

## Priorities and Strategies for Community and Environmental Determinants

### Jobs/Economic Security

Income is positively related to health, with increasing income level corresponding to gains in health and health outcomes.<sup>1</sup> This relationship between income and health is not linear. Differences in income generally make the greatest difference for health at the lower end of the income scale; increases in income for the highest income groups may not produce significant gains in health. Money, in itself, does not produce good health. Instead, income is generally considered a marker for a person’s relative position in society, which is related to the social conditions and the social and economic opportunities to which a person is exposed.<sup>2</sup>

More affluent individuals have greater opportunities for healthful living through greater access to health-protecting resources such as the ability to live in safe and healthy communities with access to better equipped schools, places to exercise and play, and grocery stores. In addition, higher income individuals can more easily afford health insurance coverage. Conversely, people who are poor have restricted opportunities for healthful living and may be exposed to health-damaging environments. They may live in poor housing in unsafe communities. Further, they may have less access to grocery stores or outdoor recreational facilities. In addition, poor individuals are much more likely to be uninsured.<sup>3</sup> People in lower socioeconomic levels may also lack social relationships and supports; lack self-esteem, optimism, or sense of control; and/or experience chronic or acute stress.<sup>4</sup> These psychosocial factors are predictive of mortality and morbidity. There may also be a degree of reverse causality in the association between income and health (e.g. poor health can lead to lower income when an individual is unable to work due to illness or health disability).<sup>2</sup>

The relationship between income and health is particularly salient in the current economic crisis. As the numbers of unemployed people grow and more people move into lower income levels, more and more people will be at risk for poor health. Therefore, in order to improve the health of its residents, North Carolina needs to help increase the economic security of the population, especially low-income people.

Indicator	Rural North Carolina		Urban North Carolina	
Percent Below Poverty (total)	20.3%		16.7%	
	Tier 1	Tier 2	Tier 3	
	23.4%	18.2%	15.8%	

#### Task Force Strategies for Improved Jobs/Economic Stability in Rural North Carolina

1. Invest in infrastructure (e.g. water, sewer, technology, transportation)
2. Invest in health care (including Medicaid expansion)
3. Develop regional industries and local resources (e.g. farm to table, fishing, tourism, agriculture, solar)
4. Encourage communication between community leaders (business, education, and faith) to support local economic development.
5. Recruit and retain industry
6. Create workforce development programs to support local economy

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### Community and Environmental Factors of Rural Health: Economic Security

	State	Regional	Rockingham County	Caswell County	Stokes County
% individuals living in poverty	15.4%	--	18.5%	20.8%	14.3%
Unemployment Rate	8.5%	Rockingham Region 11.5%	10.0%	8.6%	7.5%
Median Household Income	\$57,171	--	\$38,311	\$37,926	\$43,099
% adults who report being always or usually worried or stressed about having enough money to pay their rent/mortgage	18%	Alamance Region 17.6%	--	--	--
% people spending more than 30% of their income on rental housing	48.9%	--	39.7%	42.6%	30.1%
% adults who report being always or usually worried or stressed about having enough money to buy nutritious meals	10.5%	--	--	--	--

Poverty: 2011 state, 2010 county

Unemployment Rate: 2013 from the North Carolina Economic Security Commission  
[http://www.ncesc1.com/pmi/rates/PressReleases/County/NR\\_Apr2013CountyRates\\_M.pdf](http://www.ncesc1.com/pmi/rates/PressReleases/County/NR_Apr2013CountyRates_M.pdf)

Median Household Income: 2011 from the American Community Survey, <http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml>

Rent/Mortgage: 2011 from BRFSS 2011, <http://www.schs.state.nc.us/schs/brfss/2011/nc/all/SCNTMONY.html>

Rental Housing: 2010 from HealthStats, <http://healthstats.publichealth.nc.gov/indicator/view/RentalHousingIncome.HNC2020.html>

