

Experiences and Ongoing Challenges of Food Insecure Households in Vermont and Maine

Rebecca C. Mitchell¹, Janica Anderzén², Emily H. Belarmino^{1,3}, Farryl Bertmann¹, Sam Bliss^{1,3}, Jennifer S. Laurent¹, Jonathan Malacarne², Ashley C. McCarthy⁴, Scott Merrill^{1,3}, Sarah Nowak¹, Rachel E. Schattman², Kathryn Yerxa², Meredith T. Niles^{1,3}



1- University of Vermont

2- University of Maine

3- Gund Institute for Environment, University of Vermont

4- U.S. Department of Agriculture, Agricultural Research Service

Introduction

Financial shocks have the potential to deeply impact food security and health. Despite being nearly five years from the onset of the COVID-19 pandemic, many food insecure (FI) households face continued challenges from the financial shock. To understand the current state of food and health challenges among FI households, we conducted statewide surveys in Maine and Vermont in the late spring through early summer of 2024. A total of 1,438 adults (720 from Maine; 718 from Vermont) responded to the surveys. Participants were asked questions related to food sourcing, federal program use, inflation and financial challenges, healthcare use and access, chronic disease, and diet. Recruitment was conducted by Qualtrics, a professional survey company. Low-income respondents were

oversampled, resulting in a nearly equal split of food secure (FS) (48%) and FI (52%) households, as measured by the USDA Six-Item Food Security Module. 37.3% of respondents were enrolled in the Supplemental Nutrition Assistance Program (SNAP) — approximately three times the reported state averages. Respondents' race and ethnicity are largely representative of the two states.

The majority of FI households were working. FI households were more likely to be younger, LGBTQ+, lower income, and have either children or a person with a disability in their household.

This brief offers a comparison of the experiences and challenges faced by FS and FI populations in northern New England.

Key Findings

1. The majority of food insecure (FI) households continued to face food access challenges closely tied to household finances, and at least 1 in 4 also struggled with transportation and time poverty challenges.

2. FI households had up to 8 times greater prevalence of adverse financial events during and since the financial shock of the COVID-19 pandemic as compared to food secure (FS) households.

3. On average, FI households experienced 3 adverse financial events over the past 4 years, compared to 1 among FS households. More than 1 in 4 FI households missed utility payments, had new credit card debt, only paid credit card minimums, were unable to pay medical bills/debt, missed rent payments, or took on additional work to cover costs.

4. The majority of FI households employed multiple strategies to mitigate the effects of inflation, which likely impacted food and nutrition security including purchas-

ing cheaper food, less produce, fewer animal products, and less food overall.

5. FI households faced greater challenges than FS households in accessing healthcare, with at least 1 in 4 lacking transportation, money for medical visits, or being unable to get an appointment.

6. Respondents in FI households had twice the rate of anxiety and/or depression compared to FS households (62.3% compared to 31.2%), but only 34.0% of FI respondents had received mental health therapy in the last 12 months.

7. These findings suggest that FI households faced greater financial shocks in the last few years, which affected food acquisition, food security, and health in complex, interconnected ways. Attention to ongoing financial, transportation, and healthcare access and affordability challenges are critical in assisting households that continue to struggle with food insecurity and may not recover from shocks as well as food secure households.

