morganhealth

Food Insecurity Trends in Employer-Sponsored Insurance

JPMorganChase

Contents

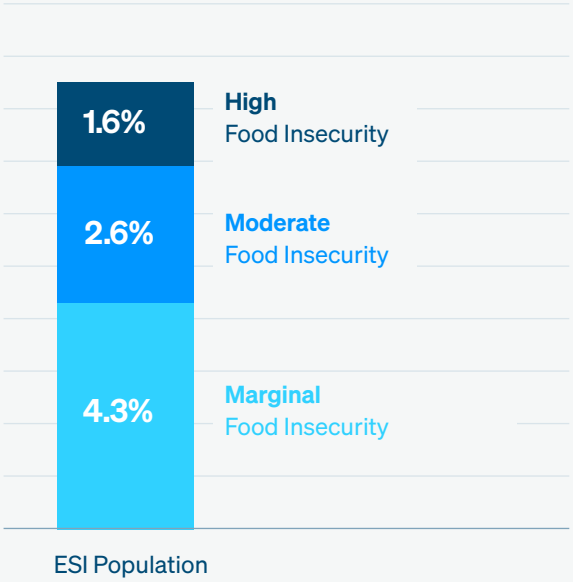
Introduction

While food insecurity has conventionally been thought to be a Medicaid issue, it has taken a foothold in the employer-sponsored insurance (ESI) market – even among moderate- and higher-income households. As reported in Morgan Health's 2025 Quality and Outcomes Gaps in Employer-Sponsored Insurance Report[1], food insecurity has grown: from 5.9% in 2021 to 8.5% of those covered by ESI in 2022 and 2023. The severity of the issue also started to shift with larger portions of the population experiencing moderate or high levels of food insecurity in 2023. Among those who faced food insecurity, 63% of the population report often or sometimes not being able to afford a balanced meal, which indicates that both quantity and quality of food access needs to be addressed. These patterns have likely only worsened as overall food prices rose in the U.S. by 2.8% between 2024 and 2025, particularly for commonly purchased groceries like dairy products, eggs and poultry[2].

Employers should understand the impact food insecurity can have on the health of their population and consider their role to help address this social driver of health for their employee base. In everyday life, employee food insecurity can translate to smaller or skipped meals or difficult tradeoffs – such as deciding between necessities like food and medical care. And at work, it can mean having greater stress[3] and fatigue[4], affecting productivity.

This report digs deeper into the implications of food insecurity for employee health and offers recommendations to employers on how to address food insecurity in their populations. The findings highlight how food insecurity can force employees to make difficult choices and forego accessing medical care and prescription treatments, and may increase the prevalence and severity of chronic conditions – some of which require complicated treatments, like insulin for diabetes. These tradeoffs can increase health plan costs for employers as plan members with food insecurity often rely on emergency services instead of preventive and comprehensive primary care.

Figure 1. **Prevalence of Food Insecurity Severity in the ESI Population**



Percent prevalence is based on predicted probabilities and represents unadjusted population averages. Source: National Health Interview Survey (NHIS), 2023

Methods

This analysis uses a similar methodology to the Morgan Health 2025 Quality and Outcomes Gaps Report[1] which leverages the 2023 National Health Interview Survey (NHIS)[5] dataset to evaluate the impact of food insecurity on health outcomes and health care usage patterns. We estimate prevalences of reported metrics via regression models that adjust for age, sex, and income; select models also adjust for having a usual place of care as specified. These analyses are population weighted and account for the complex samples of these surveys. Unless otherwise noted, we present adjusted prevalence estimates for an example person covered by ESI who may face food insecurity: a woman aged 45-54 making $50,000-$74,999 annually.

Food insecurity level tiering is based on definitions determined by the United States Department of Agriculture (USDA) as outlined in Table 1 at right; they are determined by a composite score of 10 questions in the NHIS survey that measure the food security status of families in the past 30 days[6]. The specific questions are outlined in the Appendix and range across being worried food would not last until there is money to buy more, not being able to afford eating a balanced meal, and the number of days in the past month when family members were unable to eat or had to skip meals. NHIS respondents self-report their answers to each of the 10 questions, and NHIS data include the summary metric of which USDA defined food security category they fit into based on their survey responses. We have mapped the USDA food security categories to the corresponding food insecurity terms used throughout this piece.

Table 1. **Food Insecurity Levels (USDA)**[7]

High Food Insecurity *(Very Low Food Security)*	Reported multiple indicators of disrupted eating patterns and reduced food intake
Moderate Food Insecurity *(Low Food Security)*	Reported reduction in quality, variety, or desirability of diet. Little or no indication of reduced food intake
Marginal Food Insecurity *(Marginal Food Security)*	One or two reported indications of food-access problems or limitations (typically anxiety over food sufficiency or shortage in the house, but little or no indication of diet or food intake changes)
Food Secure *(High Food Security)*	No reported indications of food-access problems or limitation

Finding 1: Demographic Factors Related to Food Insecurity in ESI

Food insecurity presents at higher rates in households where the sample adult who completed the survey is younger or female, and is highest in Black, Hispanic, and Other race/ethnicity households. Our findings show that the demographic patterns for food insecurity in households with ESI are in line with **NHIS's prior analyses of population-wide patterns with 2022 data**[8].

