



Food Security

A COMMUNITY DRIVER OF HEALTH

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About this report

In February 2020, a Health Policy Leadership Summit was held in Washington, D.C., where experts in the fields of public health and health care discussed research and analyses on economic and social conditions that influence health. Experts also discussed evidence-based policy opportunities to improve the health of communities. This paper represents food and health discussions at the 2020 Policy Leadership Summit and subsequent updates made by the authors in 2020 and early 2021.

The views and opinions expressed herein do not necessarily represent the official views of the summit sponsors and should be attributed to the authors rather than to American Public Health Association, AcademyHealth, or Kaiser Permanente.

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Summary

Food insecurity – the lack of access to affordable and healthy foods – is an enduring problem that the coronavirus pandemic turned into a national emergency. The number of food-insecure households doubled in 2020 and the crisis persists today. In 2021, 42 million people, including 13 million children, are predicted to experience food insecurity.¹

In the U.S., communities of color and indigenous people are more likely than white people to experience food insecurity. Black and Latinx households are 50% to 60% more likely than white families to lack access to affordable and nutritious foods. Rates of food insecurity are even higher among Native American and Native Alaskan families – groups who also experience higher rates of poverty. In 2019, food insecurity reached 90% among some indigenous people, such as those living in the Klamath Basin in Northern California and Southern Oregon.² Overall, Black, Latinx, Asian, and Native American people living in low-income communities pay more for food, travel farther to access it, and have fewer healthy choices.

Researchers have studied the health effects of food insecurity and poor nutrition for decades. Children who miss meals have trouble concentrating in school, demonstrate more behavioral and social problems, and are at risk for falling behind in the development of their language and motor skills.³ Seniors who lack access to healthy foods are more likely to suffer from depression and chronic diseases such as obesity, diabetes, high blood pressure, heart disease, asthma, and gum disease.⁴

Federally funded food assistance programs, such as the Supplemental Nutrition Assistance Program (SNAP) and the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), are beneficial to many people's health and are in high demand. The United States Department of Agriculture (USDA) administers 15 nutrition assistance programs that serve one in four Americans annually. To increase participation of eligible households and address food insecurity, administrators and regulators of these programs can streamline outreach and enrollment procedures, coordinate eligibility across benefit programs, and include culturally appropriate foods when trying to address food sovereignty and health equity.

The pandemic has brought new visibility to national, regional, and community-based organizations that address food insecurity and hunger as a health, economic, cultural, and racial justice issue. Cities such as Detroit, Milwaukee, Minneapolis, Philadelphia, and several Native American communities are increasing the availability of fresh produce and healthy and culturally appropriate food (e.g., farmers markets, farm-to-table, community gardens). Health systems and provider groups are also acknowledging the connection between patient health and food access by supporting food assistance programs and providing medically tailored meals, among other interventions. All of these efforts benefit food insecure populations and build an economic base for food suppliers, distributors, and other small businesses.

Advocates and policymakers are pursuing a range of strategies to change our national food system in ways that can increase the availability of affordable, accessible, nutritious, and culturally appropriate food from sustainable sources. Food insecurity has clear health impacts, and there are structural and systemic factors that have created racial and health inequities. A variety of policy approaches can address food insecurity and reduce these inequities.

The prevalence of food insecurity and influencing factors

Food insecurity is a national economic and health emergency. The USDA estimated that 11.1% of U.S. households were food insecure at some point in 2018, meaning they lacked access to enough food for an active, healthy life.^{5,6} In April 2020, rates of food insecurity doubled to nearly one in four households (22.7%), and by the end of the year, roughly 45 million people experienced food insecurity.^{7,8} A national nonprofit organization, Feeding America, projects a slight decrease in these numbers in the near future – estimating that 42 million people (one in eight), including 13 million children (one in six), may experience food insecurity in 2021.⁹

In the Healthy People 2030 social determinants of health framework, food security is classified as a component of economic stability.¹⁰ Economic factors influence several dimensions of food security, including accessibility, availability, and food quality. These aspects of the food system are influenced by existing federal policies that are rooted in structural discrimination and racism. Understanding food insecurity requires an understanding of historical policies that address affordable housing, home ownership, wealth accumulation, and employment practices.

