our unique national and natural assets. This new set of images fosters an advocacy based on strength rather than weakness and emphasizes what has always been true in rural health: local delivery innovation works.

But, it will also require a more sophisticated advocacy. In an overall system that suffers from poor outcomes, high costs, and access problems unknown in other wealthy nations, advocacy based on equality is a challenge. When our urban health systems face serious problems themselves, does equality make sense? Instead, it may be time to move away from politics of comparisons and toward ideals. Rural health policy advocacy could be based on simple principles to which the whole system should aspire, such as affordable access for all, fair financing of efficient care, and focus on health promotion and prevention. This could justify the continuation of successful Medicare payment policies, increases in funding for training, and new programs to improve access. Embracing the idea that we could do more for less—but this may require an upfront investment—could appeal to the fiscal conservatives. By moving away from arguments based on victimhood or unfair treatment, it rejects the implicit assumption that this is an allocation problem, and rural funding must come at the expense of others.

Finally, many challenges in rural health delivery stem from larger, systemic problems of high costs, coverage gaps, inadequate and unfair financing, and sporadic quality. The next debate on fundamentally changing the United States health system may come soon, as business leaders engage in it as a matter of survival. It could be that the best use of the incredible capital of rural health advocacy may not be in supporting small policies that effectively put a finger in the dyke. Rather, rural health leaders should consider that the best hope for achieving their goals is to advocate for real reform of the system. This may not only precipitate change, but ensure that the unique needs of rural delivery systems are met within the context of a larger redesign of the system.

In closing, the idea of adhering to a large vision even when making local change was something I learned from Jim Bernstein, among others. In my graduate studies at University of North Carolina at Chapel Hill, I had the privilege of working in the Rural Health Research Program and with him. Federal health policy was improved by his actions and example. I hope his legacy will live on through progress in improving the health of rural, and all, Americans. **NCMedJ**

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Forging Local Level Partnerships to Make Health Programs Possible

Rita C. Salain

Over the past several decades, a tremendous reservoir of experience and expertise has developed with regard to the role and importance of community planning and partnership development through which concerted actions to improve the health of rural residents can take place. In this commentary, I attempt to summarize some of this accumulated knowledge and experience and identify some of the critical steps toward meaningful community health action to improve the health of rural people, rural access to healthcare, and rural health program development.

In rural communities, if a primary care physician decides to re-locate to another town or close his/her practice, the community's healthcare options may become drastically limited over night. The same is true if a rural hospital closes or limits needed services because of financial distress. Both of these scenarios place an increased strain on public health providers in the area as well as the other private health providers. In communities with limited resources, one provider making a change impacts all the other providers, families, and individuals. Rural healthcare systems are fragile. Events that affect the ability of rural communities to provide quality healthcare vary, but most rural communities face a similar set of access to care barriers, which include financial, geographic, educational, cultural, and language.

In many rural communities, however, high-quality health services are available and thriving. The difference between a strong, high-quality primary care system and a system that fails in rural communities is often based on whether or not the community has local leadership dedicated to understanding and preserving healthcare that is appropriate and meets most of its citizens' needs. The success of most healthcare systems in rural communities hinges on community leaders who are willing to work together to identify needs, find resources, and invest their time and talent in solving healthcare access problems. Often rural health leadership includes working with adjoining communities to plan and deliver health services.

Creating a successful healthcare system in a rural community goes beyond the leadership of one person. Success depends on rural stakeholder collaboration and commitment. The events that prompt the formation of a partnership among stakeholders vary, as do the methods by which rural communities take action. A small community health planning group could be formed and charged with investigating and defining the problems. The group could be self-appointed or appointed by county or municipal government leaders, community physicians, the hospital, the board of health, etc. A coalition of local leaders or an appointed task force or partnership might be charged with finding outside help or consultation.

"...communities with a demonstrated track record of working well together typically receive more attention and help than communities without a history of collaboration."

Regardless of how the group comes together to develop and maintain the most effective community health planning group, communities will need to identify appropriate constituents as stakeholders, agree on a governance structure that will make diverse participation possible, and explore ways individuals can work together to sustain rural health initiatives over time.

Importance of Stakeholder Support

Several years ago, a colleague from south Georgia asked me why some communities attract all kinds of resources while others

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—with as much need—do not. My response was that communities with a demonstrated track record of working well together typically receive more attention and help than communities without a history of collaboration. Since all resources are finite, governments, corporations, and foundations prefer to invest funds where a successful outcome is more certain. For this reason, opportunities are limited for communities without a community health partnership, health and civic leadership, or a history of rural health development, including networks or other rural health collaborations. The rationalization for this thinking is that there will always be more communities with "need" than resources to meet those needs, and thus, assistance should be invested in areas where there is need *and* the probability of success. Technical support and resources should be invested when a legitimate community-based group asks for help, but the onus belongs to the rural community leaders to ensure that investments will be prudent and useful. Fundamentally, the responsibility for change rests on the shoulders of community leaders and stakeholders who are willing to invest their time, talent, and resources in work to improve health status in their community.

Stakeholders can be defined as "a person or group with a direct interest, involvement, or investment in something, e.g. the employees, stockholders, and customers of a business concern."[1] Not only does having stakeholder support make a community health planning group more attractive to funding agencies, but stakeholder support also helps ensure plans and proposals are relevant, appropriate, and acceptable. Having various stakeholders participating is important in reducing potential duplication and ensuring that problems and solutions are fully defined. In addition, stakeholders should provide accountability and broaden community support.

Across rural communities, the particular stakeholders needed to define and solve problems will vary based on the specific health problem being addressed, the proposed solution(s), etc. At times, a broad-based community group comprised of civic leaders, citizens, physicians, nurses, other business leaders, and elected or appointed officials will be appropriate. Often, input from disadvantaged groups (e.g., the uninsured; poor, minority populations) is crucial to understanding the nuances of the problem and for developing appropriate solutions.

In many cases, the formation of stakeholder groups is guided, in part, by program requirements for funding. For example, if a rural community is applying for a primary care operational subsidy from the federal government [e.g., to become a Federally Qualified Health Center (FQHC)], federal regulations specify that the majority of the organization's governing board members must be users of the service. That is a condition for receiving such a grant.

Many public and philanthropic grant programs have specific requirements. Often, these requirements involve defining and engaging stakeholders. For some, positions on governing boards will be required, while others might suggest the type of local guiding group necessary to become successful applicants. Some local health programs, such as county boards of health, specify who appoints board members, how many can be appointed, the length of their terms, and the professional background or credentials board members must have. This is an important area of local policy, and rural citizens should be sure they understand it.

Contact the Office of Rural Health

To begin, groups formed to address health access problems should request assistance from their respective state Office of Rural Health. These offices, now in every state, are great places to ask for help, and some have resources to plan and solve health status or health system problems. State ORHs are supported in part by federal resources matched with state funds. A list of ORH directors and phone numbers is available on the federal Office of Rural Health Policy (ORHP) Web page (http://ruralhealth.hrsa.gov/funding/50sorh.htm) or by calling 301-443-0835.

Other helpful groups might include hospital associations, medical or family practice associations, universities, associations representing county commissioners, public health officials, foundations as well as other specific health interest groups. The ORH staff should have relationships with many of these groups and be able to connect you with others who can help. Most ORHs work to be a one-stop resource and will help find and broker technical assistance and consultation from a variety of state, federal, association, and foundation groups. Your ORH can connect rural leaders with resources, ideas, people, and tools.

Constituent Identification: Who Should Be Included as Part of the Stakeholder Group?

Depending on the situation or health system problem, a full spectrum of rural health providers, users of health services, civic leaders, representatives of groups experiencing disparate health access or health outcomes, faith leaders, business leaders, and social service providers might initially be convened to address specific health system problems. There are diverse opinions on how to identify the constituents necessary to develop a rural health service program and when to invite these participants, Opinions about who to invite range from issuing an open invitation to selecting a handful of opinion leaders whose influence will be required to make change.

Issuing an open invitation to interested parties works best when a clear statement of the need exists along with specific working parameters, the time commitment required, and the projected timeline. Including specific expectations in the open invitation helps stakeholders determine if they will participate. Clear expectations of involvement, group direction, and a planned way to use stakeholder input are crucial components of successfully developing and maintaining health programs and health assets, as well as being important in keeping a broad-based group engaged.

Depending on the program to be developed, there are times when smaller groups might work better initially. For example, a group of physicians and staff might form as physicians recognize they are providing care to a growing portion of uninsured people. The physicians might notice they have fewer privately insured clients. They might identify that they need help managing coding, billing, and collections from public insurers (Medicaid and Medicare). They may ask for help in assuring that any patient eligible for a program is made aware of it and helped to enroll. They may first coalesce as a small, invited group to clearly define the problem. Later they might seek assistance in defining the problem more broadly—how the growing number of uninsured is impacting the hospital, emergency medical services (EMS), public health, etc. They could then form a larger group to research and quantify the problem, craft potential solutions, and/or develop additional resources. They might ask for help from their Office of Rural Health (ORH). The physicians might seek assistance with improving practice management or developing a Rural Health Clinic.

This example can also be viewed as a potential problem to retaining primary care physicians in a community. As the problems are identified more fully, it becomes clear that the growing number of uninsured is a community-wide problem (as well as a national one). The initial group might broaden to include—in addition to the original physician group—nurses, a hospital administrator, public health leaders, hospital board members, mental health providers (if any), EMS providers, pharmacists, and other concerned stakeholders. As this group grows, it will be important to include the voices of the people who are the major users of services or those who are most in need, (i.e., those who have no insurance, those eligible for but not enrolled in programs, and those with limited income, etc.).

The importance of group diversity may not always be apparent. For example, several years ago while working with a large group of medical providers, hospital administrators; cancer survivors; and public health, business, civic, and faith leaders in a rural region formed a coalition to improve cancer screening, detection, diagnosis, and appropriate treatment. After months of coalition meetings, one of the medical leaders asked why the faith community was at the table. One minister retorted, "Who do you think people call as soon as they get the diagnosis that they or a family member has cancer?" The faith leaders in that coalition made key contributions to the work and opened doors for screening where the need was great.

Representatives of disadvantaged groups almost always need to be at the health service development table, regardless of the eventual governance structure adopted by the group. Disadvantaged people might not be included at an entrepreneurial health table or with a group convened to improve the technical components of managing an efficient, effective primary care practice, for example. If, however, the issues to be solved deal with improving access to health services, full community participation can significantly benefit the planning process.

The *timing* of invitations is also important. It typically does not work to invite representatives of the uninsured, poor, or the underinsured *after* key decisions have been made. Too often, groups make the mistake of waiting until key decisions have been made to invite other representatives to the table. A serious consequence of delayed inclusion is that the newly invited individuals will not have the historical perspective of the group's planning and thinking, nor will they have the ease of association and rapport, all of which have been building since the group was formed. Ground rules how the group functions are formed early in the process, thus making it harder for new members to understand the group's informal rules. Delayed inclusion can also cause new members to be hesitant in offering opinions, which in turn, might lead to false conclusions about the new member's willingness to actively participate.

Including as many stakeholders as possible from the beginning reduces the likelihood of criticism that key decisions were made without sufficient input from key groups who will use the planned health services. If a group finds they need to add members later in the process, they should provide a comprehensive orientation to new members, including where the group is in their thinking, planning, and studying of options.

Deciding Which Corporate Structure Will Make Diverse Stakeholder Participation Possible

Each community health planning group will need to agree on a governance structure for themselves. When considering an appropriate corporate structure for the group, form should follow function and necessity. Several corporate structures might work well. Sometimes groups form an informal board, task force, or coalition. Over time, the group might decide to form a 501(c)(3) or another corporate model. Other times, groups form and decide the work can be handled without formal incorporation. That same group might decide that by-laws and operating procedures will be useful and that appointing an organization to serve as the fiscal agent is prudent. Some groups might attach to existing organizations, such as hospitals.

The group should adopt a structure that facilitates collaboration and productivity. Even when the corporate structure is prescribed by a funding partner, the execution of that structure is largely in the hands of the community leaders. A good way to ensure a full spectrum of stakeholder participation is to specify diversity in the corporate structure (i.e., prescribe a 'balanced' group with all viewpoints represented) and to be vigorous in assuring diverse opinions, experience, and expertise are invited and respected.

Sustaining Health Service Initiatives

Being able to sustain a program or a new service once it is up and running is often a challenge. In addition to developing a program that provides high-quality health services and has a system for referring patients to accepting specialists when necessary, the group must make sure the new program or service exhibits efficient management, can demonstrate effectiveness, can be sustained, has broad community acceptance, and is seen as an important economic component in the community.

Ensuring Efficient Management

One of the first steps toward sustainability for a primary care or programmatic service is to ensure managerial efficiency. For example, if the health services to be provided are covered by insurance (i.e., Medicaid, Medicare, or private insurance), the providers must be properly enrolled as a provider. Staff must know how to code, file, and collect payment for services delivered. This is not easy in the rapidly changing health insurance market. Efficient practice and program management is essential.

The North Carolina Office of Rural Health pioneered the development of publicly supported practice management technical assistance to improve retention of primary care providers. Several states in the southeast (Alabama, Arkansas, Georgia, Louisiana, South Carolina, and Texas) now provide or broker primary care practice management services developed as a part of the Robert Wood Johnson Foundation's (RWJF) Southern Rural Access Program. The practice management component of that Program was modeled after the successful work of the RWJF *Practice Sights* initiative of the early 1990s, incorporating lessons learned from that project. The RWJF National Program Office for that initiative was directed by Jim Bernstein and his colleagues in Raleigh. The Southern Rural Access Program is phasing out now, but several states intend to continue offering practice management support. The Office of Rural Health in most states can advise if free or low-cost rural practice management assistance is available.

Evidence of Effectiveness

Another key component of sustainability is assuring that the service developed is effective and efficient and, thus, warrants being sustained. To make this case, a program evaluation is required. Armed with key information on effectiveness, cost, and utility, the next step is to find a long-term funding partner. This is more easily accomplished with unbiased, supportive data, and a clear description of what was done, for whom, by whom, at what cost, and to what end or outcome. Not every effort will require a funding partner, but many will.

Securing Financial Support

Sustaining health services in many rural communities still requires securing long-term funding. Because of the disproportionate percent of rural people who are uninsured or under insured, often additional resource support must be found. Funding might be found by securing a direct federal grant (generally not a long-term strategy), foundation gifts or grants, private donations, state funding, or local support for services. Many counties or parishes support the hospital, EMS, the public health department, public mental health services, and some invest in the retention and recruitment of primary care providers. Working with like-minded organizations in adjacent and or nearby communities is also a very effective way to support services by spreading costs and sharing resources.

Action Steps

The following steps, or similar ones, are generally thought of as community health system development, community encouragement, etc. There are a variety of approaches, both formal and informal, that can be used to develop a rural health action plan. Rural community groups are not alike, so steps, catalysts for change, and resources will vary.

- A rural community leader, clinician, or health administrator becomes aware of a health problem that needs to be addressed.
- A small group (or groups) is (are) formed to investigate the problem.
- Problem(s) are researched, information is shared and the group begins to investigate solutions.
- The group, based on the information gathered (i.e., specific data), decides that the health status or system problem is one they have the will to address, and they then begin to develop a plan for how to deal with the problem.
- Clinical leadership is brought together (if not already present) to participate in planning and solution development.
- The local group, including clinicians and other health providers, asks for information, support, data, technical assistance, facilitation expertise, etc., from the ORH, other technical assistance providers or other associations, foundations, or corporations—to help define the most significant problems and search for resources.
- The group forms a larger, multi-disciplinary, planning group charged with developing a strategic plan for health. The plan will ideally include short- (one-to-three year) and long- (five- to-ten year) term goals and specific measurable objectives. The plan can include working with other organizations in adjacent counties or parishes, and, at times, a regional initiative will form.
- The group either forms a specific governance structure or works with an existing structure (i.e., rural hospital, not-for-profit) to develop and implement the plan and provide frequent feedback to the community.
- The plan is put into action.
- The group collects specific data, evaluates the results and resources invested, and shares that data.
- The group continues to work the plan, make necessary changes, engages in strategic planning, forms additional partnerships, and continues the quest to secure and find resources to improve health status.

