United Way of Olmsted County

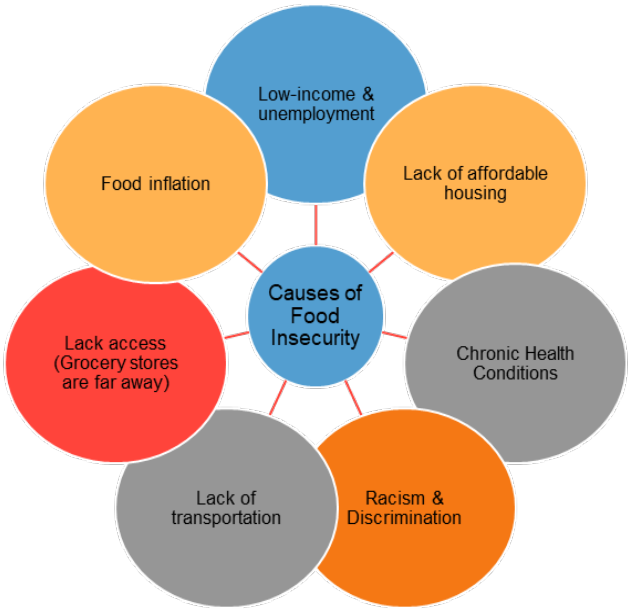
Food Matters:
Addressing Food Insecurity in Olmsted County

What is Food Insecurity?

Food insecurity is often referred to as *hunger*, but it is so much than the physical feeling someone has when they don't have food.

Food insecurity is defined as "limited or uncertain availability of nutritionally adequate and safe foods or limited or uncertain ability to acquire acceptable foods in socially acceptable ways" (USDA, n.d.). Food insecurity can take many forms including worry that food will run out, purchased food will not last, meal sizes are cut or a meal is skipped, family members eat less than they should or the family cannot afford a balanced meal (Anderson, 1990).

What Causes Food Insecurity?



Just as food insecurity can take many forms, it also has many interrelated causes. The ability to access and afford healthy, nutritious, and culturally relevant foods varies greatly depending on where you live, how much money you earn, your cost of living, and many other factors (Fig. 1). The COVID-19 pandemic reversed progress in food security made in the last 2 decades. This is especially true for people who were already struggling to make ends meet. Across Minnesota, visits to food shelves in 2022 increased by 55%, including a 39% increase in visits by seniors (Hunger Free Minnesota, 2023).
Moreover, stark disparities in financial stability are evident throughout Minnesota and Olmsted County. A far greater proportion of residents who are Black (25%), Indigenous (31%), or Hispanic/Latino (16%) earn incomes below the Federal Poverty Level compared to white residents (7%; U.S. Census 2021a). Consequently, members of these groups are also more likely to experience food insecurity.

Olmsted County has a higher median household income than the statewide average, but high income inequality as well. Racial and ethnic diversity are low within job sectors, resulting in racial and ethnic disparities in job type and wages earned. In southeastern Minnesota, healthcare support, social assistance services, food preparation, and retail are the most diverse and the most in-demand sectors but pay wages too low to meet the basic cost of living for the area. As a result, residents who are Black or Hispanic earn significantly less than residents who are white. Indeed, nearly 21% of Black households in Olmsted County earn incomes below the Federal Poverty Level (U.S. Census 2021a).

Housing affordability is a significant issue for residents, especially renters. The Rochester area is second only to the Twin Cities Metro in rental rates. As the cost of living has increased during the pandemic, many residents have seen housing costs increase dramatically. A recent analysis found that the average rent in Rochester increased by 45% since 2019 (Washington Post, 2023). In 2022, an estimated 45% of renters were cost-burdened in Olmsted County, paying more than 30% of their income in housing, and 35% of those were paying over 50% of their income in rent (DEED 2022).

In addition to racial and ethnic disparities, food insecurity disproportionately affects children and households with children. In Olmsted County, an estimated 5.0% of residents experienced food insecurity in 2021, including nearly 8% of children. Indeed, 66% of households enrolled in the federal Supplemental Nutrition Assistance Program (SNAP) program are families with children under 18 (US Census Bureau, 2021a). Unfortunately, persistent inflation on food prices has resulted in a dramatic increase in food insecurity. In 2022, the number of households visiting food shelves in Olmsted County increased by 64% compared to 2021, mirroring statewide trends (Hunger Free Minnesota, 2023).