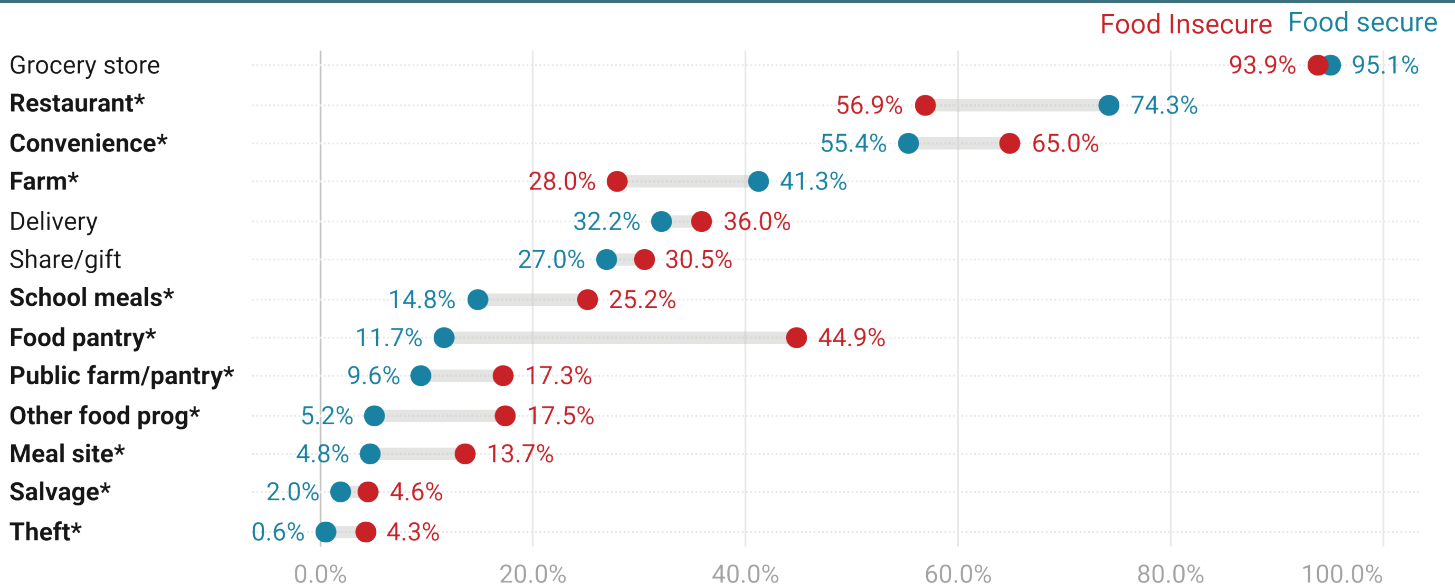


Figure 1. Food sources, by food security status. * indicates a statistically significant difference ($p < 0.05$).

Food Sourcing

Grocery stores were the most commonly-reported place to purchase food for both FS and FI respondents (Figure 1). However, FI respondents obtained food at a higher rate from convenience-type stores and a variety of food assistance programs and services such as food pantries (44.9%), school meal programs (25.2%), public farms or pantries (17.3%), free meal sites (13.7%), and other food assistance programs (17.5%), as compared to FS households.

Two-thirds of all households also engaged in some form of home and wild food procurement (HWFP) such as gardening, hunting, fishing, foraging, and raising animals for eggs, meat, or milk. FI households were more likely to engage in all HWFP activities except gardening and were more likely to have started these activities for the first time or spent more time on them in the past year than before. When asked about intentions to engage in HWFP activities in the coming year, FI households were also more likely to indicate interest in starting a new HWFP activity or engaging in a HWFP activity more than previous years.

“I will skip bills to make sure my family eats. But this puts us financially behind on bills.”
 Female respondent, family of four in Bennington County, Vermont

Adverse Financial Events

Nearly half (46.5%) of FI respondents reported missing payments for utilities or accruing new credit card debt (44.1%) since the start of the COVID-19 pandemic (March 2020) (Figure 3). Other major issues affecting at least 25% of FI respondents included only paying credit card minimums, inability to pay medical bills/debt, missing rent payments, inability to pay car loans/expenses, and taking on additional work. Looking at the relative prevalence of these events between FI and FS households, FI households had up to 8 times greater prevalence of adverse financial events (e.g., missing rent payments, dropping out of school to work), and on average FI households had three adverse financial events, compared to one for FS households (Figure 4).