Broad Community Use of Services

Important to sustaining health services is for all the community to use local health services. The civic, business, faith community, and other opinion leaders must use health services in the community. Citizen leaders should not by-pass local health services. Rural providers must have a strong mix of insured clients to help carry the disproportionate load of self-pay, Medicaid, and Medicare patients they serve. Medicaid and Medicare often require deep fee discounts (sometimes below the cost of providing services). As a reassurance to all—healthcare providers should make it clear that they are formally linked with other regional providers and have referral agreements with other facilities and specialists when required.

Healthcare and the Economy as a Sustaining Factor

Another key to sustainability is for rural civic and government leaders to understand that health services are one of the most useful, sustainable economic engines in a rural community. Healthcare is big business. According to the National Coalition on Health Care in 2003, "the United States spent 15.3% of its Gross Domestic Product (GDP) on healthcare."[2]

Health services bring money into the community from the state and federal government (Medicaid and Medicare). Rural health dollars "roll over" about 1.5 times in the community. In many rural communities, the healthcare sector accounts for ten to 20% of all jobs in the community,[3] and health sector jobs often pay well and are sustainable jobs. Many times the healthcare sector is the largest employer in the county or parish.

The federal Office of Rural Health Policy (ORHP) invested in helping community leaders understand the economic impact of the healthcare sector through funding support for the *Rural Health Works Program*,[4] managed and pioneered by the University of Oklahoma. The *Rural Health Works Program* is especially useful because standard employment data, gathered through the Census, is used to calculate the economic impact of the healthcare sector on the rural economy. The database (IMPLAN) is used to calculate the payroll of businesses engaged in health services, including public organizations and then calculate the economic impact of those jobs and dollars spent in the community. Other models are available to measure the economic impact of healthcare in the local economy. Some calculate the dollar value to the community of each primary care physician. Many hospitals can quantify their economic impact on the community.

Business leaders, civic leaders, economic development staff, and elected officials are more likely to help sustain, attract, and grow programs and encourage health businesses if health services are viewed as a part of the economic vitality of the community. In addition to the direct economic impact of health services, the significant difference health makes in family life (i.e., affecting one's ability to earn a living, decreasing morbidity, and helping people enjoy a higher quality of life) is universally understood.

Summary

The quintessential difference between most successful rural health programs and unsuccessful ones is local leadership. The ways in which a community invites, values, develops, nurtures, and supports the involvement of diverse stakeholder groups form an important part of the base for local rural health program success. Successful programs are initiated by local stakeholder groups who are committed to collaboration, have a working governance structure, a good understanding of their health and healthcare challenges, and a plan for sustainability. A key first step for rural community health planning is to contact one's local state Office of Rural Health. Most ORHs will provide information, guidance, and technical assistance. There are many challenges in rural health, but there are also great successes. North Carolina communities fare better than many because the North Carolina Office of Rural Health has demonstrated how effective state and local leadership work together to directly benefit rural communities and rural people. **NCMedJ**

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Rural Physicians and Community Leadership:
Skills for Building Health Infrastructure in Rural Communities

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Few physicians at the beginning stage of their careers are so audacious as to describe themselves as "community health leaders." Nevertheless, nearly every physician who finds him/herself practicing in a rural community will often be inexorably drawn into discussions about greater health-related needs in the broader community. Once a healthcare professional is able to step back and take a panoramic view of the "health" of the community in which his/her practice is located, he/she often realizes that there are many health needs and barriers to care, and he/she quickly learns that it takes more than individual effort to meet these needs. Whether through the initiative of practicing physicians or others, community-wide initiatives to define existing problems, to plan a range of options for meeting these needs, and the effort to fund and then administer these emerging programs will usually require physician involvement … and even leadership. This commentary addresses some reasons why rural physicians need to become involved in solving some of these rural health problems, and how they can effectively provide needed clinical leadership even if they haven't previously thought of themselves in such a role.

"Physician leadership is a critical factor in developing community programs."

The status of rural healthcare in North Carolina can be described as precarious at best. Many rural communities continue to be plagued by shortages of resources to serve the growing needs of a rural population that is increasingly aged and uninsured. The shortage of physicians in rural communities remains a chronic problem.[1] Despite some progress in the last decade in dealing with this maldistribution, significant disparities persist between metropolitan and rural areas.[2] Although most counties in North Carolina from 1998 to 2003 experienced an increase in the ratio of primary care physicians to 10,000 population, 38 of the state's 100 counties lost ground. Of the counties with increasing primary care shortages, about half were due to loss of physicians, and about half were due to rapid population growth that outpaced the supply of physicians.[3] Furthermore, in 2003, nearly 20% or 1.4 million North Carolinians under age 65 lacked health insurance coverage, with more than 300,000 having joined the ranks of the uninsured since 2000.[4] The combination of primary care provider shortages and declining health insurance coverage continues to threaten the healthcare safety net, particularly in rural communities.

The March/April 2005 edition of the *North Carolina Medical Journal* provided a comprehensive view of the various components of this safety net, which includes federally qualified health centers (FQHCs), Area Health Education Center (AHEC) teaching clinics, free clinics, public health departments, rural health centers (RHCs), hospital emergency departments, and efforts to integrate multiple service providers in service to the poor and uninsured.[5] As rural communities struggle to serve the health needs of their citizens, various combinations of these programs have been developed to address local health concerns. In all of these programs, physician involvement and leadership are critical components of developing successful safety net services in rural communities, but there are important barriers that prevent effective physician involvement and, perhaps, the successful implementation of vital programs.

The Western Carolina Experience

Henderson, Polk, and Transylvania counties are rural counties in the western, mountain region of North Carolina. The efforts by healthcare providers in these counties to improve access and quality of care for low-income, uninsured patients in their communities have significantly strengthened the local healthcare safety net. These efforts have included:

- The development of one of the first migrant health centers (Blue Ridge Community Health Services, Inc.) funded by

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the Health Resources and Services Administration (HRSA) as a federally-qualified health center (FQHC).
- An AHEC teaching clinic (the Mountain AHEC Rural Track Family Practice Residency Program).
- A free clinic staffed by family practice residents and private practice physicians in Henderson county.
- An expanded array of primary care and preventive health services by the Henderson County Department of Public Health with AHEC and private physician backup.
- Two additional rural health centers (the George Bond Health Center in Bat Cave and the Saluda Medical Center in Polk county).
- Expanded Community Care Network for managing the chronic illness [asthma, diabetes, depression, and attention deficit hyperacticity disorder (ADHD)] needs of Medicaid patients in the three counties with broad support from the private medical community in the three counties.

Collaboration has helped bring additional resources into the area to deal with the growing challenges, and spreading the risk and burden of uncompensated care has helped individual care providers while offering clients additional choice. Although in retrospect, each of these safety net initiatives has achieved a level of success, none of them would have been undertaken without vision, communication, cooperation, some measure of good fortune, and the intimate involvement of rural physicians. There are many ways physicians may impact the development of a particular program. In general, most involve some combination of advocacy of patients' interests, providing specific health or medical expertise, or serving as the arbitrator between agencies. This arbitration role often flows directly from the physician's role as patient advocate and medical expert, helping agencies set aside what can be competing interests for the common good of patients and the community. These programs also did not appear overnight. Where the region is today can be traced back to efforts that began more than 15 years ago and have progressed with one small step or success at a time.

Although program development in smaller communities can at times be more difficult due to fewer available resources, small size can also work to a community's advantage, as there may be fewer players involved, and problems, if they occur at all, may happen on a smaller scale. Personal relationships between agency representatives are often very important in any setting, but are particularly valuable in rural communities where individuals may serve multiple roles in different organizations.

Importance of Physician Leadership

Physician leadership is a critical factor in developing community programs. Physicians frequently bring unique clinical credibility to a project, knowledge and experience about health matters, access to key decision-makers in healthcare, and are granted the widest scope of practice within healthcare to establish direct patient care programs. Although outside consulting physicians can lend important advice and guidance, involving local physician leaders in health services planning is absolutely necessary for successful community health projects. A serendipitous effect of local physician involvement is the simultaneous nurturing of their community health leadership skills, which may be an important factor in retaining physicians in rural practice. Evidence supports that both community leadership preparation and having a sense of "belonging" to a community are determinants of whether physicians stay in or leave rural communities.[6] Others have also found evidence that underscores the importance of a "sense of place" in rural physician retention.[7,8] It is likely that physician involvement in these efforts, and the enthusiasm that can come from it, will be infectious and can lead to significant community health action.

Barriers to Physician Leadership: Time and Training

As important as it is for local physicians to be involved in community health leadership, time and lack of training in basic leadership skills can be significant barriers. Most physicians in rural practice have considerable patient care demands that often preclude involvement in planning activities during usual business hours. To include valuable physician input, planning groups may need to meet very early in the morning or after clinic hours, or they may need to structure meeting agendas to include physician partners in key discussions where the physicians' special perspectives are necessary and leave more administrative details to other meeting times. Group practices might be able to help cover a physician leader's clinic time so he/she can participate in an important community health project. Rural hospitals can also help fund physician time as a needed consultant to a developing program. Many rural communities have employed physicians, (e.g., those in academic, community health, or public health agencies), who have some built-in administrative time, which could be re-programmed to assist in developing community health programs. Finally, part-time or semi-retired physicians can be important sources of physician involvement in program development.

Although many physicians will be pushed into leadership roles at some level, most will have no formal instruction in management skills. Many have a limited understanding of how other disciplines, groups, or agencies impact healthcare, or they may have limited contact with other community leaders outside of healthcare. Basic tasks, such as organizing and chairing meetings, understanding general accounting practices, developing business plans, or writing grant proposals are important skills that nearly every community health project needs, but are often in short supply. It is not sufficient to recognize a health need and have an idea that could address it; ideas must be communicated to others. All stakeholders need to be included in planning and implementing a project. Most projects will require monitoring to assure that they are having the desired outcome, and any worthy project will need to be sustained.

For physicians to be effective leaders in their rural communities, there should be ways they can receive these skills either in residency training or as they find themselves in rural practice. Our Rural Track Residency Program includes an explicit curriculum in community leadership that includes a module in public health

evaluation and planning, a direct longitudinal experience providing direct patient care to an underserved population, mentorship with faculty actively engaged in community health activities, and a required hands-on community project that allows residents to put these skills to practical use. Similar curricula could be added to other residency training programs for those planning careers in rural areas.

For practicing physicians, distance learning opportunities or rural leadership training programs could be an important way those interested rural physicians could acquire the skills and contacts that could quickly enhance their ability to serve as a community health leaders. The University of North Carolina School of Public Health runs a certificate program in Health Care Management, which is a 14-credit-hour program offered primarily on-line that is designed to give course participants basic healthcare management skills.[9] The North Carolina Office of Research, Demonstrations, and Rural Health Development could develop a program to identify interested rural physician leaders and support their involvement in this certificate program. The Office could also create networking opportunities for rural physician leaders, who are trying to increase their communities' capacity to address local healthcare needs and develop new programs. **NCMedJ**

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Mental Healthcare in Rural Communities:
The Once and Future Role of Primary Care

John A. Gale, MS, and David Lambert, PhD

The provision of mental healthcare in rural communities has been a vexing challenge for clinicians and patients for many years. There is a chronic shortage of specialty mental health providers, particularly psychiatrists and psychologists, which has shifted much of the burden of care to primary care. Primary care clinicians have historically lacked the training and time within their busy practices to feel comfortable providing mental healthcare, particularly since the shortage of specialty mental health clinicians deprives them of consultation and referral sources. People who live in rural areas must often overcome significant travel distances, stigma, and lack of insurance and other resources to access the scarce mental health services that do exist.[1]

Despite this difficult picture, rural primary care and specialty mental health clinicians have persevered to provide some level of mental healthcare to people in rural areas. Over the last decade, improvements in clinical screening tools, treatment protocols and guidelines, and information technology have significantly enhanced the potential to increase access to and improve the quality of mental health services in rural communities, particularly to underserved populations. Recent policy initiatives hold much promise to provide the structural and financial support necessary to help rural communities realize these improvements.

In this commentary, we first present a general discussion of the issues related to the delivery of mental health services in the United States with particular attention to how these issues complicate the delivery of services in rural areas. Next we describe the renewed call for integrating primary care and mental health in rural areas (hence "the once and future role of primary care" in our title) and related clinical and policy support to do so. We close by briefly describing the policy interventions and resources needed to further these integration efforts and to improve access to services for rural underserved populations.

Our Fragmented Mental Health Delivery System

The mental health delivery system in the United States is characterized by a fragmentation of services, separation of funding streams and delivery systems, poor reimbursement, inadequate access to specialty mental health providers, and the mal-distribution of existing resources. These issues greatly complicate the delivery of services in rural areas.

The United States mental health system is not a coordinated system of specialty mental health services but, rather, a fragmented collection of services and providers that has come to be known as the *de facto* mental health "system."[2,3] The term "system" is used to convey an understanding of where persons receive services, rather than to suggest a coherent whole that has developed according to a set of organizing principles.[4] Regier and colleagues identified four sectors where individuals may seek assistance for their mental health needs: (1) *specialty mental health*, (2) *general medical/primary care*, (3) *human services*, and (4) *voluntary support networks*. Our discussion will focus on the first two sectors, which make up the formal treatment system in most communities.

"...60% of rural residents live in mental health professional shortage areas... [and] ... 65% receive treatment for mental health problems from their primary care providers...."

The *specialty mental health sector* is made up of psychiatrists,

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psychologists, psychiatric nurses, and social workers practicing in various public and private inpatient, outpatient, residential, and community agency settings and is the sector that comes to mind when people think about mental healthcare. The *general medical/primary care sector* is made up of general and family physicians, pediatricians, internists, nurse practitioners, and physician assistants providing a range of healthcare services, including, but not limited to, mental health services.

Contributing to this fragmentation of services has been the historical separation of funding streams and governmental responsibility for oversight of service delivery. Mental health and substance abuse services have traditionally been viewed as separate and apart from the general medical system. These services have typically been reimbursed at lower levels than general health services and often through separate pots of money. The separation of funding streams continues through the use of carve-out programs by many state Medicaid programs and commercial insurance companies in which a behavioral managed care organization is responsible for the management and approval of mental health services. Responsibility for the oversight of the delivery of mental health and substance abuse services at the state level is typically housed in a separate state mental health agency. Some states further fragment these services by assigning responsibility for the oversight of substance abuse services to a separate substance abuse agency.

Populations Served

The delivery of mental health services has historically been based on the specialty care model in which mental health specialists treat mental health problems and primary care providers assess and refer patients to these specialists as necessary. The use of this specialty care model fails to explicitly acknowledge the reality that most people seeking mental healthcare fall into one of two broad populations.[5] The first is the special population of adults with serious and persistent mental illness and children with serious emotional disturbances. The second population is the general population of individuals who frequently have more modest and episodic mental health needs (in comparison to the special population).

Members of the special population, who are often covered by Medicaid as a result of their mental health diagnosis and/or disability, are best served by the specialty care system and often require specialized services, such as congregate housing, vocational services, and crisis services. Members of the general population, whose needs may often be appropriately met within the primary care system, are often "encouraged" to seek services through the specialty mental health system due to reimbursement and/or health plan coverage issues. Given the separation of services and delivery systems, poor reimbursement rates, the reliance on the use of the specialty model by third party carriers, and the growing demand for services within the general population, the supply and distribution of specialty mental health providers and services are inadequate to meet existing needs, particularly in inner cities and rural areas.