Many people who experience food insecurity are not eligible or do not participate in federal nutrition programs. In Olmsted County, 26% of people who experienced food insecurity in 2021 were not eligible for federal food assistance programs such as the (Feeding America, 2021). The Emergency E-SNAP program that increased SNAP benefits for households during the pandemic expired in March of 2023. In other cases, the programs do not fully meet the needs of participants. Food assistance programs strive to meet the unmet need.

How Food Insecurity Affects Us

Food insecurity has real effects on Minnesotans' health, well-being, and financial stability. In 2022, Minnesota food shelf users reported having to choose between buying food or paying for utilities (38%), transportation (27%), housing (26%), or medical bills (20%).

Having enough healthy food is critical to many areas of a person's life including one's mental and physical health. Somewhat paradoxically, those who suffer from food insecurity may disproportionately suffer from obesity, possibly due to restricted access to low-calorie and high-fiber foods which tend to be more expensive than refined and processed food (Franklin et al., 2012). Adults that are food insecure have an increased risk for diet-sensitive chronic diseases such as hypertension, high blood pressure, and diabetes (Seligman et al., 2010). Food insecurity is also correlated with negative mental health outcomes such as depression, anxiety, and substance abuse (Jones, 2017).

Hunger and undernutrition have a significant impact on child development. Maternal undernutrition during pregnancy increases the risk of negative birth outcomes, including premature birth, low birth weight, smaller head size and lower brain weight (Gala, Godhia, & Nandanwar, 2016). A child that faces food insecurity during the first three years of life – a period of rapid brain development – faces increased chances of suffering from depression, anxiety, and hyperactivity (Melchoir et al., 2012). Prolonged or severe food insecurity during childhood is associated with poor school and social development (Compton & Shim, 2015); increased odds of a mental or substance disorder (McLaughlin et al., 2012); and a hindered ability to maintain friendships, control one's temper, and express sympathy (Howard, 2011).

In short, food-insecure adults are subject to significantly worsened physical and mental health risks, and face barriers to employment success, parenting success, and financial success. Hungry children are sick more often, and more likely to have to be hospitalized; hungry children suffer growth impairment that precludes their reaching their full physical potential; and hungry children incur developmental impairments that limit their physical, intellectual, and emotional development. Children facing hunger may struggle in school — and beyond. They are more likely to repeat a grade in elementary school, experience developmental impairments in areas like language and motor skills and have more social and behavioral problems. Due to the relationship between food insecurity, delayed and impaired cognitive development, and physical health challenges that lead to poor school attendance, food provision can be a meaningful lever in improving children's academic, health, and economic outcomes.

Disrupting Food Apartheid

Introduction

The term "food desert" historically has been used to define an area, especially one with low-income residents, that has limited access to affordable and nutritious food. To qualify as a food desert according to USDA definitions, at least 500 people and/or at least 33% of the census tract's population must reside more than one mile from a supermarket or large grocery store. For rural census tracts, the distance is more than 10 miles (Gallagher, 2011). Within Olmsted County, federally-designated food deserts are located in Rochester, concentrated in the Northwest and Southeast parts of town Grubb and Kirkpatrick 2021).

The designation "food desert" is incomplete and problematic because it describes a geographic location rather than a set of conditions that produce inequitable access to healthy food (Gabb & Kirkpatrick, 2021). The definition also assumes, incorrectly, that placing a grocery store in a "food desert" is all that is needed to alleviate food insecurity. Even in areas that are not federally designated food deserts, access to fresh fruit, vegetables, and other healthful whole foods can be challenging without a car or reliable public transport.

In rural locations, the unhealthy consumption habits and associated health outcomes attributed to can be interrupted by introducing grocery stores, but this has not been found to be the case in urban areas (Dubowitz, Ghosh-Dastidar, Steiner, Escarce, & Collins, 2013). This is speculated to be because, while in a rural area the lack of a grocery store means there are few or no alternative food-purchasing options, in an urban area the lack of a grocery store pushes individuals to purchase their food from fast food establishments and corner stores – both of which sell calorie-dense food of low nutritional value.

