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Tar Heel Footprints in Health Care

A periodic feature that recognizes individuals whose efforts—often unsung—enhance the health of North Carolinians

John Price, MPA

John Price, MPA, retired director of the North Carolina Office of Rural Health and Community Care (ORHCC), has dedicated his life to promoting the health and well-being of the state’s rural population. A native of the town of Jackson, in Northampton County, Price graduated from North Carolina State University with a bachelor of arts degree in politics in 1975, and he then received a master of public affairs degree in 1976. Upon graduating, Price started his career at ORHCC, and he quickly learned about North Carolina’s rural population and the state’s health care system. Through his 36-year career at ORHCC, Price advanced from being a primary care systems specialist and a budget and contracts assistant in 1977 to being named the director of ORHCC in February 2008; he remained in this leadership position until February 2013.

During Price’s tenure as director, he led ORHCC to many accomplishments. Ms. Chris Collins, the current director of ORHCC commented, “John truly understands that community development requires strong working relationships. Over his 30 years of public service, John personally [knew and was trusted by] countless rural partners from the eastern to the western parts of our great state.” In addition, Price navigated ORHCC through the recession that started in the late 2000s. Through his leadership, ORHCC was able to keep rural health centers open and to maintain core services despite annual budget cuts of 10% or more. In addition, ORHCC obtained foundation and state funding to expand medication assistance and to develop resources to assist the safety-net system. When asked about his favorite part of working at ORHCC, Price stated, “What I enjoyed most was the opportunity to work with rural people in their communities and to help them accomplish what they want to accomplish.”

In October 2013, Price was awarded the Jim Bernstein Community Health Career Achievement Award presented by the North Carolina Foundation for Advanced Health Programs. Even in retirement, Price continues to promote rural health by collaborating on community projects with the Kate B. Reynolds Charitable Trust. He enjoys developing innovative solutions alongside individuals who live and work in rural communities, and his work will continue to benefit the North Carolina community for years to come. Mr. Torke Wade, executive vice president of Community Care of North Carolina states, “Over the 30 years that I worked with John, I never knew anyone who captured the traditional values of dedication, hard work, persistence, and doing the best job possible as well as him. John was one person you could always count on to handle any responsibility with great skill, thoroughness, and good humor.”

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A positive future orientation has been shown to be associated with decreased health-risk behaviors and greater socioemotional well-being in adolescents [1, 2]. In young adolescents, specifically, hopeful aspirations may be related to improved self-regulation and positive youth development [3]. Additionally, there may be therapeutic value in having adolescents discuss wishes or ideal states, similar to the value provided by the “miracle question” employed in solution-focused brief therapy [4].

Social and health-risk behaviors are the primary causes of morbidity and mortality in the adolescent population [5]. The Guidelines for Adolescent Preventive Services (GAPS) previsit health screening questionnaires were developed 2 decades ago to facilitate identification of these health-risk behaviors [5-7]. In addition to inventorying health-risk behaviors by querying respondents through a series of closed-ended questions, GAPS questionnaires also include a section not seen in many other adolescent health surveys. Specifically, the GAPS survey includes open-ended questions such as, “If you could have three wishes come true, what would they be?”

Answers to these questions may provide clues as to how adolescents view their personal and social situations, as well as their aspirations, concerns, and future orientation [8]. These responses also provide important psychosocial information, which may have clinical implications [9]. Previous studies have assessed adolescents’ future orientation by using open-ended questions that asked adolescents to list their wishes for the future [10]. Previous research has also looked at using closed-ended screening questions to identify risky behaviors [6] and the career aspirations of older adolescents [11], but to our knowledge no studies have specifically examined younger adolescents’ wishes as solicited by GAPS surveys.

We sought to describe responses to the “3 wishes” question from a sample of young adolescents of diverse backgrounds and to examine variations in their wishes. Based on the clinical experience of 3 pediatricians on the study team (one of whom has expertise in adolescent medicine) as well as commonly recognized adolescent interests, we hypothesized that adolescents would wish for material goods, athletic success, and changes in appearance. We also believed wishes would vary in association with sex, race/ethnicity, and insurance status [12, 13].

World Peace, To Be a Millionaire, and Hoop Dreams: Adolescent Wishes on Health Screening Surveys

Josh P. Boyd, Michael J. Steiner, Ashley Cockrell Skinner, Tamera Coyne-Beasley, Eliana M. Perrin

OBJECTIVE This study sought to learn the wishes of young adolescents via an open-ended survey question and to determine the association of these wishes with sociodemographic variables.

METHODS We performed a cross-sectional study of consecutive adolescents aged 11-14 years who had a well-child visit at a clinic with a diverse patient population, who completed a Guidelines for Adolescent Preventive Services (GAPS) previsit health questionnaire, and who answered the question, “If you could have three wishes come true, what would they be?” Responses to this question were double-coded according to thematic content and whether wishes were for self, others, or both.

RESULTS Among 96 respondents, wishes for others were listed more frequently by girls than by boys (54% versus 31%; P = .02). Girls also had more family-oriented wish themes (27% versus 10%; P = .04). Boys were more likely to wish for success (17% versus 4%; P = .05). Among respondents with private insurance, 45% wished for the good for the world, with responses such as “world peace”; only 12% of respondents with Medicaid wished for the good of the world (P = .01). No statistically significant differences were identified by race/ethnicity or age. Positive future orientation themes such as career were not as prioritized as previously suggested in the literature.

LIMITATIONS The sample population derives from a single university-based clinic in North Carolina; while diverse, this population may not be representative of larger groups.

CONCLUSIONS Many wishes seemed predictable (ie, for wealth, athleticism), but occasionally wishes were poignant and original (“to have papers for my parents to pass the border”); this finding reinforces the value of listening to adolescents’ wishes. Both sex and insurance status were related to wish themes. Further research should determine how knowledge of adolescents’ wishes can be used to best direct individual care.
Methods

We performed a cross-sectional, mixed-methods study of adolescent patients aged 11–14 years who received well-child care during a 4-month period at a resident continuity clinic associated with a children’s hospital. Consecutive patients privately completed the GAPS survey at the start of their well-child visit as part of the clinic’s standard protocol. After the visit, questionnaires were collected and analyzed. Sex, race/ethnicity, and insurance status (used as a proxy for socioeconomic status) were obtained from patients’ medical records. The study protocol, which included a patient waiver and parental consent, was approved by the Biomedical Institutional Review Board of the University of North Carolina (#10-1303).

Two of us (E.M.P. and M.J.S.) generated an a priori coding index for the types of wishes anticipated in the adolescent responses. To our knowledge, no previous studies had developed such an index, so components were devised based on prior clinical experience and general study foci. The index consisted of 2 groupings: whom adolescents wished for (subject), and what they wished for (themes). Subsequent to development of the coding index, each wish response was coded according to the subject of the wish, and wishes were categorized as being for self (eg, “I want to be a good basketball player”), for others (eg, “for my friends to be happy”), or for both self and others (eg, “for my sister and I to get into good colleges”). Each wish response was then coded according to its thematic content, such as a wish for material possessions (eg, “a car”) or academic success (eg, “better grades”). A third investigator (T.C.B) resolved discrepancies to finalize the coding.

All quantitative analyses were performed at the level of the adolescent (eg, percentage of adolescents who wished for something for themselves). For subjects, we categorized adolescents according to whether all 3 wishes were for themselves, all 3 wishes were for others, or the 3 wishes were for both themselves and others. For themes, we examined the number of adolescents reporting a particular theme in at least 1 of their 3 wishes. Chi-squared tests were used to determine associations of wish subjects and themes with sex, race/ethnicity, insurance status, and age.

Results

A total of 119 consecutive adolescents aged 11–14 years completed GAPS questionnaires during the specified study period. Of these, 96 adolescents provided at least 1 answer to the question, “If you could have three wishes come true, what would they be?” There were no differences in the demographic characteristics of adolescents who answered this question versus those who did not. The sample was sociodemographically diverse; less than half (42%) of the study participants were white, 28% were black, and 24% were Hispanic (See Table 1). Over two-thirds (69%) of study participants had Medicaid insurance, 18% had no insurance at the time of the study, 3% had Tricare (military) insurance, and 10% had private insurance.

A total of 269 wishes were provided: 83 adolescents shared 3 wishes each, 7 adolescents shared 2 wishes each, and 6 adolescents shared 1 wish each. Over half of study participants (57%) expressed wishes only for themselves; 5% expressed wishes only for others; and 34% expressed wishes for both themselves and others. Almost twice as many female as male respondents wished for something for others (54% versus 31%; *P* = .02). No significant association was found between respondent age and wish theme. Table 2 lists the most common wish themes and specific examples of each theme. Adolescents most often wished for money or other material goods; wishes for the world, wishes for family, and wishes for athletic or school success were also common. Girls were more likely than boys to have family-oriented wish themes (27% versus 10%; *P* = .04), and girls trended toward more emotion-oriented wishes (15% versus 4%; *P* = .08). Boys were more likely to wish for success (17% versus 4%; *P* = .05). Almost half (45%) of adolescents with private insurance wished for something good for the world, such as “world peace,” compared with only 12% of those with Medicaid (*P* = .01). No other statistically significant differences were identified for race/ethnicity, age, or insurance type.

Discussion

Wishes varied considerably across the sample and even across the 3 wishes provided by a single respondent. Wishes ranged from predictable and hypothesized desires, such as wealth and athleticism, to more poignant wishes, such as “to have papers for my parents to pass the border.” The variation and insightful responses that adolescents provided reinforce
the value of open-ended questionnaires in health care. Some of the answers to the “3 wishes” question have direct connection to the health encounter (eg, “to not have asthma,” “weren’t depressed”), and many other responses demonstrated personal depth and insight that have the potential to contribute to a more well-rounded and individualized assessment of the patient when such information is integrated with clinical history and other data. For example, the wish “to be skinny” could be the beginning of a motivational interviewing session about a healthier lifestyle, or it could be the first clue to an eating disorder. Although closed-ended questions on GAPS surveys have been shown to increase detection of health-risk behaviors, open-ended questions that give adolescents the opportunity to communicate about their socio-emotional health may yield information that could not be obtained otherwise. The results of this study demonstrate that adolescence is a dynamic phase of life that is often best explained by adolescents in their own words [14].

In terms of wish subjects and themes, the most notable differences were between boys and girls. This finding was consistent with our hypothesis that respondents’ wishes would demonstrate a sex-based association. Boys were approximately twice as likely to wish for themselves, and they demonstrated objectives that were more oriented toward overall success. In contrast, girls more frequently expressed wishes for others, and they also prioritized family and demonstrated a trend toward emotional wishes. These findings may result from the pressure adolescents feel to conform to the gender roles traditionally expected of them [15], and they match previous findings that showed significant sex-associated differences in core domain prioritization, particularly in terms of career future orientation [12].

Our data supported the hypothesis that respondents’ wishes would be associated with insurance status; specifically, we found that those with private insurance were more likely to wish for something good for the world. This may be explained by Mullen’s theory that those with more privilege have the luxury of thinking about others [13]. It is noteworthy that the 3rd most common wish theme was for something good for the world. Despite the challenges that individual adolescents encounter, many still express altruistic wishes, such as “to end global warming.” Seginer’s 3 core prospective domains for future orientation—higher education, work and career, and marriage and family—did not correspond with the 3 wish themes or domains that were most common in our study [8]. In fact, career or professional wishes were the 8th most common wish theme among respondents in our study. This may be due in part to the more abstract conceptualization elicited by the wording “any wish” in the GAPS question, or it may be attributed to the younger age of respondents.

Our data did not support the hypothesis that respondents’ wishes would be associated with race/ethnicity. Similarly, our data did not support the hypothesis that many wishes would be related to personal appearance. Only 4% of study participants wished for weight-related changes in appearance, and another 5% of adolescents wished for appearance changes that were not related to weight.

An obvious limitation of our study is that our adolescents derive from only 1 university-based clinic. While our patient population was sociodemographically diverse, further investigation of more respondents at multiple sites with broader geographic distribution could yield more generalizable results. Another limitation is that this study did not determine whether older adolescents might have different wish themes or subjects, because older adolescents are not asked the same questions on the GAPS survey. Lastly, we were unable to assess how adolescents’ wishes relate to health or social outcomes. Future research should examine the utility of the “3 wishes” question as a way to identify specific risks for poor outcomes or as a mechanism to identify adolescent resiliency and aspirations.

TABLE 2.
Coded Wish Themes of Young Adolescents (N = 96)

<table>
<thead>
<tr>
<th>Wish theme</th>
<th>Example</th>
<th>Percentagea of adolescents expressing this theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rich/money</td>
<td>“A lot of money”</td>
<td>44%</td>
</tr>
<tr>
<td>Material possessions</td>
<td>“A car”</td>
<td>33%</td>
</tr>
<tr>
<td>Wishes for the world</td>
<td>“World peace”</td>
<td>21%</td>
</tr>
<tr>
<td>Wishes for family</td>
<td>“Mom could have a better house”</td>
<td>19%</td>
</tr>
<tr>
<td>School success</td>
<td>“Better grades”</td>
<td>18%</td>
</tr>
<tr>
<td>Athletic ambitions</td>
<td>“Be a better basketball player”</td>
<td>16%</td>
</tr>
<tr>
<td>Supernatural/more</td>
<td>“To be a superhero”</td>
<td>14%</td>
</tr>
<tr>
<td>Professional</td>
<td>“Could be a doctor”</td>
<td>10%</td>
</tr>
<tr>
<td>Successful</td>
<td>“To be successful in life”</td>
<td>10%</td>
</tr>
<tr>
<td>Emotions</td>
<td>“Wish I weren’t depressed”</td>
<td>9%</td>
</tr>
<tr>
<td>Wishes for a pet</td>
<td>“That I had a puppy”</td>
<td>6%</td>
</tr>
<tr>
<td>Family dynamics</td>
<td>“My parents weren’t divorced”</td>
<td>5%</td>
</tr>
<tr>
<td>Nonathletic talents</td>
<td>“Violin player”</td>
<td>5%</td>
</tr>
<tr>
<td>Health</td>
<td>“Didn’t have asthma”</td>
<td>5%</td>
</tr>
<tr>
<td>Appearance-based:</td>
<td>“Prettier eyes”</td>
<td>5%</td>
</tr>
<tr>
<td>Appearance-based:</td>
<td>“To be skinny”</td>
<td>4%</td>
</tr>
<tr>
<td>weight-related</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Travel</td>
<td>“Go out of the US on vacation”</td>
<td>4%</td>
</tr>
<tr>
<td>To meet someone</td>
<td>“Meet Barack Obama”</td>
<td>3%</td>
</tr>
<tr>
<td>Romance</td>
<td>“I could have a boyfriend”</td>
<td>3%</td>
</tr>
<tr>
<td>Wishes for friends</td>
<td>“All friends to be happy”</td>
<td>3%</td>
</tr>
<tr>
<td>Living somewhere else</td>
<td>“Move back to [town]”</td>
<td>1%</td>
</tr>
<tr>
<td>Having children</td>
<td>“Have two kids”</td>
<td>1%</td>
</tr>
<tr>
<td>Wish someone else</td>
<td>“Wish I didn’t have a sister”</td>
<td>1%</td>
</tr>
</tbody>
</table>

*aTotal is greater than 100% because each adolescent could report up to 3 wishes.
Conclusion

Our findings demonstrate that there are important differences in the wishes of adolescents based on sex and insurance status. Understanding these different future orientations may provide additional guidance when assessing adolescents’ socioemotional health and may help health care providers to develop behavior interventions. Additionally, adolescents’ wishes can be a valuable but overlooked resource for providers to get to know patients and to determine where solution-based approaches to care and counseling may begin. These findings individualize and further stratify GAPS health-risk behavior assessments and enhance our understanding of how contemporary adolescents perceive themselves and their futures.

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Potential conflicts of interest. All authors have no relevant conflicts of interest.

References

Barriers to Reporting Child Maltreatment: Do Emergency Medical Services Professionals Fully Understand Their Role as Mandatory Reporters?

Ellen Grace Lynne, Elizabeth J. Gifford, Kelly E. Evans, Joel B. Rosch

BACKGROUND Child maltreatment is underreported in the United States and in North Carolina. In North Carolina and other states, mandatory reporting laws require various professionals to make reports, thereby helping to reduce underreporting of child maltreatment. This study aims to understand why emergency medical services (EMS) professionals may fail to report suspicions of maltreatment despite mandatory reporting policies.

METHODS A web-based, anonymous, voluntary survey of EMS professionals in North Carolina was used to assess knowledge of their agency’s written protocols and potential reasons for underreporting suspicion of maltreatment (n=444). Results were based on descriptive statistics. Responses of line staff and leadership personnel were compared using chi-square analysis.

RESULTS Thirty-eight percent of respondents were unaware of their agency’s written protocols regarding reporting of child maltreatment. Additionally, 25% of EMS professionals who knew of their agency’s protocol incorrectly believed that the report should be filed by someone other than the person with firsthand knowledge of the suspected maltreatment. Leadership personnel generally understood reporting requirements better than did line staff. Respondents indicated that peers may fail to report maltreatment for several reasons: they believe another authority would file the report, including the hospital (52.3%) or law enforcement (27.7%); they are uncertain whether they had witnessed abuse (47.7%); and they are uncertain about what should be reported (41.4%).

LIMITATIONS This survey may not generalize to all EMS professionals in North Carolina.

CONCLUSIONS Training opportunities for EMS professionals that address proper identification and reporting of child maltreatment, as well as cross-agency information sharing, are warranted.

There were 675,000 victims of child abuse and neglect (maltreatment) in the United States in 2011 [1]. Although this number represents about 1% of those under the age of 18 years, studies suggest that child maltreatment is underreported [2, 3]. The estimated lifetime cost per victim of maltreatment is $210,000 [4]. Children who experience maltreatment are at increased risk for drug abuse, depressive symptoms, and violent and delinquent behaviors during early adulthood [5]. States have enacted laws designating some professionals as mandatory reporters in order to protect children by better identifying those who are experiencing or are at risk for maltreatment.

Limited research exists on mandatory reporters’ understanding of reporting requirements and procedures and their reasons for not reporting suspicions of child maltreatment. This study examines emergency medical services (EMS) professionals, as these mandatory reporters have a unique vantage point into children’s lives. EMS professionals are often the first professionals to respond to emergency situations. This study assesses their knowledge of child maltreatment reporting requirements, their behavior and attitudes toward reporting, and barriers that may hinder them from adhering to these requirements.

This study sought to explain why prehospital medical personnel were underreporting suspected cases of child maltreatment. The North Carolina Child Fatality Task Force found that in nearly half of child fatality cases in North Carolina, EMS professionals documented suspicion of child maltreatment but did not report this suspicion to the Department of Social Services (DSS) as required by statute and EMS policy [6]. EMS professionals are uniquely positioned to report maltreatment because of their access to homes and their firsthand encounters with children in medical distress. In addition to signs of abuse, they may observe environmental risk factors for neglect, such as evidence of alcohol or drugs, lack of food, or inadequate housing [7]. In the United States, professionals such as educators, legal and law enforcement officers, social services professionals, and medical providers make nearly 60% of child maltreatment reports; only 8% of all reports come from medical personnel, including EMS professionals [1].

The reasons that professionals may fail to report child maltreatment fall into 2 broad categories [8]. The first is failure to recognize maltreatment. Even child maltreatment experts disagree as to what constitutes reasonable suspicion [9]. For example, nurses making home visits to first-time mothers were unsure when violence between adult partners
was legally considered a danger to the child [10]. Second, professionals may choose not to report their suspicion [8]. Professionals may lack training on how to report maltreatment, or they may wish to avoid administrative hurdles imposed by their institution [11]. Professionals may also lack trust in child protective services [12] and may worry that reporting their suspicion would not benefit the family [13].

Training in child maltreatment issues improves reporting rates, but current training levels may be inadequate. In one study, professionals with at least 10 hours of continuing education on reporting procedures were more likely to report suspected maltreatment than were those with less than 10 hours of training [14]. A 2006 survey of 1,237 prehospital personnel found that nearly 11% received no training on child maltreatment during their initial certification course; 44% reported no training on child maltreatment during their continuing medical education in the past year; and 35.9% received only 1–2 hours of continuing medical education on child protection [15]. The majority (78%) of respondents indicated that they would like additional training on child protection, with 50% requesting more training on signs and symptoms and 46% requesting more training on protocols [15].