The Special Challenges of Delivering Mental Healthcare in Rural Areas

Rural residents, like their urban peers, experience a wide range of mental health and substance abuse problems. National mental health epidemiological studies show little or no differences in the prevalence of mental health problems among adults across rural and urban areas.[6,7] While the prevalence of mental health disorders is similar, the composition and context of mental healthcare is profoundly different in rural and urban areas.[4] The New Freedom Commission on Mental Health (2004) suggested the following framework in which to consider these differences:

- *Accessibility.* Rural residents travel further to receive services than urban residents; are less likely to have insurance benefits for mental healthcare; are less likely to recognize mental illnesses and understand their care options; and enter care later, sicker, and with a higher level of cost.[8,9]
- *Availability.* Rural areas have chronic shortages of mental health professionals (60% of rural residents live in mental health professional shortage areas); few comprehensive services; and providers that are physically isolated from each other and their patients.[10,11] Rural residents rely more heavily on informal supports and indigenous healers than do urban residents and are more likely to be treated in a primary care setting (65% receive treatment for mental health problems from their primary care providers).
- *Acceptability.* Even when scarce services are available and accessible in rural communities, they may not be acceptable to people living in a rural area because of stigma, which is particularly intense in rural areas where anonymity is difficult to maintain; cultural issues; and limited or non-existent choice of providers.[12,8]

In many ways, mental health providers in rural mental health systems are even more "de facto" than those in urban areas.[13] Rural mental health practice is characterized by a lack of available services, scarcity of resources, severe shortages of specialized mental health practitioners and providers, the under-utilization of services, the impracticality of specialization, and a recognition that clients must be supported beyond the narrow range of medically necessary specialized mental health services.[14]

At present, more than 90% of all psychiatrists and psychologists and 80% of master's-level social workers work exclusively in metropolitan areas, a workforce distribution that has remained remarkably constant over the years. This maldistribution has persisted for more than 30 years despite repeated efforts to overcome existing market forces and encourage more mental health providers to practice in rural areas. The failure of these efforts can be traced to the challenges faced by mental health clinicians who chose to practice rural areas. They are often called upon to treat patients outside of their fields of expertise, reach complex decisions without the advice of other professionals, interact with patients in a variety of nonclinical roles, and are

continued on page 69

Piloting Mental Health Integration in the Community Care of North Carolina Program

The Community Care of North Carolina (CCNC) Program is a statewide initiative comprised of 15 networks serving more than 660,000 Medicaid enrollees in approximately 1,000 participating practices. In these networks, providers are expected to take responsibility for managing the care of their enrolled Medicaid population. Each network designates clinical and administrative leadership to work in partnership with the state to design and develop clinical improvement and cost containment initiatives. In recent years, networks in the CCNC program began to see an increasing number of Medicaid enrollees at primary care provider practices with both behavioral and physical healthcare needs. As a result of efforts in mental health reform and changes in the local service delivery infrastructure, four CCNC networks working in concert with their local management entities (LMEs) began piloting (in July 2005) a collaborative approach to managing the Medicaid enrollees with both behavioral and physical health needs and to serve them in the most appropriate setting. This mental health integration pilot is a state-level collaboration between the Division of Mental Health; the Division of Medical Assistance; the Office of Research, Demonstrations, and Rural Health Development (CCNC Program Office); and the North Carolina Foundation for Advanced Health Programs, Inc.

In the mental health integration pilots, the networks aim to do the following: increase the comfort level of primary care providers (PCPs) in identifying and treating people with depression who present in their offices; improve communication between the PCP and behavioral healthcare providers; implement psychiatric telephonic consultations; ensure, through improved coordination, that patients are able to access care at a point in the system where their health and behavioral health needs can be optimally met; and, adopt uniform process and outcome measurements for program evaluation. These pilot projects are targeting both the adult and pediatric populations (cohorts broken out by age, birth to five years and five years and older) using the "Four Quadrant Clinical Integration Model"[1] as the foundation for communication, collaboration, assessment, referral, and clinical management of care. As described by Barbara Mauer, the four quadrant model serves as a conceptual framework for collaborative planning in local healthcare delivery systems—using the framework to decide which providers will do what and how coordination for each person served will be assured.[1] The four quadrant model categorizes individuals based on the degree of clinical complexity, health risk, and functional status. For example, quadrant IV is indicative of those with both high behavioral health and physical health needs.

Data collection will be comparable across projects since common forms and tools have been developed and adopted, including a telephonic consultation form, behavioral health assessment form, case consultation request form, and provider surveys. In addition, based upon the patient's age, a common set of primary screening tools were chosen: the Ages and Stages Questionnaire (ASQ),[2] Parents' Evaluation of Developmental Status (PEDS),[3] Pediatric Symptom Checklist (PSC),[4] and Patient Health Questionnaire (PHQ-9).[5] All four pilot networks are implementing a universal screening tool and a clinical pathway for depression. Evaluation efforts by individual pilots are examining the following: impact of incentives to PCPs for completion of behavioral risk screening; value of different population management strategies; identification of primary care provider screening tools that work best for anxiety, bipolar, and attention deficit disorder; value of co-location models with a behavioral specialist in the PCP practice; impact of integrating with the school system; impact of ongoing educational sessions and "collaborative rounds" to improve communication and collaboration between PCPs and mental health providers; and, use of dedicated case managers.

North Carolina has invested in the development and implementation of the CCNC network infrastructure, which provides an ideal testing ground for innovative models and strategies. The foresight to invest in the development of community-based networks able to partner with the state in managing our most vulnerable citizens is a result of dedicated and visionary leaders at both the community and state level. The lessons learned in the mental health integration pilots will be used to guide the formation of Medicaid mental health policy and assist in forming targeted statewide training and technical assistance. The strategies and plan design models developed and implemented in the pilots will support the replication and expansion efforts in other networks and communities. A model that is able to integrate behavioral and physical healthcare needs will demonstrate the value of a chronic care management model that is patient-centric and able to identify and meet all the needs of an individual.

NOTES

1 Mauer, BJ. Behavioral Health/Primary Care Integration–the Four Quadrant Model and Evidence-Based Practices, Winter 2004, National Council for Community Behavioral Health Care, 2002.

2 Ages and Stages Questionnaire (ASQ) is a parent completed questionnaire. The questionnaire is age specific for children from four to 60 months of age. Questions are in five areas: communication, gross motor, fine motor, problem solving, and personal/social. Sensitivity is 72%, and specificity is 86%.

3 Parents' Evaluation of Developmental Status (PEDS) is a parent-completed questionnaire. The same ten questions are used for all children from birth to eight years of age. Sensitivity is 74-80%, and specificity is 74-80%.

4 Pediatric Symptom Checklist (PSC) is a questionnaire with 35 short statements of problem behaviors to include both externalizing and internalizing. The questionnaire is used for children ages four to 18 years. Sensitivity is 80-95% (all studies except one showed this level of sensitivity), and specificity is 68-100% (scattered across studies).

5 Patient Health Questionnaire (PHQ-9) is a symptom checklist for depression screening. Responses range from "not at all" to "nearly every day." Based on the response, a score is assigned.

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subject to professional isolation and a high potential for burnout.[15,16] Rather than wishing for resources that we don't have and that history tells us that we may not achieve, we need to develop a national rural mental health plan that rationalizes our current system and capitalizes on our existing strengths and resources.

The end result is that many rural Americans rely heavily on the primary care system as their source of mental healthcare.[17] In fact, many rural residents express a preference for receiving mental health services through their primary care providers, given the issues of stigma and the perceived lack of confidentiality due to the small town environment (in which everyone knows your business). In many ways, these pressures are positioning rural communities to lead the way in developing rationalized systems of care in which primary care providers are an integral part of the mental health delivery team.

Renewed Calls for the Integration of Mental Health and Primary Care

Although discussions of the integration of primary care and mental health in rural areas date back to the early 1970s, a number of national reports and studies have signaled a renewed interest in and policy support for efforts to strengthen integration efforts among rural providers. The Surgeon General's Report on Mental Health acknowledged the crucial role of primary care in providing mental healthcare.[1] The President's New Freedom Commission on Mental Health (2003)[18] promoted integration of primary care and mental health to help address access problems in rural areas. The National Advisory Committee on Rural Health and Human Services' Report to the Secretary (2004) and the national Institute of Medicine's Quality Through Collaboration: The Future of Rural Health Report (2005)[19] call for integrating mental health with rural primary care. Mental health expansion and new access points grants, created under the President's New Access Initiative, provide funding for Community Health Centers (CHCs) to deliver behavioral health services.[20]

Resources Needed to Enhance the Integration of Mental Health and Primary Care Services in Rural Areas

Over the past decade substantial progress has been made in developing tools and resources to support the integration of mental health and primary care services. These tools and resources include a variety of screening tools, evidence-based practices, and best practice models. Legislative changes provide cost-based reimbursement for Rural Health Clinics employing doctoral-level psychologists and clinical social workers. The Bureau of Primary Health Care provides grant funding to support the development or expansion of mental health services by CHCs. The Bureau also supports the development of Health Disparities Collaboratives by CHCs using Ed Wagner's chronic care model to treat patients with chronic conditions including depression.[21]

It is no longer a question for a rural practice of how to get started but, rather, how to sustain these activities over time in a day-to-day practice setting.[22] The delivery and coordination of mental health services in a primary care practice require a balance between the provision of integrative services (e.g., coordination with primary care providers in the practice as well as external specialty care providers, engaging patients in the treatment process, educating clinicians and staff, etc.), which are frequently not reimbursable and more traditional assessment and counseling services which are.[22]

Additional tools and policy interventions are needed to further the expansion of these efforts. These include: (1) the development and implementation of electronic medical records to support clinical integration and communication; (2) continued provision of mental health expansion and new start grants by the Bureau of Primary Health Care; (3) the development of federal and state policies to compensate for the limited access to specialty mental health services; (4) support for the expanded use of telemedicine technology to provide access to psychiatric consultative support in rural communities; and (5) the provision of third party reimbursement and support for the delivery of mental health activities in rural practices, including reimbursement for integrative activities and the inclusion of these primary care practices in Medicaid and commercial behavioral managed care plans.

The integration of mental health and primary care services is a policy goal whose time has come. Due to long-standing resource constraints, rural communities and practices have led the way in developing integrated models of care, often in the face of limited financial and administrative support. For further progress to be made, we must acknowledge the challenges related to the integration of these services and develop policy interventions, training tools, and technical assistance to overcome them. **NCMedJ**

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Leadership Development for Rural Health

Tim Size

Rural health has come a long way, but has a long way to go. With hindsight, some might minimize Jim Bernstein's leadership, now unaware that much of what he did for rural health was initially just an idea, a hope. It is this midwifing of a vision into reality that is the very essence of leadership. Henry David Thoreau described Jim's caliber of leadership when he wrote the oft repeated lines, "If a man does not keep pace with his companions, perhaps it is because he hears a different drummer. Let him step to the music which he hears, however measured or far away."[1] Jim Bernstein leaves a legacy that continues to challenge all of us to care and to achieve more than we first thought possible, whomever our drummer, whatever our position.

On July 15th, 2005, the National Advisory Committee on Rural Health and Human Services advisory to the Secretary of the United States Department of Health and Human Services, adopted a Special Resolution to honor James Bernstein, which concluded with the following: "The Committee believes that the best way to honor Jim is to consciously work to help develop the next generation of rural health leaders. Jim was a master of creating change by working within the existing policy framework and helping others to build sustainable programs that addressed long-standing problems. The Department should play a lead role by developing a program that identifies emerging leaders from and for rural communities and provides them with the training and resources to play a lead role in ensuring access to quality healthcare in their states and communities. This program warrants long-term support by the Department, and it should focus on rural needs within the larger policy context that affects us all. The Committee urges the Secretary to take the lead on this initiative, which will serve as a reminder of all of Jim Bernstein's fine work."[2]

While I can see/hear Jim wincing at the focused personal attention, I know he would put up with it to help further develop rural health, a process that must include understanding our past. I believe he would also be the first to remind us of the many people who are called to exercise leadership in both large and small ways.

This commentary is a personal statement without presuming to be writing the definitive word on what we need to know to further develop rural health leadership. My intent is to express belief as belief and not individual belief as universal truth, a convention too common today in our national "dialogue." The reader is invited to engage with what he or she reads here, taking what might be useful, and hesitating a moment to think through what might be useful, but doesn't immediately seem so. This is a "conversation," not a lecture.

What Is Leadership Development and Why Do We Need It?

The weekend I received the opportunity to write this commentary, our church was celebrating those living or dead who made a contribution to our faith and various communities. That service brought forth the image that individuals who exercise leadership are like a river's current—a part past where we now stand, a part yet to come. We have an ongoing need to remember and to look toward the next "generation." Rural leaders will arrive without the assistance of any of us, but deliberative leadership development will foster more effective and diverse leadership. A key responsibility of those here now is to mentor and to create structures for mentoring, in order to maximize the flow and effectiveness of tomorrow's leaders.

Leadership is the capacity to help transform a vision of the future into reality. This commentary focuses on *leadership* development more than *leader* development to emphasize that throughout our organizations and communities, we have and need individuals who may not be formally designated as leaders, but who can and do exercise leadership. Leaders recognize that none of us are called

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to always lead, that sharing or conceding leadership to others is also a key role. None of us are called to lead on every issue; all are called to interact and support the vision and ideas brought by others.

We need to recognize that in addition to individuals having the potential to exercise leadership, the potential of leadership also exists "corporately," in groups of individuals, whether they are teams, organizations, or communities. Individually and collectively, at all levels, we are called to lead in one place or another and are "born" with traits that can both enable and interfere with that opportunity and responsibility. Wherever the individual or group starts, learning and growth are possible. We need to structure leadership development for groups and communities as well as individual leaders.

Leadership development, formal or informal, is not just for the chronologically young. I have a friend who for many years has been a newspaper reporter and columnist as well as the chaplain for a mission that works with our city's poor and addicted people. He has arrived at "retirement" age, but many of his readers are now seeing a columnist who speaks with a profoundly clearer voice. Some of the paper's readers who disagree with him would undoubtedly welcome the news of his retirement; so be it, leadership necessarily brings out in good measure both supporters and detractors.

Leadership comes in many contexts. Jim Bernstein and I talked more than once about the similarities and differences in our vocational situations. We held in common that we were born and raised "elsewhere," but became deeply rooted in our adopted home states. I work with mid-western rural communities facing relatively more racial homogeneity and less extreme poverty. These communities have a strong tradition of agricultural cooperatives that enabled our development of a cooperative of community hospitals—hospitals that work with and challenge both our state and our universities. Jim worked with southern rural communities facing more racial diversity and often extreme, community-wide poverty. He was able to be innovative from a position inside of government. Jim was notable in the respect and understanding he offered those working in a variety of circumstances.

