Missouri Economy Indicators
Food Access & Health

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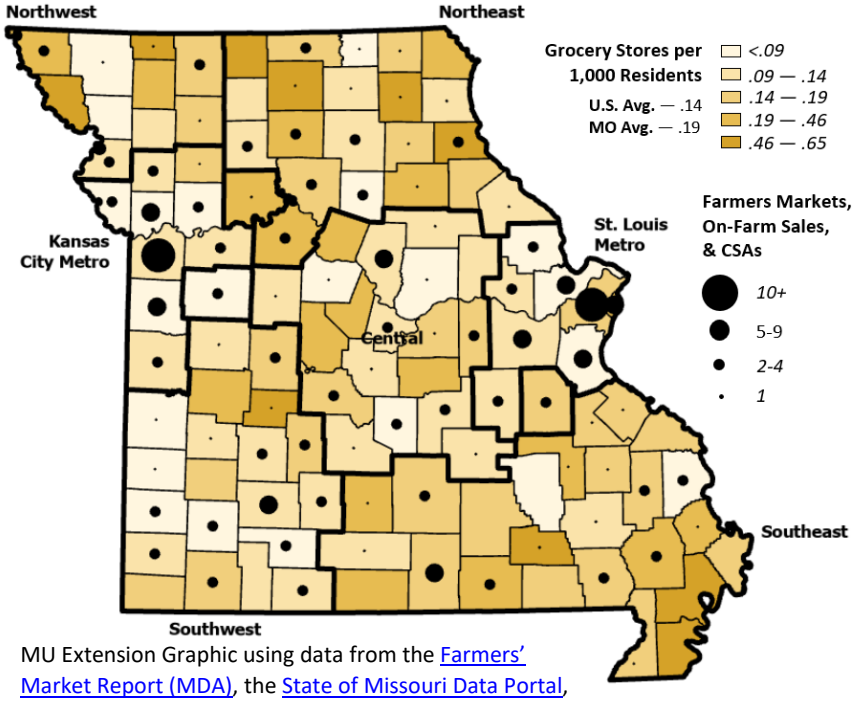
A significant number of Missourians lack access to fresh fruits and vegetables – approximately 88% eat fewer than five servings a day. Grocery stores, which offer the greatest variety of fresh produce, are distributed unevenly across the state and are typically more plentiful in densely populated areas. Many rural and urban residents only have one grocery store nearby, if at all, and may have to rely on convenience, corner or general merchandise (dollar) stores to meet their food needs. Often, this means people "make do" with limited options. Where few fresh food options exist, residents may rely on family, friends and neighbors to meet their nutrition needs; spend more time and money acquiring food; and consume lower quality food products.

Fresh Fruit and Vegetable Availability in Missouri

Rural Missouri contains 25% of the state's population, but more than 35% of its convenience stores and 40% of its dollar stores. These outlets stock fewer healthy food options, often at higher prices than grocery stores.

Many of the fresh fruits and vegetables grown in rural Missouri are consumed in metropolitan counties because farmers' markets, like grocery stores, cluster in densely populated areas. However, most Missouri counties (78%) have at least one farmers' market, on-farm seller or community supported agriculture (CSA).

Food Access in Missouri, 2023



MU Extension Graphic using data from the Farmers' Market Report (MDA), the State of Missouri Data Portal, and Lightcast estimates of payrolled business locations.

Missouri has a higher proportion of grocery stores than the national average, but roughly one of every 10 Missouri counties (9.6%) have one or fewer retail grocery outlets, and three do not have a single grocery store present. While availability plays a role in nutrition, affordability is also a factor. In counties where grocery stores are plenty, customers have options to shop around for the best price. Areas with limited grocery stores offer fewer options in both cost and quality of produce. Areas that contain a high percentage of both low-income residents and low food access are often referred to as "food deserts."

However, the food desert term has its limitations when understanding food access and its impact on chronic disease prevalence. Studies have found that the average American household does not shop for food at their closest available retailer and that access to a vehicle does not significantly impact shoppers' choice of outlet. The USDA Economic Research Service found that low-income residents in low access areas tend to shop near their workplace, rather than their home, and group several errands into one trip.

Chronic health conditions, like diabetes, are made worse by a lack of nutritious food and contribute to increased costs for Missourians and their employers. A 2013 CDC report estimated that diabetes-related absenteeism costs Missouri businesses $151.7 million annually (in 2023 dollars); absent employees cannot work and leads to a clear drain on productivity. Presenteeism – lost productivity when an employee is present but cannot work at full capacity – costs businesses another $889.9 million. Including healthcare costs, the total economic burden of diabetes to Missouri employers is estimated to be $2.46 billion annually.

According to the Missouri Department of Health and Senior Services (DHSS), an estimated 38,000 people are diagnosed with diabetes every year. The Behavioral Risk Factor Surveillance System (BRFSS) tracks diabetes and other chronic disease prevalence across the country with seven regions observed in Missouri. In 2019, the rate of diabetes in Missouri (10.3%) was a half point below the national rate of 10.8% (see chart).

Missouri BRFSS Regions	Diabetes Prevalence *(Adults 18+, 2019)*
United States	**10.8%**
Missouri	**10.3%**
Central	9.8%
Kansas City Metro	9.6%
Northeast	12.1%
Northwest	9.4%
Southeast	13.3%
Southwest	12.2%
St. Louis Metro	9.3%

Source: Missouri Department of Health and Senior Services

More recent data from 2021 estimated an increased rate of 11.3% of Missouri adults living with diabetes, slightly above the national rate for diabetes prevalence (10.9%). Southern states have higher rates than northern states; in Missouri, rural regions have higher rates of diabetes than their metro counterparts. For Missourians with diabetes, 90% report low fruit and vegetable intake (defined as eating fruits and vegetables less than five times per day), 91% are currently on high blood pressure medicine and 40% report physical inactivity.

To control or prevent diabetes, the Mayo Clinic recommends eating a diet rich in fresh vegetables, leafy greens and whole fruit to improve blood sugar, digestion and overall metabolic health. Along with exploring strategies to start or retain grocery stores in low access areas, community-driven food programs like the Senior Farmers' Market Nutrition Program and Double Up Food Bucks aim to increase the purchasing power of low-income Missourians while simultaneously supporting local food systems. These programs (and others like them) offer cash assistance to incentivize fruit and vegetable consumption and can be part of a strategy to reduce diabetes and other diet-related chronic disease.

Additional Notes and Resources

- Prevent T2 is a Diabetes Prevention Program offered by DHSS in collaboration with MU Extension to help participants learn healthier lifestyle habits by increasing their physical activity and eating healthier foods.
- ShowMe Foods is a food finder that matches local producers with individuals, schools, communities and businesses with healthier foods.
- All Things Food provides resources on affordable food access in Missouri.

All Missouri Economy Indicators briefs in this series are available at http://muext.us/MissouriEconomyIndicators

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