This paper examines 3 research questions: How familiar are EMS professionals with mandatory reporting laws and agency policy? Do differences in rank or experience make a difference in knowledge of mandatory reporting laws and agency policy? Finally, what are respondents’ opinions on why an EMS professional may not adhere to mandatory reporting laws and agency policy? Prior surveys have assessed EMS professionals’ knowledge of their mandatory reporting status, but this study is unique in that it also allows them to offer their opinion on why they and their peers may be reluctant to report suspicion.

North Carolina law requires that all persons or institutions report suspicions of child maltreatment to the county DSS [16]. In addition, the North Carolina Office for Emergency Medical Services (OEMS), which oversees the state’s 100 county-level EMS systems, has policies for its staff; these policies call for EMS professionals to assess children for psychological abuse, physical abuse, and neglect and to immediately report any suspicious findings to both the receiving hospital (if transported) and to the county DSS [17–19].

Methods

We collected data using an anonymous, voluntary survey of EMS professionals across North Carolina. The committee that developed the survey included representatives of Prevent Child Abuse North Carolina, the state hospital system, the North Carolina Pediatric Society, the Child Medical Evaluation Program at the University of North Carolina, the North Carolina DSS, and the Center for Child and Family Policy at Duke University, as well as the Emergency Medical Services for Children (EMSC) program manager from the North Carolina OEMS.

The EMSC program manager emailed the survey to all 740 EMS agencies in North Carolina. Agency directors were asked to forward the survey to their employees. Data collection occurred in May and June of 2012. Failure to report suspicions of child maltreatment is illegal in North Carolina, and it is possible that employers would act punitively toward employees who acknowledged either not reporting suspicions or not knowing agency protocols. Therefore, in order to encourage honest feedback about a sensitive topic, this survey was anonymous.

EMS professionals were coded into 2 categories: line staff and leadership personnel. Line staff included emergency medical technicians (EMTs) of all levels (basic, intermediate, or paramedic), medical responders, and training coordinators. Leadership personnel included medical directors, training officers, and EMS directors. Responses of line staff versus leadership personnel were compared in order to test whether experience and rank had a substantial effect on knowledge of reporting procedures. Although leadership personnel may be aware of agency and state policies on child maltreatment, their knowledge may not be reaching line staff. Many respondents reported filling multiple roles; respondents were only considered to be line staff if they did not select a leadership role.

Respondents were asked if their agency has a written mandatory reporting protocol; respondents who answered yes were asked to select all parties who are responsible for making the report to DSS, from a list of 4 choices. For this analysis, answers were coded into mutually exclusive categories with prioritization in descending order: person with firsthand knowledge, supervisor, other, and “don’t know.”

Analyses were completed using Stata version 12 [20]. Chi-square analysis was used to compare responses between line staff and leadership personnel.

Results

Table 1 describes characteristics of the respondents. Most respondents (90.5%) reported that they were EMTs, and this percentage was higher among line staff (97.2%) than among those in leadership positions (73.2%). There were no differences between line staff and leadership personnel regarding whether the respondents were paid or unpaid, and the majority of all respondents (91.2%) were in a paid position. Over half (58.7%) of all respondents had more than 10 years of experience. Slightly more than one-quarter of all respondents reported over 20 years of experience; this percentage differed by position, with 25.0% of line staff reporting over 20 years of experience and 37.4% of leadership personnel reporting over 20 years of experience.

It was not possible to calculate the response rate because we do not know how many directors forwarded the survey to their staff. To understand the representativeness of our sample, however, we compared our sample to the population of EMS workers in North Carolina using data from the
EMS Performance Improvement Center at the University of North Carolina at Chapel Hill. Relative to the overall population of EMS professionals in North Carolina, our sample overrepresented paid EMS workers (91% in our study versus 75% in the state as a whole), and respondents in our study tended to have more years of experience. Specifically, nearly 60% of respondents in our study had at least a decade of experience, while only 12% of EMS professionals statewide had this much experience. Therefore the respondents in our survey may serve as leaders or mentors for others, and they may have a better understanding of mandatory reporting policies than those with less experience.

To better understand how familiar EMS professionals were with mandatory reporting laws, respondents were asked if their agency had a written mandatory reporting protocol. While nearly two-thirds (61.9%) of respondents said yes, 18.7% responded no, and 19.4% responded that they did not know if there was a written protocol. Line staff were significantly more likely to report that they did not know whether their agency has a mandatory reporting protocol (24.0%) compared to respondents in leadership positions (7.3%; see Table 2). These percentages do not reflect the percentage of EMS professionals who work at agencies that lack written protocols; rather, it represents the percentage of EMS providers who may be unaware of the protocols.

Respondents who indicated that their agency had a written mandatory reporting protocol were asked who is responsible for making the report to DSS. The most common response (75.3%) mirrored state law, with respondents saying that the person with firsthand knowledge of suspicion is responsible for reporting. Some respondents said that the supervisor of the person with firsthand knowledge (9.1%) or “other” (11.6%) was responsible for reporting; line staff and leadership personnel reported these responses at similar rates. A higher percentage of line staff reported not knowing who is responsible for reporting compared to leadership personnel (5.2% versus 0%). When asked to provide text to elaborate on the response “other,” 20 respondents provided information. Twelve respondents mentioned the hospital or the emergency room; 4 mentioned law enforcement officers; 2 mentioned the receiving facility; and 1 mentioned the training officer.

Figure 1 presents results of EMS professionals’ perceptions of why someone might not report child maltreatment. Respondents were allowed to select more than one reason. The most frequently reported response was that they believed the “hospital will make the report” (52.3%). The second most common response was that they “are not comfortable reporting without absolute certainty that abuse or neglect is happening” (47.7%). Over one-third selected the responses “not sure what should be reported and what should not” (41.4%) and “don’t know how to make a report” (36.0%). About one-quarter (26.6%) said they were “not clear whether there is a protocol in place for reporting.” Line staff and leadership personnel had significantly different selections in regard to believing “the hospital will make the report” (48.9% versus 61.0%), believing “law enforcement will make the report” (23.1% versus 39.8%), and feeling that “it takes too long to make the report” (6.2% versus 13.0%).

**Discussion**

Failure to report maltreatment can have serious consequences for children who are in need of protective services. Failure to report can keep families from accessing sup-
port services that prevent maltreatment and help children remain with their families. Findings from the North Carolina Child Fatality Task Force suggest that paying proper attention to warning signs of child maltreatment could save lives. Findings from this study suggest that one reason for low reporting rates by EMS professionals is their lack of familiarity with the mandatory reporting policy. Similar to findings of EMS professionals across the United States [15], nearly 40% of the EMS professionals in our study either did not know that their agency had a mandatory reporting policy or falsely indicated that their agency did not have such a policy. The 17 percentage point gap between line and leadership respondents who reported not knowing if their agency has a mandatory reporting policy suggests a communication gap between leadership and line personnel. While leadership personnel were more aware of their agency’s mandatory reporting policy than were line staff, nearly one-third of leadership personnel were either unaware of or misinformed about the reporting policy.

These results also suggest that EMS professionals are unclear about who should report maltreatment to DSS, with only half of respondents correctly answering that it is the responsibility of the person with firsthand knowledge of the suspected maltreatment. This finding is in line with the responses that EMS professionals gave as reasons why their colleagues may fail to report suspicions. Specifically, respondents commonly reported that EMS professionals may defer the responsibility to notify DSS to hospital or law enforcement staff.

Better understanding of EMS professionals’ underlying motivation for failing to report suspected maltreatment could illuminate specific training needs. For example, EMS professionals may feel that doctors and police officers are better informants because of their understanding of medicine or law. Other EMS professionals may be concerned about what will happen to the family if a report is filed. A substantial proportion of line staff and leadership personnel suggested that their colleagues might fail to report maltreatment due to negative views of how child protective services would handle reports, with 37% and 46%, respectively, indicating that their colleagues would not report suspected maltreatment because they believed child protective services would not take action, and 14% and 11%, respectively, indicating that action by child protective services would do more harm than good. This may result from common perceptions that child protective services will remove children from their homes, do little for the family, or provide low-quality services [21]. Other studies have found that professionals’ negative views of child protective services are an important contributor to underreporting [12]. However, North Carolina’s child protective services agency offers an extensive range of services, including a dual-track model that provides an array of family support services in response to most maltreatment reports [22]. One strategy to improve reporting might be for child protective services to better inform mandatory reporters about the process by which child protective services responds to reports and the range of services they offer families.

Training could help EMS professionals to more consistently notify DSS about children who are at risk of maltreatment. Only 1 of 8 modules in the current North Carolina EMT curriculum is related to pediatric health, including child maltreatment [23], and as little as 5–10 minutes may be dedicated to training on how to recognize and report child maltreatment [24]. Half of EMTs in a national sample requested additional training about the signs and symptoms of child maltreatment, and only 25% strongly agreed that they felt comfortable reporting physical abuse; fewer

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**TABLE 2.** Survey Respondents’ Knowledge of Written Mandatory Reporting Protocols and Who Is Responsible for Reporting Child Maltreatment

<table>
<thead>
<tr>
<th>Does your agency have a written protocol for reporting child abuse or neglect to the local Department of Social Services, per the mandatory reporting law in North Carolina?</th>
<th>All respondents (N = 444)</th>
<th>Line staff personnel (n = 321)</th>
<th>Leadership personnel (n = 123)</th>
<th>Chi-square value&lt;sup&gt;a&lt;/sup&gt;</th>
<th>P-value&lt;sup&gt;b&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>275 (61.9)</td>
<td>191 (59.5)</td>
<td>84 (68.3)</td>
<td>2.9</td>
<td>.057</td>
</tr>
<tr>
<td>No</td>
<td>83 (18.7)</td>
<td>53 (16.5)</td>
<td>30 (24.4)</td>
<td>3.6</td>
<td>.057</td>
</tr>
<tr>
<td>I don’t know</td>
<td>86 (19.4)</td>
<td>77 (24.0)</td>
<td>9 (7.3)</td>
<td>15.8</td>
<td>.000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>If your agency has a written mandatory reporting protocol, who is responsible for making the report to DSS?</th>
<th>All respondents (N = 444)</th>
<th>Line staff personnel (n = 321)</th>
<th>Leadership personnel (n = 123)</th>
<th>Chi-square value&lt;sup&gt;a&lt;/sup&gt;</th>
<th>P-value&lt;sup&gt;b&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Person with firsthand knowledge of suspicions</td>
<td>207 (75.3)</td>
<td>136 (71.2)</td>
<td>71 (84.5)</td>
<td>5.6</td>
<td>.018</td>
</tr>
<tr>
<td>Supervisor of person with firsthand knowledge</td>
<td>25 (9.1)</td>
<td>18 (9.4)</td>
<td>7 (8.3)</td>
<td>0.08</td>
<td>.772</td>
</tr>
<tr>
<td>Other</td>
<td>32 (11.6)</td>
<td>26 (13.6)</td>
<td>6 (7.1)</td>
<td>2.4</td>
<td>.123</td>
</tr>
<tr>
<td>I don’t know who reports to DSS</td>
<td>10 (3.6)</td>
<td>10 (5.2)</td>
<td>0 (-)</td>
<td>4.6</td>
<td>.033</td>
</tr>
<tr>
<td>Did not respond&lt;sup&gt;c&lt;/sup&gt;</td>
<td>1 (0.4)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. DSS, Department of Social Services.

<sup>a</sup>The chi-square test determines differences in responses between line staff and leadership personnel.

<sup>b</sup>P-value is determined by the chi-square test.

<sup>c</sup>Sample sizes were too small (n<5) to allow for meaningful statistical comparisons; therefore, the chi-square test was not completed.
felt comfortable reporting sexual abuse (9.2%) or neglect (21.0%) [15].

Effective training, policies, and practices that improve reporting rates already exist [25, 26]. For example, use of a structured screening tool in hospital emergency departments can increase the identification of child maltreatment [27]. Structured screening for professionals can decrease ambiguity in identifying the threshold for reporting, and having routine, universally used procedures can help to reduce the subjective nature of the evaluation of risk. Additional training on the recognition and reporting of child maltreatment improves professionals' knowledge and increases their confidence to report suspected maltreatment [15].

Inexpensive options are available for training first responders to recognize and report child maltreatment. A study of a web-based training program showed increased knowledge of reporting procedures among professionals who are mandatory reporters [28]. In North Carolina, the infrastructure for a web-based training program already exists. Prevent Child Abuse North Carolina offers a 2-hour web-based module, which is free to state residents, on recognizing and responding to suspicions of child maltreatment, including information on how to identify abuse and neglect, how to make reports, common barriers to reporting, and strategies for overcoming these barriers [29].

**Limitations**

One limitation of our study is that the results may not generalize to EMS professionals in other states, and they may not represent all EMS professionals in North Carolina. However, given that the respondents from our survey were generally more experienced than the average EMS provider in North Carolina, one might expect respondents in our study to be more familiar with both the agency protocols and the knowledge and actions of their peers and colleagues. Second, the question regarding why individuals may not report suspected maltreatment asked respondents to presume what others are thinking. This strategy was chosen in an attempt to solicit honest feedback from the respondents and to avoid the potential for respondents to provide socially desirable responses about their own behavior. Despite these limitations, and because EMS professionals have such a unique vantage point into family situations where maltreatment may occur, the results of this study suggest a need to improve EMS professionals' understanding of the state's mandatory reporting laws.

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**FIGURE 1. Reasons Emergency Medical Services Professionals May Fail to Report Suspected Child Maltreatment**

<table>
<thead>
<tr>
<th>Reason</th>
<th>Line staff</th>
<th>Leadership personnel</th>
</tr>
</thead>
<tbody>
<tr>
<td>The hospital will make the report.</td>
<td>44.9%</td>
<td>61.0%</td>
</tr>
<tr>
<td>They are not comfortable reporting without absolute certainty that abuse or neglect is happening.</td>
<td>48.0%</td>
<td>48.0%</td>
</tr>
<tr>
<td>They are not sure what should be reported and what should not.</td>
<td>40.5%</td>
<td>43.9%</td>
</tr>
<tr>
<td>They believe DSS will not take action.</td>
<td>36.8%</td>
<td>45.5%</td>
</tr>
<tr>
<td>They don't know how to make a report.</td>
<td>36.0%</td>
<td>45.5%</td>
</tr>
<tr>
<td>Law enforcement will make the report.</td>
<td>23.1%</td>
<td>39.8%</td>
</tr>
<tr>
<td>They are not clear whether there is a protocol in place for reporting.</td>
<td>20.3%</td>
<td>29.0%</td>
</tr>
<tr>
<td>They don't know whether they can make a report anonymously.</td>
<td>23.1%</td>
<td>29.0%</td>
</tr>
<tr>
<td>They are afraid people will know who reported.</td>
<td>19.0%</td>
<td>24.4%</td>
</tr>
<tr>
<td>They have had a bad experience reporting.</td>
<td>16.5%</td>
<td>23.6%</td>
</tr>
<tr>
<td>It might cause more harm than good.</td>
<td>14.0%</td>
<td>10.6%</td>
</tr>
<tr>
<td>Responding to the medical emergency is the top priority and it can be hard to find time to do other things.</td>
<td>9.0%</td>
<td>10.6%</td>
</tr>
<tr>
<td>Other</td>
<td>8.1%</td>
<td>9.8%</td>
</tr>
<tr>
<td>It takes too long to make the report.</td>
<td>6.2%</td>
<td>13.0%</td>
</tr>
<tr>
<td>They have heard that they might have to leave a message and be called back.</td>
<td>3.7%</td>
<td>8.1%</td>
</tr>
<tr>
<td>They believe DSS will take drastic action.</td>
<td>3.4%</td>
<td>7.4%</td>
</tr>
</tbody>
</table>

Note. DSS, Department of Social Services.  
*P<.05 for leadership personnel compared to line staff, per chi-square test.
Conclusions

As with other professionals, EMS professionals under-report suspicions of child maltreatment [30]. Understanding the barriers to first responders’ reporting of child maltreatment is important because first responders are an understudied yet crucial population of mandatory reporters. The disconnect between policy and practice calls for the enactment of a more streamlined and standardized system of rules. These rules should guide EMS professionals in the process of reporting suspicions of maltreatment. They should also include training to support decision making and should ensure that EMS professionals understand what constitutes abuse or neglect. Finally, the rules should include teaching EMS professionals about the variety of services that DSS offers and how families can access these services. This can be accomplished through additional interagency cross-training and through greater communication between agency leaders and line personnel.

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POLICY FORUM

“Going Down to the Country”

Introduction

If you are a boomer of the Woodstock Nation, then you know that “going down to the country” was a romantic dream that allowed you to leave the city and its formality behind. Wooden shacks, no running water or indoor plumbing, large gardens and fields, and some livestock seemed just fine. In this dream, little attention was paid to employment, schools, shopping, and health care.

The idea of rural life may be romantic, but where are we now? In North Carolina, immigration is not to the country but to the city. Half of North Carolinians live in only 13 of the state’s 100 counties. More astonishing, 10% of North Carolinians are sparsely spread across 80 counties. This issue of the NCMJ describes the challenges of providing quality health care across this still rural state.

However, rural life also offers opportunities. Having practiced in a town of 500 people (in a county of 14,000), I can say that everyone knew me, and I knew almost everyone who introduced themselves to me—in the office, on the unpaved gravel streets, and in the small store that passed for a grocery. We were friendly and neighborly. We were in a relationship.

For all their yearning for the simple life, most baby boomers proved to be more organizational than relational. However, millennials are more about relationships that transcend the organization. As a result, we are seeing a new generation of health care providers who are committed to practicing in rural primary care medical homes. These providers seem to be committed to relationships more than comforts, although the amenities of rural living continue to advance in this digital age.

In addition to providing opportunity for relationships, today’s rural life also allows for connectivity beyond the town’s borders. The Internet promotes online communities that have no geographic boundaries, not to mention online shopping (which, even in our cities, is replacing a trip to the store). Technology also offers physicians the option of online and video consultations and interactive continuing education.

Rural health can and will improve as we invest in primary care and connectivity and work to find creative social and economic solutions that create opportunity and livelihood for rural residents. The refrain of “going down to the country” might well return as a reality, not just a romantic dream. NCMJ

Peter J. Morris, MD, MPH, MDiv
Editor in Chief
The population and demographics of rural America are shifting once again. As our nation’s unprecedented health care reform unfolds, it is becoming clear that rural communities have unique strengths, and capitalizing on these strengths can position them well for this health care transformation. Equally important are the distinct challenges that—with careful planning, attention, and resources—can be transformed into opportunities to thrive in the new health care environment. The North Carolina Institute of Medicine’s Task Force on Rural Health recently published a report that highlights the strengths and challenges of rural communities [1].

In order to fully leverage these opportunities, we must continue to acknowledge the fundamental importance of access to basic health care, while also broadening our discussion to collectively tackle the additional components necessary to create healthy, thriving rural communities. As we reexamine the needs of rural communities, we should broaden our discussions to include an expansion of the types of access that are necessary for strengthening rural health. Collaboration, successful recruitment and retention, availability of specialty services, quality care, and cost effectiveness are some of the issues that must come into discussions about access to services. With this in mind, this issue of the NCMJ explores opportunities to strengthen the health of North Carolina’s rural communities.

North Carolina’s Office of Rural Health and Community Care (ORHCC) was created over 40 years ago to address critical physician shortages in rural communities. The work originated with fundraising to build rural health centers, policy change to train and license mid-level primary care providers, and the recruitment of primary care providers to work in these newly established rural health centers. At that time, ORHCC developed programs that supported expanded access for underserved populations (ie, Medicare and Medicaid recipients, underinsured individuals, and uninsured persons). In partnership with federal, state, and philanthropic financial support, ORHCC was able to support other safety-net providers such as community health centers, farmworker health programs, free clinics, local health departments, school-based health centers, and critical access hospitals. The ORHCC recruitment team now leverages loan repayment through federal and state resources for the safety-net system.