A friend recently shared with me a few of the leadership challenges she faces, which are unique to her role as the chief executive officer of a hospital in a rural community. This commentary will not catalog such challenges, but her comments serve as a reminder for the "in the trenches" reality that rural health leadership development initiatives must address. "It is easy to become isolated, I am the only person doing what I do in our community. We are much smaller than most of our urban counterparts, so I need to juggle the crunch of many required 'to dos' without the luxury of additional staff who can take the ball from start to finish. And when first arriving, it was not unusual to have a 'new gal/guy in our community trying to tell us what to do' type greeting. 'She or he will be gone and never give us another thought.' "

The Role of Nature and Nurture

At one time, people tended to believe that leaders were born, not made. Now we tend to see leadership as a set of traits that can be nurtured. But what about nature, the traits we are born with? A while back, I was asked when I became an advocate. The answer was that we all receive some traits at birth, or shortly thereafter. "One of my most vivid memories of home in the late 1950s is the endless kitchen argument with my devout Baptist mother on the theory of evolution. Her particular tenacity on this issue may be traced to her childhood memories of her guardian's friend, William Jennings Bryan, the famed attorney on the then winning side of the 'Scopes Monkey Trial.' But like many women of her generation raised in the shadow of the old south, she had a finely tuned nature of smiling and cajoling while not giving an inch."[3] On the way to the rest of my life, I realized that what we did have in common was an innate passion to talk, and to never concede. Yes, nature matters, but it need not be determinative. Subsequently, with the help of a very well-financed Kellogg leadership program, others were able to teach me not to use a rhetorical cannon when a rifle was sufficient, and that once in a while, a concession wouldn't kill me.

America has a complex heritage when it comes to how it thinks about leaders—accepting contradictory leadership styles. We call the strong, individualistic characters, such as played by John Wayne, classic American leaders. Democrats and Republicans honor Jimmy Carter's leadership, whose less autocratic emphasis on partnership makes him a contender for "the country's most successful ex-President." We understand that leadership is not limited to the classically cinema-charismatic or those holding formal power, as Rosa Park's "simple" act of saying "no" will forever testify.

How our culture holds these apparent contradictions is not well understood. Robert Frost's poem "Mending Wall" set on a New England farm is most famous for the line "Good fences make good neighbors," a frequent citation of American individualism. But it is a better example of not reading a whole poem. Frost goes on to say, "I let my neighbor know beyond the hill, and on a day we meet to walk the line and set the wall between us once again…." Even this icon to self-sufficiency is expressed within the cultural context of selective cooperation.[4]

To develop as a leader, we must understand how leadership has unfolded in our own lives. A key initial transition is to recognize and accept "for better, for worse" what characteristics one has "hard wired" and then begin to see how one can develop further. This is also a precondition for those intending to take on the role of leader recruiter or mentor.

In my own development, a key step forward happened in my mid-20s while working as an "assistant superintendent" at a university hospital. As quickly as a light switch is turned on, I was lucky one day to realize that maximizing program successes was not the same as minimizing program failures. This eventually led to a transition from state government, which I experienced as being risk adverse, to an organization in the non-profit sector, which has allowed calculated risk taking. The operative word is

"I experienced." Jim Bernstein is the obvious counter example, having taken many risks and had many successes from a base within state government.

Risk taking requires comfort with failure, one of life's most powerful teachers. A while ago, I was asked to address how I maintain energy in the face of so many failures. I was taken off guard because I didn't think of myself as having had that many failures. Upon reflection, I was able to easily come up with a list of ten failures, many of which in less charitable circumstances would have involuntarily led me to "pursue a new career opportunity." I just hadn't been keeping a tally, and I still don't.

For us to have integrity as leaders, we have to continue to work to know who we are as we relate to our work. A timeless illustration is found in Chinese philosopher Chuang Tzu's "Woodcarver," written about 2,300 years ago:

> Khing, the master carver, made a bell stand
> Of precious wood. When it was finished,
> All who saw it were astounded. They said it must be
> The work of spirits.
> The Prince of Lu said to the master carver:
> "What is your secret?"
>
> Khing replied: …
> "What happened?
> My own collected thought
> Encountered the hidden potential in the wood;
> From this live encounter came the work
> Which you ascribe to the spirits."

The best explanation of this poem I know is in Parker Palmer's renowned work on vocation, an *Active Life*:[5]

> …we both act and are acted upon, and reality as we know it is the outcome of an infinitely complex encounter between ourselves and our environment. In this encounter we do some shaping, to be sure, but we are also shaped by the relational reality of which we are a part. We are part, and only part, of the great community of creation. If we can act in ways that embrace this fact, ways that honor the gifts we receive through our membership in this community, we can move beyond the despair that comes when we believe that our act is the only act in town…. When authentic action replaces unconscious reaction, the active life becomes not (in the words of Chuang Tzu) 'a pity' but a vital and creative power.

As noted by Parker Palmer, how we choose to frame or understand our relationship with others and our environment is critical to our growth as leaders. My best example occurred in graduate school, or more specifically in the dormitory elevator in graduate school. It was Chicago's oldest and slowest Otis elevator—it took an "eternity" to go the 12 stories to my room. One day it hit me that my frustration wasn't the result of the elevator, but my unrealistic expectation of its behavior. Subsequently, I still thought it was slow, but I didn't worry about it. So how do we frame rural health leadership? What kind of elevator is it? If we make the right investments, what kind of elevator can it become?

Servant Leadership and Rural Health

The concept of "servant leadership" is a perspective held by many throughout the rural health community, and I believe is a major frame for understanding the attributes of leadership we need in rural health. Robert Greenleaf, the man who coined the phrase servant-leadership described it as "the servant-leader is servant first…. It begins with the natural feeling that one wants to serve, to serve first. Then conscious choice brings one to aspire to lead."[6] I don't believe he is saying "natural" as in the sense "natural athlete," but that at some point in life, the feeling arises to serve, which in turn leads to a decision to exercise leadership. What are the attributes of servant leadership; what characteristics or skills must we look for when we recruit a leader or should we look for when we learn, teach, and reinforce? For me, a good start to that question is to compare the attributes of "servant" and "traditional" leaders. Cooper McGee and Duane Trammell do just this in "Hero as Leader to Servant as Leader."[7]

Examples of Traditional Leadership Skills

- Highly competitive; independent mindset; seeking personal credit.
- Understands internal politics and uses them to win personally.
- Focuses on fast action.
- Controls information in order to maintain power.
- Accountability is more often about who is to blame.
- Uses humor to control others.

Examples of Servant Leadership Skills

- Highly cooperative, interdependent; gives credit to others generously.
- Sensitive to what motivates others to win with shared goals and vision.
- Focuses on gaining understanding, input, buy-in from all parties.
- Shares big-picture information generously.
- Most likely listens first, values others' input.
- Accountability is about making it safe to learn from mistakes.
- Uses humor to lift others up.

Our Health Needs Collaborative Leaders

I had the opportunity to serve on the national Institute of Medicine's (IOM) Committee on the Future of Rural Health Care. For me, the major breakthrough in the Committee's work as documented in the report, *Quality Through Collaboration: the Future of Rural Health*,[8] was that the IOM's Six Quality Aims (originally constructed for the healthcare of the individual) apply equally well to a population health perspective, or said another way, "the community as patient."

This perspective that we need to "balance and integrate personal healthcare with broader communitywide initiatives that target the entire population,"[9] developed after the committee applied the IOM report, *Fostering Rapid Advances in Health Care: Learning from System Demonstrations*,[9] to rural health. Examples of applying the IOM's Six Quality Aims for a population health perspective include:

- *Safety*: Road construction designed to reduce auto accidents.
- *Effectiveness*: Public schools act to reduce risk of obesity/diabetes.
- *Community-centered*: Regional provider networks respect community preferences.
- *Timeliness*: Timely identification of epidemics.
- *Efficiency*: Public reporting of population-based measures of health status.
- *Equity*: Developing, maintaining rural jobs.

The Committee on the Future of Rural Health Care synthesis was that "rural communities must build a population health focus into decision-making within the healthcare sector, as well as in other key areas that influence population health. Most important, rural communities must reorient their quality improvement strategies from an exclusively patient- and provider-centric approach to one that also addresses the problems and needs of rural communities and populations."[8] This vision constitutes a major opportunity for rural health leaders to lead the health of our country, all of it. The "central thesis" of the recently published compendium *Reinventing Public Health, Policies and Practices for a Healthy Nation* makes the same point "to effectively improve population health and reduce health disparities, policy making in a variety of domains must take into account policies that address the fundamental social, economic, and ecological determinants of health."[10]

As an example, in Wisconsin, a voluntary coalition has developed a Strong Rural Communities Initiative (SRCI) to support the state's health plan by implementing sustainable rural models for medical, public health, and business collaboration to enhance preventive health services in rural Wisconsin. In *Wisconsin County Health Rankings 2005*,[11] a report by the Wisconsin Public Health and Health Policy Institute at the University of Wisconsin-Madison, 52% of metro counties in Wisconsin are in the top (best) quartile for Health Outcomes compared to only 11% of non-metro counties; 30% of non-metro counties are in the bottom (worst) quartile compared to 16% of metro counties. The specific purpose of SRCI is to improve health indicators for selected rural communities in Wisconsin and significantly accelerate establishing collaboration for prevention as the norm, not the exception, in rural Wisconsin.

The complexity of creating a healthy state requires a higher level of cooperation than any of us have yet experienced. This requires a significant expansion in our commitment and ability to develop collaborative leadership. Again, from *Quality Through Collaboration: the Future of Rural Health*:[8]

> Strong leadership will be needed to achieve significant improvements in health and healthcare in rural communities. Comprehensive community-based efforts will require extensive collaboration, both between stakeholders within the healthcare sector, and between healthcare and other sectors. It will be necessary to mobilize all types of institutions (e.g., healthcare, educational, social, and faith-based) to both augment and support the contributions of health professionals. Rural communities engaged in health system redesign would likely benefit from leadership training programs.[8]

Principles of Collaborative Leadership

The significant challenges we face today in healthcare require a form of leadership that is less authoritative and more collaborative. Ronald Heifitz and colleagues at the Stanford Graduate School of Business say it very well. These "problems require innovation and learning among the interested parties, and, even when a solution is discovered, no single entity has the authority to impose it on the others. The stakeholders themselves must create and put the solution into effect since the problem is rooted in *their* attitudes, priorities, or behavior. And until the stakeholders change their outlook, a solution cannot emerge."[12] It is important to not confuse being collaborative with endless stanzas of singing "Kum By Ya;" collaboration frequently requires strong external catalytic action.

Max DePree, in *Leadership Is an Art*,[13] offers a model for employer-to-employee relationships based on his experience that productivity is maximized by designing work to meet basic employee needs. His vision of the art of corporate leadership brought employees into the decision-making process. DePree's experience is primarily within the world of the Fortune 500, but many have found him to offer a useful framework for non-profit and public sectors.

While DePree was a successful leader of a Fortune 500 Company, some may describe him as impractical, a common descriptor thrown by the "pragmatists" at "collaborators." Robert Greenleaf offers a suggestion that may be helpful in thinking through this dilemma: "For optimal performance, a large institution needs administration for order and consistency, and leadership so as to mitigate the effects of administration on initiative and creativity and to build team effort to give these qualities extraordinary encouragement."[14]

As the executive director of a cooperative of rural hospitals for more than 25 years, it is easier for me than for many to see rural health through the lenses of collaboration, the opportunities it creates, and the threats it endures as a model for organization and community work. We have adopted and adapted DePree's eight leadership principles as a guide for both our internal and external relationships. To illustrate these leadership principles, the following is as described in the article "Managing Partnerships: The Perspective of a Rural Hospital Cooperative."[15]

There Is Mutual Trust—Develop relationships based primarily on mutual trust so that the cooperative go beyond the minimum performance inherent in written agreements. "While responding

to a rapidly changing market in 1984, the implementation in six months, 'from scratch,' of a rural-based health insurance company in Wisconsin was only possible due to the prior existence of a basic level of trust among the key actors."

Commitment Makes Sense—Participants may join a cooperative to explore its potential; they remain only if they perceive that they are receiving a good return on their investment of time and money. "RWHC offers a broad array of shared services from which hospitals pick and choose according to their individual needs; commitments are made because they have been structured in a way that attempts to maximize the 'fit' for each individual participant."

Participants Needed—Each organization must know that it is needed for the success of the cooperative. "It is a major mistake to ever take for granted the participation or commitment of any member. The RWHC communication budget is ample testimony to the importance of early and frequent communication and consultation."

All Involved in Planning—The planning is interactive, with the plan for the Cooperative being the result of, and feeding into, the plans of the individual participants. "One theatrical but powerful example of ignoring the need for local input and preferences involved the Cooperative within months of its incorporation in 1979. Two regional health planners were practically driven from the bare wood stage of Wisconsin's historic Al Ringling Theater after their presentation of a unilaterally developed plan for local consolidations and closures. The plan was not implemented and did not contribute to further discussion of how rural healthcare in southern Wisconsin could be improved."

Big Picture Understood—Participants need to know where the organization is headed and where they are going within the organization. "RWHC has a motto: 'say it early and keep saying it.' A number of RWHC's more significant initiatives, such as improving rural hospital access to capital, various quality improvement projects, and advocacy for major education reform within the University of Wisconsin's health professional schools has been multiyear if not indefinitely long efforts."

Participants Affect Their Own Future—The desire for local autonomy needs to be made to work for the Cooperative through the promotion of collaborative solutions that enhance self-interest. "When RWHC began operations, many observers were highly skeptical about whether or not it would last, let alone make any real contribution—that rural hospitals' traditional need for autonomy would prevent any meaningful joint activity. Some shared services have been undersubscribed as hospitals have chosen local options when, at least from the perspective of RWHC staff, a cooperative approach offers a better service at a lower cost."

Accountability Up Front—Participants must always know up front what the rules are and what is expected of them. "Discussions at RWHC board meetings are frequently comparable to customer focus groups and equally valuable. Participation in all Cooperative shared services requires a signed contract, not so much as to permit legal enforcement, but to ensure that all parties in the partnership have thought through upfront the expectations of all the participants."

Decisions Can Be Appealed—A clear non-threatening appeal mechanism is needed to ensure individual rights against arbitrary actions. "The use of the cooperative strength of RWHC hospitals has been used to enforce an appeals process in a variety of circumstances, including a potential breach of contract by a large health insurer; individually, few could have justified the necessary prolonged legal challenge to enforce the contract but through concerted joint inquiry into the legal options available, further legal action became unnecessary."

Recruiting Rural Health Leaders

When recruiting organizational leaders, the recruitment and interview process must seek individuals who in addition to technical competence, also have demonstrated leadership in their prior work and activities. John Gardner, in his classic work, *On Leadership*,[16] notes six characteristics common to individuals who exercise organizational leadership. These characteristics are exhibited in many roles, for example, as the head of an organization, as a manager, or in a volunteer position:

- They think longer term—beyond the day's crises, beyond the current fiscal year.
- In thinking about the program or organization they are heading, they grasp its relationship to the larger organization or community—conditions external to the organization.
- They reach and influence constituents beyond their immediate area of responsibility.
- They emphasize the intangibles of vision, values, and motivation and understand intuitively the non-rational and unconscious elements in their relationship with their constituents.
- They have the political skills to cope with the conflicting requirements of multiple constituents and expectations.
- They think in terms of renewal. The leader or leader/manager seeks procedural and structural change consistent with an ever-changing reality.

In addition, as argued throughout this commentary, collaboration needs to be a core competency for leadership of those organizations claiming to work in or with rural communities. The following are a few examples of principles relevant to collaboration to keep in mind or discuss when recruiting or developing a leader.

Collaborative Leadership Isn't Always Traditional—If leadership is serious about maintaining and developing collaborative relationships, the following must be kept in mind:

- Management practices necessary for successful collaboration are not commonly seen in traditional, vertically organized institutions.
- Most administrators have had little experience, and even less training, regarding leadership within the context of collaborative models.
- The "natural" administrative response will frequently come out of traditions that may be inconsistent with the actions needed to support networking.

- The development of collaborative relationships has a different timescale than those based on authority—more time on the front end paid off later with less participant resistance.

