Task Force on Rural Health Executive Summary

Approximately one-in-five North Carolinians, almost 2.2 million people, lives in a rural county (e.g. non-metropolitan statistical area).[1]North Carolinians living in rural areas are less likely to have access to health services, are more likely to engage in risky health behaviors, and have a higher mortality rate than North Carolinians living in non-rural areas. [2] The health disparities between urban and rural residents are due to a number of factors including: differences in demographic and socioeconomic factors, health behaviors, and access to and availability of health care services.

North Carolina's rural communities face many challenges, but they are also quite resilient. There is a strong sense of place and an understanding of community assets. Rural people know the needs of their community. [3] They know what strategies to improve health and well-being will not work. They are also open to learning from others. While rural communities are often under-resourced, there is an innate sense of commitment to the community and to each other. And because of this, rural communities are often able to accomplish a great deal with limited resources. [4]

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Task Force on Rural Health

The North Carolina Institute of Medicine (NCIOM) in partnership with the Office of Rural Health and Community Care (ORHCC) within the North Carolina Department of Health and Human Services (NC DHHS), and the Kate B. Reynolds Charitable Trust (the Trust) convened a Task Force on Rural Health. ORHCC has a mission to empower communities to develop innovative strategies to improve access, quality, and cost effectiveness of care, with a special focus on rural and underserved communities. The Task Force was funded by the Trust, which has a long history of leading and supporting rural health efforts and innovations. The Trust's mission is to improve the quality of life and quality of health for the financially needy of North Carolina.

The overall goal of the Task Force on Rural Health was to develop a North Carolina Rural Health Action Plan that included workable strategies to improve rural health outcomes that were actionable over the next three to five years. The Action Plan would provide policy makers, funders, and stakeholder organizations with a common vision and set of action steps to improve rural health. Specifically, the Task Force on Rural Health was charged to examine the health of rural North Carolinians as well as disparities in health access and outcomes for North Carolina's rural and urban residents. As part of this work, the Task Force considered the factors that contribute to rural health problems including community and environmental factors, differences in health behaviors, and the availability and accessibility of health care services. Next the Task Force identified potential strategies to improve rural health outcomes that could be actionable over the next three to five years. Then the Task Force gathered input from eight rural communities across North Carolina to discuss local health needs, priorities, and potential strategies to address those needs.

The communities also gave feedback on the strategies and priorities identified by the Task Force. Lastly, the Task Force considered the feedback from the local community forums to develop the final Rural Health Action Plan.

The Task Force was chaired by Chris Collins, MSW, Director, Office of Rural Health and Community Care;[a] Paul Cunningham, MD, Dean, Senior Associate Vice Chancellor for Medical Affairs, Brody School of Medicine, East Carolina University; and Donna Tipton-Rogers, EdD, President, Tri-County Community College. In addition to the co-chairs, the Task Force had 46 members including representatives of state and local policy making agencies, funders, health care professionals, community agencies and nonprofits, and other interested individuals. Approximately half of the Task Force members were from rural communities and the other half were from statewide organizations with a mission to serve rural communities.

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The Task Force met ten times between March 2013 and May 2014. From March 2013 through July 2013, the Task Force members examined data that focused on major health problems facing rural communities and identified potential strategies to address those problems. Between August 2013 and October 2014, the Task Force held eight community forums in the following rural counties: Beaufort, Bladen, Halifax, Jackson, McDowell, Montgomery, Rockingham, and Wilkes. Community members from these counties, as well as surrounding counties, were invited to participate in these forums. In total, 259 rural participants attended one of the eight community forums. After synthesizing results from these community forums, the Task Force finalized the six priority areas for the final report discussed briefly below.

Community and Environment

Jobs and Economic Security

With a rich history of manufacturing and agriculture and an infrastructure that provides an abundance of natural resources, North Carolina's rural communities serve a vital role to the economy of the state. Although recent years have proven difficult for the industries of rural North Carolina, investing in its development and maintenance will yield benefits throughout the state and contribute to a diverse and healthy state economy.