Affordability as a barrier to food security

Affordability of food refers to the money spent by households as a percentage of their total income. The USDA estimates that families spend 10% to 20% of their income on food, and the pandemic has had a significant impact on food supply and spending. Retail food prices were higher in November 2020 than in 2019 for all food categories, putting financial pressure on U.S. households without a corresponding increase in wages.¹¹



Economic security

The connection between food insecurity, income, and poor physical and mental health is well studied and documented. Many households will cut back on food spending in order to pay for rent, medicine, and other bills. In aggregate, individuals living under 138% of the federal poverty level (approx. \$30,000/year for a family of three) are 60% more likely to experience food insecurity. Recent survey data indicates that people who report any level of food insecurity are five times as likely to report poor physical health and four times as likely to report poor mental health.¹²

Growth in unemployment during 2020 left millions of Americans unable to pay for basic necessities. As many as 17.1 million additional people may have become food insecure as a result of the pandemic's effect on unemployment, with a disproportionate impact felt by communities of color.^{14,15}



Food banks and food pantries

Given affordability challenges, food banks and food pantries play an important role in meeting immediate needs. Nearly 24 million people live in low-income areas across the country where affordable, high-quality foods are not available, including rural, urban, and suburban areas, as well as Native American reservations.¹⁶

During the pandemic, food insecurity drove more Americans to seek assistance from food banks, most often because they lost their jobs and their state and federal benefits were delayed or exhausted. As of June 2020, over 82% of food banks in the U.S. were serving higher volumes of people than the previous year, averaging a 50% increase in volume.¹⁷ This increase in demand is expected to persist beyond 2021 due to the economic consequences of the pandemic.

Access and availability as a barrier to food security

People who have limited access to grocery stores and food retailers that sell fruits, vegetables, whole grains, and other nutrient-rich food options have a much harder time maintaining a nutritious diet. Census information reveals that lower-income tracts have 50% fewer supermarkets and 30% more convenience stores than wealthier tracts. Further, the data indicates that lower-income tracts are disproportionately where people of color live. Improving access to nutritious foods increases healthy eating habits. A 2010 multi-state study indicated that for every additional supermarket in a census tract, consumption of produce increased 32% for Black Americans and 11% for white Americans.¹⁹

People who live near grocery stores or retailers that sell fresh produce (e.g., supermarkets, grocery stores, farmers markets) have lower rates of dietary-related diseases than their counterparts in neighborhoods without healthy food options (e.g., corner stores, fast food restaurants). Studies show that the food people purchase is influenced by proximity. For example, people who live near fast food restaurants and convenience stores are more likely to purchase these foods and therefore suffer from diet-related diseases such as obesity, diabetes, and chronic conditions.²⁰

Redlining and zoning laws are two key influences on the presence of health inequities in food access and availability.



The practice of redlining

As part of the New Deal in the 1930s, a federal program called The Homeowner Loan Corporation (HOLC) was created to assist the public in financing home ownership across the country. As part of this charge, HOLC created maps and a scale of rating neighborhoods based on their perceived investment risk. This scale ranged from “best” to “hazardous,” with hazardous neighborhoods highlighted in red. The presence of Black residents resulted in a lower rating, while all white, largely suburban communities received favorable ratings. Consequently, many neighborhoods with predominantly Black residents were deemed hazardous and redlined. As a result of this rating system, Black individuals and families were denied home mortgages based on a perceived investment risk.

Redlining, combined with other discriminatory practices, such as housing covenants and restrictive zoning, contributed to white families and businesses moving to the suburbs. Subsequently, grocery stores also relocated to the suburbs, leaving a dearth of food options in urban areas. It was not until 1968 that Congress passed the Housing Rights Act, prohibiting discrimination in housing sales and rental properties based on race and ethnicity. Despite this policy change, urban communities had long been deprived of resources, including grocery stores with fresh produce, retail stores,^{21,22} and a coordinated public transit system that connected communities.



Reshaping neighborhoods through zoning laws

Local and national authorities apply zoning laws to regulate and control land and property to ensure complementary uses that follow a broader community plan. Zoning laws shape neighborhoods and the food environment by creating opportunities that stimulate or slow down development. Historically, local governments used zoning laws to protect white neighborhoods from industrial plants, utilities, and other polluters. Industries instead located their plants near communities of color, which were not protected by zoning restrictions, and this resulted in many adverse health outcomes.²³ These zoning laws, coupled with white flight to the suburbs, created a lack of grocery stores in communities of color. Therefore, existing zoning laws play an important role in shaping access to and the availability of fresh, nutritious food in these neighborhoods.