Personal Attributes of a Collaborative Leader—A partial list of the personal attributes relevant to seeking or developing a collaborative leader include:

- Experience/potential for leading collaborative enterprises or networks, cultural competence across diverse communities and populations.
- When looking at alternative investments: the objectivity of an academic, the pragmatism of a businessman or woman, and the creativity of an artist.
- Appreciation for the dualities inherent in American culture—individualism and community, competition and collaboration; a realistic understanding of the health system challenges we face balanced by an "irrational" optimism and faith that we each can make a difference.
- A vision that leadership needs to be simultaneously top down and bottom up within organizations, as addressed by Max DePree.

Collaborative Leadership Skills and Experience—Below are a set of general questions intended to stimulate conversation regarding an individual's collaborative leadership skills and experience.

- What is the role of "trust" in your work with colleagues or partners? What examples can you offer of your ability developing trust in these "partnerships"? How did you do it? How was the relationship affected?
- How have you been able to make your collaborative partners feel useful?
- How have community partners been invited into your organization? What did you see as benefits and challenges in these instances? How would you do it differently today?
- In what ways have you worked to promote collaborative solutions that have enhanced the self-interest of both internal and external partners?

Summary

Leadership is the capacity to help transform a vision of the future into reality. Individuals who can and will exercise leadership are like a river's current—a part past where we now stand, a part yet to come. We have an ongoing need to remember and to look toward the next "generation." A key responsibility of those here now, is to mentor and to create structures for mentoring, in order to maximize the flow and effectiveness of tomorrow's leaders. When recruiting organizational leaders, the recruitment and interview process must seek individuals who in addition to technical competence, also have demonstrated leadership in their prior work and activities.

To exercise effective leadership, we must work to know who we are, how we relate to others, and the environment around us. "Servant leadership" is a perspective held by many throughout the rural health community and offers a key set attributes of leadership useful to rural health. To implement the Institute of Medicine's recommendations in *Through Collaboration: the Future of Rural Health*, we must develop leaders skilled in collaboration, both internal to their organization and across organizations.

The National Advisory Committee on Rural Health and Human Services had it right when they said to the Secretary and to the rest of us, "the best way to honor Jim is to consciously work to help develop the next generation of rural health leaders." There are, of course, a multitude of leadership institutes, programs, and courses throughout America; this is not a call for yet another separate entity. But it is a call to each of us in rural health to assure that we are deliberate in how we identify "emerging leaders from and for rural communities and provide them with the training and resources to play a lead role in ensuring access to quality healthcare in their states and communities."[17] Let's get started. **NCMedJ**

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What Outcomes Should We Expect from Programs that Pay Physicians' Training Expenses in Exchange for Service?

Donald E. Pathman, MD, MPH

Training to become a physician is expensive, as the four out of five medical students who graduate in debt will confirm.[1] Young physicians' educational debt averages over $109,000 and increases by more than $4,000 each year.[2]

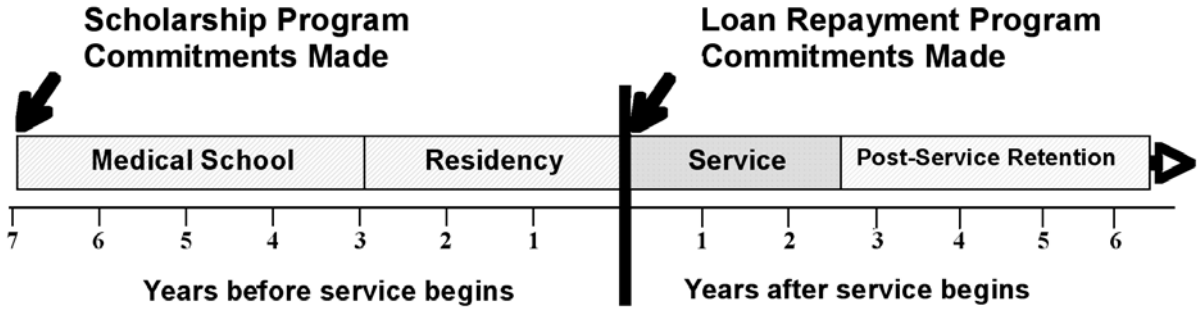
On the bright side, rising educational costs and students' fears of acquiring six-figure debts have created a market for government programs that link support for medical training costs to a period of obligated clinical work in physician shortage areas. One of the two most common types of such programs are service-requiring scholarships, which pay tuition and other costs for medical students while obligating them to a period of service that will begin when they complete residency five-to-seven years later (see Figure 1). The other common program type is loan repayment. Loan repayment programs recruit physicians as they complete residency and are ready to begin service in exchange for paying off the traditional education loans they acquired years earlier. Programs of both types typically require one year of service for each year of training cost support they provide.

These training support-for-service programs are a seemingly natural solution to both students' and the public's needs. They have grown in popularity over the past 25 years in tandem with rising tuition costs, with both federal and state agencies making ready use of them. The National Health Service Corps (NHSC)[3] currently fields an obligated physician workforce of about 1,700 scholars and loan repayers, and the Indian Health Service (IHS)[4] and Bureau of Primary Health Care[5] offer similar, but far smaller programs for physicians to work in Native American and Native Hawaiian communities. Most states also sponsor their own physician training support-for-service programs. There were a total of 69 state programs in 1996 with an estimated workforce of 1,300 practicing physicians.[6] These state programs doubled in number from 1990 to 1996 and very likely have grown further since.[6]

After 25 years of growth in these programs, the healthcare workforce advocates who lobby for them and legislators who create and fund them are not completely clear about some of their important aspects, including what outcomes can be expected. Without clear expectations, programs cannot evaluate themselves appropriately or be externally monitored, leaving program failings sometimes unrecognized and opportunities for strengthening programs unrealized.

This commentary takes the occasion of this special issue of the *North Carolina Medical Journal* dedicated to the life and work of Jim Bernstein to review what available research says

Figure 1.
Timeline of physicians' training years, signing of commitments with service-requiring scholarship and loan repayment programs, service periods (typically two-to-four years) and post-service retention.



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about the outcomes possible from physician training support-for-service programs. Under Jim's 30-year leadership, the North Carolina Office of Rural Health became a nationally recognized leader in recruiting physicians to needy practice settings, in large part by perfecting programs of this type. Sixteen years ago, Jim guided and encouraged me and my colleagues at the University of North Carolina at Chapel Hill (UNC-Chapel Hill) as we undertook our first evaluations of these programs, and the Office's ongoing councel has been invaluable.

"The key to long retention within service communities is to allow physicians to serve in well-run practices in communities that fit their needs, where they and their families can be happy and professionally fulfilled."

The information and conclusions of this commentary are based on the findings of the most methodologically sound descriptive and outcome studies of the past 20 years, which are primarily cohort and cross sectional designs with appropriate comparison groups. Studies that were unable to control for statistical confounding, evaluations designed to find only positive outcomes (typically undertaken for program advocacy purposes), and testimonials were not used. The NHSC's Scholarship and Loan Repayment programs, the two largest programs in the United States, have been studied far more than other programs and, therefore, receive more attention in this discussion.

The Overarching Program Goal and Intermediate Measurable Outcomes

The fundamental public goal of support-for-service programs is to improve physician staffing in shortage area communities. To date, no studies have assessed whether communities that rely on service-obligated physicians indeed enjoy greater workforce growth in the long run than if they had relied only on traditional non-obligated physicians on the open market. Aside from the programs' overarching goal, there has been no general agreement on the measurable outcomes that legislators and the public should expect of these programs and, therefore, no agreement on the criteria by which programs should be evaluated. The outcomes most often discussed and studied reflect the intermediate accomplishments presumed to be necessary if programs are to achieve their long-term goal of improving physician staffing in shortage areas. These intermediate outcomes have included whether programs:

- fill all of their funded positions,
- select suitable physicians into the program and match them to individually appropriate communities,
- have their physicians serve in genuinely underserved communities,
- have high proportions of their physicians complete their service obligations, and
- have high proportions of their physicians remain many years in their service communities following their obligations.

These intermediate outcomes are considered, in turn, below.

Program position fill rates. Some programs, including the NHSC, have many more applicants than their funds can support and regularly fill all funded positions; other programs have many unfilled positions for lack of applicants.[7] Fill rate information for some programs is not reported or publicly available. Because many programs are able to fill all available positions year after year, any program that repeatedly fails to do so should assume that physician interest is being harmed in some way. Common ways programs reduce physician interest include offering unfavorable contract terms (e.g., financial benefits too small; penalties or service requirements too great), offering too few service site options from which physicians may choose, having poor program marketing, and/or having poor management. Mississippi's Family Medicine Education Loan/Scholarship program, for example, with its unprecedented ten-year service obligation, signed-up a total of only seven students from 2001 to 2004 despite having funding for 20 new students each year.[7] The legislature appropriately lowered the program's service requirement, but only to six years, which may still prove too lengthy to interest students.

Selecting appropriate physicians and matching them to individually appropriate sites. Appropriate physician selection criteria—the right demographics, backgrounds, motivations, and career interests—get much attention from some programs,[8] but available data suggest that they are generally not important to achieving program outcomes. Studies repeatedly find that the demographics and backgrounds of obligated and non-obligated physicians are generally not related to how satisfied they are in rural and underserved area practices nor how long they remain there.[9-11,a] Further, no studies have demonstrated that obligated physicians with certain demographics or motivations provide better care to patients in underserved practice settings. The quest for perfect

a Background characteristics *are* very important to who will freely choose to practice in rural and underserved areas (i.e., important to recruitment), but this is irrelevant when selecting among applicants to support-for-service programs. Recruitment factors are not the issue with physicians asking to work in these areas; only retention factors, and individual characteristics are not relevant to retention.

selection criteria sometimes reflects programs' unwillingness to accept responsibility for their shortcomings, shifting blame instead to their allegedly ill-prepared or overly self-centered workforces ("deadbeats").

Rather than particular physician characteristics, data suggest that only concordance between the needs and interests of obligated physicians and the practice site opportunities available through their service programs are key to the success of their physicians in underserved areas—physicians' satisfaction, communities' satisfaction, and physicians' retention. Whether a physician is male or female, was raised in a rural or urban area, graduated from a public or private school, or trained in family medicine or pediatrics are criteria that are generally irrelevant to program outcomes. No type of background or training will bring physicians meaningful contentment, enthusiasm for work, and long retention when the work and community settings don't fit them. Success for obligated physicians does often depend, however, on whether their program offers practice opportunities that meet their preferences, for example, to work in a community health center that provides hospital care for its patients and to live in a town large enough to support their spouse's law practice.[10,12] Physicians will usually succeed in practices that meet their career and family needs.

Matching participants to truly needy communities. Programs differ in the types of communities and practices where physicians are allowed to serve their obligations, in the number of specific sites they may choose from, and in how the match occurs. State programs, as a group, give greater latitude in the number and type of practices available, some allowing physicians to work in any practice in any rural county of their state.[6] For these programs, no listing of practice choices is created; physicians find their own sites from across eligible geographic areas. The most restrictive programs are the federal and a few state programs that have adopted a secondary program goal to support the physician staffing needs of publicly sponsored practices, like federally qualified health centers (FQHCs), Indian Health Service clinics, and prison health centers. Participants in these more restrictive programs must choose a practice site from a short list of limited options. Some programs go through elaborate steps to identify the few "most needy" sites eligible for physician placements—most notably the NHSC, which has designated health professional shortage areas (HPSAs), priority ranking of HPSAs, and annual restrictive Health Professionals Opportunity List (HPOL) of specific eligible sites from among priority HPSAs.

Using set criteria to rank need would seem to be a reasonable approach to limiting physician placements to the neediest communities. In practice, however, devising criteria of need and carrying out the designation and physician-to-community matching processes have proven problematic and contentious. The process by which HPSAs are designated, for example, has been criticized as politically influenced and evaluations have failed to find that communities with more critical HPSA ratings have worse physician shortages.[13,14] Site eligibility lists are notoriously out-of-date, which frustrates physicians who are trying to locate an appropriate service site. Using explicit NHSC site designation criteria serves principally to mollify practices (and their Congressional supporters) that aren't deemed eligible for physician placements and to justify the policy of using support-for-service programs as a staffing mechanism for publicly supported clinics. Using short service-site availability lists to serve these political ends and to meet the immediate staffing needs of subsidized practices may or may not be worth the greater likelihood that communities will receive ill-fitting physicians who are dissatisfied with their site assignments and more likely to leave as soon as their obligations are fulfilled.

Service completion rates. The proportion of physicians who complete their obligations with service is often the most sacredly held of outcomes for programs, but perhaps shouldn't be. The common view is that physicians owe society for the medical training and bright future afforded by program dollars, and they have a responsibility to needy communities to provide service as promised when they accepted program funding. Support-for-service programs obviously cannot improve medical staffing in underserved communities if participating physicians opt not to fulfill their obligations with service.

When many early NHSC scholarship participants of the late 1970s paid off their program obligations monetarily instead of providing service,[15] Congress quickly increased penalties for buying out contracts to three times the dollar amount physicians had received plus interest. Buy-out rates plummeted, and service completion rates have been around 90% ever since. Today, with these penalty rates, buying out a contract with the NHSC Scholarship Program or with the few state programs that charge similarly high penalties,[6] will often cost physicians a prohibitive $250,000 to $700,000. With these high penalties and the courts upholding the government's right to levy and enforce them, service completion rates can nearly always be made to look good.

Forcing service with harsh penalties, however, comes at a cost to programs and communities. Requiring disinclined physicians to work in needy communities increases the costs of monitoring physicians to make certain that they abide by their contracts and increases the costs of defending against litigation brought by unhappy participants.[16] A less happy and potentially disgruntled workforce is quicker to leave their service sites as soon as their obligation periods are over.[10,11,17] Among state scholarship programs, any buy-out penalties beyond simply repaying principal plus low interest are associated with lower participant satisfaction levels and shorter retention, which perpetuates physician shortages and the need for ongoing staffing assistance for repeatedly abandoned service sites.[18] Compelling service completion with financial penalties is not a perfect solution.

Loan repayment programs show some of their advantages over scholarship programs in their high obligation completion rates despite low buy-out penalties. Loan repayment participants sign program contracts when they are older and much better informed of their career options (see Figure 1). They sign up at the time they are ready to begin serving their obligations and can know their and their family's needs and know exactly where

they will serve and if the site fits their needs. Very few loan repayment programs, accordingly, have found a need to set any buy-out penalties; as a group, their service completion rates average 93% without them.[18] It is the physician-program-community fit and the financial attractiveness of the program that prompts physicians to complete their obligations with service (the "carrot"), not financial and legal threats (the "stick").

High penalties are a common aspect of programs that establish post-educational service commitments for young students, especially scholarship programs (there are other types of programs that commit students and not all use penalties). It is reasonable to question the wisdom, and even the justice, of compelling students who commit to scholarship programs as 22-year olds, but realize seven years later, through natural maturation, that the program no longer fits their more mature career and family needs. An alternative is a third type of program, the *service-option loan*, which also recruits medical students, but achieves better outcomes by holding service as an *option* to repaying program dollars at low, affordable traditional education loan rates.[6] While only 45% of states' service-option loan participants opt to provide service, those who do demonstrate excellent satisfaction and retention in their service communities.[18] The 55% who pay off their program contracts are no different and require no greater public expense than the vast majority of all medical students; that is, they fund their education with what amounts to a publicly sponsored loan. If a 45% service completion rate for a given program leaves too few physicians available for needy communities, the program can offer more contracts up front in anticipation that not all will serve.