Over the past several years, an uptick in growth and employment has shown promise and progress for rural areas: since 2010, jobs have been added in rural areas of North Carolina. The rural unemployment rate, while still high at 11.0% in 2012, is declining, down from 11.5% in 2011.[5] However, in contrast, the statewide unemployment rate was 9.5% in 2012, and the urban unemployment

a Robin G. Cummings, M.D., FACC, FACS, Former Director, Office of Rural Health and Community Care, Director, Division of Medical Assistance, Deputy Secretary, N.C. Department of Health and Human Services, served as co-chair of the Task Force on Rural Health during his tenure as the director of the Office of Rural Health and Community Care. When he was promoted to Deputy Secretary for Health Services, Chris Collins assumed his role as co-chair.

rate was 9.1%.[5] Job growth in service industries, health care, farming, and small businesses drove much of the improvement in rural areas. Increases in rural population and high school graduation rates continue to contribute to a potential comeback.

However, many challenges remain in rural North Carolina. Many areas struggle with a high proportion of residents living in poverty, with incomes much lower than the state average. In rural counties, 22.3% of residents lived at or below the federal poverty line in 2012 compared to 16.7% of urban residents. The median per capita income in rural counties was $31,948, compared with the state average of $37,910. [5] Income is directly related to health. Increased income corresponds to better health outcomes, with the greatest impact on health for those with lower incomes. To improve the health of its residents, North Carolina needs to help increase the economic security of the population, especially among low-income North Carolinians.

Priority Strategy 1: Invest in small businesses and entrepreneurship to grow local and regional industries (e.g. farm to table, fishing, tourism, and Renewable Energy)

The Task Force recommends that the Department of Commerce (DOC) and rural funders work with rural businesses and community organizations to enhance the infrastructure and broadband access in rural communities, and to encourage high value added manufacturing. The Department of Agriculture and Consumer Services, DOC, Cooperative Extension and Farm Bureau Federation should promote local agriculture and the sale of agricultural produce to local businesses, schools, and other agencies and directly to consumers. The North Carolina General Assembly and Department of Revenue should continue to encourage investments in renewable energy. Additionally, rural funders, the Office of Rural Health and Community Care, and DOC should invest in rural health care.

The Task Force also recommends that the North Carolina Community College System and Local Education Agencies should continue to partner with small businesses and local economic development offices to develop the workforce. In addition, rural funders should focus on the development and recruitment of local, talented leaders.

Improve Educational Outcomes

Academic achievement and education are strongly related to health. In general, those with less education have more chronic health problems and shorter life expectancies. In contrast, people with more years of education are likely to live longer, healthier lives. This education-health link is one that seems to result

from the overall amount of time spent in school.[6] High quality child care has been shown to have longer term effects and contribute to better school performance and higher graduation rates.[7]

Children spend more time at home with their parents than in any other setting. The relationships children have with caregivers have a profound impact on cognitive, linguistic, emotional, social and moral intelligence. Implementing evidence-based programs to support parents in their caregiver roles has been shown to improve school readiness. In addition, education research has repeatedly shown that high quality, center-based care can improve school readiness and academic success, findings that persist into early workforce entry.[8-10] These findings are especially robust among children at risk for poor educational achievement, a risk largely determined by poverty. North Carolina ranks child care centers based on the quality of care they offer, with 4- and 5-star centers or family care homes being higher quality. Children are more likely to be enrolled in 4- and 5-star child care programs if they live in urban or economically advantaged counties than if they live in rural or economically distressed counties.[b]

Because of the importance of early childhood development on a child's later educational and professional success, the Task Force on Rural Health established, as one of its priorities, a focus on early care, education and parenting supports to ensure school readiness.