The eating and food environment in food swamps factors heavily in the health outcomes of people that live in them. Residents with poor access to healthy foods have less healthy diets (Gustafson et al., 2013), a higher risk of being overweight and obese (Cerin et al., 2011), and higher incidence of high blood pressure (Dubowitz et al., 2012),

which in turn contribute to chronic health issues like heart disease, stroke, and diabetes (WHO, 2017).

Disrupting food apartheid in urban communities is not as simple as introducing a grocery store – studies suggest that when there is an unhealthy food environment, a grocery store nearby has little effect on eating habits (Dubowitz et al., 2013; Fielding & Simon, 2011; Rose et al., 2009). Instead, strategies intending to increase access to wholesome, nutritional food in an urban setting often focus on health education strategies *(Reel & Badger, 2014)*, distribution systems (Widener, Metcalf, & Bar-Yam, 2012), or community-based interventions that improve access to fresh food in vulnerable populations (Ganann, Fitzpatrick-Lewis, Ciliska, & Peirson, 2012). For both distribution systems and community-based interventions, health education is a complementary component that can be incorporated into the program design. As noted above, simple provision of healthy alternatives does not automatically result in improved eating habits.

Distribution Systems

Market barriers often prevent full-service supermarkets from operating profitably in low-income neighborhoods. Fixed costs and space for high-margin items, among other things, result in grocery chains' preference for larger stores, which tend to be located in more affluent neighborhoods (Dunkley, Helling, & Sawicki, 2004). As a result of market barriers, market uncertainty, and crime, low-income neighborhoods tend to be served by smaller stores with poor selections and high prices (Dunkley et al., 2004; Jetter & Cassady, 2006; Raja, Ma, & Yadav, 2008). In short, neighborhoods with such barriers are unlikely to see conditions change without intervention. One way of disrupting these conditions – without opening a grocery store – is by establishing distribution systems that bring fresh produce into these neighborhoods. This can be done using established infrastructure such as incentivizing local markets to improve their healthy food selection, incentivizing other stakeholders to become food providers, or encouraging new partnerships that lead to either of those two results. There are also a number of strategies that have demonstrated success in changing eating habits and require no new infrastructure. These solutions are diverse: programs that distribute food to seniors and the convalescing, backpack-distribution programs, mobile markets, bulking purchasing programs, and many more. All these efforts focus on bringing healthy food options into an area that may not have previously had ready or affordable access to them but does not involve the creation of a place-based source of healthy foods.

Community-Based Access to Fruit and Vegetables

The most direct way to disrupt a food desert or swamp is to introduce a place-based source of healthy foods. As noted above, supermarkets often face challenges operating profitably in low-income neighborhoods. For this reason, community-based interventions are unlikely to be structured like a traditional supermarket. They may include job training or entrepreneurial components, such that the profit margin on the produce sold is not the sole source of program success or financial solvency – examples may include

programs that provide job training while producing or selling food. They may also involve community-mobilizing or socializing components, such that the food is not regarded by program clients to be the primary focus of the work. Place-based sources of healthy foods can be sustainable in the long run and if sufficiently successful (i.e., have a high enough rate of participation, affordable prices, and consistent and varied options), have the potential to eliminate a food desert entirely.

Successful Models

The New Jersey Healthy Corner Store Initiative uses existing stores to improve access to healthy food by working with corner-store owners to help them profitably stock, market and sell nutritious, affordable food items to their customers. Through the initiative, community partners provide retailers the tools they need to dedicate more shelf space to fresh foods and place signs and labels around the store that help their customers recognize healthier choices. The program is helping turns stores into greater community resources, yielding impressive results in both improving healthy food access and generating new local jobs (Ramos, Weiss, Manon, & Harries, 2015).

The WIC Farmers' Market Nutrition Program and the Senior Farmers' Market Nutrition Program are two efforts administered by the USDA's Food and Nutrition service. While farmers' markets have long accepted SNAP benefits (food stamps), the transition to a debit-card system made it difficult for open-air markets to continue accepting payments via public assistance. In 2009, efforts were made to introduce wireless point-of-sale devices to farmers' markets while at the same time expanding the program to accept WIC and senior benefits. In 2010, the program served 900,000 seniors, 2.15 million WIC recipients, and by 2011 over 40% of participating markets served one or more food deserts (USDA, 2011).