Notably, across all pay tiers, ESI households that include one or more children tend to have higher rates of food insecurity than households without children. This issue extends even to moderate income earning families: for example, households in the $75,000 -$100,000 pay group consisting of two adults and one or more children facing food insecurity at rates ranging from 12-16%.

Employer Opportunity

By better understanding the demographic features of those facing food insecurity, employers can design targeted solutions that account for the population's unique needs. For instance, to support widespread adoption of a planned intervention among working parents, employers can ensure that the solution is flexible and not overly time-intensive (e.g. child-friendly meals requiring minimal prep time).

Table 2: **Household Size and Income Patterns Related to Food Insecurity**

Household Income	Count of Adults in Household	Count of Children in Household			
		0	1	2	3+
<$50K	1	**20%** (± 3%)	**37%** (± 11%)	**37%** (± 14%)	**45%** (± 20%)
	2	**22%** (± 6%)	**35%** (± 13%)	**34%** (± 12%)	**36%** (± 15%)
	3+	**22%** (± 12%)	**35%** (± 21%)	38% (± 30%)	50% (± 51%)
$50K–$75K	1	**10%** (± 3%)	**20%** (± 10%)	**24%** (± 14%)	30% (± 22%)
	2	**11%** (± 3%)	**25%** (± 9%)	**19%** (± 8%)	**12%** (± 8%)
	3+	**18%** (± 9%)	**20%** (± 14%)	21% (± 16%)	16% (± 20%)
$75K–$100K	1	**6%** (± 2%)	**12%** (± 8%)	33% (± 24%)	0% (± 0%)
	2	**8%** (± 3%)	**12%** (± 6%)	**13%** (± 5%)	**16%** (± 7%)
	3+	**11%** (± 7%)	**11%** (± 10%)	**18%** (± 16%)	14% (± 15%)
$100K–$150K	1	**2%** (± 2%)	**0%** (± 2%)	2% (± 11%)	0% (± 0%)
	2	**3%** (± 1%)	**6%** (± 3%)	**4%** (± 2%)	**5%** (± 4%)
	3+	**6%** (± 4%)	**9%** (± 7%)	**12%** (± 11%)	6% (± 9%)
<=$150K	1	**1%** (± 2%)	**0%** (± 0%)	3% (± 11%)	0% (± 0%)
	2	**1%** (± 1%)	**2%** (± 2%)	**2%** (± 1%)	**2%** (± 2%)
	3+	**1%** (± 2%)	**1%** (± 3%)	**4%** (± 6%)	0% (± 0%)

% Prevalence of food insecurity (± margin of error%)*

Lower rates — Higher rates

Greyed-out cells indicate estimates based on fewer than 25 survey respondents. (Extrapolated values are less reliable and should be interpreted with caution.)

*Percent prevalence and the corresponding margin of error is based on predicted probabilities and represents population averages adjusted for household income level and size.

Finding 2: Health Outcomes

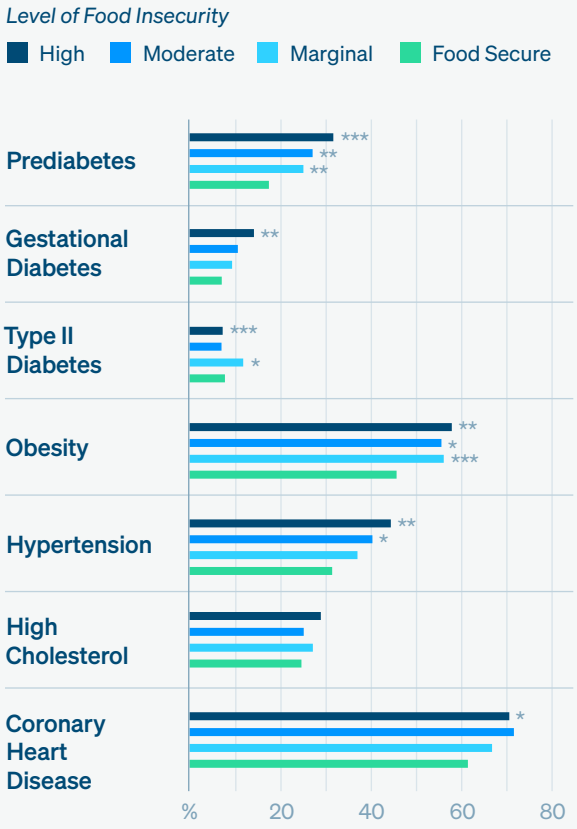
Food insecurity and a lack of balanced meals correspond to higher rates of chronic conditions, as well as more severe progressions of conditions in the ESI population. After adjusting for age, sex, income, and having a usual source of care, those who are food insecure have higher prevalence of chronic conditions – prediabetes, Type II diabetes, obesity, and hypertension – compared to those who are food secure.