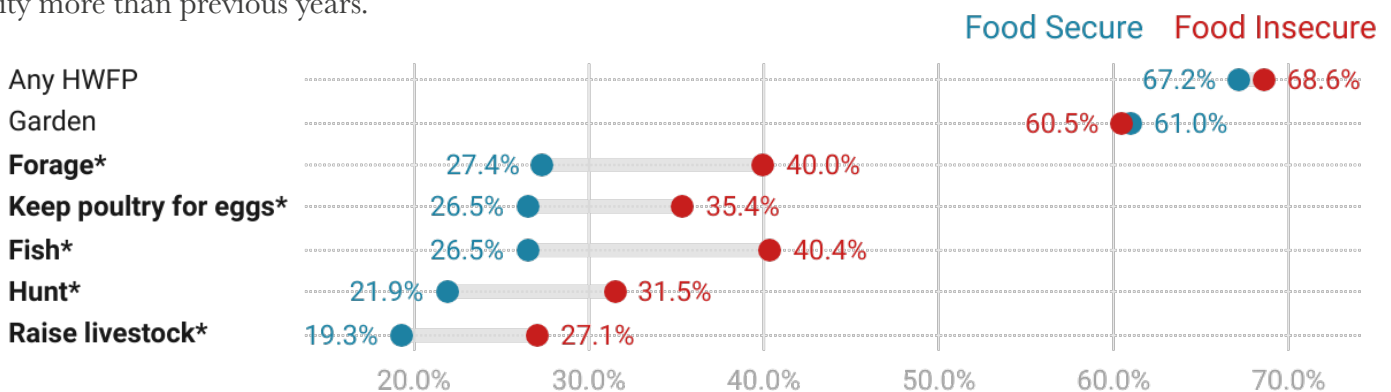


Figure 2. Engagement in home and wild food procurement activities in the past 12 months, by food security status. * indicates a statistically significant difference ($p < 0.05$).