Buffalo Grown Mobile Marketplace uses a single truck to deliver organic, locally grown, affordable produce, diverse locally made food products, education and resources to Buffalo's low-income neighborhoods. Acquiring most of their produce from local farms as well as their own urban garden, MAP sends its mobile market to several locations across the city during the summer on different days of the week, with the goal of serving the least healthy food-insecure regions across the city. Using data from the medium-sized city of Buffalo, New York, results show that, with relatively few resources, the model increases these residents' access to healthy foods, helping to create a healthier city (Widener et al., 2012).

Fresh Food Here is a program sponsored by United Way of Central Ohio that works with store owners to increase their inventory of healthy foods and encourage healthy choices through partnerships. In return, stores receive coaching, specialized assistance, and free advertising (United Way of Central Ohio, 2017).

The BackPack Program is a national program supported by Feeding America that serves more than 450,000 children. The backpack program discreetly provides

nutritious, child-friendly, easy-to-prepare food to chronically hungry children. The food is distributed in ordinary backpacks students take home over the weekends and out-of-school times. School staff distribute them on Friday as kids head home for the weekend. On Monday, the backpacks return empty to school, where the volunteers pick them up in order to refill them for the next week. The backpack program is provided free of charge to the students. Children are chosen based upon eligibility for free and reduced price lunches as identified by the schools (Feeding America, 2017).

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Food Shelves and Food Banks

A food bank is a non-profit that distributes food to those facing insecurity. A food bank may distribute food directly to individuals, or it may operate as a 'warehouse,' supplying food to distributors such as food pantries, homeless shelters, schools, and soup kitchens. Food banks were established in 1967, but the distribution methods that they operate through were established much earlier (Feeding America, 2017a).

Why are Food Shelves Important?

In terms of scale and efficiency, it is hard to find a model that can put more food in the hands of people at a lower cost. The food distributed may come from public donations, government programs, or by partnering with for-profit companies to distribute unsold food which would otherwise go to waste. In other words, outside of tax dollars and administration, the food distributed by a food bank doesn't cost anything. Food banks often rely on volunteer labor, as do many of their distribution partners, which serves to keep administrative costs low.

Food banks serve over 3.6 billion meals a year, serving 1 in 7 Americans (Feeding America, 2017b). The network connecting food suppliers, food banks, and distributors is both well-established and formalized, with over 200 banks and 60,000 programs included in the Feeding America network, America's third-largest charity (Barrett, 2016). In terms of addressing food insecurity, food banks are nearly as influential as the federal assistance programs, SNAP and WIC (formerly referred to as food stamps). Food banks served 49 million individuals in 2022 (Feeding America, 2017b) while SNAP and WIC serve 44 million and 8 million individuals respectively (United States Department of Agriculture Food and Nutrition Service, 2017a, United States Department of Agriculture Food and Nutrition Service, 2017b)[1]. Most individuals that utilize food assistance programs, such as food pantries, do not treat them as temporary relief but use them as a consistent, supplemental food source. More than half of all food pantry clients use food pantries for at least six months out of the year, and more than a third use them twelve months out of the year (Echevarria, Santos, Waxman, Engelhard, & Del Vecchio, 2009). In short, food banks and their partners are essential components of society's response to domestic hunger.

Why are Other Types of Food Provisioning Programs Important?

While the food bank model has been hugely successful over the last 50 years and continues to be a key model for addressing food insecurity, the traditional model did not address issues of culture, education, fresh produce, or accessibility. Within the Feeding America network itself, there has been an acknowledgement of these issues. There is a push for innovative program solutions to these challenges, such as through the backpack program, mobile food pantries, awareness programs, and community kitchens (Feeding America, 2017c).

[1] A number of food bank meals are collected by SNAP recipients: in 2016, 200 million (out of 4 billion) meals distributed by food banks were SNAP meals (http://www.feedingamerica.org/our-work/our-approach/)

Successful Food Bank Models

Good Shepherd Food Bank is a warehouse-style food bank in Maine, with a total of three different warehouses. The agency has over 600 partner agencies and serves nearly 200,000 Mainers each year, reaching every county in the state (Good Shepherd Food Bank, 2016).