Priority Strategy 2: Increase support for quality child care and education (birth through age 8) and parenting supports to improve school readiness

The Task Force recommends the revision of the child care center star rating system to focus on learning that supports children's social and emotional development, executive function, language skills, and health. In addition, the Task Force recommends that the North Carolina General Assembly enhance child care subsidies to centers that receive the highest quality rating, and that the Division of Child Development and Early Education adjust its subsidy formula to incentivize quality care in rural counties. The Task Force also recommends additional funding for evidence based parenting support (e.g. Nurse Family Partnership and Child FIRST) and school readiness programs, as well as support for work force education, training, and professional development for child care workers.

b North Carolina Department of Health and Human Services special data request, 2011

Health Behaviors

Promote Healthy Eating and Active Living (HEAL) to Reduce Overweight and Obesity

Overweight and obesity pose significant health concerns for both children and adults. Excess weight is not only a risk factor for several serious health conditions, but it also can exacerbate existing health conditions. North Carolina is the 16th most overweight/obese state in the nation.[11] Adults in rural areas are more likely to be overweight or obese (68.9%) compared to those in urban areas (63.3%).[12] Physical activity is a key component of a healthy lifestyle and an important part of preventing obesity. Similarly, a healthy diet is a cornerstone of optimal health.

There are several ways to combat obesity and improve rates of physical activity and healthy eating. The Task Force recommended focusing on improving healthy eating and active living in formal and informal educational settings. Children who are overweight or obese are much more likely to be overweight or obese as older children or adults. [13-15] Conversely, those who are at a healthy weight as youngsters are more likely to stay at a healthy weight as older children and adults. While it is important to focus on children, the Task Force also recognized the value of promoting healthy eating and active living amongst adults. Thus, the Task Force explored other evidence-based or evidence-informed strategies to promote healthy eating and active living in settings involving adults.

Priority Strategy 3: Work within the formal and informal education system to support healthy eating and active living (HEAL)

The Task Force recommends support for evidence based programs that improve HEAL in early care and education. Additionally, the North Carolina State Board of Education (SBE) should develop a model wellness policy for local use that ensures that food and beverages served in schools meet the nutritional content of the National School Breakfast and Lunch program, and that child engage in physical education for an appropriate number of hours/week. SBE should also require schools to implement evidence based programs that support HEAL in their core curriculum and should update information in the Healthful Living curriculum. The Task Force encourages funders, the faith community, and other community partners to implement evidence-based HEAL strategies in the community.

Improve Mental Health and Emotional Wellbeing

People with mental health or substance abuse problems or dependence are at risk for premature death, co-morbid health conditions and disability. However, many of these individuals are reluctant to admit they have a problem and thus are unlikely to seek care directly from treatment professionals. Even among those who are aware of their conditions, the associated cost or stigma prevents them from reaching out to health care providers for treatment.

Delivering more mental health and substance abuse services in conjunction with primary care is an important option for rural communities. Access to mental health and substance abuse services is limited in some rural areas because of a lack of providers. People with mental health or substance abuse problems often present to primary care providers with pain related complaints, other body symptoms, or uncontrolled medical conditions such as diabetes. Primary care providers need to be able to diagnose and refer or treat people presenting with comorbid mental health or behavioral health problems. Perhaps as important, patients may be more willing to consider treatment for a behavioral health condition either by his/her primary clinician or by a behavioral health specialist if it is in the context of a whole person, integrated approach to wellness. [16-18] Incorporating behavioral health services into physical health services is one important component to whole person care, and has been associated with improved quality, improved outcomes (for mental health and physical health), improved patient and provider satisfaction, and decreased cost.

Priority Strategy 4: Use Primary Care and Public health settings to screen for and treat people with mental health and substance abuse issues in the context of increasingly integrated primary and behavioral health care

The Task Force encourages patient-centered medical homes to screen for mental health and substance abuse disorders, and provide treatment or referrals to behavioral health professionals when appropriate. Moreover, the Task Force recommends increased technical assistance to primary care practices to increase the level of integrated care by helping with culture change, the right mix of providers, overcoming billing issues, and financial strategies for success. The Task Force also recommends that public and private payers evaluate, and if necessary, change payment policies to promote integrated primary care and behavioral health practices. In addition, the Task Force supports the development and dissemination of evidence-based and evidence-informed community-based mental health and substance abuse treatment strategies, including but not limited to peer support, 12 step programs, faith-based services, and psychological first aid.