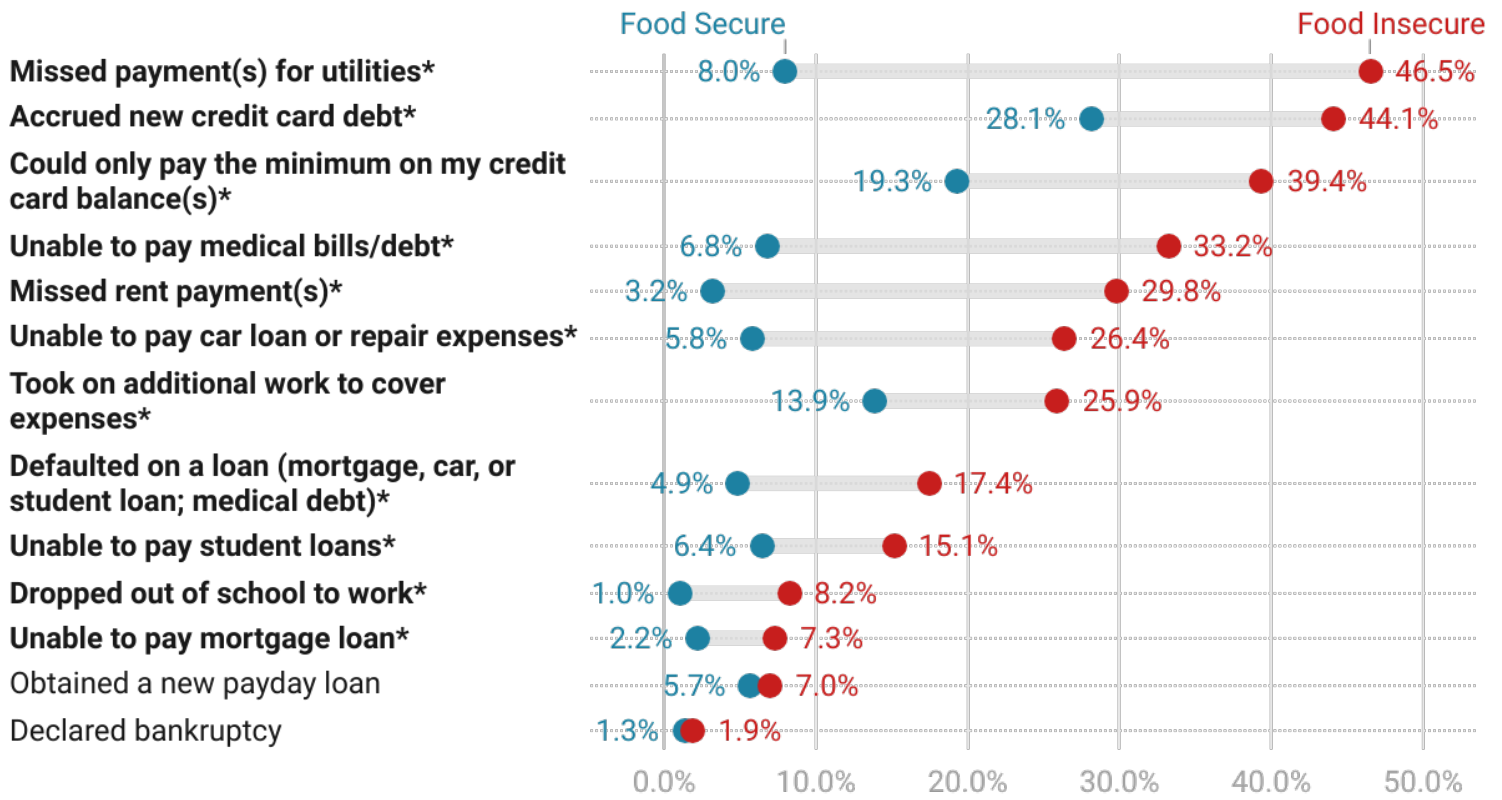


Figure 3. Adverse financial events experienced by households since the start of the COVID-19 pandemic (March 2020), by food security status. * indicates a statistically significant difference (p<0.05).