The Banquet is an on-site meal program (soup kitchens) in Sioux Falls, SD, that serves over 600 meals a day – or in total, 196,000 meals a year. The food is donated and purchased by volunteers, and all meals are served by volunteers ("The Banquet," 2017).

The Burlington-Hampshire Area Food Pantry has been serving the community of Hampshire, Illinois for over 30 years. The pantry provides non-perishable food to church members as well as residents of the local community. Donations, sorting, stocking, and distribution is done by an all-volunteer staff from 11 churches and 4 businesses, as well as local community members ("Burlington-Hampshire Area Food Pantry," 2017).

In terms of scale and efficiency, it is hard to find a model that can put more food in the hands of hungry people at a lower cost. The food distributed may come from public donations, government programs, or by partnering with for-profit companies to distribute unsold food which would otherwise go to waste. In other words, outside of tax dollars and administration, the food distributed by a food bank doesn't cost anything. Food banks often rely on volunteer labor, as do many of their distribution partners, which serves to keep administrative costs low.

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Culturally Responsive Food Strategies

What Is Culturally Responsive Food Provisioning?

Culturally responsive or *culturally relevant* are terms made popular by Dr. Gloria Ladson-Billings in the early 1990s and are most often seen in reference to teaching and classroom environments. Culturally responsive teaching "empowers students to maintain cultural integrity, while succeeding academically (Ladson-Billings, 1995)." United Way has adopted this phrase to refer to food provision, such that 'culturally responsive food provision empowers individuals to maintain culturally integrity while accessing nutritional supports.'

Cultural responsivity in food provisioning can manifest itself in various ways: the provision of culture-specific foods, culturally responsive distribution methods, or even culture-specific education around food. Often, this is carried out by making adaptations to existing services, though it can sometimes include the launch of new service areas.

Why is it Important?

From a systems perspective, programs that provide food-based interventions are more efficient if the food is consumed by the individuals receiving it. If the food being provided is not culturally relevant or acceptable – due to personal taste preference, knowledge on how to prepare the food, dietary restrictions, or religious restrictions – individuals may not use the food provided to them and will instead seek out more preferred food by other means. This redirects household resources that may have gone to other expenses had the food intervention been culturally relevant.

Food distribution and intake methods that are not culturally responsive may also disincline potential clients from enrolling in or fully utilizing a food support. For example, individuals from high-context[2] cultures may not desire to participate in a program in which distribution is public or screening is intrusive (Koc & Welsch, 2001), and individuals from cultures with a large stigma on accepting outside assistance may be reluctant to participate in food provision programs at all.[3] Under the Trump administration, many immigrants have begun to decline food assistance for fear that the intake process will lead to deportation (Fessler, 2017).

As America becomes increasingly diverse, cultural competency becomes more important to ensuring that social and human services are optimized to serve their client population. In the year 2000, 11% of the US population was foreign-born (US Census Bureau, 2000), compared with an estimated 14% in the year 2016 (US Census Bureau,

[2] Cultures that rely heavily on context and in which meanings are implied. Direct questions, especially those of a sensitive nature (here, regarding financial instability), can often be uncomfortable for individuals from high-context cultures.

[3] Seniors and the working poor are two populations that significantly underutilize food assistance, and the USDA speculates that these two groups are especially susceptible to stigma (Kauff et al., 2014). Even though these are not culture-based populations, it may be relevant if one considers intersections of identity that are particularly susceptible to underutilization of food resources.

2016a). Locally, 60% of Rochester's population growth between 2000 and 2010 has been persons of color or Hispanics, and 97% of net migration since 2000 has been international (Wheeler, 2013).

Poverty disproportionately affects People of Color, with 25% of African-Americans and 16% of Latinos living in poverty in Olmsted County (US Census Bureau, 2021a). Because food insecurity is so intricately linked to income, minority and non-native populations are disproportionately food insecure. On the national level, African Americans and Hispanics have higher than average rates of food insecurity (Coleman-Jensen, Nord, Andrews, & Carlson, 2012). According to a survey of Minnesota food shelf and on-site meal program clients, American-Indian, African-American/Black, and Hispanic/Latino individuals are over-represented when compared to US Census Bureau population estimates (Chase & Schauben, 2006). Locally, over 50% of food shelf users are identified as non-white (according to program-level reporting), compared to US Census Bureau estimates of 18% in Olmsted County (US Census Bureau, 2016b). In Olmsted County, non-US born residents are twice as likely as their native-born counterparts to worry about running out of food (Olmsted County Public Health Services, Olmsted Medical Center, Mayo Clinic Rochester, 2016). While many of these are estimates based on race, culture is often tied to race. In order to best serve the populations that are facing food insecurity and are utilizing food resources, it seems ideal to adopt approaches that are culturally relevant to these populations.