Access to and Availability of Services

Maximize Individuals' Insurance Opportunities and Access to the Safety Net

In 2011-2012, 20.2% of nonelderly North Carolinians, or 1.6 million people, were uninsured.[19] People in rural areas are about equally likely to be uninsured as are those in urban areas (20.8% versus 19.5% respectively).[19] However, more than one-in-four nonelderly residents are uninsured in some rural counties (e.g., Alleghany, Avery, Duplin, Jackson, Robeson).[20] Approximately 80% of uninsured adults in North Carolina reported in 2012 that they were uninsured for more than one year, and over half (52%) reported being uninsured for 5 years or more.[21]

More than one-in-four nonelderly residents are uninsured in some rural counties.

Not having health insurance coverage is harmful to the health and well-being of children and adults. People who lack health insurance coverage have a harder time affording necessary care. More importantly, the lack of coverage adversely affects health. The uninsured are less likely to get preventive screenings and ongoing care for chronic conditions. Consequently, the uninsured have a greater likelihood than people with coverage of being diagnosed with severe health conditions (such as late stage cancer), being hospitalized for preventable health problems, or dying prematurely. [22] Uninsured North Carolinians report that the main reason they do not have health insurance is they cannot afford the premiums.[23] Thus, it is important to help those who can gain affordable coverage to purchase it, and to target the safety net resources to people who are unable to obtain affordable health insurance coverage in the health insurance marketplace.

Beginning in January 2014, the Patient Protection and Affordable Care Act (ACA) gave individuals and families new options to purchase health insurance coverage. Many uninsured are able to buy insurance through the new health insurance "Marketplace". Subsidies are available to many families to help make health insurance coverage more affordable.[24] There are also new navigator and certified application counselors to help the uninsured understand their insurance options and apply for coverage.

For those who remain uninsured, there are many safety net organizations across the state with a mission or legal responsibility to serve the uninsured. Many of these organizations provide services to the uninsured for free or on a sliding scale basis. Yet, there are not sufficient safety net resources to meet all of the health care needs of the uninsured. Further, many of the uninsured are unaware of the resources that do exist.

Priority Strategy 5: Educate and engage people in rural communities about new and emerging health insurance options available under the Affordable Care Act and existing safety net resources

The Task Force recommends that existing navigators, certified application counselors, and other community groups continue to work together at the local level to coordinate education, outreach and enrollment efforts to help people enroll in coverage. These groups can also help identify gaps in resources needed to help people enroll. The Task Force recommends that North Carolina foundations support local education, outreach and enrollment activities by targeting rural communities with high unmet needs. For those who remain uninsured, the Task Force recommends that the North Carolina Institute of Medicine work with United Way to support its 211 web-based resource and referral system to include up-to-date information about available safety net organizations.

Improve Recruitment, Retention, and Distribution of Key Health Professionals

Access to health care professionals is important to the health of North Carolinians. Ensuring that people can get the care that they need is an essential factor in good health. Yet there are some areas of the state that have an abundance of health care professionals and health care institutions, and others that lack basic services. Primary care professionals are the entry point into the health care system, and provide a wide range of services including preventive care, chronic disease management, urgent care, and some behavioral health services.[25] The primary care workforce is experiencing increases in demand due to aging baby boomers requiring more care, overall growth in the population, and increasing numbers of people living with chronic illnesses. Additionally, demand is expected to increase due to people gaining insurance coverage as a result of the Affordable Care Act and an aging population.[26] Despite overall growth in the primary care workforce in the last 30 years, many of North Carolina's rural counties face persistent primary care shortages.[27]

Rural communities need other providers in addition to primary care. Rural communities need nurses, allied health professionals, pharmacists, behavioral health specialists, dentists, and specific types of physician specialists to more fully meet the health care needs of the population. The NCIOM Rural Health Task Force examined workforce needs in rural areas, and identified four areas of particular need in rural North Carolina: primary care providers, behavioral health specialists, dental professionals, and general surgeons. The capacity to recruit and retain health professionals in rural and underserved areas across the state is critical to meet the health needs of North Carolinians.

