

# Food Insecurity and Obesity<sup>1</sup>

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## Introduction

Not having enough food to meet one's basic needs, also known as food insecurity, is associated with poor health outcomes like obesity. Obesity is a major risk factor for many chronic conditions. Addressing obesity among food insecure individuals and families requires an understanding of the current state of food security, the factors influencing the relationship between food insecurity and obesity, and awareness of resources currently available for those who are experiencing food insecurity and obesity. This publication aims to serve as a resource for consumers and practitioners who are interested in learning more about the relationship between food insecurity and obesity.

## Current State of Food Security

Food insecurity was first measured in 1995 when the US Census Bureau implemented the Food Security Supplement to its Current Population Survey (Bickel et al., 2000). This survey led the United States Department of Agriculture (USDA) to identify four levels of food security within the population: **high, marginal, low, and very low**. People with high and marginal access to food are considered food secure. **High food security** households always have access to food when they need it, while **marginal** households have good access with occasional worry about not having enough food. People with low food security and very low food security are considered food insecure. **Low food security** households have poor diet quality but can eat when they need to eat. Those with **very low food security**

have poor diet quality and do not have access to food when they need it, which leads to hunger.

More than 44 million Americans are food insecure and 13 million of those are children (Feeding America, 2024). In Florida, about 2.3 million residents have food insecure households with 22 counties exceeding the national food insecurity rate of 15% (Feeding America, 2024).

## How are food insecurity and obesity related?

Obesity is influenced by a variety of factors, including diet and physical activity levels. The relationship between food insecurity and obesity may be best explained by income and education (Fongillo & Bernal, 2014). Food insecurity has been linked to limited financial resources (Pruitt et al., 2016), so it is no surprise that it is commonly found among low-income households. In addition, some communities may not have large grocery stores or farmers' markets that provide access to healthier food options. So, the environment and limited financial resources may lead to poor diet quality and/or hunger. These can both contribute to obesity.

## Food Deserts and Obesity

Research shows that those who have access to fresh foods tend to have healthier diets and lower risk for obesity (Food Research & Action Center, 2015). Many food-insecure families live in food deserts, which are defined by the USDA Economic Research Service [ERS] as reduced access

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to fresh and inexpensive healthy foods (2021b). These limitations may be a result of living far from a supermarket or grocery store, or from the lack of a reliable means of transportation (USDA ERS, 2021b). Some research efforts have reported that food insecurity accompanied by food deserts can contribute to poor weight management and obesity. Two researchers and their team have asserted that 1) Food deserts have been associated with increased intake of high fat, carbohydrates, and caloric foods (Dinour et al, 2007; Tanumihardjo et al., 2007), and 2) As food insecurity becomes severe, nutrient-dense foods decline (Dinour et al, 2007). So, a food insecure family who also lives in a food desert would have double the impact. They would have easy access to convenience stores with unhealthy options and have financial difficulty traveling farther to grocery stores with healthier options.



Figure 1. A basket filled with healthy food options, such as fresh fruits and vegetables.  
Credits: Adobe Stock

## Why does it matter?

Obesity can lead to chronic health complications like high cholesterol, heart disease, high blood pressure, type 2 diabetes, and stroke. With the increased knowledge and resources, poor health outcomes such as premature death and poor quality of life can be prevented or reduced.

## What can we do to help?

There are a variety of programs that provide resources and interventions to help address food insecurity. The most popular ones by the USDA are Supplemental Nutrition Assistance Program (SNAP), Supplemental Nutrition Program for Women, Infants, and Children (WIC), and the Child Nutrition Program. According to USDA ERS (2021a), approximately one in four Americans participate in at least one of the USDA's nutrition assistance programs.

## (A) Supplemental Nutrition Assistance Program (SNAP)

SNAP, formerly known as The Food Stamp Program has provided nutrition assistance to reduce hunger in millions of eligible individuals and families for the past 70 years. It is the largest program of domestic food and nutrition assistance for low-income Americans (Benefits.Gov, n.d.). As a federally entitled program under the USDA, SNAP provides benefits to eligible individuals based on the analysis of family size, citizenship status, household income, and other expenses. SNAP resources are distributed via Electronic Benefit Transfer (EBT) cards. The goal of the program is to assist Americans in stretching their food budgets to accommodate healthy foods through SNAP authorized grocery stores and other markets (Benefits.Gov, n.d.).

## (B) Special Supplemental Nutrition Program for Women, Infants, & Children (WIC)

The WIC program provides supplemental foods, health care referrals, and nutrition education to eligible participants. The eligibility criteria, as per USDA ERS (2016b), are as follows:

- Low-income pregnant, breastfeeding, and non-breastfeeding postpartum women
- Infants in low-income families
- Children younger than 5 years old with nutritional risk in low-income families

The USDA's Food and Nutrition Service [FNS] administers WIC in every state and Congress authorizes annual funding for its program operations. In 2015, WIC had served more than half of all the infants born in the US (Coleman-Jensen et al., 2016). This program also includes resources for breastfeeding support, nutrition education, food packages to promote wholesome diets, and healthy lifestyle classes for low-income mothers and children.

## (C) Child Nutrition Programs

Child nutrition programs make up about 25% of the USDA's nutritional assistance safety net (USDA ERS, 2021d). Some of these programs include the National School Lunch Program, School Breakfast Program, Child and Adult Care Food Program, Summer Food Service Program, Fresh Fruit and Vegetable Program, and After-School Snacks and Suppers. In addition, there are free or reduced-price meals available to eligible, low-income

students as part of the National School Breakfast and Lunch Programs (Coleman-Jensen et al., 2016). The main priority of USDA's domestic food assistance programs are to serve the nutritional needs of their participants.

## UF/IFAS Extension

The University of Florida Institute of Food and Agricultural Sciences (UF/IFAS) Extension works in partnership with the state, federal, and county government to provide scientific knowledge and expertise to the public. They work with thousands of collaborators from different professions to develop and deliver knowledge. Through these efforts, they maintain and improve quality of life (UF/IFAS Extension, 2021). UF/IFAS Extension administers the Family Nutrition Program (FNP) to SNAP beneficiaries. FNP's aim is to reduce the risk of obesity and subsequent disease development (UF/IFAS Extension FNP, 2021). Additionally, they implement SNAP-Ed curricula, nutrition education programs that teach participants how to shop efficiently, eat healthier, and enhance physical activity.

## Summary

Food insecurity is prevalent across the US and often coexists with obesity. Increasing awareness of the prevalence, relationship, and resources associated with food insecurity and obesity is important for addressing obesity, especially among limited-income individuals and families.

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