Retention. Beyond merely completing obligations with service, there has long been the hope that obligated physicians will remain in their service communities for years afterwards. Program impact becomes much greater if two or four years of obligated service in a needy community is lengthened through post-obligation retention to ten or more years of work there. Unfortunately, there is a common misperception that serving an obligation is a financially necessary, but undesirable, career step for many physicians, and retention in service communities after obligations are fulfilled, therefore, often cannot be expected. In fact, data show that physicians participating in state-run support-for-service programs remain in their service sites as long on average as other young physicians remain in practices of all types nationwide. Physicians obligated to state-run loan repayment programs remain substantially *longer* than other young physicians.[18]

When particular programs experience poor retention, it is sometimes rationalized that high turnover is inevitable in needy communities, which are allegedly too unattractive to retain physicians and their families. However, available studies find that retention for both obligated and non-obligated physicians is generally unrelated to community characteristics,[17,19] and retention is no shorter in underserved areas than in non-underserved areas.[9,19]

The key to long retention within service communities is to allow physicians to serve in well-run practices in communities that fit their needs, where they and their families can be happy and professionally fulfilled. When service programs are operated as a short-term solution for chronically under-staffed practices—placing physicians in sites without adequate regard to fit and allowing them to be paid poorly, without benefits and treated as temporary, replaceable workers—physicians can be expected to leave promptly after fulfilling their obligations.[10-12]

Influencing the practice location choices of program alumni. For most observers, the retention of program alumni within service sites is a sign of program effectiveness. For its first 20 years the NHSC saw service-site retention as a key program outcome[15,20,b] and touted that half to two thirds of its physicians remained in their service sites beyond their service obligations.[20,21] In the early 1990s, however, longitudinal studies showed that most of those who remained in their service sites did so for only a few weeks or months.[17] A large, recent evaluation found that only 20.7% of NHSC Scholarship program alumni remained more than one month past their obligations.[22] The NHSC of the mid-1990s began speaking of the importance of NHSC alumni remaining in underserved area practices anywhere and stated that retention in service sites was not really the objective. Several studies[23,24] confirm that NHSC alumni are indeed more likely to be practicing in underserved areas than other physicians, but it is not known whether this is due to their NHSC participation or to their pre-existing career plans, which attracted them to the NHSC in the first place. The important unanswered empirical question is whether retaining obligated physicians within service sites as apposed to within any underserved area will better solve physician shortages in the long run.

Secondary Goals

Improving staffing in publicly sponsored clinics. Support-for-service programs, as discussed earlier, are sometimes used as staffing mechanisms for publicly-supported clinics, which can either help or harm their primary goal of correcting physician shortages in service communities. If lists of eligible service sites are limited to a few publicly supported clinics, which tend to be those that are chronically understaffed (the "most needy") and less well managed,[25,26] then retention following service obligations will be poor. These same clinics will need another obligated physician every two-to-four years, perpetuating a "revolving door" staffing pattern and leaving the communities vulnerable whenever no new replacement physician is available. Alternatively, physicians can be given an ample number of

b "Retention of Corps providers has been seen as integral to that self-sufficiency [of local healthcare delivery systems]. Indeed, as one measure of its success, the new program looked to the number of Corps members who chose to remain in their communities at the end of their NHSC service."[20]

sponsored clinics in a variety of settings from which to select a service site. A wider selection leads to better community-physician matches and fosters competition for physicians among clinics, promoting more favorable employment contracts and better management. In the long run, this yields better retention and more stable physician staffing for publicly supported practices and their communities.

Correcting the demographic composition of the physician workforce. Another secondary goal for some programs, particularly the various federal scholarship programs, has been to minimize the debt incurred for a medical education for students from minority, poor, and rural backgrounds.[27,28] The hope has been that a financing avenue that requires less debt will encourage more students from disadvantaged backgrounds to undertake medical training. Whether the availability of service-requiring scholarships and service-option loans is instrumental in the career decisions of minority and poor students is unknown; it has not been formally studied.

With the goal of correcting the demographic imbalance of the United States workforce, the NHSC Scholarship program supports a disproportionately high number of African American physicians. As a group, however, African Americans in rural NHSC settings have proven less satisfied in their service practices and no better retained than other NHSC physicians.[29] This appears to be due to a mismatch between the urban orientation of most African American physicians[30] and the NHSC's practice of assuring that most of its physicians serve in rural settings.[29] Support-for-service programs that target a special demographic group must anticipate the unique needs of those individuals and adjust their operations accordingly, like tailoring their lists of eligible service sites or offering part-time work options. Secondary goals of any kind taken on by programs can affect their ability to achieve their primary goals in unanticipated ways.

Recommendations

Based on the literature, the following recommendations are offered to strengthen the outcomes and impact of physician training support-for-service programs.

- Legislators should be clear about the long-term goals of the support-for-service programs they create and fund. They should provide guidance to programs on how to balance the goals of improving physician availability in underserved areas in the long term with any other goals they set, such as to provide staffing for publicly supported clinics.
- Programs should be clear on the goals and specific outcomes they are pursuing and should be certain that the outcomes are appropriate to the goals. High buy-out penalties, for example, generally will not support a goal of stable, long-term staffing in underserved communities.
- Programs should regularly monitor and publicly report their outcomes. Several types of outcome data should be used:
  - Community and patient demographic data for the communities and patients where obligated physicians serve;
  - Program data on position fill rates, service completion versus financial buy-out versus default rates, and three-, 12-, and 36-month post-obligation retention rates;
  - Data from obligated physicians addressing their satisfaction, their perceptions of their fit with the community, their perceptions of the service program and service practices, and their suggestions for improving each of these. These data should be obtained through annual surveys of participants, exit interviews, and tallies of grievances.
  - Data from service practices addressing perceptions of their assigned physicians' volume and quality of practice and their physicians' fit with the community and the service program.
- In the interests of underserved communities, programs should be willing to accept outcome data and change their operations to improve outcomes.
- Programs should not tolerate poor management of their obligated physicians by practice, and legislators should not fund programs that tolerate mismanagement of this valuable public resource.

Conclusions

Twenty-five years of program evaluations have clarified many of the outcomes possible from physician training support-for-service programs. Studies have demonstrated that loan repayment programs, as a whole, have better outcomes than scholarship programs. The central importance of good community-physician matching clearly has been shown.

Information from formal research and programs' self evaluations has sometimes influenced today's programs. For example, studies demonstrating the strengths of loan repayment programs prompted Congress recently to allow the NHSC to make more loan repayment and fewer scholarship awards and led some states to expand their loan repayment programs.[6]

Other evaluation information remains generally unheeded. Despite the demonstrated importance of physician-community matches, very few programs offer site match or contract assistance to physicians and communities. Some programs have yet to make key strategic choices, like the desired balance between meeting the short-term staffing needs of publicly-supported practices and the long-term staffing needs of underserved areas. Many programs, even those with the best of intentions, tend to cling to traditional modes of operation, despite evidence showing more effective approaches.

Excellent outcomes are quite achievable from physician training support-for-service programs. In the interests of medically underserved communities, programs should have explicit outcome objectives, regularly monitor their outcomes, openly acknowledge weaknesses, and embrace change when needed. **NCMedJ**

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North Carolina Medical Society Foundation's Community Practitioner Program

Robert W. Seligson, MBA, and Pamela P. Highsmith, MEd

Introduction

Thanks to the vision, wisdom, and passion of many dedicated North Carolinians, there exists today a largely unheralded 15-year-old program responsible for providing primary care to thousands of patients in underserved communities—patients who otherwise may have gone without medical services. Each year, physicians, physician assistants, and family nurse practitioners assisted by the North Carolina Medical Society Foundation's Community Practitioner Program (CPP) provide more than 400,000 visits to patients largely on the margin of today's healthcare system. More than half of all patients seen by CPP participants are uninsured or are Medicaid or Medicare eligible, and yet these patients are able to receive quality, continuous primary care by a provider who knows them in a community-based office setting.

"CPP works by enabling providers who are willing—indeed eager—to work in rural, economically distressed and medically underserved communities across North Carolina."

CPP Beginnings

In 1989, the Kate B. Reynolds Charitable Trust granted $4.5 million to the North Carolina Medial Society Foundation to help medically underserved communities in North Carolina attract and retain needed medical practitioners. It was determined early on that collaboration with other healthcare stakeholders was key, thus an Advisory Board consisting of representatives of the Family Medicine Departments of each of North Carolina's four medical schools, Area Health Education Centers (AHEC), the North Carolina Office of Research, Demonstrations, and Rural Health Development (ORDRHD), the North Carolina Hospital Association's Rural Health Center (RHC), the North Carolina Department of Commerce, the Kate B. Reynolds Charitable Trust (KBRCT), the North Carolina Medical Society (NCMS), and rural practitioners was established. Close collaborative relationships, particularly with ORDRHD, AHEC, and RHC, created synergy and complimentary roles while avoiding duplication of efforts. These relationships exist today. The Advisory Board and the program's first director, E. Harvey Estes, MD, Emeritus Professor of Community and Family Medicine at Duke University, determined that the program's primary means of assistance should be educational loan repayment. On occasion, the program has also awarded moving expenses, support for continued educational training, or direct payment for a needed piece of major equipment. The program has also provided consultative services to improve the management skills of medical office staff and has worked collaboratively with chronically underserved communities, assisting local leaders in conceiving and developing a viable local healthcare infrastructure capable of sustaining healthcare providers over the long term.

During its 15-year history, the program has assisted 128 rural, economically distressed and/or medically underserved communities in 76 of North Carolina's 100 counties (see Figure 1). It has provided support to 347 physicians, physician assistants, family nurse practitioners, and medical practices. Of the estimated 400,000 patient visits provided annually, by these

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practitioners, 34% are Medicaid recipients, 26% are Medicare recipients, 18% are uninsured, 41% are minority, and 55% suffer from chronic diseases. Since the program's inception, CPP providers have contributed an estimated $226 million in free or discounted healthcare services.

The Community Practitioner Program

CPP has three primary goals

- Improve access to healthcare for uninsured and underinsured populations in rural, economically distressed, and medically underserved communities across North Carolina, prioritizing federally designated Tier I, II, and II counties and whole or partial Health Professional Shortage Areas (HPSA).
- Provide cost-effective quality healthcare to underserved communities by helping the assisted CPP providers succeed and remain in their communities, operating financially viable practices despite low-Medicaid and Medicare reimbursement rates, a high number of uninsured patients, and often less sophisticated business operations.
- Develop and support a fellowship of primary care providers skilled in treating low-income, uninsured, and underinsured populations.

CPP works by enabling providers who are willing—indeed eager—to work in rural, economically distressed and medically underserved communities across North Carolina. The program provides financial assistance to participants in the form of educational debt relief in return for a commitment of five years in a target community. By paying up to half of their educational debt ($100,000 on average), CPP allows healthcare professionals to practice primary care medicine in areas of the state that need them most rather than choose more lucrative practices in urban areas to pay off medical school loans.

Because CPP is a private program, funded with non-public dollars, it is able to be more flexible than similar governmental programs. As a result, it has a remarkably successful retention rate. Sixty-four percent of CPP participants remain in their high-need communities beyond their initial five-year commitment, 73% continue to practice in rural or economically distressed communities, and 85% remain in North Carolina.

Due to the previously mentioned collaborative relationships, CPP operates with almost no physician recruiting expenses. Providers are referred by collaborating organizations including the ORDRHD, RHC, the state Department of Health and Human Services and its Division of Public Health. In addition, referrals are received from in-state medical schools for residents who are ready to begin practice and who express an interest in a rural or low-income community setting.

CPP Today

CPP is managed by the North Carolina Medical Society Foundation under the day-to-day supervision of Pamela P. Highsmith, Associate Executive Director of the North Carolina

CPP Snapshot

- 128 rural, economically distressed and medically underserved communities in 76 counties
- 347 physicians, physician assistants, family nurse practitioners, and medical practices supported
- $12 million spent on program costs to date
- An estimated 400,000+ patient encounters annually:
  - 34% Medicaid
  - 26% Medicare
  - 18% Uninsured
  - 41% Minority
  - 55% Chronic diseases
- An estimated $226 million in healthcare to the uninsured
- Retention rates for CPP medical providers:
  - 64% remain beyond initial five-year commitment
  - 73% continue to practice in rural or low-income communities
  - 85% remain in state

Quotes from Providers

"CPP support allowed me to start a rural health practice in a severe shortage area that couldn't afford to hire another physician. I have added two employees, allowing me to see more patients. By next year I will be hiring another physician to increase our patient load, as there are still many residents without a primary care doctor."

Kelly Rothe, DO
Burnsville

"CPP has allowed us to work with uninsured patients, Hispanic immigrants, and Medicaid patients and still maintain a viable practice. This is important because our community does not have a public clinic to provide a safety net for these high-risk populations."

Kit Helm, MD, and Sondra Wolf, MD
Franklin

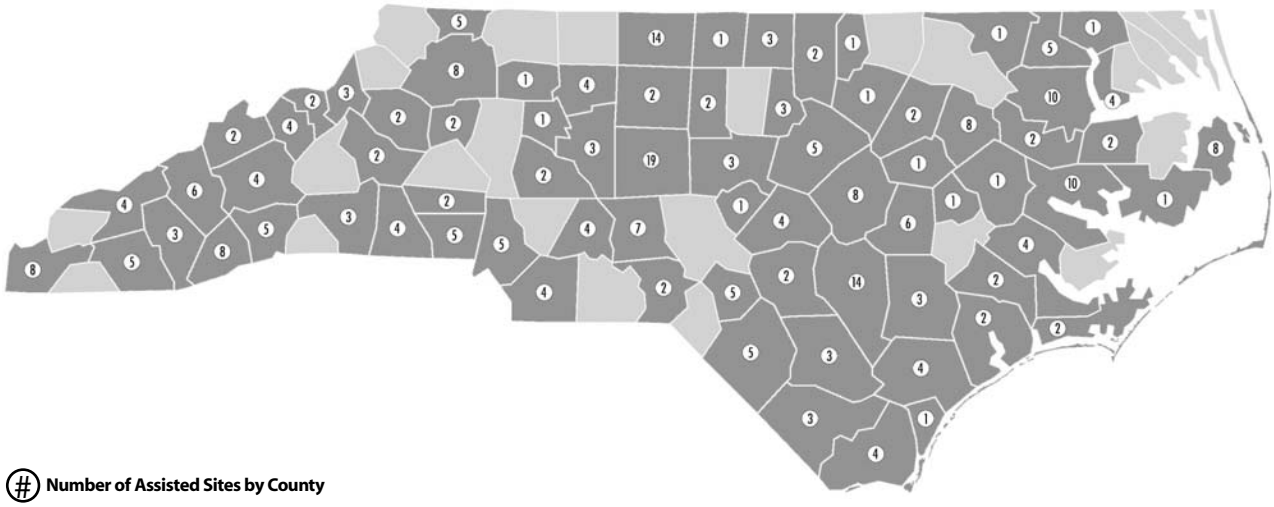
"Because of a longstanding family physician shortage, when my husband and I opened our family practice in Asheboro with CPP support, we acquired many patients who had not seen a doctor in over 20 years!"

Beth Hodges, MD
Asheboro

"CPP allowed me to practice in a rural site that, although underserved, does not meet the federal assistance guidelines. Without this help, I would have likely chosen another area. Since I have been here, I have made a tremendous impact on the needs of the Hispanic community because I am one of only two Spanish-speaking practitioners in the county."

Daniel Frayne, MD
Linville

Figure 1.
Community Practicioner Program Assisted Site—2005



Medical Society Foundation. Oversight is provided by the North Carolina Medical Society Foundation's 15-person Board of Trustees, chaired by Justine Strand, MPH, PA-C, Associate Clinical Professor and Chief, Physician Assistant Division, Department of Community and Family Medicine, Duke University. The program currently has an Interim Director, Cathy Wright, who will serve in this capacity until a full-time Project Director is identified.

CPP aims to support a minimum of 100 providers—primary care physicians, physician assistants and family nurse practitioners—in practice across the state at all times. At current funding levels, approximately 20 providers are added to the program each year as participants fulfill and complete their five-year commitments.