Access issues are not limited to primary care, so recruitment activities were expanded to include psychiatrists and dentists. Direct access to health care providers was supported with wrap-around services, such as help in securing access to medications for uninsured individuals or technical assistance to assist a practice with financial viability. Over time, ORHCC has been involved in physician recruitment and/or loan repayment for many of the providers practicing in North Carolina. This has made ORHCC the ideal party to bring providers together to create collaborative networks and to implement both state and federal demonstration projects. This spirit of evolution and innovation must be harnessed as we reexamine the question of what type of access is needed to improve the health of rural communities in the future.

Access to Coverage

North Carolina’s health care community has a long history of collaboration that extends well beyond the safety-net and rural communities. The commentary in this issue by Irons and Moore [2] describes infrastructure that was put in place to assist communities in providing access for uninsured individuals, and it discusses how this infrastructure was leveraged and expanded to help individuals gain access to health insurance through the federal marketplace established by the Patient Protection and Affordable Care Act of 2010 (ACA). Although not exclusively focused on rural areas, this collaborative work exhibits many of the strengths of rural communities.

ACA enrollment is an example of what is possible when independent entities are brought together in an inclusive community to effectively leverage limited resources. This process was organized in a transparent culture of continuous improvement that has shaped processes at a national level. The most notable achievement is that North Carolina
Access to the Right Workforce

Going forward, recruitment efforts will also consider the rate of retention. Literature shows that recruiting providers from rural communities and providing education and enhanced training (including General Medical Education) within the state increase the retention of local providers who return to work in rural communities [4]. We will need to reframe our educational systems and also identify factors that contribute to retention, such as job satisfaction. In the commentary by Walker [5], he describes how the North Carolina Medical Society formed the Community Practitioner Program, which expanded the reach of recruitment beyond government and safety-net systems to encompass private practices that have a passion for serving underserved rural populations. The providers clearly benefit from learning collaboratives and in-depth technical assistance, both of which are relevant to job satisfaction in today’s changing health care environment. The commentary by Harris [6] provides details on what is possible when a mission-driven organization utilizes its team’s skill sets to selectively choose providers who align with the organization’s core values; this recruitment strategy has created a rural health site that can turn away 80% of its applicants.

There is a clear movement toward integrated or whole-person care that must be considered as we develop tomorrow’s workforce [7]. The primary care environment is one step above core public health prevention; as such, it has the potential to touch a large percentage of the population. Primary care is typically comprised of brief interventions, after which patients are generally expected to follow through on a plan of care. According to the American Academy of Family Practice, “primary care includes health promotion, disease prevention, health maintenance, counseling, patient education, diagnosis and treatment of acute and chronic illnesses in a variety of health care settings” [8].

It is likely unrealistic to believe that we can train and recruit enough primary care providers to meet the needs of North Carolina’s 9.8 million residents [9]. However, access can be expanded through teams of highly qualified individuals all working at the top of their skill set. Federally funded community health centers are required to address both behavioral health and oral health needs of the populations they serve [10]. Freeman’s commentary [11] describes the comprehensive role that mental health professionals can play in providing evidence-based care within a primary care medical home and how these professionals can support both patients and providers. This article is balanced with continued reminders about the ongoing need for access to specialty services.

At the time of publication, the McCrory administration was working with the National Governors Association to examine future health care workforce development. It is appropriate that tomorrow’s workforce will look and practice differently. Across the nation, the roles of nurses, care managers, and hygienists are expanding. In addition, new roles, such as community health workers and dental therapists, are being defined [12-16]. If properly structured, this could offer new employment opportunities for rural residents. It will require new educational programs, standards of competency, and policy changes that have both economic and political implications.

Access to Specialist Services

If rural areas continue to experience persistent health professional shortages in the primary care work force, one can only imagine the impending shortage of specialty services. The sidebar by Saeed [17] explains how advances in telebehavioral health—along with thoughtful assessment for access to specialists—can provide value to patients, providers, and the community. It builds on Freeman’s article about the ongoing need for access to specialized mental health services, and it describes an additional resource that can be used to create virtual teams within the patient’s community. Technology is advancing rapidly, with new applications including eye exams, teledentistry, and telemonitoring from home [18]. The implementation challenges will likely not come from the technology but will evolve around policy, privacy, workflow, and payment implications for patients, providers, and payers.

Access to the Triple Aim

The changing health care environment will demand more than access to a provider. It will require access to high-quality care at a cost-effective price regardless of the practice type or the provider specialty. It is clear that the federal government is working to achieve this objective. Historically, Medicare has been the driver of health system changes, with Medicaid and commercial payers following suit; this is evident in our current fee-for-service system [19]. As Medicare begins to bundle payments, penalize readmissions, open new care management codes, and provide ongoing support for accountable care organizations (ACOs), we see other commercial payers also adopting these models. Medicare, Blue Cross and Blue Shield, Aetna, Humana, and several provider groups have all recently created ACOs in North Carolina [20].

Resources are being provided to enhance the meaningful use of electronic health records. Continued refinement of billing and coding through ICD-10, all-payer claims databases, and the health information exchange will further enhance our ability to use large data sets to monitor the health of assigned populations and to document outcomes.
Increasing the transparency of data will allow for greater choice of providers for both payers and patients. However, it is unclear how much choice rural residents will have with regards to payer or provider [21]. It will be important to support the technological infrastructure needs of rural providers so that both they and their patients can fully reap the benefits of data-driven health care.

A challenge for rural providers is their reliance on government insurance and the high percentage of rural individuals who lack insurance coverage [22]. In his commentary, Holmes [23] describes how these realities contribute to the national trend of hospital closures. Spade’s sidebar [24] describes the challenges of shifting an entire business model from provision of acute care to provision of outpatient care, while continuing to operate in a fee-for-service, high-volume environment. Clearly, this is well beyond the grasp of independent hospitals, which have historically been operating at a loss. This is a contributing factor in the consolidation of health care providers and the emergence of large systems [25]. Spade provides examples of how large health care systems are redesigning services in rural North Carolina communities. In addition, the National Rural Health Association reports that rural health clinics are increasing, in part due to cost-based reimbursement [26].

We now have evidence of payers working to strengthen the primary care infrastructure through per-member/per-month payments, enhanced payments, and new primary care case management codes. This infrastructure is important as mental health reform highlighted the fact that, if we move too quickly and do not succeed, it can take almost a decade to repair the system. It is important that the provider community be supported in creating access to preventative, high-quality outpatient services.

**Access to Social and Economic Supports**

Funded by the Kate B. Reynolds Charitable Trust, the North Carolina Institute of Medicine in 2014 released the state’s latest rural health plan; this was the first rural health plan to contain significant participation and feedback from the state’s latest rural health plan; this was the first rural health plan. Zalkind’s commentary [28] describes what generations. Zalkind’s commentary [28] describes what is possible when a comprehensive, long-term approach is applied to the mission of ensuring that children enter school healthy and ready to succeed. The work described in this commentary has succeeded by engaging multiple partners across distinct sectors to change a community’s perspective about the value of a healthy lifestyle.

Finally, Collier’s commentary [29] highlights the relationship between economic development and health. To be competitive, industry requires a healthy workforce; in order to be healthy, communities also need access to the resources that come with industry. This commentary acknowledges the economic importance of the health care sector. It also describes how the Department of Commerce, together with other key partners, can provide targeted investments that support local and regional economic growth. Our workforce development should examine how rural communities can identify their future providers, teachers, and business leaders.

**Conclusion**

Rural communities seek the opportunity to improve their quality of life through economic mobility, strong educational support, resources for healthy lifestyles, and accessible health care. In this dynamic health care environment, rural communities are vulnerable; however, they also offer us the greatest opportunity to achieve the objectives of health care reform.

With strong support for the primary care and safety-net systems, practicing rural providers have several unique strengths. First, rural providers are accustomed to working with limited resources while providing high-quality care for patients with complex chronic conditions. Second, rural providers have personal relationships with their patients and their families that encompass an understanding of their spiritual and social determinants of health. Third, rural providers are highly dependent on Medicare and Medicaid; if these 2 payers move away from a volume-based payment in a complementary fashion, then rural providers could be well positioned to shift their practice structure. Lastly, rural providers can assume powerful leadership roles within their community. These roles can reach well beyond the walls of their practice, as is powerfully illustrated in Tayloe’s [30] sidebar. His practice is more than just a medical home for his patients; it is also a community medical home working to improve the health of future populations.

Throughout the development of the rural health plan, we heard of strengths that should be leveraged as our health care system shifts away from a crisis model to a prevention model. First, having limited resources—a circumstance that is not new to rural agencies—has provided strong incentives to align objectives so that individual missions can be accomplished. Second, many rural communities are closely knit, which fosters a spirit of collaboration. Third, rural communities have a strength that comes from independence, innovation, and self-reliance.
The combined strengths of communities and providers in rural North Carolina create an environment of health care prevention and efficiency. If rural providers achieve health care cost savings through efficiencies, ideally these savings are reinvested into community activities such as quality child care, transportation, and job growth. Increased efficiencies equal more health care cost savings, which can then be reinvested in the community’s infrastructure to further enhance economic development, health care prevention and wellness, and social and educational supports that will continue the cycle—thus creating a healthy rural community. NCMJ

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Providing Whole-Person Care: Integrating Behavioral Health Into Primary Care

Jan Sweet Freeman

Integrated primary care in a patient-centered medical home is the best way to invite patients to engage in better self-care, to move from provider-based care to team-based care, and to address whole-person needs. However, primary care—whether rural or urban, public or private—cannot become the default mental health system for North Carolinians with severe mental illness.

Rural Health Group (RHG) is a federally qualified health center that provides integrated medical and behavioral health care to residents of 5 counties in northeastern North Carolina. We have 25 medical providers covering 13 clinics and an approximate patient panel of 30,000 individuals. Our catchment area is also covered by 2 Community Care of North Carolina (CCNC) AccessCare networks (Northern Piedmont Community Care and Community Care Plan of Eastern Carolina) and by 3 managed care organizations (Cardinal Innovations Healthcare Solutions, Eastern Carolina Behavioral Health, and Eastpointe). Roanoke Rapids, a micropolitan community located approximately 20 miles south of the Virginia border, serves as the hub of our health care system and is the location of our largest practice and our administrative offices. Aside from our locations in Roanoke Rapids and Henderson, our clinics serve communities with populations of less than 1,500 residents each.

According to 2014 data from County Health Rankings and Roadmaps, 6 of the 7 counties served by RHG ranked in the bottom 7 of the 100 counties in North Carolina in terms of health behavior, environment, clinical care, and socioeconomic status [1]. For overall health outcomes, including length and quality of life, Halifax County is 99th out of North Carolina’s 100 counties; Vance is 96th; Northampton is 89th; Warren is 85th; and Granville is 39th [1]. Many people in all of the communities we serve face multiple health disparities, yet each community has a unique combination of risks and barriers to care.

Being in a rural setting adds to the challenges faced by both patients and providers. Unfortunately, many communities in North Carolina have experienced upheaval in local specialty mental health services as these services have become increasingly privatized and fragmented. Private agencies have flourished and collapsed, and less trained and minimally supervised professionals and paraprofessionals have moved among agencies, which has contributed to a lack of continuity in quality mental health care. In our experience, this discontinuity in care is a predictor of poorer overall health outcomes. Thus, a continuum of care that provides specialty resources for primary care practices must include robust psychiatric and mental health specialty treatment services.

RHG patients commonly present with diabetes, obesity, hypertension, depression, and attention deficit disorder. Patients often expect quick and easy solutions to biopsychosocially complex conditions that have developed over many years. At RHG, we bear this in mind and do not arbitrarily differentiate between medical and mental illness: Illness is illness, and we treat it from the same whole-person paradigm.

While RHG can address some behavioral health issues, patients with serious mental illness require specialty care. For example, consider a patient with hypertension, obesity, borderline personality disorder, chronic substance use, an undifferentiated bipolar disorder, and a history of multiple psychiatric hospitalizations. In this case, RHG can respond ably to the patient’s medical conditions, but we are not equipped to treat complicated and severe mental illness. Just as the treatment of cardiology, gastroenterology, endocrinology, or neurology patients is beyond the scope of primary care, so too is the management of patients with significant mental illness. Although we can be a part of the continuum of care for the typical health care patient, primary care cannot become the default mental health system, especially when it is already overwhelmed by management of basic health care issues. Patient-centered medical home (PCMH) integrated primary care provides basic, core treatment and management of common medical and psychosocial conditions, but it cannot also provide specialty care services without decreasing the quality of care to our designated population.

Behavioral Health Care at RHG

Beginning in 2007 with just one behavioral health provider coming in 1 day per week, we have now evolved into...
Telebehavioral Health: Clinical Applications, Benefits, Technology Needs, and Setup
Sy Atezaz Saeed

Mental health disorders are common and are associated with high levels of distress, disability, morbidity, and mortality [1]. However, many people with these disorders do not have access to mental health services. It is often difficult to recruit and retain mental health providers in rural and underserved communities, and this lack of access can sometimes force patients to travel long distances in order to obtain mental health services or to forgo such services altogether. Primary care or other medical providers are often placed in the position of serving patients with severe mental health conditions, with little or no specialty support. These factors reduce the quality of mental health services available to patients in rural and underserved communities.

A growing body of literature suggests that the use of live interactive videoconferencing to provide mental health care has the potential to mitigate the workforce shortage, especially in remote and underserved areas [2, 3]. With such an arrangement, a provider at a distant location evaluates and treats a patient at their local clinical site via live interactive videoconferencing. This practice has been referred to by various terms: telebehavioral health, telepsychiatry, telemedicine, e-behavioral health, telemental health, e-care, telehealth, and telecare. Telebehavioral health can also be used for consultations between providers, education of providers and patients, and the integration of science-based treatment practices into routine clinical care.

Clinical Applications
Telebehavioral health has diagnostic and therapeutic uses across the lifespan. Common applications include diagnostic assessment, prehospitalization assessment, posthospitalization follow-up care, medication management, psychotherapy, and consultation. Telebehavioral health can also provide health workers in remote areas with continuing education on mental health topics. Points of delivery for telebehavioral health may include hospitals, emergency departments, clinics, offices, homes, nursing homes, schools, and correctional settings. Finally, it is possible to perform commitment hearings, evaluations of competence, and forensic evaluations via telebehavioral health.

Benefits of Telebehavioral Health
Telebehavioral health has a number of important benefits for patients, clinicians, provider organizations, and communities. In addition to enabling patients and their families to receive treatment closer to home, demonstrated benefits of telebehavioral health include increased access to mental health services, greater consumer convenience, improved recruitment and retention of mental health professionals in underserved areas, better consumer compliance, improved education of mental health professionals, better coordination of care across the mental health system, less professional isolation, decreased geographic disparities in health, and reduced stigma associated with mental health services [3].

Technology
Telebehavioral health primarily uses interactive audiovisual conferencing systems that run over high-bandwidth networks [4]. The central component of interactive telebehavioral health is the codec (coder/decoder), which provides compression, decompression, and synchronization of audio and video signals. Both the patient’s site and the clinician’s site need codecs. A codec can be a separate device, but personal computer–based codecs are being used more frequently. A typical setup also includes a video camera, microphone, speakers or headset, and 1 or 2 display monitors at both the clinician’s site and the patient’s site.
Setting Up a Telebehavioral Health Service

Setting up a telebehavioral health service requires systematic attention to several details. As in the case with any clinical service, the first step is doing a needs assessment for the service. This assessment should address 3 questions: Is the telebehavioral service needed? Is it feasible? Finally, is it sustainable? The next step is to determine which specific partnerships are going to implement and sustain the telebehavioral health service. In essence, this includes the partnership at the site(s) where the patients are going to be located at (eg, primary care clinics, health department clinics, hospital emergency departments, or other provider-based clinics) and the partnership at the providers’ site (eg, practice groups, academic practices, and employed providers). The third step is to conduct a detailed assessment of the existing technological, organizational, and programmatic infrastructure, both at the patient’s site and the provider’s site. The fourth step is to identify the equipment and network infrastructure that will be needed for the telebehavioral health service, both at the patient’s site(s) and the provider’s site.

Next, it is necessary to establish the model of care (eg, direct care, patient-centered consultation, provider-focused consultation, or hybrid). Specific protocols, clinic policies, and procedures should be established. It is usually helpful to have an operations manual that contains all such information. Such a manual should also contain information regarding available providers, technical and user support, the transfer of personal health information and/or the creation of medical records, follow-up to the referring provider, the protocol for scheduling or presentation, training of users, and a single number for the call center.

Once the model of care has been established and the protocols are in place, then the telebehavioral health service should establish a timeline for going live, and a work group or steering committee should be identified that can meet periodically to oversee a smooth implementation. At this point, it is also necessary to identify and work out problems, revise protocols, and report data. Finally, the telebehavioral service should do a small-scale trial run before going live; once the system is working, then it can be implemented broadly. An ongoing outcomes management system—one that includes attention to quality of care—needs to be in place to ascertain that the telebehavioral health program adequately addresses the needs of patients and institutions.

Reimbursement

While reimbursement rules and regulations within health care are constantly evolving, in general there has been a gradual increase in the number of third-party payers that cover telebehavioral health services. The Centers for Medicare & Medicaid Services is a leader in determining reimbursement for telebehavioral health care, with many other payers following suit. Currently, the Centers for Medicare & Medicaid Services has approved the reimbursement of diagnostic interviews, individual psychotherapy, and pharmacologic management delivered by telebehavioral health.

Conclusion

Telebehavioral health is a viable and reasonable option for providing psychiatric care to those who are currently underserved or who lack access to services. The current technology is adequate for most uses and continues to advance. Numerous applications have already been defined, and more are ripe for exploration. Barriers to implementation are primarily of the human variety; overcoming them will require a combination of consumer, provider, and governmental advocacy.

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is assessed at each encounter. Behavioral health providers are activated for health care management, whether it centers on stress, depression, or chronic illness (eg, diabetes), or when a new medical diagnosis will demand significant lifestyle changes. In addition, behavioral health providers engage in preventive strategies, such as intervening with new tobacco users or monitoring patients with diabetes for signs of depression.

RHG has been effecting substantial paradigmatic change that has allowed us to provide whole-person care using the integrated model. At the patient level, we focus on providing health care without arbitrary differentiation by diagnosis, geographic location, or any other filter. At the provider and cultural level, we focus on prescribing practices, openness to team-based care, and assessing a provider’s stage of change within the PCMH model.

Regardless of the patient’s specific circumstances or diagnoses, team concerns center on issues such as the patient’s ability to keep appointments, health literacy, ability to obtain prescriptions, and readiness to participate in an action plan, as well as the identification of community and/or family resources. PCMH integrated primary care can respond to a variety of patients without immediately engaging specialty care. We can provide basic behavioral interventions in conjunction with medical recommendations from the patient’s primary care provider. PCMH integrated primary care has the responsibility of drawing a more complete picture of a person’s overall health at a particular moment in time, offering that picture to the patient, and outlining the resources and limitations that are particular to that patient. Because the whole team is activated and involved, our patient will be more likely to follow through on behavioral or medical treatments and to return to care.

Thanks to decades of research on behavioral medicine, we are beyond the point of simply telling our patients what to do. We now focus on assessing a patient’s readiness to change, and our providers work to re-engage patients in taking responsibility for their own care. We have historically functioned under a power dynamic that emphasizes “telling” patients what to do and then blaming them when they do not follow recommendations. With respect, I believe the responsibility is on us as providers to shift to a team-based partnership with the patient; in this model, we can better present realistic options based on what we have learned about the patient’s circumstances (psychosocial, biomedical, and material), as well as our knowledge of available resources.

As we seek to move away from the old dynamic of providers telling patients what to do, I ask myself, “How much do I like to be educated about something that I have already heard several times before? How do I respond to limited eye contact or competition with a computer when in conversation? How challenging is it for me to change a behavior that my primary care provider has recommended I change and that I know is in my best interest to change?” I am just as likely as any of my patients to choose salty or sweet snacks over carrots, to drive when I could walk, or to forget my medication without realizing it. Relative to most of my patients, I live a privileged, safe, and healthy life. So why would I expect patients to change when I myself do not respond to these old methods of patient interaction? In primary care, our presence in patients’ lives may be small (for healthier patients) or perhaps even moderate (for chronically ill patients), but we are not the most important relationship in their lives, and we are not in charge of their decisions.