Priority Strategy 6: Ensure adequate incentives and other support to cultivate, recruit, and retain health professionals to rural and underserved areas of the state

The Task Force recommends that community colleges expand successful strategies to recruit health professional students into 2-year and 4-year degrees on or near the community college campuses, as people who are trained in rural communities are more likely to practice there. In addition, the North Carolina academic health programs supported by North Carolina general funds should place a priority, in the admissions process, to students who grew up in or have a desire to practice in health professional shortage areas. The Area Health Education Centers, in conjunction with North Carolina academic health education programs, should identify best practices for rural clinical placements and disseminate those models across the state. Further, the North Carolina General Assembly (NCGA) should fund new rural residency programs for primary care. In addition, the NCGA should appropriate new funding to the Office of Rural Health and Community Care (ORHCC) to support additional staff who will help designate more areas of the state as health professional shortage areas, expand recruitment and retention efforts, and expand the availability of state loan repayment or other incentive payments to recruit needed health professionals into rural and underserved areas. ORHCC with the NC Medical Society Foundation should identify and disseminate model recruitment and retention strategies across the state.

Conclusion

The overall goal of the Task Force on Rural Health was to develop a North Carolina Rural Health Action Plan including specific strategies to improve rural health outcomes that are actionable over the next three to five years. Another related goal was to provide policy makers, funders and stakeholder organizations with a common vision and set of action steps to improve rural health across the state. This Rural Health Action Plan lays out the vision and action steps needed to accomplish these goals. The Task Force, with the input of rural residents across the state, established six broad priority areas. Within each of these areas, the Task Force identified evidence-based or evidence-informed programs, policies, clinical interventions and practices that, if implemented, could have a positive impact on the health of rural North Carolinians. Rural communities face many health challenges, but they also bring a wealth of community assets that can be harnessed to address these challenges. Together, rural residents can work with state agencies, funders, and other organizations to improve the health and well-being of rural communities across the state.

References

1. US Department of Commerce, US Census Bureau. State and County QuickFacts North Carolina. U.S. Census Bureau website. http://quickfacts.census.gov/qfd/states/37000.html. Accessed February 24, 2014.

2. Robert Wood Johnson Foundation. County Health Rankings & Roadmaps A Healthier Nation, County by County. University of Wisconsin Population Health Institute website. http://www.countyhealthrankings.org/app/north-carolina/2013/rankings/outcomes/overall/by-rank. Accessed July 18, 2013.

3. Goris ED, Schutte DL, Rivard JL, Schutte BC. Community leader perceptions of the health needs of older adults. *West J Nurs Res.* 2014;.

4. Averill J. Keys to the puzzle: Recognizing strengths in a rural community. *Public Health Nursing.* 2003;20(6):449-455.

5. US Department of Agriculture Economic Research Service. State Fact Sheets. http://www.ers.usda.gov/data-products/state-fact-sheets/state-data.aspx?StateFIPS=37&StateName=North%20Carolina#.Ux8BqYXfjJs. Accessed March 11, 2014.

6. Cutler D, Lleras-Muney A. National Bureau of Economical Research. Education and health: evaluating theories and evidence. http://www.nber.org/papers/w12352. Published 2006. Accessed May 15, 2009.

7. HighScope Educational Research Foundation. HighScope Perry preschool study. HighScope Educational Research Foundation website. http://www.highscope.org/Content.asp?ContentId=219. Published 2009. Accessed June 2, 2009.

8. HighScope Educational Research Foundation. HighScope Perry Preschool Study Lifetime Effects. http://highscope.org/content.asp?contentid=219. Accessed March 27, 2014.

9. Frank Porter Graham Child Development Institute. Major Findings: The Abecedarian Project. The Carolina Abecedarian Project website. http://abc.fpg.unc.edu/major-findings.

