Lack of affordable housing can also contribute to poor mental health. Low-income families tend to move more frequently in their search for an affordable home, and this has detrimental health effects, particularly on children. Studies have shown that high mobility is associated with adverse health outcomes, including heightened stress levels, depression, and emotional and behavioral problems. Parents facing imminent eviction exhibit high levels of stress and that this has a negative influence on the mental health of their children. Under such circumstances, parents find it hard to obtain continuous medical treatment and care for their children, and children with chronic diseases are particularly affected.

**Overcrowding**

One of the consequences of the lack of affordable housing is overcrowding within units. Some households cannot afford to rent or buy a home large enough to comfortably accommodate household members, or they may have to double up with other households to put a roof over their heads. The most common definition of an overcrowded housing unit is one with more than 1 person per room, although some research studies adopt a higher cutoff of 1.5 persons per room. Although the percentage of overcrowded housing units in North Carolina dropped from 3.4 to 2.1 percent between 2000 and 2010, as of 2010 there were still 75,373 overcrowded housing units in the state.

Overcrowding may affect health in several ways. First, the limited amount of space per person may increase the transmission of airborne infections such as tuberculosis, bronchitis, and pneumonia. Second, overcrowding may constrain the types of activities that household members can comfortably undertake in the home or may cause stress among household members trying to engage in conflicting activities, such as watching television and studying. Chronic stress due to overcrowding may lead to more severe mental health problems.

The results of research on the relationship between overcrowding and health provide strong support for the notion that overcrowding has an independent effect on several dimensions of physical health. The evidence linking overcrowding to respiratory infections in children, including bronchitis and pneumonia, is quite strong. Similarly, rates of tuberculosis have been found to be higher for those living in overcrowded units. In addition, higher rates of meningitis have been found among children living in overcrowded housing units. And overcrowding has also been linked to mental health problems,
fixed-income seniors, particularly those who are mobility impaired, need ready access to public transportation, and are isolated from children or other support systems. The US Department of Housing and Urban Development and the US Department of Agriculture (through its Rural Development Housing Programs) are the largest supporters of subsidized apartment communities for seniors, which feature studio to 2-bedroom apartments, onsite management that can respond to problems and create a sociable environment, and amenities such as hair salons, libraries, and computer labs. DHIC has built 10 senior communities, where the average resident is a widowed female over the age of 70 with an income less than $20,000. DHIC partners with Resources for Seniors in Wake County to provide regular health screenings and other relevant programming to keep residents feeling healthier, safer, and less isolated.

Children’s HealthWatch has found that young children experiencing housing insecurity because of frequent moves or overcrowded homes are 50% more likely to be in poor health and are 70% more likely to exhibit developmental delays [1]. Safe, stable, and affordable rental housing for families can be difficult to find in a place like the Research Triangle, where sustained high population growth has increased competition for apartments that are close to employers and amenities. Affordable apartments for families are also the most difficult type of affordable housing for developers to build, as the cost of land and infrastructure improvements can require more subsidy than the public sector is willing or able to provide. The Federal Low-Income Housing Tax Credit has attracted significant investment from the private sector, but competition is fierce. Some communities also feel threatened by the placement of affordable family apartments in their communities and actively oppose these development projects.

What makes affordable housing, and thus healthier communities, possible? Collaboration among community residents and stakeholders, including health care providers, employers, and educational institutions, to ensure that affordable housing is included in community visions and plans; cooperation between affordable housing developers, public and private investors, social service providers, and neighborhood residents to ensure successful, durable, sustainable development; and a commitment on the part of policymakers to pay attention to the evidence that affordable housing pays off—and to increase available subsidies for it.

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including anxiety and depression, particularly among adult women [13].

Housing Conditions
Although there is no official federal or state definition of substandard housing, the Department of Housing and Urban Development provides a number of guidelines for determining what constitutes a substandard house. Factors that may make housing substandard include lack of indoor plumbing facilities, lack of heating or inadequate heating, lack of electrical service, lack of adequate sewage disposal, frequent water system breakdowns, lack of kitchen facilities, struc-

### FIGURE 1
Percentage of North Carolina Homeowners Spending More than 30% of Their Income for Housing Costs, by County

Note: Housing costs are the sum of homeowner’s mortgage payments, real estate taxes, insurances, utilities, and fuels. It also includes, where appropriate, condominium fees and mobile home costs. Source: US Census Bureau, 2006-2010 American Community Survey