Maintaining the Healthy Immigrant Effect

Upon arrival, immigrants usually have fewer chronic conditions compared to the native-born population (Sanou et al., 2014). This is widely attributed to selection effects – immigrants must undergo medical screening, and those with major health problems generally do not emigrate. However, immigrants tend to experience deteriorating health status after settling in a new country. Some of this can be traced to dietary changes – many traditional diets contain fewer carbohydrates (Pomerlou, Ostbye, & Bright-See, 1998), rely more heavily on fruit and vegetables (Satia et al., 2001), and contain healthier sources of protein (Dhaliwal, 2002) than typical Western diets. The extent to which culture-specific food and cooking equipment are available can be barriers to maintaining a traditional diet (Johnson & Garcia, 2003), as can an individual's socioeconomic status (Delisle, 2010; Satia et al., 2001) – fresh fruits and vegetable, as well as imported ethnic foods, tend to be more expensive than processed and shelf-stable Western food. In many instances (depending on the cuisine in question), immigrants who maintain their traditional cuisine continue to have better health outcomes than their native-born peers (Satia et al., 2001).

Maintaining Cultural Identity

Food is a major component of one's cultural identity. Specific foods carry meaning with them, such as a Thanksgiving turkey or Ramadan dates. Gathering around food is common across cultures – we see this with summer cookouts, s'mores over campfires, and Passover Seder. There are fasting traditions across numerous religions, along with religion- and culture-based food taboos. There are even social norms based around food, such as bringing hot food to the recently bereaved. When someone lives in poverty, these cultural practices can be lost. Specialty foods may be unavailable or unaffordable. Community kitchen and mealtimes may fall during times traditionally reserved for fasting. Even daily food traditions become disrupted with poverty – individuals working long, or late hours often find that they are unable to eat at traditional times or spend the time and effort needed to cook traditional meals. In many cultures, there are important aspects to the production, sale, and consumption of food that are lost in the Western tradition of shopping in supermarkets and preparing food for a single family. When food provision is culturally responsive, these identity markers can remain in place for both individuals and communities.

Successful models

Sacramento Native American Health Center is a community-owned and operated nonprofit located in downtown Sacramento. The organization serves more than 5,000 patients representing over 200 tribal nations. The center uses a multigenerational approach and collaborates with American Indian owned business and community partners to offer community and home gardens. The initiative views culture and prevention, and traditional eating as health. Historical trauma and its relationship to food choices, as well as the utilization of traditional planting and harvesting methods put culture in the center of the work ("Healthy Active Native Communities," 2017).

Syrian Supper Club, in which Muslim women from Syria and Iraq prepare elaborate feasts for American hosts. When the participants come together to eat the meal, the result is part cultural exchange, part fundraiser. Each dinner guest pays $50 which covers the cost of the meal, with the remainder going to the cooks. The refugee women use the dinners as opportunities to meet their new neighbors, learn more about American culture, and boost their household income at a time when resources are scarce. For the American participants, the event is largely about cultural exchange and contributing to a cause important to them ("Syrian Supper Club," 2016).

Vida Saludable was a two-phase intervention delivered over 9 months to low-income Hispanic mother-child pairs. The first part of the project was educating the mothers on healthy drink choices for their children, the importance of physical activity for both mother and child, and the importance of providing a health role model for their children. The second part of the project involved bringing the mothers together in community settings to reinforce healthy behaviors, including visits to grocery stores, fast food restaurants, a park, a community walk, and a cooking class. The education and community components were delivered bilingually and designed to be culturally-

relevant. Healthy behaviors were adopted readily by the group, and the majority continued those behaviors in follow-ups (Bender, Nader, Kennedy, & Gahagan, 2013).

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