Moreover, those with food insecurity require higher rates of prescription treatment to manage conditions, potentially because the option of lifestyle and diet modifications can have be cost prohibitive. Those with high food insecurity require high cholesterol medications at 20 points higher rates and insulin treatment for Type-2 diabetes at 6% higher rates than those who are food secure. Insulin treatment is typically a more intensive intervention for managing diabetes and is often required as the condition progresses to more severe levels. Thus, food insecurity is not only correlated with higher prevalences of disease, but also more *advanced* progression of disease.

Employer Opportunity

While concerning, this trend has the potential to be reversed: numerous studies have found that food-as-medicine interventions ranging from broad produce vouchers to more curated medically tailored groceries and meals can improve chronic condition management, including lowering HbA1C levels in diabetic patients[9, 10].

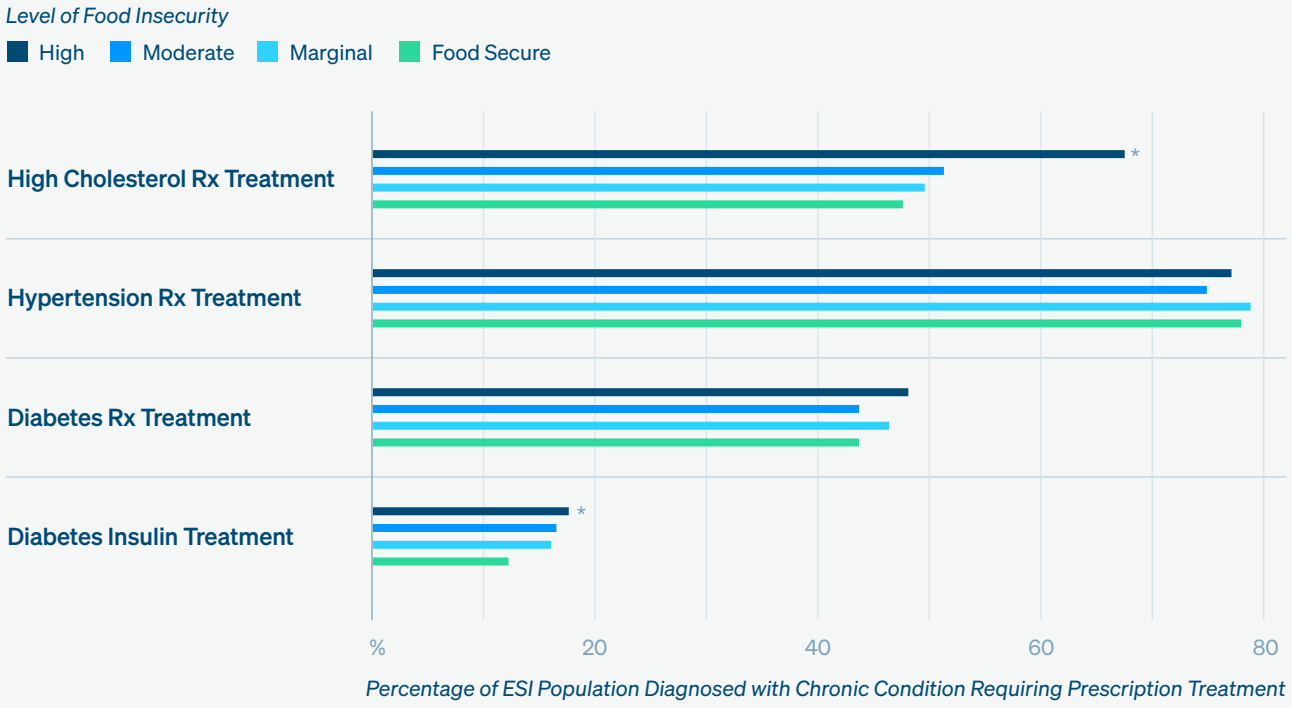
Figure 3A. **Chronic Condition Prevalence**



Percentage of ESI Population with History of a Diagnosed Chronic Condition

Figure 3A: ***p<0.001, **p<0.01, *p<0.05. Asterisks indicate p-value for test difference for level of food insecurity vs high food security. Estimates are adjusted for age, sex, income, and having a usual place of care; percent prevalence is based on predicted probabilities and is shown for an average female aged 45-54 in the $50,000-$75,000 pay tier who has access to a usual place of care. Source: National Health Interview Survey (NHIS), 2023.

Figure 3B. **Chronic Condition Management**



***p<0.001, **p<0.01, *p<0.05. Asterisks indicate p-value for test difference for level of food insecurity vs high food security. Estimates are adjusted for age, sex, income, and having a usual place of care; percent prevalence is based on predicted probabilities and is shown for an average female aged 45-54 in the $50,000-$75,000 pay tier who has access to a usual place of care. Source: National Health Interview Survey (NHIS), 2023.