Within the PCMH integrated primary care setting, the patient is invited to participate in their own self-care as much as possible. We are responsible to the patient but not for the patient. I believe confusion about this point not only perpetuates the power dynamic between providers and patients but also reinforces the current fee-for-service environment. If we are to move to a value-based treatment model, I believe the biggest change has to be within the provider community. If providers reorient their practice to team-based, patient-engaged, relationship-emphasized care, then patients will be invited to engage responsibly in their own care. If patients do not accept this invitation, providers can re-invite patients at each appointment.

Our responsibility as primary care providers is to connect patients to services where possible and to lay out a realistic range of options. Although the range of choices we have to offer is rarely ideal, our hope is to steer the patient in a healthier direction and to provide follow-up and support in order to encourage full participation with a patient’s specialty care.

PCMH integrated primary care is about a commitment of time, energy, and financial resources to provide team-based, whole-person care to patients in the exam room. It means that a patient can see not only their primary care provider and a nurse, but also their case manager and their behavioral health provider, all at the same appointment. It means that a patient knows that they have a team of professionals available who can be activated based on their acute or chronic needs, whether these needs are medical, psychological, or social. Most importantly, it means that their team will apprise them of their choices in a caring and realistic manner, providing appropriate services, referring to specialty care as needed, following up for additional appointments, and doing so without judgment or blame. It is this goal that drives me to persist in the message that we cannot be all things to all people; however, we can try to model what we hope to teach: that knowing our limitations is at least as important as knowing our strengths. NCMJ

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TURN AN AREA PEOPLE AVOID INTO ONE THEY CAN’T HELP BUT BE ATTRACTED TO.

IT'S NOT AS HARD AS YOU THINK.
Step one is to use your imagination. Do you picture a community garden in your neighborhood?
Great, you're already one step closer to making it a reality. From there, simply visit our website for a wealth of tools that can help you connect with family, friends, and your entire community. A garden is only the beginning. Right now, North Carolinians across the state are working to improve the places they call home.
Join the movement at ShapeYourWorldNC.com.
Finding and Keeping Health Care Providers in Rural Communities: Culture Change in Recruitment at Rural Health Group

Brian O. Harris

Transforming rural primary care is possible only when leadership is committed to a core set of competencies. Northeastern North Carolina, not always seen as an attractive locale for health professionals, has been developing a primary care medical home that emphasizes team-based care built upon respect, trust, and professionalism.

I have spent my entire professional career in the field of rural health serving communities of fewer than 15,000 people. These service areas often cover multiple remote counties and have considerable unmet medical, dental, and behavioral health needs. The constant over the last 2 decades has been that rural patients often face high levels of poverty, lack of employment, barriers to health care, and medical issues that are often untreated or poorly controlled. Health care facilities in these areas often have difficulty recruiting medical professionals who desire a rural lifestyle and are willing to take on the challenge of working in under-resourced areas, where patients often face barriers to care and may have limited social support. In my opinion, it takes a special kind of provider to work in a rural setting.

That being said, the worst thing I have done over the years is act out of desperation. When I started recruiting physicians and dentists over 15 years ago, my only criterion for a licensed independent practitioner was the practitioner’s willingness to work in a rural clinic. I signed anybody who would sign an employment agreement. My overriding concern was that patients have access to care—any care. I always felt that a vacancy must be filled as soon as possible, so I used nontraditional methods to get a deep and wide applicant pool. I shook every bush to find providers who were willing to work, including cold-calling residents who were within 2 years of completing a family practice residency, attending career days at residency programs, and presenting at residency grand rounds. I was in a seller’s market and would accept any willing applicant.

As time passed, the problem with this approach became clear. Providers were dissatisfied with the community, the patients, and the health care system’s lack of resources. Patients became accustomed to receiving care from providers who made it clear that this position was a short-term assignment. The revolving door of rural primary care providers began rotating on its vertical axis, with the average provider completing their 2-year tour and then moving on. We were violating a fundamental principle of effective primary care: that there be a continuous healing relationship between the patient and the primary care team. When provider leadership is inconsistent, the patient’s care is negatively affected, and the primary care team is less effective in developing relationships with patients and family members.

This was not working—not for the patients, the community, the clinic, or the providers. What did we do? I am currently the chief executive officer (CEO) of Rural Health Group (RHG), a nonprofit, federally qualified health center serving people living in northeastern North Carolina. To address the problem of provider recruitment and retention, RHG embarked on a cultural change over the past 6 years that has transformed our care teams and our provider staffing. First, senior leaders changed our basic assumptions about rural health care and rural providers. Instead of accepting any licensed person who was willing to work, RHG’s leadership demanded exceptional providers who embrace our approach to team-based, patient-centered care. Just because we are a rural clinic does not mean we need to be desperate. Rather, we need to be exacting in our recruitment and seek providers who are leaders and who want to practice full-scope family medicine as part of an integrated primary care team.

In order to become more selective about our applicants, we first had to stop using access to care as our sole metric. We adopted the stance that it is acceptable to have a provider vacancy if you cannot find the right provider with the core competencies required to work at RHG. We stopped looking at clinical skills and started interviewing for relational, interpersonal, and leadership attributes.

RHG still recruits regionally and nationally, but the screening process for each candidate now takes months. It is
a team effort requiring staff support and senior leadership’s focus. The leaders of RHG found early on that we needed to be better organized if we were going to optimize the selection of the right candidate, so we invested in an online application management system and appointed a staff person to coordinate recruitment and onsite visits. RHG now has a full-time human resource staffer who spends 40% of her time on provider recruitment; her duties include initial screening, arranging phone interviews and onsite visits, and candidate relocation logistics.

The key to RHG’s success in finding and recruiting providers rests in our commitment to our core competencies. RHG has developed and seeks to bolster 6 core competencies, which we use both to screen candidates and to retain providers who embrace the RHG way. The 6 core competencies are skill set, judgment, communication, passion, honesty, and responsibility (See Table 1). For providers who embrace these core competencies and view them as central to their way of practicing medicine, RHG is a long-term fit.

To begin the process of applying for a position, candidates must complete an online application that includes behavioral questions that probe how well the provider understands RHG’s philosophy of the patient-centered medical home. These responses are reviewed and scored by the recruiter. All active licenses are checked for any professional standard violations. If the provider passes the screening, then he or she is scheduled for a 30-minute informational call with the recruiter. Providers who pass the recruiter’s screening are then scheduled for a 30–45 minute phone interview with me, wherein the candidate undergoes a behavioral interview. At this point clinical skills are considered a given. Every duly licensed family practitioner can treat diabetes, but we want to know whether the provider can relate to the patient in a nonjudgmental way that invites the patient into better health. As the current CEO of RHG, I spend my interview probing the provider’s soft skills, including judgment, discernment, interests, and demonstrated ability to balance work and home. If the candidate passes this interview, the next phone interview is with RHG’s director of integrated care, who is a licensed psychologist. She interviews every provider candidate to gauge the provider’s fit with RHG. This part of the interview process is essential because even the best interviewer can become too focused on the hard skills, such as tasks and clinical acumen, and may miss the more essential relationship attributes necessary for an exceptional provider leader. Our psychologist fills this gap by helping the interview team tune into key areas that are often overlooked. Finally, the last phone interview is with the medical director of RHG. Once the 3 phone interviews are completed, I meet with the director of integrated care and the medical director, and we discuss the candidate and decide if an onsite interview is appropriate.

During the past 6 years, less than 20% of the candidates who participated in phone interviews were invited for an onsite interview. During an onsite interview, which lasts 2–3 days, the candidate interviews with each member of the senior team, provider partners, and line staff. Candidates are shown the community, given a real estate tour, and allotted ample free time to see the area. RHG’s senior team meets after each onsite interview to decide whether the candidate meets our core competencies.

The culture shift that allowed us to change our recruitment process started with the recognition that the “poor me” mentality in rural health care was only perpetuating the stereotype that rural health jobs were undesirable. When leadership changed its conceptual framework to see rural health care as desirable and deserving of the best providers,
Physicians Providing Leadership for Rural Communities

David T. Tayloe Jr

Goldsboro Pediatrics provides community leadership by targeting adverse child outcomes such as unplanned pregnancy, chronic mental health disorders, tobacco addiction, child abuse or neglect, school failure or drop out, obesity, and type 2 diabetes. Physicians can address long-term child outcomes during office visits, but we need to collaborate with other groups to assure success. We must provide leadership and form coalitions with like-minded professionals in the community in order to effectively improve child outcomes.

Unplanned Pregnancy

I was on our school board from 1983 to 1991, during which time the issue of student pregnancy became a prominent concern. During that period, the school board hired a health educator, and I served as her supervisor; through this relationship, she became linked with our practice. Pregnancy rates were cut in half after 1 full year of this program.

Today our practice oversees the Wayne Initiative for School Health (WISH), a private, nonprofit corporation that operates 6 school-based health centers in schools with at-risk students. The centers utilize our practice’s electronic health record, and enrollees receive services at Goldsboro Pediatrics whenever schools are closed. Pregnancy rates are significantly lower in the WISH schools.

Chronic Mental Health Disorders

Private-sector mental health professionals provide over 5,000 consultations per year in the WISH centers. We have implemented a program in an elementary school that allows at-risk children identified by the school nurse and social worker to receive mental health services onsite from a private-sector mental health professional. We hope to later duplicate this model in other elementary schools. There are 2 mental health professionals at Goldsboro Pediatrics, and the practice arranges telemedicine consultations with the Department of Child Psychiatry at East Carolina University if a patient needs a child psychiatrist.

Tobacco Addiction

Goldsboro Pediatrics participated in an American Academy of Pediatrics program—called Pediatric Research in the Office Setting—to develop a system for educating patients and their families about the dangers of tobacco addiction and for linking smokers with QuitlineNC. To continue this valuable program, the practice is collaborating with Prevention Partners.

Child Abuse and Neglect

In the early 1990s, research began to show that intensive home visiting can reduce early child abuse and neglect. Through a strong partnership with our local Head Start agency, we established Wayne County First Steps, a Healthy Families America intensive home visiting program. Currently, we are in the process of converting to the Nurse Family Partnership model for intensive home visiting.

School Failure and Drop Out

For the past decade, Goldsboro Pediatrics has raised about $40,000 per year to participate in Reach Out and Read, an early literacy program wherein primary care providers give new books to patients aged 6 months to 5 years at all well-child visits. According to 2013 data from the Annie E. Casey Foundation, 66% of 4th-grade students nationally are not reading proficiently [1]. We met with RHG raised it standards; only then did we see considerable improvement in provider recruitment and retention. Raising the standards also meant paying market salary, covering all reasonable moving expenses, paying a signing bonus, providing 2 professional memberships, and allowing for a generous allotment of continuing medical education credit.

In addition to providing our practitioners with financial incentives, we know it is also important to provide a workplace where they will want to stay. In order to promote retention, we support providers in a team-based environment. Hiring an exceptional provider and only giving her one coaching and support staff, and the panel manager; the case manager or behaviorist can also be included when needed. Nursing has changed to become a more integral part of care; it is not just taking vitals. RHG has expanded the function of nursing staff, with clinical assistants now conducting screenings for depression, alcohol and tobacco use,
the administration of our public schools to discuss school readiness. We learned that, despite our Reach Out and Read effort, far too many children enter kindergarten unprepared to learn to read; thus, our community needs to do more to improve the language skills of preschool children. We therefore organized a steering committee of partners—including Smart Start, Head Start, the local health department, the local hospital, public schools, the mayor’s office, the public housing authority, the public library system, the Cooperative Extension Service, and Seymour Johnson Air Force Base—and conducted a community forum. Our goal is to work with this coalition to improve the school readiness of kindergarten students.

### Childhood Obesity and Type 2 Diabetes

Goldsboro Pediatrics partnered with the health department and Family YMCA to obtain grant funding for the CHANGE for Children program (Commitment to Healthy Attitudes in Nutrition, Growth, and Education). Scholarships are available for youth living in poverty. Enrollees attend wellness sessions at the Family YMCA 2 nights per week for 10 weeks; during these sessions, a dietitian, a fitness expert, and a health professional teach children healthy exercise and eating habits. Goldsboro Pediatrics also joined GoWayneGo, a countywide effort to improve wellness that is being spearheaded by the county commissioner, the local hospital, and the local health department.

Our practice is also starting a quality improvement program administered by the American Academy of Pediatrics to improve the outcomes of overweight and obese children.

**Conclusion**

Goldsboro Pediatrics is a true medical home for the children in our catchment area, and we are integrated with our state’s Medicaid model, Community Care of North Carolina (CCNC). Today Goldsboro Pediatrics operates 4 offices where 17 pediatricians, 7 nurse practitioners, 1 physician assistant, 2 mental health professionals, 1 certified lactation consultant, and 2 CCNC care coordinators provide comprehensive health services for pediatric patients. Our practice continues to provide leadership for our community to ensure that more of our children grow up to be responsible, happy, economically independent adults. 

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**Reference**


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and preventive health behaviors, while also following standing orders for all chronic disease conditions to ensure that all necessary lab tests, imaging, and referrals are ordered. Nursing staff also provide patient education using vetted clinical protocols and teach-back techniques that complement the provider-patient education. RHG providers have 1 licensed practical nurse and 1 medical assistant assigned to each provider, and a panel manager (usually a registered nurse) is assigned to every 2–3 providers. The panel manager is responsible for coordinating the care team, arranging the daily team huddles, ensuring that previsit planning occurs for at-risk patients, managing the provider panel’s planned visits for preventive care and chronic disease management, and managing quality reports. Panel managers work to ensure that we close the loop (eg, lab orders are received and followed up, abnormal cancer screenings are followed to ensure the patient gets the necessary treatment). The care team has also been extended to include case managers who help patients when they face challenges in accessing services. Case managers connect patients and providers with resources to help ensure that patients are able to access provider-ordered care and services.

RHG has also integrated behavioral health care into all of its practices. Studies show that close to 70% of the patient visits in primary care have no organic cause; most of what we see in primary care is related to the patient’s behavior. Understanding behavior is essential, and RHG has continued to spread the integrated model to every clinic and every staff member. With 5 behaviorists on staff, RHG can provide behavioral health services to help patients meet health goals such as diabetes control, smoking cessation, or depression management. In addition, RHG has a pharmacy department whose staff works with providers to find the most appropriate medication therapy and to obtain that medication at a reasonable price.

Undergirding the team approached to care is an investment in information technology and analytics. UpToDate, a clinical decision-support resource, is integrated into our electronic health record system, giving providers a point-of-care clinical knowledge bank as well as clinical decision support. In addition, quality reports with drill-down capability are provided to care teams on a weekly basis. The reports include medications (with the full prescription), treatment modalities, lab results, and an array of clinical logic.

These analytics have given the senior leadership team the tools they need to focus on challenging areas, such as...
prescribing behavior for pain management or hypertensive control. The medical director and director of integrated care have set aside time to meet weekly with a subset of the providers to mentor, listen, and review quality reports. Providers have at least 4 of these sessions with senior clinical leaders per year. These sessions have been an invaluable part of developing open, honest relationships with providers. RHG has carved out time for clinical leaders to meet with providers because the quality of that relationship has a direct correlation with the quality of care provided to the patients at RHG. In addition to these one-on-one meetings, RHG has a “provider day back” at least 3 times per year, during which 6-8 providers meet with the senior clinical team (including myself) to focus on medical education and clinical standards. In addition to furthering learning, these days help providers to develop strong relationships with RHG’s leadership.

Investing in people and dedicating time to develop healthy relationships with providers are key parts of RHG’s provider retention strategy. Each of the steps—from recruiting providers who embody core competencies to the ongoing commitment to nurturing relationships with providers—is essential to attracting and retaining a staff of dedicated professionals. RHG has seen how an engaged provider workforce supported in a team-based environment can improve care in under-resourced communities. RHG believes that the long view is the only strategy that works: develop meaningful relationships of mutual trust with provider leaders and their teams so that patients and their families have trust in the care and the people providing that care. NCMJ

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Acknowledgments

Potential conflicts of interest. B.O.H. has no relevant conflicts of interest.
INVITED COMMENTARY

Twenty-Five Years of Serving the Health Care Needs of Rural North Carolina

Franklin Walker

The Community Practitioner Program seeks to improve access to quality health care for North Carolina’s most vulnerable people by providing educational loan repayment grants to primary care physicians, physician assistants, and nurse practitioners in return for their service in rural and underserved communities.

The North Carolina Medical Society Foundation (NCMSF) started its Community Practitioner Program (CPP) with the foresight and passion of a dedicated handful of health care providers 25 years ago; since that time, CPP has become crucial to the overall health and well-being of our state’s citizens—people who otherwise might have gone without necessary medical care. With the help of CPP, hundreds of physicians, physician assistants, and family nurse practitioners have had the opportunity to attend to the primary health care needs of patients in the underserved areas and remote back roads of North Carolina.

This corps of health care professionals provides more than 400,000 patient visits each year. The majority of these patients are uninsured, underinsured, or eligible for Medicaid or Medicare. Until the NCMSF placed a CPP participant in their area, many of these people did not have access to quality, continuous primary care from someone in their own community.

“Everyone needs access to health care, in my opinion,” said Tainieisha Bolden, MD. When she graduated from the School of Medicine of the University of North Carolina at Chapel Hill, Bolden knew that she wanted to serve in an underserved area, and she joined Roxboro Family Medicine and Immediate Care 3 years ago. “Coming out of school and training with lots and lots of debt, it can make it difficult to pursue the things your heart is telling you to do when the student loan people are telling you what you need to do.” Thanks to CPP, she says, “I’m doing what I enjoy in a place [where] I feel like I can benefit the community.”

Like the other providers who have participated in CPP over the last quarter century, Bolden completed her medical training saddled with significant educational loan debt. She knew she wanted to practice in a rural area, but it would have been financially impossible for her to do so without the help of a program like CPP. In exchange for committing to 5 years of practice in a rural or underserved area, CPP participants receive assistance with educational loan repayment. Over the life of the program, the average loan amount to participants has been $36,000, with a maximum allowed amount of $70,000. For the 38 current participants, the average loan amount is $46,000, reflecting the steep rise in the cost of medical school. In addition to loan repayment, CPP has also occasionally awarded funds for moving expenses, support for continued education training, or direct payment for a needed piece of major equipment.

Perhaps the most valuable benefit is the consulting services offered by the NCMSF practice improvement staff, who are on hand to help with the business side of running a medical practice, which is complex and often daunting. Over the 25 years of the program, this complexity has intensified with new financial and logistical challenges, such as the need to implement electronic health records, decreasing reimbursement rates, and both federal and local health reforms. Twice per year, CPP providers meet to share their experiences, learn from each other and the NCMSF staff and leadership, and bring new energy and ideas back to their communities.

The total amount of grant dollars benefitting the current group of community practitioners is estimated at $1.7 million. Additionally, the program typically provides approximately $50,000 per year of practice management and quality consulting to CPP practices.

History of CPP

In 1989 the Kate B. Reynolds Charitable Trust granted $4.5 million to the NCMSF to help attract and retain needed medical professionals in underserved communities throughout the state. The NCMSF was not the only or the first organization interested in achieving this goal. The generous grant, however, enabled the NCMSF to collaborate with other key stakeholders and bring everyone together on an advisory board. This advisory board included representatives of the family medicine department of each of North Carolina’s 4 medical schools; the Area Health Education Centers; the
North Carolina Office of Research, Demonstrations, and Rural Health Development; the North Carolina Hospital Association’s Center for Rural Health Innovation and Performance; the North Carolina Department of Commerce; the Kate B. Reynolds Charitable Trust; the North Carolina Medical Society; and rural practitioners themselves. The close, synergistic relationships between all of these entities remain to this day.

