

# FEBRUARY 2020

# FACT SHEET

## Social Determinants of Health: Food Access



Lack of access to fresh, healthy foods is associated with poor diets and higher levels of obesity, diabetes, and other negative health outcomes.<sup>1</sup> Thus, access to healthy food and food security are important social determinants of health components.<sup>1,2</sup> Referring to an individual or household as food insecure means they do not have the resources to provide enough food to live a healthy and active life.<sup>3</sup>

### Assistance Programs

Food insecurity in children is an area of concern as it may worsen the onset and persistence of adverse health conditions, such as cognitive developmental deficits, obesity, weakened immunity, and increased risk of serious illnesses. As a way to combat these issues, there are programs available to assist individuals and households with getting adequate food. Programs that provide healthy, affordable food result in fewer negative health outcomes and chronic illnesses among the population, especially when targeted towards children in need.<sup>4</sup>

**Free/Reduced Price Lunch** - One program available for students is the Free/Reduced Price Lunch program in schools. In North Dakota about 30.9% of students were eligible for a free/reduced lunch in 2017.<sup>5</sup> Based on the school year 2017-2018 income eligibility requirements, children in families at or below 130% of the FPL were eligible for free lunches at school and children in families at or below 185% of the FPL were eligible for reduced price lunches at school. These income eligibility requirements are adjusted every school year.<sup>6</sup>

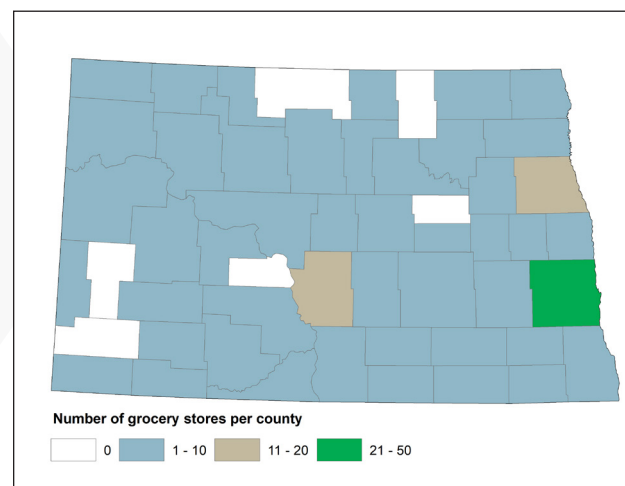
**SNAP** - Children of individuals that receive Supplemental Nutrition Assistance Program (SNAP) benefits that attend school automatically qualify for free school meals.<sup>7</sup> SNAP is a federal nutrition program helping individuals and families in need access healthy food. SNAP participation is associated with lower overall health care expenditures and Medicaid/Medicare costs for states. Early access to SNAP is also associated with improved birth outcomes and long-term health for children and adults.<sup>8</sup> Based on 2017 data, 7.0% of the population in North Dakota was receiving SNAP benefits.<sup>9</sup>

### Food Environment

**Grocery Stores** - Access to healthy food does not only depend on one's income, but also the food environment

in which a person lives. Ahern, Brown, and Dukas (2011) investigated the relationship between food availability and county-level health outcomes. In non-metro counties, more grocery stores and direct farm sales per capita were associated with lower mortality rates. Fewer fast food restaurants and convenience stores per capita were associated with lower rates of diabetes.<sup>10</sup> Fast food establishments do not always offer healthy food options that grocery stores and other food markets offer. In North Dakota, there are about 2.4 grocery stores per 10,000 North Dakota residents statewide but some counties have no grocery stores at all (Figure 1).<sup>11</sup>

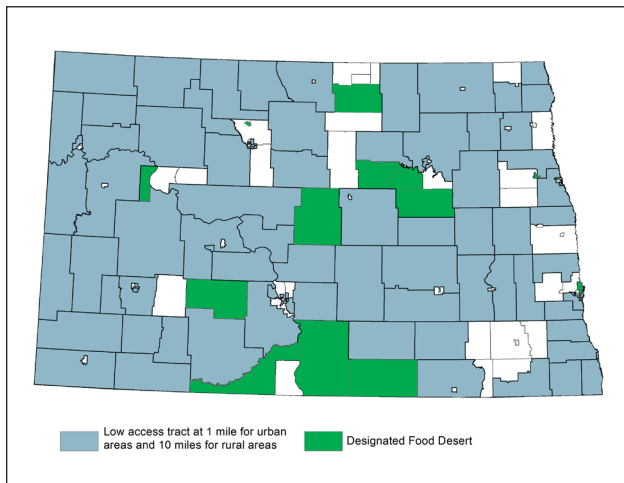
**Figure 1. Number of Grocery Stores per North Dakota County, 2016**



The U.S. Department of Agriculture (USDA) defines grocery stores as supermarkets and smaller grocery stores primarily selling food, such as canned and frozen food; fresh produce; and fresh and prepared meats, fish, and poultry. They do not include convenience stores with or without gasoline, or large general merchandise stores that also sell food.<sup>11</sup> According to the Food Access Research Atlas (2015), there are 112 census tracts in North Dakota where residents have low access to retail outlets selling healthy foods, with 373,109 residents living in those census tracts. For a census tract to be designated as low access, 500 people and/or 33% of the population in that census tract must be living more than 1 mile away from a grocery store in urban areas or more than 10 miles away from a grocery store in rural areas.<sup>12</sup>

**Food Deserts** - Another way to view the issue of food environments is by looking at food deserts. The U.S. Department of Agriculture (USDA) defines food deserts as geographical areas with limited access to a variety of healthy and affordable food. The USDA examines food deserts at the census tract level and those census tracts that are considered low access and designated as low income are considered food deserts.<sup>13</sup> There are 17 census tracts in North Dakota that are considered food deserts, with 56,724 North Dakota residents living in these census tracts (Figure 2).<sup>12</sup>

**Figure 2. Low food access and food desert designated census tracts in North Dakota**



### Conclusion

Issues regarding food access have been addressed by implementing programs that allow those with little access opportunity to healthy foods. Further, one's environment may play a role in access to healthy foods as food deserts prevent some North Dakota residents from accessing adequate food sources for their nutritional needs.

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