Finding 3: Health Care Utilization

Those struggling with food insecurity often face simultaneous challenges with health care affordability and access, such as transportation barriers, lack of child care, and limited flexibility in work schedules, which creates greater vulnerabilities in this population. Individuals with food insecurity are more likely to avoid care, have financial difficulty with medical bills, and use costly emergency department (ED) and urgent care services. Among ESI members who experienced high levels of food insecurity, 43% visited the ED during the prior year compared to 17% of ESI members that were food secure. Urgent care is also utilized at 4% higher rates by those facing high food insecurity compared to the food secure ESI population.

An over reliance on these costly acute services can often serve as a stop gap for those without sufficient access to primary care for prevention or management of chronic conditions. Regardless of food insecurity status, individuals in the ESI population report having a usual source of care at high rates (~94-96%), but this stark gap in ED and urgent care services indicate that members who are more food insecure may be accessing lower quality care, may be unable to see a provider immediately when acute needs arise, consider acute services to be a valid source of usual care, or are unable to act upon the medical advice provided by their medical team.

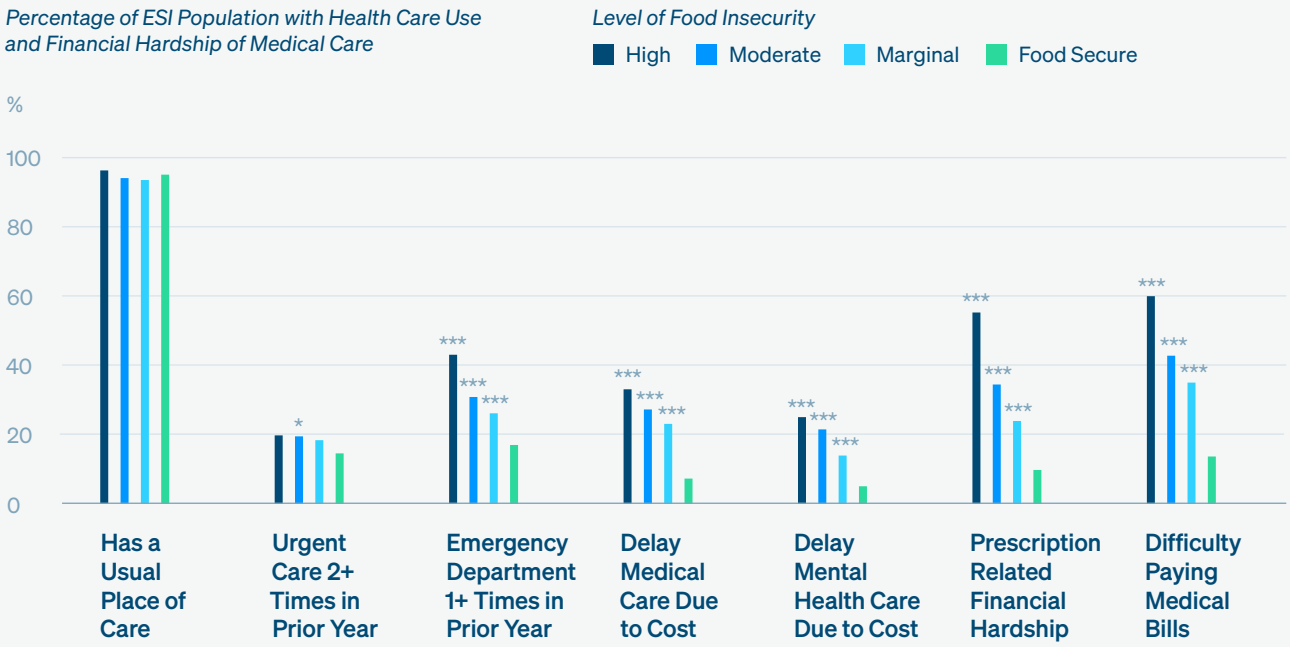
Challenges in following through with recommended treatment are apparent when considering prescription-related financial hardship: compared to the 10% of food secure individuals facing prescription-related hardship, 55% of ESI members experiencing high food insecurity and 35% of those facing moderate food insecurity are unable to afford prescriptions and skip, take less, or delay filling their prescriptions. Nonadherence to prescription treatment due to affordability challenges poses a high risk to individuals facing food insecurity, as they have higher rates of chronic conditions requiring prescription treatment.

Employer Opportunity

Food subsidies or voucher programs can allow households to reallocate their budgets from food-related costs to health care management and preventive services. Although these solutions are not commonly incorporated into commercial health plans, as food insecurity increases and the government considers scaling back existing programs such as SNAP and housing assistance that some ESI members rely on, it may become increasingly pressing for employers to consider sponsoring these types of solutions.