The advisory board and the program’s first director, E. Harvey Estes, MD, emeritus professor of community and family medicine at Duke University, decided that CPP’s primary means of assistance should be educational loan repayment. The 3 primary goals of the program have remained constant over the years: First, CPP aims to improve access to health care for uninsured and underinsured populations in rural, economically distressed, and medically underserved communities across North Carolina, and it prioritizes federally designated Tier I, II, and III counties and whole or partial health professional shortage areas (HPSAs; See Figure 1). Second, the program seeks to provide cost-effective quality health care to underserved communities by helping the assisted CPP providers to succeed, remain in their communities, and operate financially viable practices despite low Medicaid and Medicare reimbursement rates, a high number of uninsured patients, and often less sophisticated business operations. Third, CPP aims to develop and support a fellowship of primary care providers skilled in treating low-income, uninsured, and underinsured populations.

The Office of Rural Health and Community Care works with state and federal governments and local communities to identify the needs of the community and to determine whether the community meets federal HPSA guidelines. This program also offers loan repayment, but because CPP is a private program that is funded through private donations and grants, it is able to be more flexible than government programs. Furthermore, public programs have seen dwindling funding allocations, making programs like CPP even more important.

Because CPP has more flexibility and can thoroughly vet those providers who are willing and eager to work in rural, economically distressed communities, retention in the program has been excellent. To date, 73% of CPP participants continue to practice in rural or economically distressed communities, and 85% remain in North Carolina. Also, CPP collaborates with state-run programs, the North Carolina Hospital Association’s Center for Rural Health Innovation and Performance, and the state’s medical schools, so eligible providers are often referred to CPP; thus the program has no recruiting expenses.

“When I saw what a grateful community this was when I started working here, it made doing that so much easier and more rewarding,” said Liz Riley Buno, PA-C, of Roxboro Family Medicine and Immediate Care, who has remained active with CPP and helped bring Bolden, her partner, into the program. “The community is so thankful to have people here that care about them and want to see them healthy.”

Assessing the Need

In the program’s first 8 years (1990–1997), 33 individuals received educational loan repayment grants. As the program became more established, that number rapidly accelerated, and 89 repayment grants were made during the 6-year period from 2002–2007. In just the past 7 years, CPP participants totaled 104, bringing the total number of participants for the last 25 years to 391.

A key value of the program is that it helps practices to implement an electronic health record (EHR) system and, over a period of 3 years, to meet the meaningful use requirements established by the Centers for Medicare & Medicaid Services (CMS). This has not only resulted in added incentive money, but it has also kept these practices from incurring CMS penalties for noncompliance. The practices further

![FIGURE 1](image-url)

Locations of Community Practitioner Program (CPP) Recipients

- CPP locations
- Tier 1
- Tier 2
- Tier 3

Note. The 40 most economically distressed counties are designated by the North Carolina Department of Commerce as Tier 1; the next 40 counties are designated as Tier 2; and the 20 least distressed counties are designated as Tier 3.
benefit by using their meaningful use data to obtain patient-centered medical home (PCMH) recognition. By meeting meaningful use criteria, these practices have avoided the 1% Medicare penalty imposed in 2014 on practices that have not adopted EHR technology and met meaningful use criteria.

The ability to adapt to changes in technology has also allowed for improved patient care through the state’s PCMH initiatives. Of the current CPP practices, over half have already been recognized as a PCMH by the National Committee for Quality Assurance, and the rest are in the process of completing the recognition process. This designation provides for better patient care and follow-up. Also, through Blue Cross and Blue Shield of North Carolina (BCBSNC), these practices are able to earn Blue Quality Physician Program (BQPP) recognition, which allows for increased payments from BCBSNC. For some practices, this can mean as much as a 25% increase. In small, rural practices, this allows them to stay independent within their community.

CPP’s success is also evident in the growth and expansion of several practices over the years. Roxboro Family Medicine and Immediate Care went from a tiny office building to more spacious quarters, allowing the group to increase the number of providers it employs and offering much needed care in the rural area north of the Triangle. Likewise, Robeson Pediatrics also expanded into a larger facility, and Surf Pediatrics and Medicine in Nags Head added offices in Kill Devil Hills and Kitty Hawk and moved from being a pediatrics-only practice to also covering family medicine.

**CPP Will Leverage Technology**

Beginning in July 2011, the NCMSF was part of a collaborative team that developed an open-source software tool to predict physician surpluses and shortages. The FutureDocs Forecasting Tool identifies areas of the state where a CPP provider might be most needed and best utilized [1]. The tool estimates the current supply of physicians, the use of health care services, and the capacity of physician supply to meet the health care needs throughout the US population. It is designed to engage a wide range of stakeholders—including physicians, physician organizations, policy makers, health system executives, and other interested parties—in developing workable and practical solutions to address imbalances in the supply and distribution of physicians.

The tool is an important and innovative step forward for health care workforce modeling because it is interactive, web-based, and user-friendly. The FutureDocs Forecasting Tool gives users the ability to display different estimates of supply for various specialties, health care services use, and shortages or surpluses for many types of services at different geographic locations between the years 2011 and 2030. The software accommodates different scenarios, such as the impact of the insurance marketplaces established by the Patient Protection and Affordable Care Act of 2010, Medicaid expansion, retirement rates and work effort by physicians, and the possibility of physicians working more closely with nurse practitioners and physician assistants to meet future demand for health care services.

**The Future of CPP**

As CPP looks to the future, our efforts will focus on areas of North Carolina that persistently lag behind in social determinants of health. CPP was fortunate to participate in the North Carolina Institute of Medicine’s Task Force on Rural Health, and we will use the report’s 6 priority recommendations to help guide our work [2].

CPP views medical practices as small businesses that are vital to a strong rural economy, and we will work to ensure that CPP participants remain financially sound as payment models evolve and change. Care delivery is also changing, and CPP will help participants to focus on patient-centered care and to think strategically about ways they can be a resource to the community and more effectively use the communities’ assets to improve patient health. We will continue our strong public-private partnership with the Office of Rural Health and Community Care and will make private financial resources available for medical education loan repayment so that it can be used as a recruitment tool. With 25 years of progressive improvement and success, a strong framework, and innovative tools to navigate and embrace the rapidly changing health care environment, CPP looks forward to a robust and healthy future.

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**References**

Rural hospitals serve as major sources of health care and employment for their communities, but recently they have been under increased financial stress. What are the causes of this stress, and how have hospitals and their communities responded?

I was raised in a small town in Michigan. I was lucky enough to have a hospital in my community, and we used it. I went there when I fell off my dresser at age 8 years, and we took my grandmother there after she fell down the stairs in our house. It was our hospital, and the community valued it. Like our school system and the fall festival, the hospital was a large part of who we were as a town.

Since 2010, however, there are at least 42 rural communities across the country—including 2 in North Carolina—that no longer have that resource. [Editor’s note: At the time this article was written, there had been 42 hospital closures since 2010; in the intervening months, at least 3 more hospitals have closed.] In some places, the hospital has been converted to another kind of health care facility, such as a long-term care facility or a clinic. In other communities, the building remains empty. The residents need to find another place to get their care, and if they need emergency care, they must hope to get to the next closest hospital quickly. Although hospital closures are nothing new, the recent pace is unprecedented; the National Rural Health Association has reported that the number of rural hospital closures in the past year was more than in the previous 15 years combined [1].

Why Are We Seeing More Rural Hospital Closures?

The number of rural hospital closures is accelerating for many reasons. The most commonly cited reason is the Patient Protection and Affordable Care Act of 2010 (ACA) and/or each state’s decision regarding Medicaid expansion. It is certainly true that rural hospitals generally depend on public insurance programs (Medicare and Medicaid) more than do urban hospitals. This is largely a result of the demographics of rural communities, which are generally poorer and more elderly than urban areas, but we also know that commercially insured residents (whose care can generate higher reimbursement for the hospital) are more likely to bypass their local hospital [2]. In other words, rural hospitals face a compounded reimbursement challenge—a lower reimbursement market combined with the fact that those whose care could yield higher reimbursement are more likely to go to a different hospital.

Rural populations are generally more likely to be uninsured, and the execution of 2 of the most visible coverage provisions of the ACA—the insurance marketplace and Medicaid expansion—have generally exacerbated this coverage disparity. Early estimates suggest that, despite higher eligibility, rural populations had lower take-up rates in the federally facilitated marketplace, and state-specific decisions to expand Medicaid have generally been more common in states that are more predominantly urban; that is, rural states have been less likely to expand Medicaid, meaning rural hospitals have been less likely to see an increase in coverage [3]. Furthermore, more rural hospitals have closed in states that have not expanded Medicaid (N = 33) than in those that have (N = 9) [4]. Although there are more rural hospitals in states that have not expanded Medicare than in states that have, the closure rate is higher in the former group (2.3% versus 1.0%) [4, 5]. It is important to note, however, that Southern states have seen the bulk of hospital closures, and those states have been less likely to expand Medicaid. Thus it is difficult to accurately determine whether it is the expansion decision per se that has led to higher closure rates, or whether states that have not expanded Medicaid have other factors leading to higher closure rates; this is an important question on which many researchers are currently working.

Other factors are important contributors too. Rural hospitals have long been some of the most financially fragile hospitals. In study after study, we have found that rural hospitals—especially the smallest rural hospitals—have the lowest profitability and liquidity, meaning they are financially fragile [6]. In other words, many of those hospitals that have closed were struggling for years, and recent
Rural Hospitals Face Many Challenges in Transitioning to Value-Based Care

Jeffrey S. Spade, Stephanie C. Strickland

In North Carolina and across the country, a sea change is underway that is transforming how health care services will be delivered and paid for in the decades to come. Hospitals and health care systems are reorganizing to prepare for value-based care—preventive, coordinated, high-quality care that is focused on improving the overall health of communities. The struggle for hospital executives is how to position hospitals for the future while still providing care in a volume-based payment system. Balancing finances during this time of tremendous change requires hospital leaders to make difficult decisions. Hospitals must innovate, restructure, become more efficient, and continuously improve care in order to protect the community’s health safety net. This transition is particularly challenging for rural hospitals.

There are 56 hospitals in North Carolina in counties that are classified as rural. These hospitals tend to have a higher-than-average mix of Medicare (48%), Medicaid (17%), and uninsured patients (10%), and they generally serve populations that have lower incomes, more chronic health issues, and low health literacy. Safety-net hospitals care for more Medicare, Medicaid, and uninsured patients; as a result, they experience lower (often negative) operating margins (the difference between reimbursement and expenses). For North Carolina’s safety-net hospitals caring for high proportions of Medicare, Medicaid, and uninsured patients, average patient margins in fiscal years 2012 and 2013 were the lowest in the last 9 years [1].

Without Medicaid expansion or other solutions to provide insurance coverage for uninsured patients, and with additional cuts to Medicare and Medicaid reimbursement, the forecast for all hospitals in North Carolina is one of continuing challenges. This future will continue to include mergers, shared services partnerships, realignment or reorganization of services toward outpatient and ambulatory care, conversion of acute care hospitals into community-focused health care organizations, and in some cases, hospital closures. According to the research firm The Advisory Board Company, hospitals in states that did not expand Medicaid will see their profit margins drop precipitously by 2021 [2].

Rural hospitals have weathered this storm before. The Balanced Budget Act of 1997 led many small hospitals to successfully restructure as critical access hospitals (CAHs). Since then, 23 small rural hospitals in North Carolina have transitioned to CAHs. Implementation of the Patient Protection and Affordable Care Act of 2010 has dramatically accelerated the pace of such changes. In response to declining admissions, most hospitals outside of major metropolitan areas have joined integrated health systems or regional health networks. Partnership arrangements offer better access to capital for facility renovations and improvements in technology, as well as access to cost-saving efficiencies. According to membership data from the North Carolina Hospital Association, the number of independent hospitals in North Carolina has dwindled from the North Carolina Hospital Association’s (CAHs). Since then, 23 small rural hospitals in North Carolina have transitioned to CAHs. Implementation of the Patient Protection and Affordable Care Act of 2010 has dramatically accelerated the pace of such changes. In response to declining admissions, most hospitals outside of major metropolitan areas have joined integrated health systems or regional health networks. Partnership arrangements offer better access to capital for facility renovations and improvements in technology, as well as access to cost-saving efficiencies. According to membership data from the North Carolina Hospital Association, the number of independent hospitals in North Carolina has dwindled since 2012—from 24 to 18—with many of the remaining independent hospitals actively seeking health system partners.

In light of these challenges, many rural hospitals are policy changes (such as a cut in Medicare reimbursement) were enough to push them into closure. “Health reform” is sometimes used synonymously with “the ACA,” but market-based health reform was moving ahead well before the ACA was enacted. For example, accountable care organizations (ACOs) are often viewed as one of the key provisions of the ACA, and they were thought to be one of the means through which Medicare would bend the cost curve. But by the time Medicare announced its first Pioneer ACOs, 150 private ACOs were already operating [7].

Market-based health reforms had started before the ACA was enacted and have continued since. These reforms have spurred a consolidation in the health care industry—especially hospitals—and many rural hospitals have been merged or acquired. Meanwhile, other trends such as a population decrease in rural areas and a shift away from acute care in the inpatient setting have been disadvantageous for rural hospitals, as they have led to shrinking markets.

Mergers and Hospital Closures

When a hospital is financially challenged, it may sometimes merge with (or be acquired by) a larger hospital system. A recent study during the 2005–2012 period found that hospitals with lower profitability and higher debt—that is, financially fragile hospitals—were more likely to merge [8]. Merging hospitals experienced a decrease in operating margin—meaning they were even less profitable—and generally they had lower salary expenses, likely as a result of eliminated management positions. Thus, even though a challenged hospital may find that a merger is a viable option, its finances generally worsen after a merger, and some of the best-paying management positions—and, likely, the community-mindedness of the hospital—may evaporate. It is too early to tell whether these merged hospitals are more likely to close.

Unsurprisingly, a hospital closure generally has a nega-
transferring their operations to prepare for a future of risk-based, accountable care. In Wadesboro, Charlotte-based Carolinas HealthCare System (CHS) replaced the 100-year-old Anson Community Hospital with a new medical home facility designed to promote a shared commitment between care providers, patients, and the community. While the hospital included 15 inpatient rooms, the majority of its services are oriented to outpatients, with 24-hour emergency care and other traditional hospital services, as well as access to primary care physicians, wellness and prevention education facilities, patient navigation services, and pharmacy assistance. As part of an integrated health system, the new role for Anson Community Hospital is primary care; secondary acute care and intensive care are provided at CHS hospitals in Monroe (approximately 28 miles away) and Charlotte (approximately 55 miles away) [3].

In Burke County, CHS Blue Ridge announced plans in June 2014 to transition the hospital in Valdese to an outpatient health center and to transfer inpatient care to its nearby Morganton campus [4]. This realignment of services is not unique. In Watauga County, the Appalachian Regional Healthcare System strategically examined health care services provided by Watauga Medical Center in Boone and those of nearby Blowing Rock Hospital, along with the health needs of the communities; as part of a long-term strategy, health system administrators decided to transition Blowing Rock Hospital from a CAH to a post-acute care and rehabilitation center as of October 2013 [5].

The success of health care service transitions, restructuring, and partnerships in these examples illustrates the importance of rural hospitals to their communities. North Carolinians need hospitals in order to retain access to vital health and wellness services. Rural hospitals are also essential to local economies, as they provide jobs, stimulate local purchasing, and help attract industry and retirees. Because of this, the closure of a hospital can be detrimental to the health and economy of a rural community [6].

The status quo in health care is not a viable strategy for the future. North Carolina’s hospitals—rural and urban—must continue to innovate, restructure, become more efficient, and improve care to meet their mission to ensure around-the-clock access to quality medical care and to protect the health of patients and the community. NCMJ

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sure, including what the building has become (eg, a long-term care facility, free-standing emergency department, or school). If you want to find out more, or if you know of a hospital closure, visit http://bit.ly/ruralclosures to see the most up-to-date map and list of hospitals. NCMJ

Mark Holmes, PhD director, North Carolina Rural Health Research Program, Cecil G. Sheps Center for Health Services Research, University of North Carolina at Chapel Hill; associate professor, Department of Health Policy and Management, UNC Gillings School of Global Public Health, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.

Acknowledgments

Potential conflicts of interest. M.H. has no relevant conflicts of interest.

References


1 in 5 kids faces hunger

There’s more than enough food in America for every child who struggles with hunger. Help get kids the food they need by supporting Feeding America, a nationwide network of food banks. Visit FeedingAmerica.org.
Down East Partnership for Children is committed to launching every child in Nash and Edgecombe counties as a healthy, lifelong learner by the end of the 3rd grade. Our 20-year journey has leveraged various resources and brought together education and health to make the greatest impact on economic success.

Creating healthy change in 2 eastern counties in North Carolina is a key goal of the Down East Partnership for Children (DEPC). When the partnership was incorporated 21 years ago, the statistics for children and families in Nash and Edgecombe counties were bleak; graduation rates were low, and obesity rates were high and on the rise. Edgecombe County, especially, ranked low in health indicators such as poverty, infant mortality, low birth-weight infants, teen pregnancies, and child abuse and neglect. In 1999, after Hurricane Floyd and the ensuing flood, the twin counties saw an economic downturn that only made matters worse (See Table 1).

Thankfully, a cross-sector group of concerned community leaders had already begun to focus on children and child care as a way to make a long-term difference in the community. These leaders became the nucleus of what ultimately became DEPC, which incorporated in 1993 as a public-private partnership. At the same time, Smart Start was launched as a statewide early childhood initiative designed to ensure that all young children enter school healthy and ready to succeed. Smart Start was visionary and innovative. It created a locally controlled system of nonprofit organizations that could design and implement early childhood education systems and strategies based on local needs. One year after incorporating, DEPC became the Smart Start Partnership for Nash and Edgecombe counties. The Edgecombe-Nash community leaders understood that the only way to improve the quality of life in the 2-county area was to prevent problems before they occur by developing and changing systems of early care, education, and family support.

The mission of DEPC is to launch every child in Nash and Edgecombe counties as a healthy, lifelong learner by the end of the 3rd grade. We have worked in rural Eastern North Carolina for over 20 years to create a model of services designed to support children aged 0–8 years and their families. This model provides comprehensive strategies to meet varied needs, so that services are available for every child at a sufficient dosage over a long enough period of time to lead to long-term success on indicators for child and family well-being.

Healthy Kids Collaborative

In 2008, with support from the Kate B. Reynolds Charitable Trust, DEPC worked with a design team and local community leaders to create a more robust plan to support the healthy development of children from birth to age 8 years. Through these collaborations and with support from the Robert Wood Johnson Foundation (RWJF) in 2010, a new project emerged called the Healthy Kids Collaborative (HKC). The purpose of the HKC is 3-fold: to help individual organizations and agencies in Nash and Edgecombe counties identify and implement small shifts that will help achieve desired outcomes; to connect organizations and agencies so that they can achieve greater impact by working together; and to launch and support new initiatives requiring multiple partners for success. The HKC identified 6 enabling conditions essential to achieving the desired impact. First, parents and children’s guardians must value nutrition and physical activity. Second, child care providers must offer healthy food and opportunities for physical activity. Third, medical providers must talk to parents about the importance of a healthy diet and physical activity. Fourth, families must be able to conveniently access safe and affordable places to play. Fifth, healthy food must be both affordable and accessible. Finally, the entire community must value physical activity and healthy eating.

In 2011, the HKC became a regional hub for the Shape NC Initiative, funded by the Blue Cross and Blue Shield of North Carolina Foundation, which allowed it to have an even greater impact on healthy behaviors in child care centers. DEPC was also chosen as 1 of 50 RWJF Healthy Kids, Healthy Communities grantees nationally during the period 2010–2014. Today, the HKC has grown to include 70 part-
ners and works through 5 subgroups: medical, outdoor learning environments, child care, physical activity and nutrition policy, and family engagement (See Table 2). The HKC continues to serve as a driving force in changing policy and practice to support healthier environments for young children.

Working With Child Care Centers

DEPC is working with child care centers to promote best practices for nutrition and physical activity. Through the Nutrition and Physical Activity Self Assessment for Child Care (NAP SACC) and the Shape NC Initiative, the importance of healthy living in all environments where children play and learn is becoming more apparent in the community. Shape NC centers, including the Model Early Learning Center at Nash Community College Child Development Center, have significantly increased daily fruit and vegetable consumption and daily physical activity opportunities. These initial successes have led to a phase II expansion of Shape NC, with an additional 120 new centers statewide participating over the next 3 years.