10. US Department of Health and Human Services. Head Start Program Facts Fiscal Year 2013. Administration for Children and Families Office of Head Start website. http://eclkc.ohs.acf.hhs.gov/hslc/mr/factsheets/docs/hs-program-fact-sheet-2013.pdf. Accessed March 27, 2014.

11. United Health Foundation. America's Health Rankings: North Carolina Obesity. http://www.americashealthrankings.org/NC/Obesity/2013. Published 2013. Accessed February 25, 2014.

12. North Carolina Department of Health and Human Services, State Center for Health Statistics. Written (email) communication. April 17, 2014

13. Singh AS, Mulder C, Twisk JW, Mechelen W, Chinapaw M. Tracking of childhood overweight into adulthood: A systematic review of the literature. *Obesity Reviews*. 2008;9(5):474-88.

14. Nader PR, O'Brien M, Houts R, et al. Identifying risk for obesity in early childhood. *Pediatrics*. 2006;118(3):e594-601.

15. Promoting Healthy Weight for Young Children: A Blueprint for Preventing Early Childhood Obesity in North Carolina. North Carolina Institute of Medicine. Morrisville, NC. http://www.nciom.org/wp-content/uploads/2013/09/ChildObesityRpt_090513.pdf. Published September 2013.

16. Klinkman MS. Competing demands in psychosocial care: A model for the identification and treatment of depressive disorders in primary care. *Gen Hosp Psychiatry*. 1997;19(2):98-111.

17. American Psychiatric Association. Collaboration between psychiatrists, primary docs vital to ensuring more people get MH care. *Psychiatric News*. 1998;20.

18. Wells KB, Sherbourne C, Schoenbaum M, et al. Impact of disseminating quality improvement programs for depression in managed primary care: A randomized controlled trial. *JAMA*. 2000;283(2):212-220.

19. North Carolina Institute of Medicine. Running the Numbers 2011-2012. http://www.nciom.org/nc-health-data/running-the-numbers/. Published April 1, 2014. Accessed March 25, 2014.

20. US Census Bureau Small Area Health Insurance Estimates. Health Insurance Coverage Estimates Percent Uninsured 2012. http://www.census.gov/did/www/sahie/data/files/F7_SAHIE_2012_County_Population_Under_65_Uninsured.jpg. Published March 2014. Accessed March 12, 2014.

21. 2012 BRFSS Survey Results North Carolina Reasons Uninsured: "About how long has it been since you had health care coverage?". North Carolina State Center for Health Statistics website. http://www.schs.state.nc.us/schs/brfss/2012/nc/all/nc11q02.html. Published August 28, 2013. Accessed January 13, 2013.

22. The Uninsured: A Primer - Key Facts about Health Insurance on the Eve of Coverage Expansions. Kaiser Family Foundation website. http://kff.org/report-section/the-uninsured-a-primer-2013-4-how-does-lack-of-insurance-affect-access-to-health-care/. Published October 23, 2013.

23. 2012 BRFSS Survey Results North Carolina: Reasons Uninsured by Risks, Conditions, and Quality of Life Measures, "Earlier you indicated you do not have health insurance coverage. What is the main reason you do not have health insurance?". North Carolina State Center for Health Statistics website. http://www.schs.state.nc.us/SCHS/brfss/2012/nc/risk/noinsure.html. Published August 29, 2013. Accessed January 13, 2014.

24. Patient protection and affordable care act. pub L. no. 111-148 § 1401, 42 USC 13031, 26 USC 36B

25. Bodenheimer T, Pham H. Primary care: Current problems and proposed solutions. *Health Affairs*. 2010;29(5):799-805.

26. Schwartz MD. Health care reform and the primary care workforce bottleneck. *J Gen Intern Med*. 2011

27. Spero J. North Carolina's rural health workforce: Challenges and strategies. Presented to: North Carolina Institute of Medicine Task Force on Rural Health; July 31, 2013; Greensboro, NC. http://www.nciom.org/wp-content/uploads/2013/04/Spero_7-31-13.pdf.