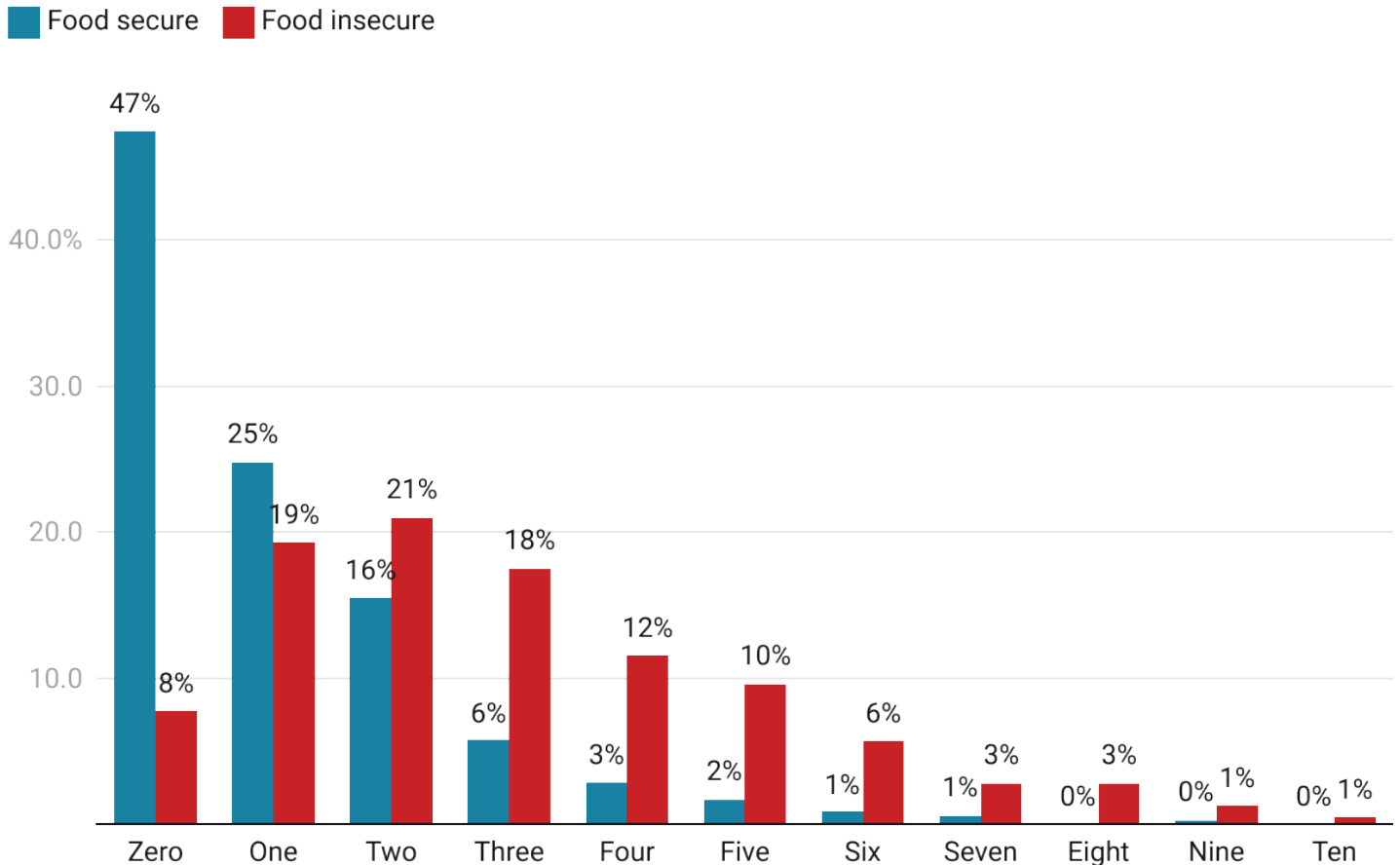


Figure 4. Average number of adverse financial events experienced, by food security status.

Food Access Challenges and Responses

Lack of money was the most frequently reported food access challenge among FI respondents, and was reported by a larger share of FI respondents (78.4%) than FS respondents (8.1%) (Figure 5). Lack of transportation, inability to visit stores or food access locations when they were open, and insufficient time for shopping and cooking were each noted by more than one in five FI households.

\$288:

The average additional monthly federal program benefit FI households reported needing to meet their food needs

In response to rising food prices, FI respondents were significantly more likely than FS respondents to pursue five inflation-mitigation strategies (Figure 6). Four out of every five FI households reported purchasing cheaper food, and the majority of FI respondents also reported purchasing fewer animal products, less produce, and less food overall, as well as shopping less.

Among respondents enrolled in SNAP, FI households reported needing significantly higher additional monthly benefits (average \$288.03) compared to FS households (average \$168.71) to meet their food needs.