Access to Fresh Fruits and Vegetables

Increasing farmers’ markets, community gardens, and community agriculture boxes remains a key strategy of the HKC. DEPC also hosts Produce and Play Days at its Family Resource Center each week during the growing season. During these events, activities are available for children, while families receive tips on how to shop at a farmers’ market and how to cook fresh foods. As a result of the HKC advocacy efforts, the local transit system added a bus stop at the Rocky Mount Farmer’s Market. Future advocacy efforts will focus on acceptance of supplemental nutrition assistance program (SNAP) benefits at local farmers’ markets and utilization of the Women, Infants, and Children (WIC) Farmers’ Market Nutrition Program.

We continue to seek resources to support child care providers in serving healthier options to children in their care. The next step is working through the network of community partners to devise a food distribution system that moves food from the fields of local farmers and community gardens to the kitchens of child care providers and families.

Access to Places to Play

National research, as well as our own experience, tells us that healthy children are more successful learners and that early nutrition and physical activity matter greatly to school readiness and success [8-15]. Research also proves that early learning happens best through play [16-18], and playing outdoors exponentially expands those opportunities, even in poor rural areas. Therefore, enhancing outdoor learning environments is a priority of DEPC. This year we will see a total of 6 existing playgrounds in Nash and Edgecombe communities get renovated as outdoor learning environments. We are grateful to our generous partners—including the PNC Foundation, Shape NC, Cummins–Rocky Mount Engine Plant, and the Rocky Mount Community Foundation—who helped us open Discovery Play and Learning Park, a model outdoor learning environment designed by North Carolina State University’s Natural Learning Initiative. This park is located at the DEPC office in Rocky Mount and is open to the public during daylight hours.

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<td>ChangeLab Solutions: <a href="http://www.changelabsolutions.org">www.changelabsolutions.org</a></td>
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<td>Healthy Kids, Healthy Communities: <a href="http://www.healthykidshealthycommunities.org">www.healthykidshealthycommunities.org</a></td>
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<tr>
<td>Active Living by Design: <a href="http://www.activelivingbydesign.org">www.activelivingbydesign.org</a></td>
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<td>System eXchange: systemexchange.msu.edu</td>
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<tr>
<td>Smart Start: <a href="http://www.smartstart.org">www.smartstart.org</a></td>
</tr>
</tbody>
</table>
In addition, thanks to a grant from the Kate B. Reynolds Charitable Trust, DEPC will transform existing playgrounds into outdoor learning environments at 5 elementary schools in 2 school systems: Nash–Rocky Mount Public Schools and Edgecombe County Public Schools. An outdoor learning environment is a type of playground that provides more natural elements, gathering settings for outdoor classrooms, and intentional opportunities for learning, such as gardening or loose part manipulation. The HKC is supporting the school districts in implementing shared-use agreements, policies, and procedures that will allow the community to access these enhanced environments during non-school hours in order to increase student physical activity, to improve family engagement, and to smooth children’s transition to school.

Communities are now coming together to design and create learning environments that allow students to explore nature, engage in physical activity, and have opportunities for hands-on learning. The outdoor learning environments will not only increase the learning and physical activity opportunities for students, but it will also provide increased community involvement at every location.

Finally, DEPC created a “Places to Play” map, highlighting all of the publically accessible parks in the 2 counties, which is available both on DEPC’s website (www.depc.org) and as a hard copy. Community garden sites are also recognized on the map. Adding to and increasing utilization of these resources continues to be a key strategy for improving early health outcomes.

The Role of Medical Professionals

The HKC is supporting the role of physicians and other medical professionals in improving literacy and preventing obesity by providing tools for families that need preventive and intervention services. For example, DEPC participates in Reach Out and Read, a program that works with area medical providers to deliver new, culturally and developmentally appropriate books to children during their well-child visits, while discussing the importance of reading and parent-child interactions with parents. Last year 1,834 children benefited from this program, with almost 2,400 books being delivered [19].

HKC’s Childhood Obesity Prevention Toolkit provides easily accessible childhood obesity screening tools and community resources for families at well-child visits [20]. The toolkit gives medical providers information to share with families on fast food, Healthy Family food policies, Healthy Kids/Healthy Plates, and tips and local resources. Some practices have made this information available to patients on their websites in addition to providing copies onsite. The HKC will continue to assess the training needs of area providers through the state’s Area Health Education Centers.

DEPC is now launching Triple P (Positive Parenting Program) across the 2 counties and will use the medical provider network to reach families seeking support with everyday parenting issues. The HKC will play a critical role in the implementation of Triple P Healthy Lifestyles to provide families with a local childhood obesity intervention program. This partnership with the medical community is making a difference by integrating family support and medical practice recommendations to create environments and opportunities for families that will help prevent future chronic health problems.

Increasing Well-Child Visits

In 1993, 63% (Edgecombe) and 58% (Nash) of children aged 0–5 years who were eligible for Medicaid received a well-child visit. In 2013, 70% (Edgecombe) and 77% (Nash) of children eligible for Medicaid received a well-child visit [21]. While this indicates that great improvements have been made over the past 20 years, the last few years have seen a decline in the total number of well-child visits, especially among 2–3-year-olds. DEPC is working with local health departments, medical providers, and families to determine the root cause of this decline and to develop interventions with HKC partners that will get us back on a trajectory of improvement.

Working with Families

In the fight against childhood obesity, engaging a diverse network of community partners is just as important as engaging families. The Shape NC Initiative has brought a tremendous resource to North Carolina—the ABLe Change Framework from Michigan State University. This model provides simultaneous attention to the content and process of the work, ensuring effective implementation and the pursuit of systems change [22]. The ABLe Change Team is helping DEPC take the HKC to the next level by more deliberately seeking family input in order to address the root causes of the obesity problem. This year we will launch the Family Coalition to engage families at every level of the community change process. The Family Coalition will start with addressing nutrition and physical activity needs, and we hope it grows to become the definitive community resource for family input into decision making across sectors.

Conclusion

Today we are seeing the impact of the work undertaken by DEPC, and we know that prevention practices and health collaboration are changing the culture of our communities. The impact of these services is significant. DEPC has been able to improve educational opportunities by integrating evidence-based health strategies into bundled services while also building the capacity of families to support their children’s growth and development.

According to 2012 data from the North Carolina Nutrition and Physical Activity Surveillance System, obesity rates for young children have started to decline after steady increases in previous years (See Figure 1) [23]. There is now a grow-
ing awareness in our community and region of the strong connection between health, early education, and economic success. More people are eating healthy and staying active. More child care centers are instituting healthier practices. Community gardens are growing. Local physicians are handing out books to children and integrating family support into their practices. Slowly but surely, we are digging out of the bleak health statistics and economic downturn (See Table 3). However, the shift to a healthy culture is a long-term process with many variables. Thus, we will continue to engage the community in efforts to launch every child in Nash and Edgecombe counties as a healthy, lifelong learner. NCMJ

TABLE 3.
Data on Obesity, Food Access, and Poverty in Nash and Edgecombe Counties

<table>
<thead>
<tr>
<th>Year</th>
<th>Edgecombe County</th>
<th>Nash County</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>25%</td>
<td>28%</td>
<td>1. The child food insecurity rate—the USDA’s measure of lack of access to healthy foods—is 28.8% in Edgecombe County and 25.1% in Nash County.</td>
</tr>
<tr>
<td>2005</td>
<td>26%</td>
<td>29%</td>
<td>2. Data are from Eat Smart, Move More North Carolina [23].</td>
</tr>
<tr>
<td>2006</td>
<td>27%</td>
<td>30%</td>
<td>3. The child food insecurity rate—the USDA’s measure of lack of access to healthy foods—is 28.8% in Edgecombe County and 25.1% in Nash County.</td>
</tr>
<tr>
<td>2007</td>
<td>28%</td>
<td>31%</td>
<td>4. Data are from Kids Count Data Center [25].</td>
</tr>
<tr>
<td>2008</td>
<td>29%</td>
<td>32%</td>
<td>5. In Nash County, 29.4% of children live in poverty; in Edgecombe County, 45.7% of children live in poverty.</td>
</tr>
</tbody>
</table>

Henrietta Zalkind, JD executive director, Down East Partnership for Children, Rocky Mount, North Carolina.

Jamie Wilson, MA research and development director, Down East Partnership for Children, Rocky Mount, North Carolina.

Acknowledgments

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Potential conflicts of interest. H.Z. and J.W. have no relevant conflicts of interest.

References

The economic health of a community is vitally important for attracting and retaining businesses and for creating an environment in which people want to live, work, and play. Rural communities in North Carolina rely on a variety of partners and programs to build local capacity for job creation and the development of quality-of-life amenities.

Improving the economic well-being and quality of life of the citizens of North Carolina is the mission of the North Carolina Department of Commerce [1]. Through a variety of partnerships and programs, this department helps communities build capacity, which not only enables business to succeed but also ensures that communities have access to the resources they need to provide a sustained quality of life for their residents. “If you don’t work for the economic health of your community, it won’t happen,” stated North Carolina Department of Commerce Secretary Sharon Decker when addressing a group of rural leaders (Sharon Decker, oral communication, July 2013). “To be a healthy economy, we must be a healthy people” (Sharon Decker, oral communication, October 2013).

The Department of Commerce recognizes that health related to economic development goes beyond employees having access to health care; it also includes jobs that are created by the health care sector. In many rural communities, health care providers (including small hospitals) are the largest employers. According to the National Center for Rural Health Works, high-quality health services are needed to attract businesses, industry, and retirees to rural communities. Thus, access to health care and the jobs created by health care can both drive the economy of a community [2]. The purpose of this commentary is to highlight selected capacity-building partnerships and programs that improve the economies of North Carolina’s rural communities.

Building Capacity Through Partnerships

The Department of Commerce makes targeted investments in workforce development and infrastructure—including water, sewer, broadband, bricks and mortar, gas, and roadway—as well as community projects that support local and regional economic development activities. These investments lead to creation and retention of jobs in communities across North Carolina. Creating communities with thriving businesses provides multiple opportunities for employees and their families to have access to resources such as high-quality affordable health care.

The Department of Commerce supports activities in rural communities that provide opportunities to improve quality of life, including access to health care, but the department does not work in isolation in helping communities to improve quality of life. Partnerships are vital to successful projects, and entities such as the Golden LEAF Foundation (GLF), the Kate B. Reynolds Charitable Trust (KBR), and The Duke Endowment (TDE) are significant partners. These organizations, along with many others across the state, strive to help create opportunities for communities to improve their economic well-being.

The mission of the GLF is to support the social welfare of North Carolina’s citizens. The GLF provides funding for projects that make a financial impact in economically affected or tobacco-dependent regions of the state. Grants may be awarded to 501(c)(3) nonprofit organizations and governmental entities across North Carolina [3]. In February 2011, the GLF awarded a $108,000 grant to the Halifax Regional Medical Center to support building renovations that resulted in the development of the Wound Care Center on the hospital’s Halifax County campus. The Wound Care Center, which offers hyperbaric oxygen therapy for treatment of wounds, addresses the critical need associated with the high incidence of diabetes in Halifax, Northampton, and Warren counties. As of May 2013, the project had resulted in the creation of 22 new positions with an average annual salary of approximately $65,000 (written communication from Terri Bryant Adou-Dy, Golden Leaf Foundation; October 2014).

The mission of KBR is to improve the quality of life and the quality of health for financially needy residents of North Carolina. KBR is committed to supporting organizations whose work is innovative and makes a difference, thus creating systemic change in a community. KBR grants may be awarded to 501(c)(3) nonprofit organizations [4]. Since 2008, KBR has awarded approximately $6 million to support the establishment of the Nurse Family Partnership pro-
program, including the creation of a state office. This funding has allowed the Nurse Family Partnership program to work in over 19 counties and has resulted in the creation of at least 50 jobs. The program works with first-time, low-income pregnant women and their children (up to age 2 years) to improve child and maternal outcomes (written communication from Allen Smart, Kate B. Reynolds Charitable Trust; October 2014).

TDE endeavors to assist people and strengthen communities across both North Carolina and South Carolina by supporting efforts that nurture children, promote health, and support education. TDE also supports rural churches in their efforts to assist communities. TDE provides grant resources to select 501(c)(3) organizations [5]. In 2014, TDE awarded $500,000 to the Southeastern Regional Medical Center in Lumberton. As part of a collaboration with Campbell University School of Osteopathic Medicine, this grant will support the development of a residency program for primary care physicians. Funding will support the renovation of existing space in Southeastern Regional Medical Center, which will be used for clinical education of over 100 primary care residents (written communication from Lin B. Hollowell III, The Duke Endowment; October 2014).

Capacity Building Through Programs

Rural communities across the state benefit from a variety of programs from the North Carolina Department of Commerce. These programs, which support community health improvement and development of economic potential, include Community Development Block Grants (CDBGs), rural grants, Main Street Solutions Grants, and the Appalachian Regional Commission (ARC).

The CDBG program assists communities with projects that offer opportunities for low- and moderate-income (LMI) residents. The majority of funding is provided for water and sewer infrastructure projects in which at least 70% of the grant funding supports the LMI population. Funded by the US Department of Housing and Urban Development, the program provides grants to local governments for projects that support the creation or retention of jobs. The funds can be used to support building renovations, infrastructure development, shell building construction, or site development [6]. In 2012, the program provided a grant of $338,175 to the city of Cherryville to construct a water line that would allow the opening of a 65,000-square-foot assisted living/skilled nursing facility. Peak Resources operates 7 similar facilities across North Carolina, and the company will create 43 new jobs and invest over $10 million in private funds at their new Cherryville facility.

Administered by the Rural Development Division of the North Carolina Department of Commerce, the Building Reuse Program provides funding to local governments to renovate vacant buildings and to expand or construct health care facilities that lead to the creation of new full-time jobs. Grantees must be a unit of local government, and the grants require a match equal to the amount of the grant awarded. Priority is given to projects with resident companies and projects in towns and communities with populations of fewer than 5,000 residents [7]. In 2011, the program awarded $80,000 to Brunswick County to support the construction of the Lower Cape Fear Hospice and LifeCare Center (LCFHC). The LCFHC provides professional health care and support to people with life-limiting illness, and it focuses on the emotional and spiritual needs of patients and their families during illness, death, and bereavement. This project created 10 new full-time jobs with an average annual salary of $38,355 (written communication from Hazel Edmond, Rural Grants/Programs Section; October 2014).

Another program administered by the Rural Development Division is the Economic Infrastructure Program, which provides grant funding to assist local governments with infrastructure projects that will lead to the creation of new full-time jobs. Grants are made to units of local governments, and priority is given to the 80 most distressed counties in the state as defined by the 3-tiered ranking system of the Department of Commerce. Project examples include public water and/or sewer infrastructure, public broadband infrastructure, construction of public rail spurs, and construction of publicly owned access roads [8]. The program awarded $585,495 to the town of Blowing Rock in 2012 to support the construction of water and wastewater infrastructure that would assist the Appalachian Regional Healthcare System in opening a new post-acute care medical facility. This project will create 59 new jobs (written communication from George Collier, Rural Grants/Programs Division; October 2014).

The Main Street Solutions Fund is a reimbursable, matching-grant program that was created by the North Carolina General Assembly to spur economic development activity in downtown business districts. The program provides direct financial benefit to small businesses, supports the retention and creation of jobs, and assists in spurring private investment in association with small businesses.

The Main Street Solutions Fund has supported several projects that have improved access to health care in communities [9]. In 2014, the town of Williamston was awarded $100,000 to help with the renovation of an abandoned downtown building that was converted into a primary care medical office. The facility, called AccessMedicine, uses a business model based on a structure of differentiated payments that include a monthly membership, an annual membership, or a-la-carte payments. This business model will better serve the needs of patients without the restrictions and bureaucracy of insurance, and it provides an opportunity for businesses to contract with AccessMedicine for medical insurance at greatly reduced costs. The AccessMedicine project leveraged over $400,000 in private investments and will create 4 jobs (written communication from Liz Parham, director of the NC Main Street Program; September 2014).
The ARC was established by Congress in 1965 to address economic and quality-of-life issues in the 13 states in the Appalachian region. The program is a federal-state partnership that works to create opportunities for self-sustaining economic development and improved quality of life. Twenty-nine counties in North Carolina are eligible for assistance from the ARC [10]. The program has supported a number of projects that have assisted in the creation of health care jobs and have provided increased access to health care. In 2011, the Mountain Area Health Education Center received $200,000 to expand in response to the growing demand for services for uninsured, at-risk pregnant women in Western North Carolina. ARC funding covered the cost of equipment for a new facility, which expanded access to quality obstetrical and specialized gynecological services for high-risk patients. The project resulted in the creation of 10 jobs and the retention of 96 jobs.

Capacity Building Through Planning

The recently reorganized Division of Community Assistance—which is now a part of the Rural Development Division within the North Carolina Department of Commerce—provides a variety of targeted planning services to units of local governments. Land use planning, training, meeting facilitation, economic development studies, and strategic planning are but a few of the services offered. Specific to supporting healthy communities, the Office of Community Planning sponsored preparation of a guidebook on integrating healthy planning principles into local comprehensive plans. The document has statewide applicability and provides technical assistance in addressing local planning needs for municipalities and counties. With a focus on the multiple dimensions of healthy community planning, the Guidebook on Local Planning for Healthy Communities is a resource guide for towns, cities, and counties that are interested in offering and promoting safe environments for people to be more physically active in their communities—whether walking or bicycling [11].

Partners Working to Build Capacity and Support Communities

The Innovative Readiness Training (IRT) program, administered through the United States Department of Defense, routinely conducts medical missions in medically underserved communities throughout the United States. Medical services are provided free of charge for community members while providing a training opportunity for military reservists [12].

In August 2012, Murphy Medical Center partnered with the North Carolina Department of Health and Human Services and the North Carolina Department of Commerce’s ARC program, and together they applied to bring an IRT medical mission to southwestern North Carolina and northern Georgia. In November 2012, the Department of Defense approved the North Carolina-Georgia IRT proposal. To support the Appalachian Care Medical Mission and coordinate follow-up care for patients, the mission leveraged the resources of the ARC and 135 health care organizations, educational institutions, civic organizations, and faith-based agencies from both North Carolina and Georgia. This was the first project jointly organized by 2 states that the Department of Defense has supported. The project service area (15 counties in North Carolina and Georgia) is designated as a health professional shortage area and a medically underserved area. As in most rural areas, there is a lack of medical services because of the shortage of medical, dental, and vision providers. Coupled with the lack of transportation and the high cost of medical care, this results in poor health for many individuals in these communities, which in turn affects the region’s quality of life and economic potential.

The Appalachian Care Medical Mission was located in Cherokee County (town of Murphy) and Swain County (Bryson City) for the 2-week period from June 2 to June 12, 2014. The mission allowed patients to access primary care, dental services, optometric care (including glasses made on site), behavioral health care, and veterinary care (vaccinations). Services were provided by 138 Army reservists from various locations in the United States, 17 active duty soldiers from Fort Bragg, and 7 members of the North Carolina National Guard. The military personnel were supported by 302 volunteers from North Carolina, Alabama, and Florida. More than 8,000 patients and 2,600 animals from communities in Western North Carolina and neighboring states were provided with medical services. The known economic impact of this mission was over $1.5 million [13]. The mission was supported by a $50,000 grant from the ARC.

Importance of Capacity Building

The partnerships mentioned above provide human resources as well as financial capacity to our rural communities. Through the various grant programs, financial and infrastructure capacity is developed that aids not only job creation but also improvement in quality of life. The various partners working together provide leadership capacity to help ensure that our most distressed rural communities obtain needed services and programs. The North Carolina Department of Commerce will continue to focus on ensuring that communities have access to the resources they need to support the creation and retention of jobs, while also providing opportunities to improve quality of life. This work is not done alone, but through continued collaboration with many partners in many programs. By working together to help communities build capacity, businesses have a greater chance to thrive, communities have a greater opportunity to prosper, and citizens have access to the quality-of-life amenities that all North Carolinians deserve.

Acknowledgements
Potential conflicts of interest. O.C. and P.M. have no relevant conflicts of interest.