The food subsidy and voucher strategies have benefited noncommercial populations, where wraparound services are more readily integrated into health care. For example, dually enrolled Medicare and Medicaid members who participated in Supplemental Nutrition Assistance Programs (SNAP) experienced a decrease in overall health care costs; these cost reductions were attributed to lower rates of emergency room visits, hospitalizations, and long-term care needs[11]. If employers can adopt similar solutions for their commercial populations, it may likewise help manage rising health care costs. In fact, studies in dually enrolled Medicare and Medicaid programs have found that the average cost of seven months of medically tailored meals, nutrition counseling, and case management is equivalent to the cost of one inpatient hospitalization[9].

Figure 4. **Food Insecurity Levels and Healthcare Utilization**



***p<0.001, **p<0.01, *p<0.05. Asterisks indicate p-value for test difference for level of food insecurity vs high food security. Estimates are adjusted for age, sex, and income; percent prevalence is based on predicted probabilities and is shown for an average female aged 45-54 in the $50,000-$75,000 pay tier.
Source: National Health Interview Survey (NHIS), 2023.

Conclusions and Recommendations

Food insecurity is more common among employees and their families covered by ESI than employers may realize. On average, 1-in-12 individuals covered by employer-sponsored health insurance faced food insecurity, a burden felt disproportionally by individuals and families with incomes of <$100,000 (an estimated 43% of the population). Food insecurity was associated with higher prevalence of chronic disease prevalence and difficulty adhering to prescription treatments due to financial hardship. Simply providing coverage for health care insurance is not sufficient for individuals to manage these conditions well.

The results in this report suggest food insecurity is likely a contributing factor or a consequence of medical costs – to the employer and the employee alike. While many chronic conditions can be managed with nutritional interventions, employees may not be connected to high-quality care to receive interventions via primary care or may not be able to afford recommended diet changes. Instead, they may need direct, complementary interventions to address their food insecurity from employers or their health plans.

To help mitigate costs related to chronic condition management and high-cost utilization, employers should assess the gaps faced by their employee population and explore existing models that have been implemented in the Medicare and Medicaid populations to adopt best practices. A recommended workflow and examples of existing solutions is provided below to help employers navigate the current food-as-medicine landscape. A critical first step employers should take is to partner with providers and payors to assess their employees' food security and social needs, as well as benchmark the prevalence of chronic conditions and acute care usage. Employers can then understand whether their population would benefit from lower intensity programs that can serve as a preventive tool or if more targeted programs are needed to address existing health issues. Employers can also collaborate with research partners to better understand open questions on the optimal quantity and duration of interventions for targeted impact[9]. By broadening the definition of health care and offering innovative benefits in the ESI space, employers can help build a healthier workforce.