With a solid track record as a base, the North Carolina Medical Society Foundation has committed itself to continuing the program and to enhancing the support provided to recipients, as they attempt to survive in a reduced payment environment. This commitment is strengthened by projections of growing shortages of primary care providers, particularly in rural areas. A campaign is underway to secure needed funding and to build an endowment for its continued operations for the foreseeable future. **NCMedJ**

The Special Role for Rural Hospitals in Meeting the Needs of Their Communities

Serge Dihoff and Jeffrey S. Spade, CHE

North Carolina's rural hospitals occupy a special and significant role in the fabric and soul of rural communities. Rural residents traditionally relate to their community according to a handful of common "identifiers." Chief among these identifiers are community churches, high schools and their sports teams, volunteer fire departments and rescue squads, social clubs, and local hospitals. These common identifiers validate for the rural resident the community as their own, are a source of pride, and, in many instances, a point of friendly competition between communities. These community identifiers form the heart of the rural community infrastructure. At the most basic level, the rural hospital as a community identifier exists, from the perspective of rural residents, apart from the relative importance of the hospital's services, the quality of care of the hospital, or the economic support the hospital offers the community.

North Carolina's rural healthcare system was initially organized around the concept of a hospital serving its home county. Passage of the Hospital Survey and Construction Act of 1946, better known as the Hill-Burton Act, began a proliferation of hospital construction in the poor, rural communities of America—places where no hospitals would have been possible before. As a consequence, many rural communities throughout the country built their own local hospital. Community hospitals were founded in 72 of North Carolina's 100 counties, thus establishing the leadership role that rural hospitals fulfill within their communities today.

North Carolina's 61 rural counties are served by nearly 60 rural hospitals. Rural hospitals are usually smaller than the average North Carolina hospital, with rural hospitals caring for an average daily census of 77 acute care patients in 2004 versus an average of 135 patients for all North Carolina hospitals (see Table 1). In 2004, North Carolina rural hospitals cared for 227,612 inpatients, approximately 3.28 million outpatients, and an estimated 1.05 million emergency patients. The numbers speak for themselves—millions of visits for care and hundreds of thousands of hospitalized patients. North Carolina's rural residents depend heavily on their local hospital for valuable, timely, and necessary inpatient, outpatient, and emergency care services.

Rural Healthcare Networks

North Carolina's version of a *network* is a patient-focused system of care consisting of private and public organizations that provide an array of medical and social services to the community.

Table 1.
Averages for North Carolina Hospitals, 2004

	Average Rural North Carolina Hospital	Average North Carolina Hospital
Average Daily Census (Acute)	77	135
Annual Discharges	5,055	9,133
Annual Outpatient Visits	75,983	141,217
Annual Outpatient Surgeries	2,926	5,684
Annual Emergency Visits	21,867	30,859
Total Employees	590	1,343
Percent Net Revenue from Medicare/Medicaid	51%	49%
Patient Operating Margin	-2.3%	-0.2%
Uncompensated Care as a Percent of Gross Revenue	7.9%	7.2%
Average Age of Plant	10.1 years	9.5 years

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A successful rural network should include the local rural hospital, along with its tertiary care referral center, in a highly-integrated collaborative, coordinated with community-based organizations such as public health, primary care, dental health, emergency medical services, social services, transportation, mental healthcare, and long-term care. The composition of a rural health network varies by community, but in communities across North Carolina, rural health networks consistently deliver efficient, effective, and coordinated quality health services to rural residents.

Jim Bernstein's design for successful rural hospital and health networks can be summarized in four basic concepts:

- To build community systems of care that assure access to healthcare services focused on meeting the health needs of rural residents.
- To provide the planning, implementation, and operational support required by rural hospital networks to achieve higher levels of integration while continuing to meet patient needs.
- To integrate national and local initiatives that complement state priorities and programs in order to improve the access, quality, and cost-effectiveness of patient care for Medicaid, low-income, and uninsured patients.
- To focus on patients, not the provider, as the key denominator in rural health network development.

Critical Aspects of Rural Hospitals

What are the critical aspects of rural hospitals in relation to the communities they serve? First, rural hospitals are central to the healthcare and social service networks that undergird every rural county and community. The healthcare "quilt" of a rural community is comprised of a broad spectrum of healthcare organizations, community agencies and services, government-sponsored health services and providers, and a vast array of human service organizations that provide essential health-related benefits to the residents of rural communities. Rural hospitals touch every component of this community support system, from public health departments, Medicaid, and social services to Healthy Carolinians projects, community health centers, and free clinics. In addition to their healthcare mission, rural hospitals offer the community knowledgeable health professionals, leadership, desperately needed resources and space, in-kind support, and the basis for collaboration and coordination. The rural hospital is an invaluable resource and lifeline that ensures the viability of rural communities and their associated healthcare networks.

Another crucial aspect of rural hospitals is their role as catalysts for the development of local access points for healthcare. Both primary care and specialty care physicians are dependent on the local hospital for a range of healthcare services from outpatient and emergency care to complex inpatient care. Many rural communities would lack access to even basic healthcare services without the support of their local, rural hospital.

Today, rural hospitals are highly involved in the recruitment and retention of vital healthcare providers, such as physicians and nurses. In 2005, 36 rural North Carolina counties were designated by the federal government as whole or partial healthcare professional shortage areas (HPSAs). Since many rural North Carolina counties are considered HPSAs, the contribution of rural hospitals as the regional anchor for trained health professionals is paramount. More than 3,665 physicians practice in rural North Carolina counties. Many physician practices would not be viable without the ability to diagnose, treat, and care for patients at a local hospital. Furthermore, more than 19,100 registered nurses, 6,211 licensed practical nurses, and 1,826 pharmacists practice in rural North Carolina. The healthcare services provided by these valuable, highly skilled health professionals are directly tied to the services supported by rural hospitals.

Financial Vulnerability

Vulnerable is the most distinctive description of the status of rural North Carolina hospitals. Vulnerability is a concern for rural hospitals in many respects: fiscal, operational, service development, availability and affordability of physicians and clinical professionals, medical technology, reimbursement, physical plant and facilities, and community support. Rural hospitals are like rare, protected birds that face near extinction due to the fragility of their environment. Rural hospital boards and executives, along with their caregivers and medical leaders, work tirelessly to ensure their local rural hospital survives to meet the healthcare needs of their communities. However, this constant struggle with vulnerability is a battle that many rural hospitals will not weather without considerable assistance and attention.

One important measure of vulnerability, fiscal vitality, is the greatest threat to the survival of rural hospitals. Operating a rural hospital is often a budget-year-to-budget-year exercise of hoping limited and constrained revenues will cover increasing expenses. Line item costs, such as staff salaries and benefits, drug purchases, the cost of medical supplies, malpractice insurance premiums, and utility charges rise yearly, often increasing faster than general

"...rural hospitals contribute billions of dollars in local and regional economic value and bring tens of thousands of jobs to rural North Carolina economies and communities year after year."

price indices and at rates beyond the hospital's control. On the revenue side, state and federal hospital payments are constrained to pre-determined rates of increase, squeezing the ability of rural hospitals to ensure that revenues meet expenses. Federal payment policies, which automatically pay rural hospitals less revenue per unit of service than urban hospitals, also contribute to the poor financial stability of rural hospitals. Continually walking the "financial tight rope" without a strong fiscal safety net defines the day-to-day existence of many rural hospitals in North Carolina.

The lack of fiscal stability and a weak revenue base hurts rural hospitals in many fundamental aspects. Due to advances in medical treatments and therapies; the aging population and the continued rise of chronic disease; and the revolutionary pace of change in information technology, hospitals that are responsive to the health needs of their communities should be continually investing in the development of new services, advancing their medical technologies and capabilities, and upgrading their facilities. To stay current with these necessary advances, hospitals must have access to capital funding. Unfortunately, the tenuous financing of rural hospitals renders them risky investments for Wall Street financiers, meaning access to badly needed capital is severely restricted, especially among small rural hospitals. As a case in point, of the 88 outstanding hospital bond issues currently underwritten by the North Carolina Medical Care Commission, only 32 (or 36% of active issues) were financed for rural hospitals. Only five of the hospital bond issues supported rural hospitals with fewer than 100 beds.

Dependence on Primary Care-Oriented Therapies

One vulnerability of rural hospitals that is not well documented or understood is their dependence on primary care-oriented therapies, treatments, procedures and diagnostic services to generate revenues. For most rural hospitals, 60% or more of revenues are attributable to outpatient services, such as radiological exams, laboratory tests, physical therapy, outpatient surgery, diagnostic cardiology, and various examinations involving fiber optic procedures. The availability of these primary care diagnostic services and procedures in a local setting is crucial to the health of a community. For rural hospitals, these services form the basis of the hospital's revenue infrastructure, supporting more significant, but costly, medical and emergency care services, and community services, such as intensive care units with highly trained professionals, emergency departments with trauma physicians, and obstetrical care with newborn nurseries and specialized labor rooms. These expensive, yet critical, emergency health services are usually the first to be trimmed or closed when hospital revenues fail.

Competition for primary-level outpatient services, by full-service medical practices, outpatient diagnostic center entrepreneurs, and outpatient surgery centers, can irreversibly harm the service and revenue base of rural hospitals. Several North Carolina communities have already faced the terrible prospect of closing their local hospital due to the drastic loss of primary outpatient services and revenues. When a rural hospital is near closing, the first question the community asks is "How can we continue to have local access to emergency medical care?" Competition among rural hospitals and other providers for primary-level medical, diagnostic, and surgical services is not necessarily a detrimental strategy on its own accord. However, great care must be taken in planning and developing these services in competition with rural hospitals, especially in smaller, isolated communities, in order to protect and preserve the community's long-term investment in critical and emergency health services. Rural communities that have faced this disastrous prospect often find that they are at a point of crisis—both their community health and economic viability will erode.

Dependence on Government Payments

A summary of rural hospital traits and characteristics would not be complete without emphasizing their dependence on government payments as a constant concern for North Carolina's rural hospitals. By virtue of their location, rural hospitals serve proportionately more elderly, poor, uninsured, and disadvantaged patients than their urban counterparts. As a consequence, rural hospitals are highly dependent upon Medicare and Medicaid for sources of revenue (51% of rural hospital revenues). Some rural North Carolina hospitals depend on government payers for more than 70% of their revenues. This dependence presents serious difficulties because government payers only reimburse hospitals at the financial break-even point, or less. In addition, government payment sources can be unpredictable due to federal and state budget constraints, leading to budget freezes, or even worse, budget cuts. Rural hospitals also have a substantial uncompensated care burden (7.9% of gross charges in 2004). As a result, in 2004, the average rural North Carolina hospital received 2.3% less revenue than it actually cost to provide patient care services —a situation that is untenable in the long run.

One development in rural hospital financing is worthy of special mention, namely the Critical Access Hospital (CAH) program. A CAH is a small, rural hospital with 25 acute beds or less. North Carolina has 21 CAHs. The CAH program is designed to help small, rural hospitals manage the detrimental impact of fixed-payment government reimbursements on their hospital finances. In North Carolina, CAHs are reimbursed for their inpatient and outpatient costs for serving Medicare and Medicaid beneficiaries. The CAH program has had a stabilizing effect on small, rural hospital finances. However, CAH reimbursement does not address the fiscal burdens of caring for uninsured patients, nor does it provide an adequate level of reimbursement for investments in renovations and upgrades to buildings, capital equipment, and medical technology, or to establish new healthcare services. As a consequence, the financial picture for North Carolina's CAHs has improved, but many small, rural hospitals, including CAHs, still face the perils of substantial operational losses and fiscal vulnerability.

Workforce Vulnerability

In addition to the instability of financial resources, human resources are another basis of vulnerability for rural hospitals. For obvious reasons, hospitals are extremely dependent on highly trained, knowledgeable, and caring staff to deliver exceptional and

beneficial health services. However, the demand for primary care physicians and specialists (like general surgeons), registered nurses, mental health professionals, therapists, radiology technicians, pharmacists and pharmacy technicians, laboratory technologists, emergency medical service professionals, medical record coders, insurance billing experts, and hundreds of other skilled hospital professionals is placing an incredible burden on training programs and hospital recruitment and retention efforts. Across North Carolina, nearly every professional category experiences regular cycles of workforce shortage or adequacy. Demand and supply of various healthcare professionals change rapidly based on local market conditions. While all hospitals are equally susceptible to workforce shortages, rural hospitals are particularly vulnerable. The inability of rural hospitals to recruit or staff a few nursing positions alone can place routine medical services at risk of being limited or curtailed, reducing local access to essential healthcare. Furthermore, the expenses associated with recruiting, hiring, training, and retaining skilled healthcare workers are continually rising. Finding health and hospital professionals that desire to live and work in rural North Carolina is also challenging.

Rural Hospitals and the Local Economy

Looking beyond healthcare, rural hospitals are vital to the economic health of the community as well. Rural economic development and the viability and sustainability of rural hospitals are closely linked. Employers in rural communities frequently cite the availability of local healthcare services as a determining factor in business development. Less well known, however, is the contribution of rural hospitals to the economic vitality of their communities. North Carolina categorizes all counties into one of five economic development tiers. The economically challenged counties are in Tier 1 with the economically advantaged counties in Tiers 4 and 5. Of the 36 counties in the two lowest economic categories (Tier 1 and Tier 2), 33 of the counties are rural. Furthermore, these 33 economically disadvantaged rural counties are served by 28 rural hospitals. The importance of rural hospitals as an economic engine is best understood by examining some revealing statistics from 2001. North Carolina's rural hospitals accounted for an estimated $2.96 billion in direct economic output and $1.23 billion in direct salaries and benefits paid to an estimated 29,467 rural hospital employees in 2001 (see Table 2). When induced and indirect economic impacts are added to the direct economic benefits, rural hospitals generated an estimated $6.44 billion in economic output and $2.2 billion in salaries and benefits paid to an estimated 61,265 rural workers. The evidence is simple and straightforward; rural hospitals contribute billions of dollars in local and regional economic value and bring tens of thousands of jobs to rural North Carolina economies and communities year after year.

Summary

Rural North Carolina hospitals are a treasure to be valued, nurtured, understood, and embraced. Just as Jim Bernstein understood and envisioned many decades ago, rural hospitals and health networks are vital components of the rural communities they serve. Attention must be given to the value of preserving, enhancing, and investing in rural hospital and healthcare networks in order to ensure that effective, quality healthcare services remain consistently available and accessible for North Carolina's rural residents and communities. **NCMedJ**

Table 2.
Economic Benefit of Rural North Carolina Hospitals, 2001

	Direct Impact	Indirect and Induced Impacts	Total Economic Impact
Economic Output	$2.96 billion	$3.48 billion	$6.44 billion
Labor Income	$1.23 billion	$0.97 billion	$2.20 billion
Employment	29,467	31,798	61,265

Source: IMPLAN 2001, North Carolina Office of Research, Demonstrations, and Rural Health Development

Running the Numbers

A Periodic Feature to Inform North Carolina Healthcare Professionals about Current Topics in Health Statistics

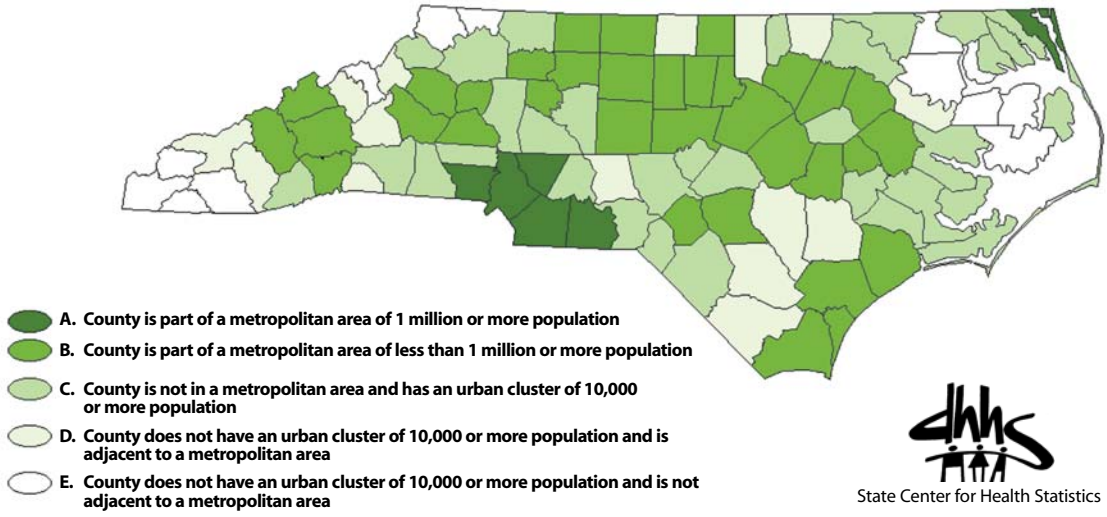
From the State Center for Health Statistics, North Carolina Department of Health and Human Services
www.schs.state.nc.us/SCHS

North Carolina Death Rates by a Rural-Urban Gradient

Death rates in North Carolina vary substantially across demographic categories, such as age and gender, and also by geographic area. For example, the death rates for many causes of death are highest in the older age groups, and counties in eastern North Carolina often have the highest death rates in the state. One important dimension of variation in health measures is the rural-urban continuum.