Today, advocates are working to reshape under-resourced neighborhoods through zoning interventions that promote public health and the public interest. Some public health agencies are working in partnership with local elected officials, businesses, schools, and other community stakeholders to change zoning laws to reduce the number of liquor and tobacco sales and increase gun-free zones near schools. Another approach is to minimize access to low-nutrient food sources by restricting the number of fast-food restaurants permitted in an area, specify times of operation, and define distances from public places such as schools and parks. A growing number of local jurisdictions have established zoning protections for farmers markets and community gardens to expand nutritious food options available to residents, support local farmers, create places for communities to gather, and revitalize neighborhoods. This is a positive step toward redesigning neighborhoods in a manner that actively supports overall health.

Food security policies and programs

Building a healthy, sustainable, and equitable food system in the U.S. will require collaboration at the intersection of public health, health care delivery systems, community-based organizations, local businesses, and the food industry.



Supplemental Nutrition Assistance Program

The Supplemental Nutrition Assistance Program (SNAP) is the largest nutrition program administered by the USDA and has long served as the main safety net defense against hunger, as well as poverty relief. Before the pandemic, researchers estimated that half of all American children would receive SNAP at some point during their childhood, while half of adults will receive SNAP at some point between the ages of 20 and 65.²⁴

SNAP has proven to be effective in increasing food security, improving health outcomes, and lowering health care costs while stimulating local economies.²⁵ SNAP reduces the overall prevalence of food insecurity by as much as 30%, and among children, food insecurity falls by roughly one-third after families received SNAP benefits for six months.²⁶

Perhaps the most notable pandemic-driven SNAP provision is the emergency allotment rule, which enables states to provide all SNAP participants with supplementary benefits up to the maximum benefit amount. SNAP has also piloted programs that enable online food purchasing (including take-out and delivery), making it easier to redeem benefits despite transportation barriers and physical distancing protocols.²⁷

Given the rate of unemployment during the pandemic and its disproportionate impact on people of color,²⁸ advocates highlight application assistance as key to improving equity and responding to the economic crisis caused by the pandemic. Studies before the pandemic showed that application assistance, combined with awareness and information reminders, raised SNAP enrollment by 12%.²⁹ Further, people living with high health needs, especially those receiving Medicaid and Medicare benefits, are under-enrolled in SNAP.³⁰ This highlights the importance of increasing enrollment rates among eligible parties.

Advocates also highlight the need for increased levels of benefits during and after the pandemic, seeing this as a unique opportunity to increase program flexibility and responsiveness. Prior to the pandemic, SNAP advocates pushed legislators to build on the program's economic stimulus effect by boosting maximum benefits by 15%.³¹ In 2021, Congress included this provision in the American Rescue Plan, with an increase in benefits lasting until September 2021.

The Farm Bill authorizes most federal policies surrounding food and agriculture, including SNAP. It was most recently renewed in 2018 and is up for renewal in 2023. Advocates are already working to influence the bill's focus on addressing existing disparities and improving enrollment.



Special Supplemental Nutrition Program for Women, Infants, and Children

Women and children are especially vulnerable to food insecurity and its health consequences. In 2019, food insecurity rates for households with children headed by a single mother were especially high at 30.3%, or nearly one in three.³²

The Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) aims to address this need by providing federal grants to states for supplemental foods, health care referrals, and nutrition education for low-income pregnant, breastfeeding, and non-breastfeeding postpartum women, and to infants and children who are at nutritional risk. WIC serves 53% of all infants born in the U.S. and covers children up to five years old.³³

Studies indicate that WIC is one of the nation's most successful and cost-effective nutrition intervention programs. Every dollar spent on WIC results in fewer premature births, lower incidence of moderately low and very low birth weight infants, fewer infant deaths, a greater likelihood of receiving prenatal care,

and savings in health care costs from \$1.77 to \$3.13 within the first 60 days of birth.³⁴ WIC also results in improved diet and diet-related outcomes, improved infant feeding practices, increased immunization rates, improved child cognitive development, and improved preconception nutritional status – a determinant of birth outcome.