Figure 5A. **Evaluate Employee Population Needs**

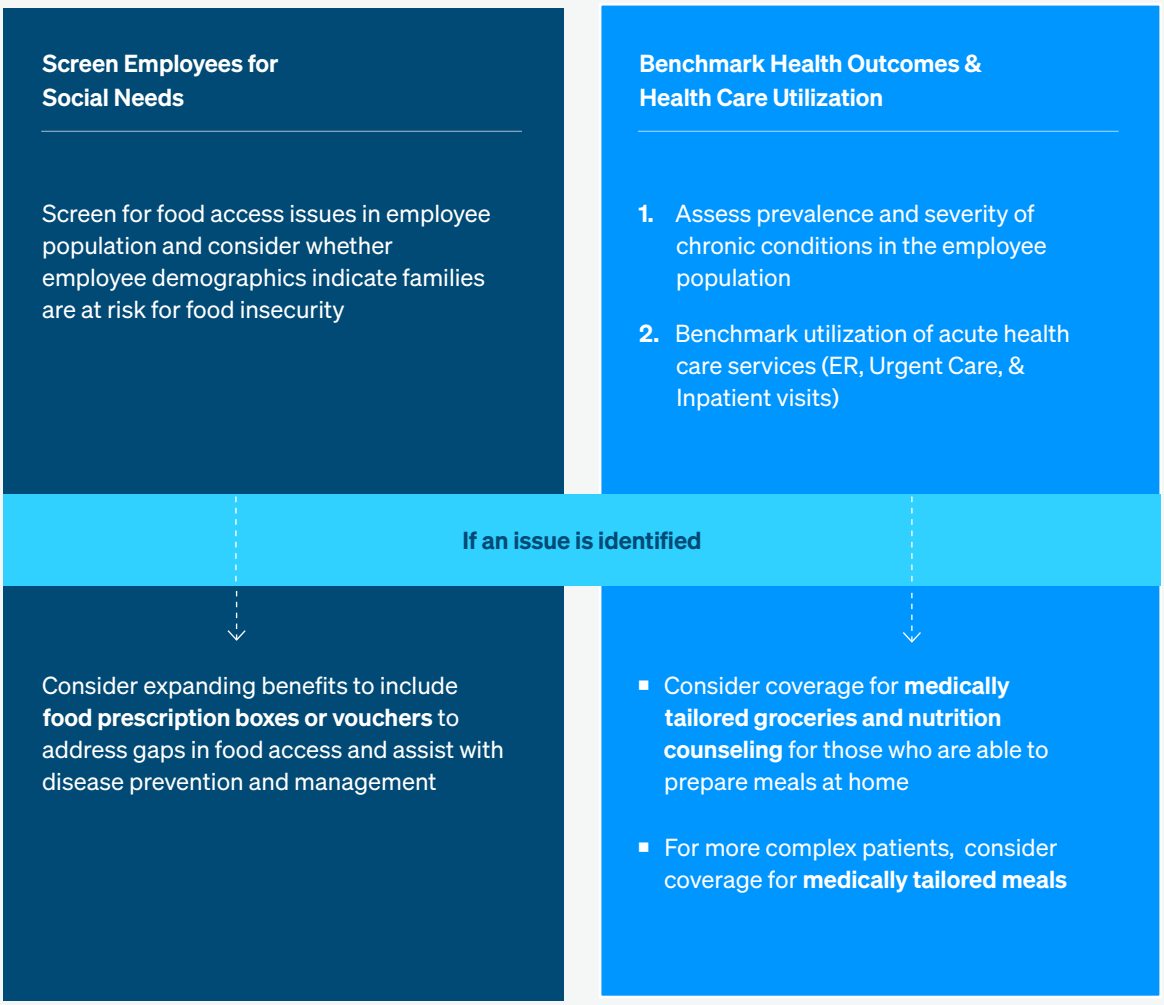


Figure 5B. **Explore Existing Models and Adapt Best Practices**

Connecting to Existing Employer & Community Resources

Program Overview:

JPMorgan Chase has partnered with its carriers on a pilot program to screen members for social needs (e.g. caregiving support, housing, transportation, care navigation). Members are connected to existing employer offerings and community resources to help address challenges before they escalate and contribute to worsening health states.*

Target Population: JPMC employees living in pilot geographies who have high/very high social risk scores.

Impact: Food insecurity needs were identified in the population and addressed through local community programs.

Operational Challenges: Targeting effective outreach and converting eligible members to active participants in the program proves to be an ongoing challenge. Employers can work with their payor and provider partners to refine outreach strategies, while underscoring confidentiality and program benefits to their employees.

Produce Vouchers/Food Prescription Boxes

Program Overview:

Mt. Sinai and Corbin Hill Food Project have partnered as part of a Medicare/Medicaid pilot in 2022 to provide biweekly farm shares to participants in an effort to reduce healthcare use and associated costs in the long term[12]. Participants are asked to buy-in for $2.50 weekly using either SNAP dollars or cash, and home delivery and transportation subsidies are available for participants with accessibility issues.

Target Population: Low-income, BIPOC, and immigrant families residing in Harlem and South Bronx.

Impact: Improved access to fruit & vegetables for balanced meals; food insecurity improved (longer term cost and utilization outcomes pending, but similar programs have seen improved HbA1c levels, BMI, and reduced need for oral antibiotics for children[9]).

Operational Challenges: Distribution of food prescription boxes or integrating vouchers into existing retail locations can have logistical hurdles; employers can consider on-site food distribution options or partnering with retail solutions such as Instacart Health. Employers can also explore benefits administration platforms specializing in social drivers, such as Soda Health, to streamline the delivery of food related benefits.

Medically Tailored Groceries

Program Overview:

Geisinger Health System in PA has launched a 'Fresh Food Farmacy' in 2017 staffed with clinical team members, who educate and guide participants on how to prepare nutritious meals[13].

Target Population: Households with a Type II diabetic patient who self-reported facing food insecurity issues (program support extended to whole family).

Impact: 2-full point reduction in HbA1c (this reduction is 4x the threshold of the 0.5 reduction required for diabetic medication to be approved), decrease in triglycerides, blood pressure, and BMI; increased care connectivity due to additional touch points provided by Fresh Farmacy care team; projected savings of $16K-$24K PMPY.

Operational Challenges: Requires comprehensive integration with clinical care team for success. Employers can ensure their health plan networks are designed to cover similar integrated health systems in their geographies, as well as contract with advanced primary care providers that offer wrap-around services.

Medically Tailored Meals

Program Overview:

Commonwealth Care Alliance (CCA) offers medically tailored meals for members with a disability or those who require extensive care-coordination, as well as nontailored food delivery for older individuals who are less likely to be English speakers[14].

Target Population: *Medically tailored meals* - complex patient populations with chronic conditions and more advanced disease stages; *nutritious non-tailored meals* - older individuals who are otherwise healthy. Note, participants for both programs were dual eligible Medicare & Medicaid members.

Impact: Both tailored and generic meal delivery programs for a minimum of 6 months reduced ED usage and health care costs; tailored meals also reduced inpatient admission rates.