Urbanization in an area is an important characteristic affecting access to health services. Also, communities at different urbanization levels vary in their demographic, environmental, economic, and social characteristics. These characteristics strongly influence the magnitude and types of health problems that communities face. In this short report, we show death rates for selected causes of death by five levels of urbanization. This presentation is descriptive only. The causes of the health differentials by degree of urbanization are numerous and varied.

Figure 1.
North Carolina—Urban/Rural Catagories, 2003



We divided the 100 counties in North Carolina into five groups, from most to least urbanized (see map). This classification system is based on the United States Department of Agriculture's (USDA) 2003 Urban Influence Codes. These groups are roughly defined as: A. county is part of a metropolitan area of 1 one million or more population (six counties); B. county is part of a metropolitan area of less than 1 one million population (34 counties); C. county is not in a metropolitan area and has an urban cluster of 10,000 or more population (32 counties); D. county does not have an urban cluster of 10,000 or more population and is adjacent to a metropolitan area (15 counties); and E. county does not have an urban cluster of 10,000 or more population and is not adjacent to a metropolitan area (13 counties).

We present age-adjusted death rates for selected major causes of death for the combined 2000-2004 period. Age adjustment removes the effect of differing age distributions on the death rates. In general, rural counties have an

older population and would tend to have higher unadjusted death rates for most chronic diseases just due to the age of the population. In 2004, the percentage of North Carolina's population that was age 65 and older was 11.9%. This percentage increases steadily from 9.4% in the most urban counties (category A) to 18.7% in the least urban counties (category E).

In 2004, the percentages of North Carolina's population of 8,541,000 residing in each of the five standard USDA urban/rural categories were: 15.3% in category A, 53.7% in category B, 22.8% in category C, 5.8% in category D, and 2.4% in category E. The table below shows age-adjusted death rates for each of these county groups and the state total, for selected causes of death.

Table 1.
2000-2004 North Carolina Age-adjusted Death Rates (Deaths per 100,000 Population) by Selected Causes of Death and Urban/Rural Category

	Most Urban					Most Rural
	NC Total	**Categ. A**	**Categ. B**	**Categ. C**	**Categ. D**	**Categ. E**
All Causes	897.6	889.1	874.9	936.5	961.2	906.0
Heart Disease	233.9	224.1	222.2	257.2	257.7	229.0
Cancer	197.4	192.3	196.1	202.5	201.3	197.3
Stroke	67.5	63.7	67.0	69.1	73.4	63.9
Diabetes	27.5	24.9	26.0	29.2	35.5	30.3
Chronic Obstructive Lung Disease	46.0	45.3	45.5	46.4	48.0	51.1
Alzheimer's Disease	25.5	35.0	24.8	23.9	22.5	21.9
Motor Vehicle Injuries	19.6	15.1	17.5	24.6	29.1	27.2
Other Unintentional Injuries	24.8	22.3	24.2	26.6	27.7	31.0
Suicide	11.7	10.7	11.2	12.8	12.6	13.5
Homicide	7.3	7.7	6.5	8.6	9.0	6.9

For deaths from all causes, heart disease, cancer, stroke, and diabetes, the age-adjusted death rates tend to be higher in the more rural counties, with the exception of category E (the most rural counties), where the death rates are lower than for category D. In looking at the unadjusted death rates for these causes of death (not shown in table), the category E counties have by far the highest death rates, reflecting their much higher percentage of the population that is age 65 and older.

For chronic lung disease, the most rural counties have the highest age-adjusted death rates. For Alzheimer's disease, the highest age-adjusted rate occurs in the most urban counties, with decreasing rates for the more rural counties (though the highest unadjusted Alzheimer's death rate occurs in the category E counties). For motor vehicle injuries, other unintentional injuries, and suicide, the most rural counties have the highest death rates. For homicide, the category C and D counties have substantially higher death rates.

The somewhat lower age-adjusted death rates observed in the Category E counties for many of the causes of death is consistent with the findings of other studies and may, in part, reflect the fact that these counties contain places where healthy people go to retire or retreat. The rural/urban differences in death rates observed here are purely descriptive, and we have not tested any of these differences for statistical significance. However, given that five years of data were used, all of the death rates shown in the table are fairly stable and based on at least 200 deaths in the numerator, with the exception of suicide (149 deaths) and homicide in the category E counties (66 deaths). Many factors account for the patterns shown here, including rural/urban variations in socioeconomic status and access to healthcare.

Contributed by Paul A. Buescher, PhD, and LeRoy Clark, BS
State Center for Health Statistics, North Carolina Division of Public Health

Coming in the March/April 2006 issue of the

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Readers' Forum

An Update From:

King LP, Siminoff LA, Meyer DM, Yancy CW, Ring WS, Mayo TW, Drazner MH. Health insurance and cardiac transplantation: A call for reform. J Am Coll Cardiol. 2005 May 3;45(9):1388-1391.

A Heartfelt Story for the Rich

One in four donated hearts in the United States comes from the ranks of the uninsured, according to a study in the *Journal of American College of Cardiology*. Socioeconomics has always been a factor in organ donations because of the expense of long-term care for a new organ. Nevertheless, the doctors and ethicists who did the study say the finding is a glaring inequity in a national organ donation system that strives for fairness.

You should not ask a group of people, in this case nearly one-quarter of heart donors, to contribute to a pool of resources not available to them," says Tom Mayo, director of Southern Methodist University's (SMU) Maguire Center for Ethics and Public Responsibility and an author of the study "Health Insurance and Cardiac Transplantation: A Call for Reform." "A system that derives such a substantial benefit from people who, if the tables were turned, would not qualify for a transplant for financial reasons raises serious questions of justice and the equitable allocation of life-saving medical resources."

By studying a database of nearly 300 organ donors, researchers from University of Texas (UT) Southwestern Medical Center, SMU, and Case Western Reserve University found approximately 25% of the donors had no health insurance. Half of those uninsured donors are between the ages of 45 to 64 years, the most common age group to receive a heart transplant. The estimated cost of a heart transplant is $391,000. Read more about this story and the study by going to http://smu.edu/experts/ or call SMU Office of News and Communications at 214-768-7650.

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(reprinted with permission from Southern Methodist University)

To The Editor:

The November/December 2005 issue of the Journal featuring access to dental care provided a balanced and sobering assessment of dental care access and treatment in North Carolina. In spite, of the efforts on the part of many people, advocates, clinicians, and policy makers alike, dental care for too many of our citizens is unattainable. Like obesity and the use of tobacco, the health consequences of diseased mouths are well known and the cost in misery and dollars well documented.

As noted in the variety of articles, the problem of access to dental care for all is complex and not likely to be solved by any one effort alone. However, that does not prevent the need to do so. All involved—providers of dental care, those who pay the bills, patients, community leaders, and those who make the laws—must come to a common understanding of the importance of affordable, equitable, and accessible dental care as a basic necessity. When such agreement is reached, the power to improve this area of our people's health will exert itself. Until then, I fear that we will still search for solutions in isolation and struggle to make them effective.

Thank you for an excellent issue.

Olson Huff, MD, FAAP
Senior Fellow
North Carolina Child Advocacy Institute
Asheville, NC

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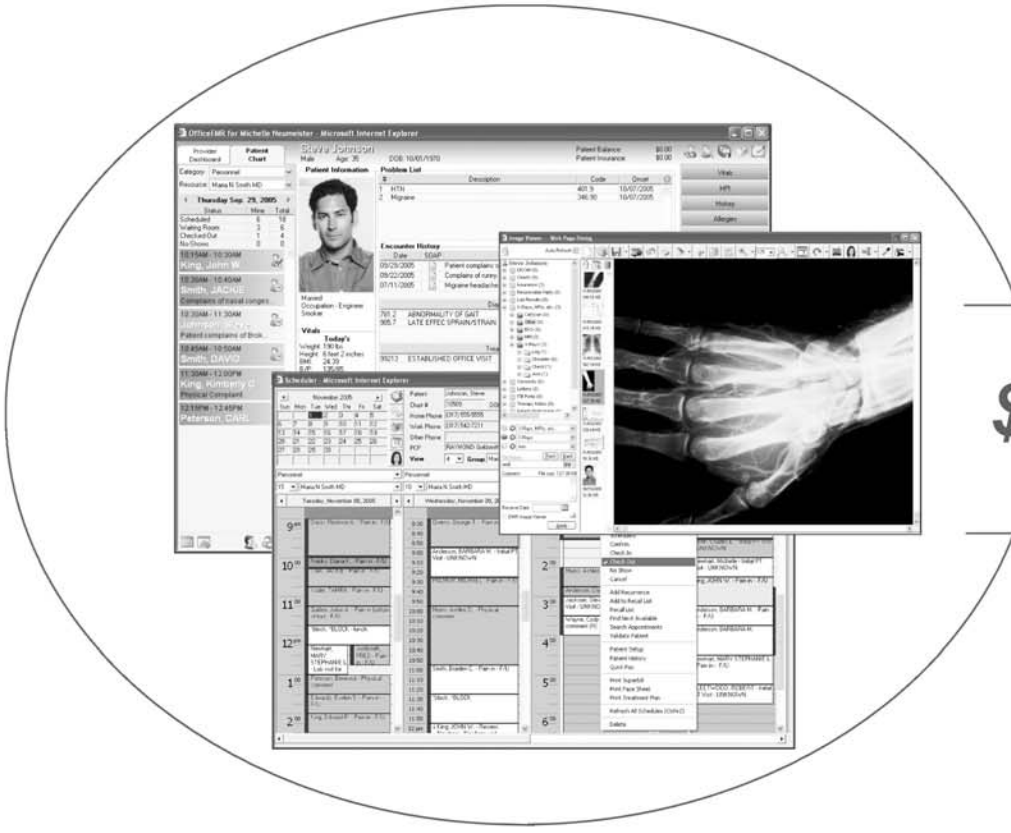

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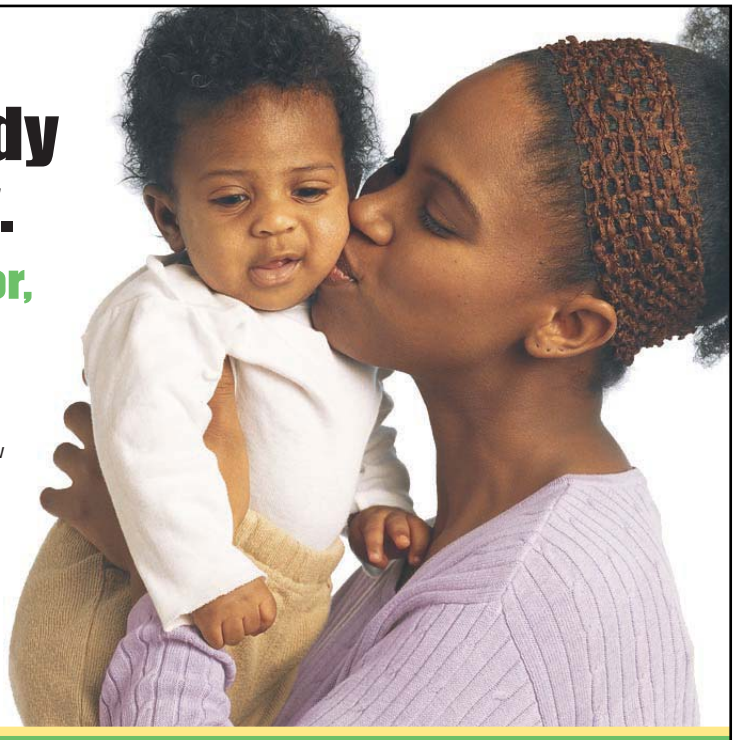

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Southeastern Regional Medical Center committed to improving health of community.

LUMBERTON — Southeastern Regional Medical Center (SRMC) is the lead agency in a partnership with the Robeson County Health Department and other health and human service agencies in the county. "The mission of the partnership is to coordinate and implement countywide health initiatives in an effort to create an environment that supports good health among the citizens of Robeson County," said Luckey Welsh, SRMC President and CEO. "We are proud to take a lead role in these grassroots programs toward better healthcare."

Examples of the partnership include free health screens for the early detection of diabetes, heart disease, and cancer, as well as the Community Health Education Center, SRMC's health library located in Lumberton's prime shopping mall. The library offers pamphlets, Internet access and a staffed help desk to answer questions regarding health issues.

Of recent note is the implementation of Project HEALTH, an acronym for Healthy Eating and Active Lifestyles for Tomorrow's Health. Project Health addresses rising concerns of childhood obesity in targeted Robeson and Columbus County schools. A three-year commitment has been guaranteed through a $450,000 start-up grant by the N.C. Health and Wellness Trust Fund Commission. After the three years, the program will be sustained by SRMC and the partnership.

Also included in the partnership effort is the SRMC Diabetes Community Center. The center offers a comprehensive Diabetes Self Management Program that is nationally recognized by the American Diabetes Association.

See Health Partnership, Page 4B

SOUTHEASTERN REGIONAL MEDICAL CENTER

Neighbors Caring for Neighbors.

300 WEST 27TH STREET | LUMBERTON, NC | (910) 671-5000 | WWW.SRMC.ORG

ePRESCRIBE℠

Make the connection

Electronic prescribing saves time, improves patient safety and leads to better overall care management.

The future of prescribing is here today; initiated by Blue Cross and Blue Shield of North Carolina with a program we're calling ePrescribe. We're the first health insurer in North Carolina to put electronic prescribing tools into the hands of physicians who need them most.

More informed. More efficient.

Physician's PDA is loaded with patient information. Physician selects a medication and submits to RxHub.

RXHUB®

RxHub checks drug histories, interactions, allergies, health plan formulary. Provides alerts to physician.

Based on results and alerts from RxHub, physician and patient discuss medication options.

SureScripts
The prescription for better healthcare™

Secure electronic prescription is sent to patient's pharmacy of choice.

Pharmacist receives legible prescription, reducing callbacks to physician to clarify.

Patient receives safe, medically effective and cost-effective medication.

Our vision for health care starts with efficiency and ends with safety. ePrescribe is part of that vision – to streamline processes, to eliminate errors and to lower overall health care costs.

For more information on the ePrescribe Program, please visit ***www.bcbsnc.com/providers***

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