WIC is a critical element in delivering essential resources to mothers and children of color. Latinx and Black women and children have significantly higher eligibility rates in comparison to the overall U.S. population, and WIC served over 1.8 million Black individuals and nearly 1 million Native American and Alaska Native individuals in 2016.³⁵

Despite the benefits of this program, fewer than half of families eligible for WIC participate in the program.^{36,37} Prior to the pandemic, enrollment and recertification requirements such as in-person interviews and collection of documents presented barriers to participation.^{38,39} Other deterrents included negative clinical encounters, such as long wait times or reported poor customer service, language barriers, loss of time away from work, transportation costs, and difficulty redeeming benefits.⁴⁰ Another key barrier to enrollment is a lack of awareness about the program.⁴¹ Outreach to eligible participants has resulted in greater Medicaid enrollment, which shares categorical eligibility with WIC.⁴²

Health care leaders are working to increase the effectiveness of outreach, such as providing enrollment assistance remotely (e.g., telehealth or toll-free numbers), utilizing outreach workers in clinical settings to help screen and refer individuals to local services, and integrating health services, such as pediatric and other clinical care, with WIC social services to facilitate coordination.⁴³



Child nutrition programs

In 2020, 15 million children experienced food insecurity.⁴⁴ Meals distributed through schools or childcare centers typically fulfill nearly two thirds of children’s daily nutritional needs.⁴⁵

The CARES Act included \$8.8 billion in funding for food purchases and demonstration projects to increase flexibility for schools and ensure children could receive meals while schools were closed. USDA waivers and supplemental expansions in child nutrition programs enabled innovations in school meal delivery. In addition, non-congregate feeding waivers allowed schools to provide meals in non-group settings; mealtimes and meal pattern waivers enabled meals to be served outside traditional times to allow for grab-n-go options; and area eligibility waivers allowed summer meal programs to be available to children, regardless of where they live.

These waivers provide key flexibilities and alleviate barriers to food security that existed prior to the pandemic. As schools return to full capacity, the Food Research and Action Center (FRAC) recommends restructuring lunch time and expanding accessibility to school meals through innovative service models, particularly with a focus on reducing cost burdens for students and families.⁴⁶

The American Families Plan is a proposal introduced by the Biden administration in April 2021. It includes a number of provisions to address childhood hunger and nutrition: expanding summer electronic benefit transfer (Summer EBT) to all students eligible for free and reduced school meals during the year,

providing \$1 billion for a healthy foods initiative, and increasing the number of schools who qualify for community eligibility, which grants all students access to free meals.⁴⁷



Pandemic-Electronic Benefits Transfer

The Pandemic-Electronic Benefits Transfer (P-EBT) program added benefits for families with students who are eligible for free or reduced-price school meals, equal to the value of school meals during closures. Congress also expanded P-EBT to include children impacted by childcare closures, basing eligibility on a household's enrollment in SNAP. Advocates called for expanding and extending these benefits – specifically, sustaining current expansions for a longer time and including adults and individuals with disabilities in the P-EBT exemption. The American Rescue Plan Act authorized P-EBT during summer months and extended it through the duration of the COVID Public Health Emergency. There is compelling evidence surrounding the benefits of such expansions. After each state issued payments, child hunger fell by about 30%, reducing the number of hungry children by an estimated 2.7 million.⁴⁸

Health care opportunities to support food security

Many health care providers are thinking differently about how to address food access and affordability issues in the communities they serve. With the intention of preventing disease, improving health outcomes, and reducing health care costs, providers are reimagining how to both screen for and deliver nutritionally rich foods to resource-constrained individuals and families.



Medically tailored meals and home-delivered meals for at-risk populations

Providers and payers are implementing innovative and integrated ways to ensure that their members have access to nutritious foods, especially for those with limited mobility and chronic disease. This approach has taken on many forms, including the launch of a bipartisan Food is Medicine Working Group in the House of Representatives in 2018. Members of the group introduced the Medically Tailored Home-Delivered Meals Demonstration Pilot Act of 2020. Medically tailored meals (MTMs) are delivered to individuals living with severe illness through a referral from a medical professional or healthcare plan. Meal plans are tailored to the medical needs of the recipient by a Registered Dietitian Nutritionist, and are designed to improve health outcomes, lower the cost of care, and increase patient satisfaction.⁴⁹

Providing access to nutritious food through MTMs could drastically improve the health of those most vulnerable to food insecurity – chronic disease patients, low-income individuals and households, and resource-deprived racial and ethnic minority communities. A growing body of research indicates that the use of home-delivered MTMs improve health and reduce avoidable health system utilization and costs. Home-delivered meals help alleviate food insecurity, providing nutritional stability for low-income adults and high convenience via home delivery. For older adults (ages 65+), home-delivered meals have been shown to significantly improve dietary intake, decrease malnutrition, and increase overall well-being and food security.^{50,51} Hospital stays increase food anxiety among older adults, but home-delivered meals after discharge significantly decrease these levels of anxiety.⁵²