Operational Challenges: High-touch intervention that requires customization for specific disease needs for complex patients; employers may not have a large enough member base with these needs to affect.

*Morgan Health is a division of JPMorgan Chase Bank (JPMC). The JPMC Plan operates independently and makes all decisions related to Plan benefits.

Lower intensity
Appropriate for broad range of employee population

Highest intensity
Appropriate for targeted range of employee population

Appendix

Table A1. **NHIS Food Insecurity Questions & ESI Response Rates: Part I**

		Overall ESI Prevalence	Margin of Error (MOE)
USDA Food Security Levels	*Very Low Security*	*1.6%*	*0.3%*
	Low Security	*2.6%*	*0.4%*
	Marginal Security	*4.2%*	*0.5%*
	High Security	*91.5%*	*0.6%*
Q1. We worried whether our food would run out before we got money to buy more.	Often	1.7%	0.3%
	Sometimes	4.7%	0.5%
	Never	93.5%	0.6%
Q2. The food that we bought just didn't last and we didn't have money to get more.	Often	1.2%	0.3%
	Sometimes	3.9%	0.4%
	Never	94.8%	0.5%
Q3. We couldn't afford to eat balanced meals.	Often	1.6%	0.3%
	Sometimes	3.7%	0.4%
	Never	94.7%	0.5%

Table A2. **NHIS Food Insecurity Questions & ESI Response Rates: Part II**

Among those who often or sometimes worried food would run out, food wouldn't last, or couldn't afford balanced meals ...		ESI Prevalence among Marginal, Low, and Very Low Food Secure Population	Margin of Error (MOE)
Q4. In the last 30 days, did you or other adults in the household ever cut the size of your meals or skip meals because there wasn't enough money for food?	Yes	31.6%	3.6%
Q5. If yes, how often did this happen in the last 30 days?	1-5 days	55.2%	9.2%
	6-10 days	24.4%	6.8%
	11-20 days	12.5%	4.5%
	21-30 days	7.9%	3.4%
Q6. In the last 30 days, did you ever eat less than you felt you should because there wasn't enough money for food?	Yes	30.5%	3.7%
Q7. In the last 30 days, were you ever hungry, but didn't eat, because there wasn't enough money for food?	Yes	18.0%	2.9%
Q8. In the last 30 days, did you lose weight because there wasn't enough money for food?	Yes	10.0%	2.2%

Only those who responded affirmatively to one or more questions in Part I of the Food Security Survey are asked the questions in Part II, and only those who answer affirmatively to at least one question in Part II are asked the questions in Part III. Food security statuses are assigned as follows: Raw Score zero – high food security; Raw Score 1-2 – marginal food security; Raw Score 3-5 – low food security; Raw Score 6-10 – very low food security[15].

Table A3. **NHIS Food Insecurity Questions & ESI Response Rates: Part III**

Among those who skipped meals, cut the size of their meals, ate less, were hungry and didn't eat, or lost weight in the past 30 days because there wasn't enough money for food ...		**ESI Prevalence among Marginal, Low, and Very Low Food Secure Population**	**Margin of Error (MOE)**
Q9. In the last 30 days did you or other adults in your household ever not eat for a whole day because there wasn't enough money for food?	Yes	12.3%	3.5%
Q10. If yes, how often did this happen in the last 30 days?	1-5 days	63.7%	21.0%
	6-10 days	29.5%	15.0%
	11-20 days	2.3%	3.2%
	21+ days	4.5%	4.0%

Only those who responded affirmatively to one or more questions in Part I of the Food Security Survey are asked the questions in Part II, and only those who answer affirmatively to at least one question in Part II are asked the questions in Part III. Food security statuses are assigned as follows: Raw Score zero – high food security; Raw Score 1-2 – marginal food security; Raw Score 3-5 – low food security; Raw Score 6-10 – very low food security[15].

Table A4. **Detailed Summary of Household Size and Income Patterns Related to Food Insecurity**

		High Food Insecurity (%)				Moderate Food Insecurity (%)				Marginal Food Insecurity (%)				Food Secure (%)			
Household Income	Count of Adults in Household	Count of Children in Household				Count of Children in Household				Count of Children in Household				Count of Children in Household			
		0	1	2	3+	0	1	2	3+	0	1	2	3+	0	1	2	3+
<$50K	1	7	9	7	5	6	7	22	30	6	20	7	11	80	63	63	55
	2	5	10	9	1	10	11	14	22	6	14	11	14	78	65	66	64
	3+	8	11	0	33	7	6	27	17	6	18	11	0	78	65	62	50
$50K–$75K	1	3	3	14	13	3	10	5	1	4	7	6	17	90	80	76	70
	2	2	3	3	0	3	9	5	1	6	13	11	12	89	75	81	88
	3+	4	5	0	9	5	8	11	0	9	7	10	6	82	80	79	84
$75K–$100K	1	1	0	0	0	1	7	1	0	3	5	32	0	94	88	67	100
	2	1	0	1	2	2	2	5	5	5	10	7	9	92	88	87	84
	3+	1	1	0	0	4	3	9	4	7	8	9	10	89	89	82	86
$100K–$150K	1	1	0	0	0	0	0	0	0	1	0	2	0	98	100	98	100
	2	0	0	0	1	1	2	0	2	2	4	4	2	97	94	96	95
	3+	1	1	5	0	1	2	0	0	4	6	7	6	94	91	88	94
<=$150K	1	0	0	0	0	0	0	1	0	0	0	1	0	99	100	97	100
	100	0	0	0	0	0	1	1	1	1	1	2	1	99	98	98	98
	3+	0	0	0	0	0	0	2	0	1	0	3	0	99	99	96	100