Nutritious Meals: 2010 from BRFSS 2011, <http://www.schs.state.nc.us/schs/brfss/2011/nc/all/SCNTMONY.html>

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### Education

Academic achievement and education seem to be strongly correlated with health across the lifespan. 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 rather than from any particular content area studied or the quality of education. Further, these health disparities based on years of education are seen in every ethnic group.<sup>5</sup>

Adults who have not finished high school are more likely to be in poor or fair health than college graduates. The age-adjusted mortality rate of high school dropouts ages 25-64 is twice as large as the rate of those with some college education. They are also more likely to suffer from the most acute and chronic health conditions, including heart disease, hypertension, stroke, elevated cholesterol, emphysema, diabetes, asthma attacks, and ulcers.<sup>1</sup> College graduates live, on average, five years longer than those who do not complete high school. In addition, people with more education are less likely to report functional limitations and are also less likely to miss work due to disease.<sup>6</sup>

Children who live in poverty lag behind more affluent children in cognitive, language, and socioemotional skills as early as three years of age. The gaps are wide at kindergarten and for African American children increase with each year of schooling.<sup>7</sup> Gaps in behavioral and academic skills at the start of schooling have an impact on both short- and long-term achievement. Interventions and support of families with high quality child care and preschool programs can help low-income children start school on a more equal footing. High-quality early education programs boost the achievement of African American and Latino children and narrow the school readiness and later achievement gaps.<sup>8</sup> Other research has demonstrated that the long-term effects (e.g. lower crime rates and higher graduation rates) produce a positive return on investment for high-quality early childhood programs.<sup>9</sup> A cost-benefit analysis of one North Carolina program has shown a tremendous rate of return on the investment. For every dollar that was invested in quality early child care, approximately four dollars were generated. This high rate of return can be attributed to increases in earning potential of over \$143,000 over the lifetime of the participants, savings to school districts over \$11,000 per child due to decreased need for services, and improved health benefits partially attributed to lower rates of smoking.<sup>10</sup>

Here in North Carolina, 677,000 students are enrolled in rural schools with 46% of these students living below the poverty line.

Indicator	Rural North Carolina		Urban North Carolina	
High School Graduation Rate	80.9%		81.0%	
	Tier 1	Tier 2	Tier 3	
	79.7%	80.3%	81.9%	

#### Task Force Strategies for Improved Education in Rural North Carolina

1. Increase support for quality childcare and education (birth-5) and parenting supports to improve school readiness
2. Better recruitment and retainment of strong teachers
3. Increase technology/internet infrastructure
4. Increase K-12 parent engagement and involvement (e.g. PTA/PTO, classroom visits)
5. Promote innovative/non-traditional educational programs and strategies (e.g. flipping the classroom and project-based learning)
6. Increase adult learning opportunities and professional development

<sup>1</sup> Cancer, chicken pox, and hay fever are exceptions, possibly due to increased rates of reporting, screening and diagnosis, or cancer survival. Physical and mental functioning are improved for those with more education, as they are less likely to self-report poor health, anxiety or depression.

**Priorities and Strategies for Community and Environmental Determinants**

**Community and Environmental Factors of Rural Health: Education**

	State	Regional	Rockingham County	Caswell County	Stokes County
Four-year high school graduation rate	80.4%	--	76.0%	77.6%	86.1%
Educational Attainment		--			
High School	27.7%		34.6%	37.3%	41.5%
Some College	21.4%		21.0%	22.1%	21.1%
Bachelors/Graduate Degree	26.6%		13.2%	9.4%	11.3%
% Children in Child Care at a center with 4/5 Star Rating	64.6%	--	46.0%	48.4%	49.1%

Graduation: 2012 Graduation data from the Department of Public Instruction

Educational Attainment: 2011 from the American Community Survey <http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml>

Child Care: 2011 from Action for Children NC on the Kids Count Data Center <http://datacenter.kidscount.org/data/bystate/Rankings.aspx?state=NC&ind=2261>

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