Providing MTMs in hospital settings have also been found to be effective. For example, access to MTMs lowers hospitalizations and improves health outcomes. Those with access to MTMs are 23% more likely to be discharged to their homes (rather than another facility) and experience 50% fewer hospital admissions, as well as a 16% reduction in medical spending.⁵³ In addition, MTMs provide purchasing power through cost-savings for patients. Both MTMs and home-delivered meals are associated with lower monthly health care expenditures, with gross savings of \$570/individual for MTMs and \$156/individual for home-delivered meals, and reduced Medicaid and Medicare costs.⁵⁴



Prescriptions and subsidies for fresh produce

Providers are uniquely positioned to understand their patient's nutrition needs, especially those living with or at-risk for chronic health conditions. In these cases, providers can prescribe vouchers or targeted financial assistance for discounted or no-cost produce.

Prescriptions can be redeemed at retail grocers, farmers markets, or within Community Supported Agriculture programs. This approach not only increases individuals' and families' purchasing power and autonomy, but also supplements and extends existing food security programming and supports local food retailers. Produce prescriptions through health providers can improve overall health. For example, diabetes patients receiving produce prescriptions were found to have significant baseline hemoglobin A1c reductions after 1 year.⁵⁵

SNAP produce incentives, which provide additional resources for recipients to spend at farmers markets, are another approach to subsidize healthy food access. An analysis of SNAP produce incentives estimated that of 14.5 million SNAP participants, produce incentives over 5 years would prevent 38,782 cardiovascular disease events, gain 18,928 quality-adjusted life years, and save \$1.21 billion in health care costs.⁵⁶ While there is some evidence that these programs can be effective, more research is needed to understand the best intervention and build the business case for health care.

Increasing purchasing power, and therefore consumer demand, creates the potential to re-orient distribution models in the food system to provide nutritional value in a more equitable and culturally appropriate way. Fresh produce incentive models provide a roadmap for collaboration among public agencies, community-based organizations, hospitals, philanthropies, social investors, and other key stakeholders to implement food assistance programs across a variety of settings.

Policies to improve community access to healthy food

Providing access to foods that support healthy eating patterns is a key factor in addressing food insecurity. Approximately 23.5 million people live in low-income areas across the country where affordable and high-quality food is not attainable.⁵⁷ Limited access to grocery stores and affordable food retail stores that sell fresh produce and other nutrient-rich foods makes it challenging for many people to establish healthier eating patterns. Researchers have found that communities that lack access to healthy food retail face increased risks of obesity and diet-related diseases.



Healthy food financing initiatives

Healthy food financing initiatives (HFFI) are public-private partnerships designed to improve access to nutritious food in underserved areas. HFFI provide food retailers the resources needed to overcome higher costs and initial barriers to selling fresh produce to underserved areas. Traditionally these funds are provided by local, state, and federal government entities and managed by a Community Development Financial Institution. The latter leverages private capital and makes loans and grants to projects slated for low-income areas that lack access to healthy food retail. HFFI has expanded the availability of nutritious foods in grocery stores, small retailers, corner stores, and farmers markets.

The federal HFFI program has leveraged more than \$220 million in grants and an estimated \$1 billion in additional financing. The initiative has supported nearly 1,000 healthy food retail projects in more than 35 states across the country, improving access to healthy food, creating jobs, and revitalizing economies by attracting new development.⁵⁸

Future policy opportunities and actions

While food insecurity is a complex, long-standing problem in the U.S., the pandemic has provided greater visibility to this issue and garnered public support for addressing barriers to food access and affordability.

Because food insecurity has a disproportionate impact on low-income and communities of color, it is essential for all solutions and interventions to center around the needs and values of these individuals, families, and communities. Ultimately, greater economic security is needed so that fewer people require food assistance. For those who do need assistance, advocates discuss the importance of expanding eligibility criteria for nutrition programs and making the application process easier to navigate. There are many opportunities for building evidence and developing robust, root-cause, and cross-cutting solutions.

This paper highlights several approaches that can help remove structural barriers to obtaining healthy food. Health care leaders, policymakers, and advocates are working to promote innovations and reforms, including those introduced during the pandemic, that prioritize high-risk communities and households and reduce long-standing inequities. Together, leaders can reframe the food narrative to focus on and improve the availability of affordable and nutritious food across the country.

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