% Prevalence of food insecurity*

Lower rates — Higher rates

% Prevalence of food security*

Lower rates — Higher rates

*Percent prevalence and the corresponding margin of error is based on predicted probabilities and represents population averages adjusted for household income level and size.

References

1 Morgan Health. "Quality Outcomes Gaps." Morgan Health, March 2025, https://www.morganhealth.com/quality-outcomes-gaps.htm.

2 U.S. Bureau of Labor Statistics. "Consumer Price Index Summary." U.S. Bureau of Labor Statistics, 13 May 2025, https://www.bls.gov/news.release/archives/cpi_05132025.pdf.

3 Liebert, Mary Ann et al. "Food Insecurity Is Associated with Depression, Anxiety, and Stress: Evidence from the Early Days of the Covid-19 Pandemic in the United States." Health Equity, vol. 5, no. 1, 25 February 2021, https://www.liebertpub.com/doi/full/10.1089/heq.2020.0059.

4 Ding, Meng et al. "Food Insecurity is Associated with Poor Sleep Outcomes among US Adults." The Journal of Nutrition, vol. 145, no 3, March 2015, https://www.sciencedirect.com/science/article/pii/S0022316622086667.

5 National Center for Health Statistics. National Health Interview Survey, 2023. Public-use data file and documentation. https://www.cdc.gov/nchs/nhis/documentation/2023-nhis.html.

6 National Center for Health Statistics. "2023 National Health Interview Survey (NHIS) Survey Description." CDC, July 2024, https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Dataset_Documentation/NHIS/2023/srvydesc-508.pdf.

7 Economic Research Service. "Food Security in the U.S. - Definitions of Food Security." U.S. Department of Agriculture. 10 January 2025, https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/definitions-of-food-security.

8 Weeks, Julie D et al. "Adults Living in Families Experiencing Food Insecurity in the Past 30 Days: United States, 2021." National Center for Health Statistics, CDC., NCHS Data Brief-No 465. April 2023, https://www.cdc.gov/nchs/products/databriefs/db465.htm.

9 Downer, Sarah et al. "Food is Medicine: Actions to Integrate Food and Nutrition into Healthcare." BMJ, vol. 369, 29 June 2020, https://www.bmj.com/content/369/bmj.m2482.long.

10 Bryce, Richard et al. "Participation in a farmers' market fruit and vegetable prescription program at a federally qualified health center improves hemoglobin A1C in low income uncontrolled diabetes." Preventive Medicine Reports, vol. 221, September 2017, https://www.sciencedirect.com/science/article/pii/S2211335517301079.

11 Berkowitz, Seth A et al. "Supplemental Nutrition Assistance Program Participation and Health Care Use in Older Adults: A Cohort Study" Annals of Internal Medicine, vol. 174, no. 6, 19 October 2021, https://www.acpjournals.org/doi/abs/10.7326/M21-1588?journalCode=aim.

12 "Food As Medicine Project Brings Farm Fresh Produce to Upper Manhattan and Bronx Residents." Mount Sinai - New York, 2022, https://www.mountsinai.org/about/newsroom/2022/food-as-medicine-project-brings-farm-fresh-produce-to-upper-manhattan-and-bronx-residents#:~:text=Food%20As%20Medicine%20Project%20Brings%20Farm%20Fresh,Residents%20%7C%20Mount%20Sinai%20%2D%20New%20York.&te.

13 Hess A, Passaretti M, Coolbaugh S. Fresh Food Farmacy. American Journal of Health Promotion. 2019;33(5):830-832. doi:10.1177/0890117119845711d

14 Berkowitz, Seth A., et al. "Meal Delivery Programs Reduce The Use Of Costly Health Care In Dually Eligible Medicare And Medicaid Beneficiaries." Health Affairs, vol. 37, no. 4, 2018, pp. 535-542. https://www.healthaffairs.org/doi/full/10.1377/hlthaff.2017.0999.

15 Economic Research Service. "U.S. Adult Food Security Survey Module: Three-Stage Design, with Screeners" Economic Research Service, USDA. September 2012. https://www.ers.usda.gov/sites/default/files/_laserfiche/DataFiles/50764/26623_ad2012.pdf?v=3672.4.