References
Access to health insurance and health care are critical for people living in rural communities, where the safety net is fragile. However, rural communities face challenges as they enroll uninsured people in the health insurance marketplace, educate newly insured individuals on how to use insurance, and coordinate care for those who remain uninsured.

Prior to the passage of the Patient Protection and Affordable Care Act of 2010 (ACA), the percentage of the population that was uninsured was growing faster in North Carolina than in the rest of the country. To help address the issue, The Duke Endowment convened health care leaders, government agencies, public and private funders, and safety-net organizations from across the state to discuss how North Carolina could work more collaboratively at state and local levels to improve access to care for the growing number of uninsured individuals. As a result of those conversations, as well as recommendations from the 2005 North Carolina Healthcare Safety Net Task Force Report of the North Carolina Institute of Medicine (NCIOM), Care Share Health Alliance was created to be a statewide resource. Care Share’s goal is to expand and support the health care safety-net infrastructure and to facilitate the development of comprehensive community collaborations that can provide care for low-income uninsured people. Often called collaborative networks, these community collaborations link uninsured people to a primary care medical home, recruit providers, coordinate donated care and services, help to reduce unnecessary emergency department visits, and work to create a sustainable continuum of care for uninsured individuals. Since 2008, Care Share has supported safety-net organizations and community collaborations that serve uninsured people by collecting and disseminating best and promising practices and by partnering with stakeholders to implement ACA outreach, education, and enrollment efforts.

North Carolina’s Successful Enrollment Efforts

In the period 2011–2012, one-fifth (20.2%) of nonelderly North Carolinians, or 1.6 million people, were uninsured. People who live in rural areas are about as likely to be uninsured as are those who live in urban areas (20.8% versus 19.5%). However, in 2011–2012, rural North Carolinians were more likely to be covered by Medicare (21%) or Medicaid (18%) and were less likely to be covered by employer-sponsored insurance (40%) compared to people in urban areas (15%, 11%, and 48%, respectively) [1].

Despite these and other challenges, North Carolina had a very successful first open enrollment period. Between October 1, 2013 and April 29, 2014, North Carolina enrolled 357,584 people via the health insurance marketplace; this put North Carolina 5th in the country for enrollment, behind California, Florida, Texas, and New York [2]. The vast majority (91%) of these North Carolinians qualified for tax credit advanced payments, for a total health insurance subsidy of $606 million [3]. Although state-specific information was not available, a national Kaiser Family Foundation survey showed that 57% of people who purchased coverage through the health insurance marketplace were previously uninsured. Most of these previously uninsured individuals reported having gone without coverage for 2 years or more, and for many uninsured individuals, passage of the ACA was a motivator in seeking coverage [4]. Additionally, since North Carolina made the decision not to expand Medicaid at this time, the number of North Carolinians who are projected to fall in the Medicaid coverage gap ranges from approximately 300,000 [5] to 500,000 [6]. People in the coverage gap are likely to face barriers to needed health services, and if they do require medical care, they will face potentially serious financial consequences. Thus the safety net of clinics and hospitals that has traditionally served the uninsured population will continue to be stretched [5].

To date, county-level enrollment data are not available to evaluate enrollment in rural areas compared to urban areas. If this information were made available by the marketplace, the data could better inform rural leaders about how to implement best practices, more effectively reach special populations, and target limited outreach and enrollment resources to achieve the greatest impact.
Preparing for Year 2 Open Enrollment

Many outreach, education, and enrollment lessons were learned in 2013–2014. North Carolina stakeholders met often to share experiences, completed state and national surveys, evaluated their work, collected consumer outcome stories, and participated in community forums to better understand what worked, what did not, and why. During this time, Enroll America—a nonprofit, nonpartisan organization focused on maximizing the number of Americans who are enrolled in and retain health coverage—recognized North Carolina for the state’s collaborative efforts to implement outreach, education, and enrollment strategies by bringing diverse stakeholders together to coordinate logistics and maximize application assistance efforts [7, 8].

North Carolina had both paid and volunteer in-person assisters (also called navigators or certified application counselors), as well as agents and brokers, available in all 100 counties. These individuals conducted outreach and enrollment events, answered consumers’ questions about the process, helped consumers sort through their insurance options, and helped them successfully enroll in a qualified health plan. Additionally, a statewide scheduling system was developed, which allowed consumers to schedule appointments with a navigator or certified application counselor through a local nonprofit organization.

While it was clear that organizations serving the entire state were trying to reach rural areas, they did not have sufficient resources to serve everyone who needed assistance. The only statewide philanthropic organization that targeted its funding to rural communities was the Kate B. Reynolds Charitable Trust [1]. Local, state, and national organizations helped to leverage funding for navigators and federally qualified health centers, but these efforts were largely targeted to communities where Enroll America had a presence, to areas where community or hospital foundations were willing to contribute, and/or to urban areas that had the largest numbers of uninsured people.

The NCIOM Task Force on Rural Health heard presentations from representatives of organizations that were working to provide outreach, education, and enrollment assistance in rural areas. The successes of such efforts were often due to the roles played by physicians, their staff, and health care organizations. Table 1 outlines strategies for how health care organizations can engage with patients and the community in this ongoing enrollment effort.

These strategies are invaluable as rural leaders prepare for the 2nd open enrollment period, scheduled for November 15, 2014 through February 15, 2015. However, rural communities will continue to face unique challenges as they strive to enroll uninsured individuals. Limited resources for in-person assistance, geographic makeup, transportation barriers, and the potential for inclement weather during the enrollment period will require creative thinking and continued collaboration. Table 2 outlines the outreach, education, and enrollment challenges identified by rural leaders [1].

Other Barriers Affecting Enrollment in Rural Communities

Rural beneficiaries may experience barriers that are unique to or more prevalent in rural areas. For example, people living in rural areas have less access to high-speed Internet [9]. Rural beneficiaries also are more likely to report transportation barriers, which could make it difficult for them to get to central locations for enrollment events. Further, the receipt of public benefits carries a stigma for many families, and this is arguably more of an issue in rural areas than in urban areas [10]. It is not yet clear whether the subsidies available through the health insurance marketplace will carry the same stigma as do other types of public benefits. In addition, although the proportion of people who are uninsured may be larger in rural communities, population density is also less in rural areas, so there are fewer total people who are uninsured in rural areas than urban areas. Thus many of the existing outreach, education, and enrollment efforts have focused initially on urban areas [1].

Impact of Getting People Insured

Impact to People

Rural health leaders experience firsthand how lack of health insurance negatively impacts community health, and they have worked tirelessly for decades to collaborate at the state and local levels to address the question of how best to
care for uninsured people. People who lack health insurance coverage have a harder time obtaining the care they need because of cost. National studies show that people who are uninsured are less likely to obtain preventative screening or care for chronic conditions. Uninsured individuals are thus more likely to be hospitalized for preventable conditions, to be diagnosed with late-stage cancer, and to die prematurely than are those with insurance coverage [11]. North Carolina data confirm that adults without health insurance are more likely to report being in fair or poor health, less likely to visit a doctor for a routine visit, less likely to see a doctor when they need care, and less likely to report having a personal doctor than are those with insurance coverage. They are also less likely to have a prescription filled [1].

Although having health insurance will certainly improve these circumstances, some newly insured people are learning that their plans are not as affordable as they initially thought. For example, some people can afford their premiums with subsidy assistance, but they cannot afford the copayments, deductibles, or prescription costs associated with their new plans. Some of these individuals are returning to collaborative networks and safety-net organizations, often seeking answers to their questions and/or asking to be re-enrolled in the network in order to receive free or reduced-cost health services.

Many collaborative networks are providing important education to newly insured patients to help them understand their health plans. The networks assist people in locating a primary care physician, explain the importance of paying premiums, and educate them about copayments, deductibles, and how best to navigate the health care system. Many of the patients served by collaborative networks have incomes below 200% of the federal poverty guidelines, and this is the first time they have ever had health insurance. There is an incredibly difficult learning curve ahead for patients, providers, and the safety-net system as a whole; however, educating newly insured individuals is an important step in improving the health of people in rural communities.

**TABLE 2. Outreach, Education, and Enrollment Challenges for Rural Communities**

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Many people in rural communities are unaware of the new health insurance options available through the ACA or existing safety-net resources in the community.</td>
<td></td>
</tr>
<tr>
<td>Many uninsured people do not understand how health insurance works, in general, or they do not understand the new health insurance options available under the ACA.</td>
<td></td>
</tr>
<tr>
<td>Some people in rural communities have a general mistrust of government programs. Many rural people pride themselves on being self-sufficient and do not want a government “handout.” In addition, some people are afraid of, or distrust, “Obamacare” and think it is different than private insurance coverage.</td>
<td></td>
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<tr>
<td>Even with subsidies, the premiums are not affordable to some individuals.</td>
<td></td>
</tr>
<tr>
<td>Some rural people who are self-employed are ineligible for subsidies because they have deductions that reduce their countable income below 100% of federal poverty guidelines.</td>
<td></td>
</tr>
<tr>
<td>A number of uninsured people fall into the coverage gap (eg, they are ineligible for Medicaid but not eligible for subsidies in the marketplace because their income is below 100% of federal poverty guidelines).</td>
<td>Several panelists talked about the difficulty in telling people who are ineligible that they are “too poor” to be helped by the ACA. The panelists try to refer the people to safety-net organizations, but the safety-net organizations in many communities are already at capacity and cannot accommodate many new patients or have long waiting times.</td>
</tr>
<tr>
<td>Transportation can be a problem for people without their own vehicle. The lack of transportation is a particular problem in rural areas because such areas are less likely to offer transportation.</td>
<td>The North Carolina navigator organizations and federally qualified health centers created a statewide appointment scheduler to assist people in finding an in-person assister who can talk with them about enrollment and insurance options. However, the scheduler does not include all of the other certified application counselor agencies and does not have enough appointments listed to meet the needs of all the people who want to talk to in-person assisters. The number of people and the amount of time are both insufficient to reach all the people who are uninsured.</td>
</tr>
</tbody>
</table>

**Impact to Providers**

As mentioned previously, North Carolina has 357,584 people who were previously uninsured but who were recently able to purchase coverage through the health insurance marketplace. This increased access to health insurance is not only good for individuals, it is also critical to sustaining a fragile safety-net system that relies heavily on providers who volunteer their time and donate services for uninsured patients [12]. Safety-net organizations and private providers must have a diverse payer mix to sustain their clinics; insured patients free up resources so that clinics can provide health services to those who cannot pay, do not qualify for Medicaid, and/or are ineligible for subsidized health insurance through the marketplace. For example, approximately 88% of the patients currently served by the James D. Bernstein Community Health Center in Greenville are uninsured; this is not a sustainable model for any safety-net provider, as community health centers and free clinics are being forced to seek more funding from grants and/or other sources in order to stay operational. Physicians, hospitals, and other providers may not have the capacity to donate as much free care as they have historically; thus their policies may change, and fewer people may be eligible for free care, charity care, or other safety-net programs. We will need to be mindful of how health reform and environmental changes—such as the shortage of providers serving rural areas, cuts to reimbursements, and more newly insured patients seeking a primary care medical home—will impact a physician’s capacity and his or her ability to donate care to those who remain uninsured. This will be a delicate balancing act for everyone involved. Fortunately, rural communities are well positioned to meet this challenge given their experience and ability to collaborate to solve problems, take advantage of new opportunities, and leverage limited resources.
Conclusion

Access to health insurance and high-quality health care are critical to rural communities, where the safety net is fragile and reliant on providers to donate care. Although rural communities face outreach, education, and enrollment challenges, they experienced tremendous success in the first year of implementing one of the most ambitious health system reform initiatives since the creation of Medicare and Medicaid. Rural communities are uniquely qualified to help their uninsured residents get and keep health insurance coverage, either through enrollment in Medicaid or through the health insurance marketplace.

As we plan for the future of rural health, we are excited about the recommendations outlined in the 2014 North Carolina Rural Health Action Plan, especially those addressing provider shortages, access to health insurance, and the safety-net system [1]. If implemented well, we believe these initiatives will improve rural health, build stronger communities at both the individual and population health levels, and help to sustain North Carolina's safety-net system. This system is needed today as much as ever to ensure that our most vulnerable neighbors receive access to the quality health care they need. NCMJ

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References

Whether it is linking farmers with buyers or teaching children about vegetables growing in a school garden, connecting people to the source of their food is a vital part of building rural food systems that are healthy food systems.

America is in the midst of a health crisis, with chronic diet-related illnesses like diabetes and obesity plaguing the nation. The problem is worse for rural Americans, as the prevalence of obesity is markedly higher among rural populations [1]. Rural communities sometimes lack access to the resources available in urban communities, but they also have access to unique opportunities to promote community health and reduce rates of chronic disease.

Rural Assets: Community and Local Food

While residents from rural communities often find themselves at a disadvantage compared to their urban counterparts when it comes to healthy eating and opportunities for physical activity, in some ways rural communities have distinct advantages. Community is one of the greatest assets of rural places. Close-knit ties can bring residents together for the common good. In addition, rural residents typically lack the luxury of acting in silos; instead they must wear many hats. This enables cross-sector work to happen naturally, which is crucial for developing healthy community strategies.

Coupled with the community spirit of rural communities, agriculture and local food are also important resources. Local food from local farms can provide communities with a wide variety of fresh fruits, fresh vegetables, and lean proteins, all of which are staples of a healthy diet. By tapping into a natural extension of rural communities—their farms—local food systems can be developed in rural communities, and these systems can be a sustainable and effective way of building health in rural areas.

Eating local food, which is now more than a trend and is on its way to being a full-fledged movement, is showing great promise in mitigating some of the barriers faced by rural communities (in particular, lack of access to healthy food). Increasingly, consumers are interested in knowing where their food comes from and who grew it, and they are often willing to pay more for a local product (See Figure 1) [2].

Numbers and Connections

According to the US Department of Agriculture, local food sales have increased from $1 billion in 2005 to $7 billion in 2012 [3]. According to a recent analysis conducted by the Appalachian Sustainable Agriculture Project (ASAP), farm direct sales alone have increased by 70% in Western North Carolina counties (from less than $5 million in 2007 to over $8 million in 2012) [4]. This growth is even more impressive when compared to the rest of North Carolina (removing the 23 westernmost counties in the state), which experienced a net decrease in farm direct sales. Over the past 10 years, counties in Western North Carolina have seen increased interest in local food across the board, including increases in farmers’ markets, community-supported agriculture, and farm tourism; greater use of locally grown food by schools, hospitals, and universities; and more purchasing from local farms by restaurants and grocers.

What is important about these increases is more than numbers; it is also about making connections. Whether it is connecting farmers with buyers, connecting a child with vegetables growing in a school garden, or the connections families can make while on a farm tour, connecting (or reconnecting) people to the source of their food is a vital part of building rural food systems that are healthy food systems. These connections, while not limited to rural areas, are certainly enhanced by the rural environment.

After almost 2 decades of working to improve the local food system in Western North Carolina and the Southern Appalachians, ASAP has come to one basic conclusion: we need more individuals, families, and children to have connections to their food. Although the local food movement is growing, too few of us know about the food we eat—where it grows, who grows and harvests it, how it is grown and processed, how it benefits our health, or the impact of our food choices on the world around us.
Children and Local Food

Two key strategies to address childhood obesity in rural communities are to engage and educate families about healthy eating and physical activity and to establish farm-to-school programs [5]. These strategies have been key program activities in ASAP’s Growing Minds Farm to School program since 2002.

ASAP defines the farm-to-school program as having 4 components: edible school gardens, farm field trips, classroom cooking (featuring locally grown products), and the serving of local food in the cafeteria. The farm-to-school program also includes the preschool setting, since attitudes and behaviors about healthy food are often established at a young age.

Currently the majority of farm-to-school and farm-to-preschool programs across the country focus primarily on procurement (ie, local products being served in the cafeteria). ASAP has taken a different approach. Children are much more likely to consume local produce served to them if they already have a connection to this food. Experiences such as tending to the school garden, milking a cow on a local farm, or cooking with local food in the classroom help give children this connection. Given this focus, ASAP considers the local procurement piece to be the last component that should be adopted as part of a farm-to-school program.

In much the same way that lessons about recycling, smoking, and drug use went home from schools and affected family life, farm-to-school programming promises to change family dynamics as well. This is evident in the farm-to-school program at Cullowhee Valley School, an elementary and middle school in rural Jackson County. In this program, students received an average of 6 farm-to-school interventions per month. Each child from prekindergarten to 2nd grade was involved in a weekly cafeteria taste test (of a local product), a monthly classroom cooking lesson, and a monthly school garden experience. Judging from parent survey responses, farm-to-school experiences are making a difference in the lives of these children and their families (See Table 1) [6].

One question that is often raised is whether children in rural communities know where their food comes from. It would seem reasonable that they would, but too often children today (rural and urban alike) are at least 1 generation removed from how food is grown. If children make any reference to farming or gardening, it is usually attributed to their grandparents, not their parents. This means that it is not just our children who are disconnected from their food; most adults are as well. In addition to having lost the skills to grow our own food, we also lack food preparation skills, which leads to an over-reliance on processed and ready-to-eat foods.

Fortunately, children generally enjoy cooking and tasting fresh, locally grown foods; they appreciate time in a school garden; and they welcome an opportunity to visit a local farm. Many adults, on the other hand, have grown up with a taste for fat, sugar, and salt; lack cooking skills and the inclination to cook; and do not necessarily place value on local food and farms. In response, ASAP has focused attention on adults, understanding that in order for children to enjoy the hands-on experiences of cooking, gardening, and farm visits, we must first make the benefits of these experiences clear to adults. Teachers, school nutrition staff, and parents need to have experiences of their own to understand their significance.

![Figure 1: Impact Statements About Local Food](source: Local Food in Rural Western North Carolina: Opportunities and Challenges [3].)
Upstream Approach

Since 2009, ASAP has taken this focus on adults one step further. Rather than just rely on classroom teachers or school nutrition staff to understand our philosophy, ASAP has ventured upstream. With initial and current funding from the Blue Cross and Blue Shield of North Carolina Foundation, ASAP—in collaboration with Western Carolina University, Lenoir-Rhyne University, Jackson County Public Schools, and Mountain Projects, Inc.—has implemented the Growing Minds @ University (GM@U) project. GM@U integrates local food experiences and training into undergraduate and graduate curricula for education students, nutrition and dietetics students, and dietetic interns [7]. This training and experience with local food build the capacity of future teachers, registered dietitians, and health professionals to incorporate local food and farm-based experiences into their work. These undergraduate and graduate students not only learn about local food and farm-to-school programs in the university classroom setting, they are also provided with experiences in schools and preschools. Here they get to see firsthand that children are willing to try new vegetables, that teachers can integrate farm-to-school programs into the curriculum, and that school gardens are wonderfully engaging learning environments.

Most importantly, these students are gaining an understanding of how and why they could utilize local food and farm-based experiences in their future professional careers, thus helping their future students or patients to make connections to the source of their food. One way the project’s impact is assessed is through student reflection forms. On one such form, a health science student at Western Carolina University said, “[GM@U] will have a huge impact no matter what field in nutrition I go into. Eating local and supporting your community is so important no matter where you are!” Our local communities are already experiencing the benefits of the GM@U project; graduates of the program have taken positions in university food service and are creating new jobs (such as a food truck business that incorporates local food), thus helping to change food environments for the better.

ASAP’s Theory of Change

ASAP’s theory of change is that localizing food systems strengthens local economies, boosts farm profitability, increases sustainable production practices, and improves individual and public health. This theory is grounded in ASAP’s conviction that when the distance between consumer and producer decreases, transparency in the food system increases, which in turn drives changes that increase public health, build local economies, and sustain family farms. ASAP believes that we must rebuild our lost connection to food and must understand the impact of our food choices.

We are now at the beginning of a social movement that will transform our food system. This movement has the potential to empower us to create a food system that is equitable, environmentally sustainable, economically viable, and health promoting. As Wendell Berry noted, “eating is an agricultural act.” It is also a political one—an act of democracy that can change our food system.

Emily Jackson, BS Ed program director, Growing Minds Farm to School program, Appalachian Sustainable Agriculture Project, Asheville, North Carolina.

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Note. Parents were surveyed in May 2014.
Philanthropy Profile

Healthy Places NC

Almost 2.2 million North Carolinians live in a rural county [1], and many of these individuals face challenges to health. Research indicates that rural residents are less likely to have access to health services, are more likely to engage in risky health behaviors, and have a higher mortality rate compared to those living in nonrural areas [2]. However, rural communities also have unique assets that make them quite resilient to these challenges. There is a strong sense of place and an understanding of community strengths in rural areas. There is also a sense of commitment to the community and to each other, which enables rural communities to accomplish much with limited resources [3].

During its 68 years of service, the Kate B. Reynolds Charitable Trust has been capitalizing on the impressive work already being done in rural counties. Over the past 5 years, especially, the Trust has shifted its focus and now primarily supports rural health improvement. This work involved partnering with the North Carolina Institute of Medicine in 2013 to convene a task force on rural health; this task force recently developed a Rural Health Action Plan that provides policy makers, funders, and stakeholder organizations with a common vision and action steps to improve rural health. As part of the planning effort for this report, the task force conducted 8 community meetings in 8 rural North Carolina counties.

The Kate B. Reynolds Charitable Trust also launched the Healthy Places NC initiative in 2012, which is working with economically distressed rural counties in order to make a lasting impact on major health challenges. The projects are being driven by a $100 million investment over the next 10 years; the Trust is currently working in 5 counties and plans to expand to 4 or 5 more rural communities in 2015. As the following examples show, these locally led projects are part of a lasting investment.

Beaufort County

Healthy Places NC is partnering with Beaufort County to support a myriad of projects, one being the construction of an interactive walking trail at Beaufort County Community College. The mile-long walking trail will include fitness stations as well as places to rest, and it will be open to the public. Multiple community organizations—including the Mid-East Commission Area Agency on Aging, the Beaufort County Developmental Center, and Life Quest, Inc.—are working to make the trail a reality, and these partners plan to promote its use by residents of all ages and abilities. Other projects in Beaufort County include the expansion of healthy food opportunities, more integrated mental health and medical care, and a new regional website that highlights local health opportunities.

Halifax County

In partnership with Rural Health Group and Access East, Healthy Places NC has launched the Community Health Center in Halifax County, the state’s first co-located federally funded clinic at a hospital. It is projected that 3,000 new patients will visit a primary care doctor at the center during its first 3 years, and Halifax Regional Medical Center will hopefully see inappropriate emergency department visits drop by at least 6,000 patient visits.

Rockingham County

The Kate B. Reynolds Charitable Trust continues to build on the momentum around health care in Rockingham County. In 2014, Healthy Places NC helped to launch the Rockingham County Nurse-Family Partnership, an evidence-based community health program that supports low-income, first-time mothers and their babies through home visits from registered nurses. Forty families are currently being served by the partnership. Nationally,
the Nurse-Family Partnership has provided thousands of participating families with the resources they need to have a healthy pregnancy, to provide appropriate care for their children, and to become more economically self-sufficient in both the short- and long-term.

**McDowell County**

The YMCA of Western North Carolina has received investments from Healthy Places NC to support its diabetes prevention program, which is a national initiative based on an evidence-based model from the Centers for Disease Control and Prevention. The program has served 196 adults to date and has shown impressive results, including an average weight loss of 10.9% and a 90% retention rate. Support from Healthy Places NC will help the program serve an additional 360 adults who are at risk of diabetes, including those currently on a waiting list.

**Conclusion**

The Kate B. Reynolds Charitable Trust is investing $4.2 million to build and/or improve 75 play areas and recreational facilities in Beaufort, Halifax, Rockingham, and McDowell counties. Of those facilities, 47 are located at elementary and middle schools in areas with high poverty rates. Other facilities are located at county parks, community colleges, social service agencies, and child care centers. The Trust also partnered with the national nonprofit KaBOOM! to build 8 new playgrounds, 2 in each of these rural counties. Prior to investments by Healthy Places NC, children in these communities had limited opportunities to play and exercise safely.

The overarching theme that drives the work of Healthy Places NC is community engagement. In each county, efforts are based on the ideas and input of local residents, and everyone is encouraged to participate—especially people and groups who do not normally think of themselves as leaders or decision makers. During community health forums and one-on-one conversations, community members identify what is already being done in their county to support health and suggest ideas for improvement. In this way, Healthy Places NC is able to respond to the specific needs of each community in order to improve health and overall quality of life over the long term. NCMJ

**References**

Medical necessity may lead to secondary sterilization of individuals with intellectual disabilities, but legal statutes mandate that certain procedures be followed in these cases. In this article, we present a case of medically necessary sterilization of an individual with intellectual disability, and we discuss important legal statutes that guide this practice in North Carolina.

Case Report

A 16-year-old girl with Down syndrome and mild intellectual disability was admitted to the hospital for treatment of persistent menorrhagia. She had undergone menarche at 13 years of age, after which her menses were irregular, occurring every 1–4 months. Approximately 1 year before the current hospital admission, she had started having heavy menses with persistent vaginal bleeding. A gynecologist who was consulted concluded that the patient’s vaginal bleeding was the result of unopposed peripheral estrogen conversion in the setting of hypogonadotropic hypogonadism. She was started on therapy with progesterone and estradiol in an attempt to better regulate her menstrual bleeding. However, the patient’s heavy vaginal bleeding continued, and she required hospitalization for acute anemia. She underwent diagnostic hysteroscopy, with resultant dilation and curettage. She was also treated with high-dose intravenous estrogen, which was replaced with oral estrogen therapy after the surgery. The patient’s condition was successfully managed on an outpatient basis for the next year, with intermittent spotting and occasional adjustment of her oral estrogen treatment. However, she then began to have heavy bleeding again, which further progressed to passage of larger amounts of blood and blood clots.

After being admitted for the current hospitalization, the patient received intravenous estrogen therapy but continued to have heavy vaginal bleeding. Because her continued vaginal bleeding could not be controlled with medical management and was resulting in dangerous loss of blood, her gynecologist recommended laparoscopic hysterectomy as the definitive treatment for her condition. On the evening before the planned surgery, the hospital’s legal department requested an urgent psychiatric consultation. They specifically requested that a North Carolina-licensed psychiatrist or psychologist assess whether the patient was able to comprehend the nature of the proposed procedure and its consequences, and whether she was able to provide “informed consent” for the procedure. This request was made in order to comply with North Carolina General Statute 35A-1245 (see Table 1) [1], which addresses the “sterilization of a mentally ill or a mentally retarded ward in the case of medical necessity.”

Discussion

This case is interesting from a historical and practical perspective. In general practice, minors under the age of 18 years are not considered legally able to give informed consent unless they have been emancipated from their parents. Emancipation laws differ between states, but in North Carolina, there are only 3 circumstances that result in emancipation: marriage, military service, and emancipation by judicial decree after petitioning the court [2]. The patient in this case met none of these criteria and was thus still considered a minor for all legal purposes. Therefore, she was not able to provide informed consent for any medical procedure.

However, under current North Carolina law, any procedure that would result in sterilization of a mentally ill or mentally retarded person requires an evaluation of the individual’s ability to provide “informed consent,” as well as a determination as to whether the patient can understand the nature of the proposed procedure and its consequences, regardless of the patient’s age (see Table 1) [1]. The reason this bar is higher for mentally ill or mentally retarded individuals is related to the state’s history of involuntary sterilization.

Involuntary sterilization in the United States had its origins in the eugenics movement inspired by Sir Francis Galton in the late 19th century. Galton viewed the movement as
Having 2 goals: encouraging biologically fit stocks to reproduce, and discouraging inferior and subnormal stocks from reproducing [3]. These views were embraced by others, who extrapolated from Mendelian laws of inheritance that social ills resulted from characteristics transmitted across generations by those who were genetically "unfit." Those considered unfit included individuals who were mentally retarded, mentally ill, or poor, as well as those with epilepsy and those who had committed crimes. Many eugenic propagandists of the time also believed that these "unfit" persons were sexually promiscuous and reproduced at higher rates than the rest of the population [4]. Thus they concluded that preventing such individuals from reproducing would benefit society as a whole. In the early 20th century, the development of safer surgical techniques for sterilization, namely vasectomy and tubal ligation, made it easier for eugenics proponents to push for wider use of such procedures [5].

The first sterilization law in the United States was passed in 1907 in Indiana, and within 10 years, 16 other states had followed suit [6]. These laws allowed (or in some cases required) the involuntary sterilization of those with mental retardation. Despite enthusiasm for these laws by some state legislatures, legally sanctioned sterilization was rarely performed in the early 1900s, because many laws faced legal challenges at the state and federal levels [6]. Until 1925, all eugenic sterilization laws that reached the courts were declared unconstitutional on grounds that sterilization constituted cruel and unusual punishment, violated due process, or was a violation of equal protections [7]. However, this changed when a court in Virginia upheld the constitutionality of that state's sterilization law; the decision was appealed to the US Supreme Court, which heard the case Buck v Bell in 1927 [8]. The court ultimately upheld the law, clearing the way for states to pursue sterilization without fear of significant legal challenges. In his now famous opinion in the case, Justice Oliver Wendell Holmes stated:

It is better for all the world if, instead of waiting to execute degenerate offspring for crime or to let them starve for their imbecility, society can prevent those who are manifestly unfit from continuing their kind ... Three generations of imbeciles are enough [8].

Of historical interest, it was later discovered that the defendant in the case, Carrie Buck, was actually of normal intelligence; she had been institutionalized not because of mental retardation but to hide the shame of her pregnancy, which had resulted from rape [9]. In fact, she had been committed to the institution by a relative of the individual who had committed the rape [9].

In the years following Buck v Bell, the number of states with sterilization laws increased to 33, and an estimated 25,000 individuals with mental disabilities were reportedly sterilized in the 1930s alone [3]. Most of these procedures occurred at state institutions, which had several aims in advocating for the practice: preventing the birth of children who presumably would not receive adequate parenting and who might be mentally retarded themselves; reducing the number of individuals who required institutionalization (by allowing sterilized individuals to live in the community); and opening bed space in institutions, thus saving the state money [10]. By 1960, an estimated 60,000 men and women in the United States had been involuntarily sterilized in accordance with state laws [4]. Nationally, this trend began to slow following World War II for several reasons. First, there was a change in public attitudes following awareness of the application of eugenic principles by Nazi Germany. Second, the US Supreme Court established that the right to procreate is fundamental. Finally, there was public backlash following the forced sterilization of a girl with developmental disabilities in a federally funded clinic, which resulted in the loss of federal funding for sterilization of those younger than 21 years of age, those deemed to be incompetent, and institutionalized individuals [6].

### Table 1

North Carolina General Statute §35A-1245

<table>
<thead>
<tr>
<th>Procedure to permit the sterilization of a mentally ill or a mentally retarded ward in the case of medical necessity.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) A guardian of the person shall not consent to the sterilization of a mentally ill or mentally retarded ward unless an order from the clerk has been obtained in accordance with this section.</td>
</tr>
<tr>
<td>(b) If a mentally ill or mentally retarded ward needs to undergo a medical procedure that would result in sterilization, the ward’s guardian shall petition the clerk for an order to permit the guardian to consent to the procedure. The petition shall contain the following:</td>
</tr>
<tr>
<td>(1) A sworn statement from a physician licensed in this State who has examined the ward that the proposed procedure is medically necessary and not for the sole purpose of sterilization or for the purpose of hygiene or convenience.</td>
</tr>
<tr>
<td>(2) The name and address of the physician who will perform the procedure.</td>
</tr>
<tr>
<td>(3) A sworn statement from a psychiatrist or psychologist licensed in this State who has examined the ward as to whether the mentally ill or mentally retarded ward is able to comprehend the nature of the proposed procedure and its consequences and provide an informed consent to the procedure.</td>
</tr>
<tr>
<td>(4) If the ward is able to comprehend the nature of the proposed procedure and its consequences, the sworn consent of the ward to the procedure.</td>
</tr>
<tr>
<td>(c) A copy of the petition shall be served on the ward personally. If the ward is unable to comprehend the nature of the proposed procedure and its consequences and is unable to provide an informed consent, the clerk shall appoint an attorney to represent the ward in accordance with rules adopted by the Office of Indigent Defense Services.</td>
</tr>
<tr>
<td>(d) Should the ward or the ward’s attorney request a hearing, a hearing shall be held. Otherwise, the clerk may enter an order without the appearance of witnesses. If a hearing is held, the guardian and the ward may present evidence.</td>
</tr>
<tr>
<td>(e) If the clerk finds the following, the clerk shall enter an order permitting the guardian to consent to the proposed procedure:</td>
</tr>
<tr>
<td>(1) The ward is capable of comprehending the procedure and its consequences and has consented to the procedure, or the ward is unable to comprehend the procedure and its consequences.</td>
</tr>
<tr>
<td>(2) The procedure is medically necessary and is not solely for the purpose of sterilization or for hygiene or convenience.</td>
</tr>
<tr>
<td>(f) The guardian or the ward, the ward’s attorney, or any other interested party may appeal the clerk’s order to the superior court in accordance with G.S. 1-301.2(e). (2003-13, s. 1(a); 2005-250, s. 5.)</td>
</tr>
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North Carolina first enacted sterilization legislation in 1919, and the state then passed an updated law in 1929. This latter law stated:

The governing body or responsible head of any penal or charitable institution supported wholly or in part by the State of North Carolina, or any sub-division thereof, is hereby authorized and directed to have the necessary operation for asexualization or sterilization performed upon any mentally defective or feeble-minded inmate of patient thereof . . . [11].

Those considered “mentally defective or feeble-minded” included those with mentally illness, mental retardation, or epilepsy [12]. A later change to the law allowed for sterilization of individuals who had not been placed in state institutions. In 1933, the state created the North Carolina Eugenics Board, which was made up of the commissioner of the Board of Charities and Public Welfare, the secretary of the State Board of Health, the chief medical officer of either of 2 state institutions for “the feeble-minded or insane,” the chief medical officer of the State Hospital at Raleigh (Dorothea Dix Hospital), and the attorney general [12]. The Eugenics Board was tasked with reviewing all cases, which were prosecuted by the head of the institution where the person was committed or by the county superintendent of welfare for those defendants who were not institutionalized. Sterilizations in the state were performed rarely at first but more frequently after World War II, and the number of sterilizations peaked in the early 1950s, when 704 individuals underwent the procedure during the period 1950-1952 [12]. The last sterilizations under the law were performed in 1974, although the process remained legal until 2003 [13].

All told, an estimated 7,600 sterilizations were performed in North Carolina from 1929 through 1974 [13]. Of these individuals, 85% were female; 40% were nonwhite [13]; 25% had been deemed mentally ill; and 70% had been judged mentally deficient [12]. North Carolina ranked 3rd in the nation for total number of people sterilized during the eugenics period [12]. After 1973, numerous abuses of the law were revealed, including coercion and implementation of the law in situations that appear to have been outside the scope of the intention of the law. These cases largely had to do with sterilization of black women who were on welfare and were believed by social workers to be a drain on society [14]. In December 2002, Governor Mike Easley apologized to the North Carolina victims who had undergone mandatory sterilizations [15], and in April 2003, North Carolina became the last state to repeal its sterilization law [12]. In 2010, Governor Bev Purdue created the North Carolina Justice for Sterilization Victims Foundation (now known as the Office of Justice for Sterilization Victims) to help identify victims and to serve as a point of contact for them [13, 16]; in 2011, she created the Governor’s Task Force to Determine the Method of Compensation for Victims of North Carolina’s Eugenics Board [17].

In light of this history, the North Carolina General Assembly passed the 2003 statute [1] that came into play in the case described previously. North Carolina General Statute 35A-1245 is entitled “Procedure to permit the sterilization of a mentally ill or a mentally retarded ward in the case of medical necessity” (See Table 1). The statute requires that “a guardian of the person shall not consent to the sterilization of a mentally ill or mentally retarded ward unless an order from the clerk has been obtained.” Further, it requires that “if a mentally ill or mentally retarded ward needs to undergo a medical procedure that would result in sterilization, the ward’s guardian shall petition the clerk for an order to permit the guardian to consent to the procedure.” The petition must contain a statement from a physician that “the proposed procedure is medically necessary and not for the sole purpose of sterilization or for the purpose of hygiene or convenience.” It must also contain a statement from a psychiatrist or psychologist “who has examined the ward as to whether the mentally ill or mentally retarded ward is able to comprehend the nature of the proposed procedure and its consequences and provide an informed consent to the procedure.” This petition is then sent to the clerk of the court for ruling. There is an appeals process for the guardian, the ward, the ward’s attorney, or any interested party if they do not agree with the ruling. In the case under discussion, the 16-year-old girl was determined not to have the ability to provide informed consent (based on her status as an emancipated minor) nor to fully comprehend the full nature and consequences of the proposed procedure (based on the psychiatric interview). The clerk subsequently ruled that the procedure could move forward given the medical necessity of the case, the guardians’ consent, and the patient’s assent.

The law provides several points that warrant discussion. First, it requires that these steps be taken when a patient with “mental illness or mental retardation” needs a procedure that would result in sterilization. What qualifies as a “mental illness” is certainly debatable, and there is no provision in the statute that provides a clear definition or guidance. Second, the law is clear that the procedure must be “medically necessary.” This term is also rather ambiguous and allows for broad interpretation by medical providers. In this case, it was believed that hysterectomy was necessary to prevent further blood loss that could lead to death. Most would agree that the procedure was medically necessary in this case, but one could easily imagine cases in which the determination of what is “medically necessary” is more nuanced. Again, the statute does not provide a definition of this term or guidance. Finally, the sterilization procedure cannot be for the sole purpose of “convenience or hygiene.” Much has been written on this topic, because caregivers of women with development disabilities often approach medical providers about the difficulty in dealing with hygienic concerns surrounding menstruation [18]. An argument is often made that menstruation can also cause significant stress for the individual with disabilities. Despite
the potential legitimacy of these concerns, most providers would initially recommend nonsurgical approaches to these issues. The law, at least in North Carolina, does not allow for any medical procedure that results in sterilization to be performed solely because of such concerns.

Finally, the wording of the North Carolina law is interesting in the sense that it applies only to patients who have a guardian. Guardianship typically implies that the individual is not legally competent to make medical decisions for himself or herself (either because of age or judicial decree). Such an individual therefore does not have the ability to provide informed consent to any medical procedure, although he or she certainly can still voice assent or dissent. It would thus appear redundant to require that a psychiatrist or psychologist determine whether a patient who has a legal guardian is able to give informed consent for medically necessary sterilization.

Table 2 shows how laws regarding involuntary sterilization vary across the 50 states. Providers outside of North Carolina should make themselves aware of the laws governing this aspect of treatment in the state where they practice.

In summary, the current case provides an opportunity to review the important history of sterilization in the United States and in North Carolina, which has shaped current statutes regarding sterilization of individuals with mental illness or intellectual disability. Laws regarding these policies differ between US states and between countries; medical and psychiatric providers should make themselves aware of the relevant policies and statutes in their area of practice, to ensure compliance with legal protections for their patients. When necessary, ethics committees and legal departments should be consulted to ensure compliance with state statutes.

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Potential conflicts of interest. N.A.S. and D.L.R. have no relevant conflicts of interest.

References
1. Procedure to permit the sterilization of a mentally ill or a mentally retarded ward in the case of medical necessity. NCGS § 35A-1245.

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<th>States with statutes regarding sterilization of persons with mental retardation</th>
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POSITION ANNOUNCEMENT
Director, Cecil G. Sheps Center for Health Services Research
University of North Carolina at Chapel Hill

Applications are invited from all scholarly fields concerned with health services research for the position of Director of the Cecil G. Sheps Center for Health Services Research (Sheps Center). The Director has institutional responsibilities for promoting and overseeing research, educational, and grant-development activities.

The Cecil G. Sheps Center for Health Services Research is the lead research unit for health services research at UNC-Chapel Hill. The mission of the Sheps Center is to improve the health of individuals, families, and populations by understanding the problems, issues, and alternatives in the design and delivery of health care services. This is accomplished through an interdisciplinary program of research, consultation, engaged scholarship, technical assistance, and training that focuses on timely and policy-relevant questions concerning the accessibility, adequacy, organization, cost, and effectiveness of health care services and the dissemination of this information to policymakers and the general public.

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