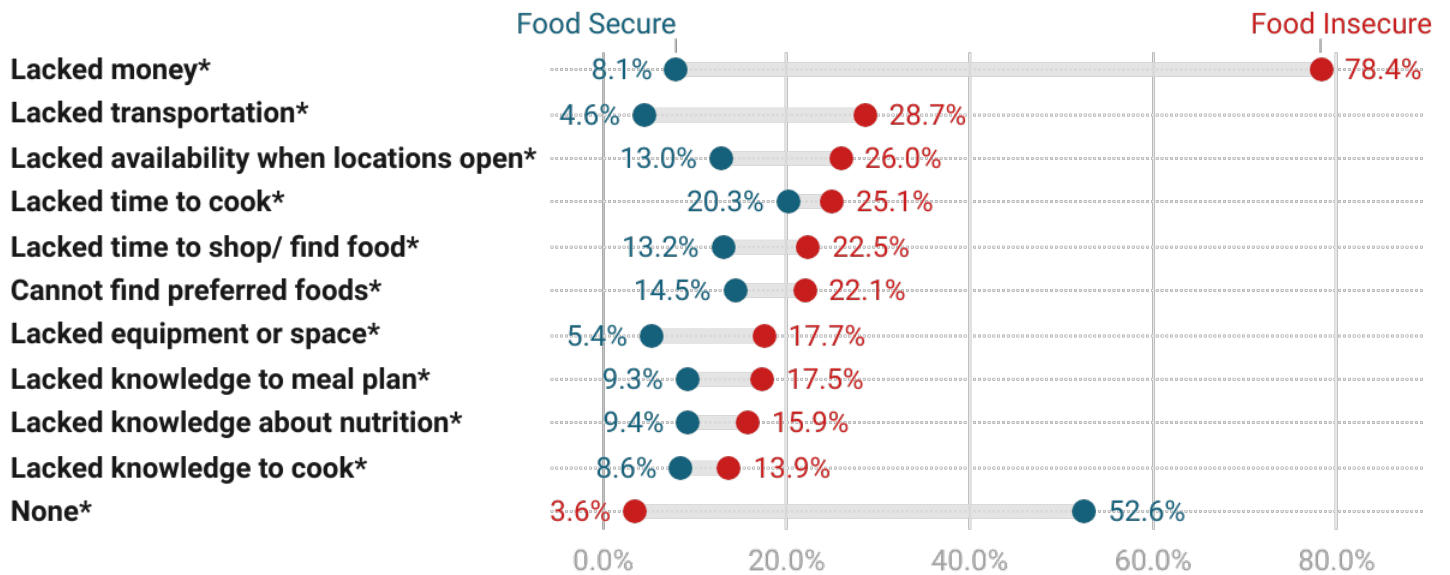


Figure 5. Food access challenges indicated by respondents, by food security status. * indicates a statistically significant difference (p<0.05).

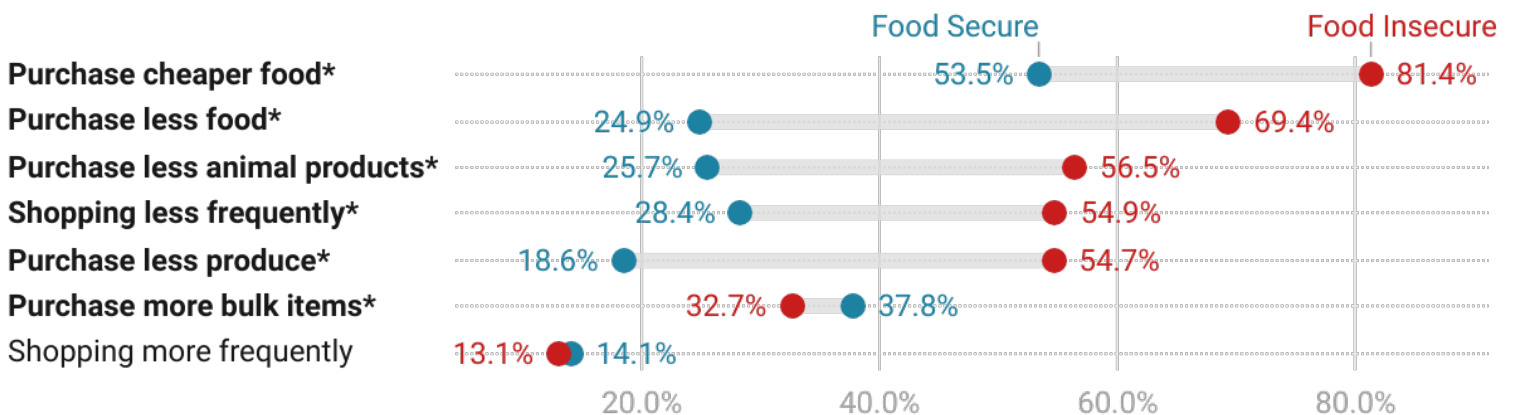


Figure 6. Reported household-level responses to increased food prices, by food security status. * indicates a statistically significant difference (p<0.05).

Health and Wellbeing

FI respondents were also more likely to experience barriers to accessing healthcare in the previous 12 months. Inability to find a timely appointment was the most frequently reported challenge among both FS (22.2%) and FI (32.5%) populations (Figure 7). However, more than one in four FI respondents also experienced transportation access issues for medical appointments and/or the inability to afford provider visits.

quality score (max=42). Overall average diet quality scores were lower among FI respondents (19.6) than among FS respondents (21.9).

“[I] have to rely on others for transportation and [I] have little money to even partially compensate them!”
 Male respondent, family of two in Somerset County, Maine

Respondents answered a variety of questions related to their dietary intake, which enables a calculation of a diet

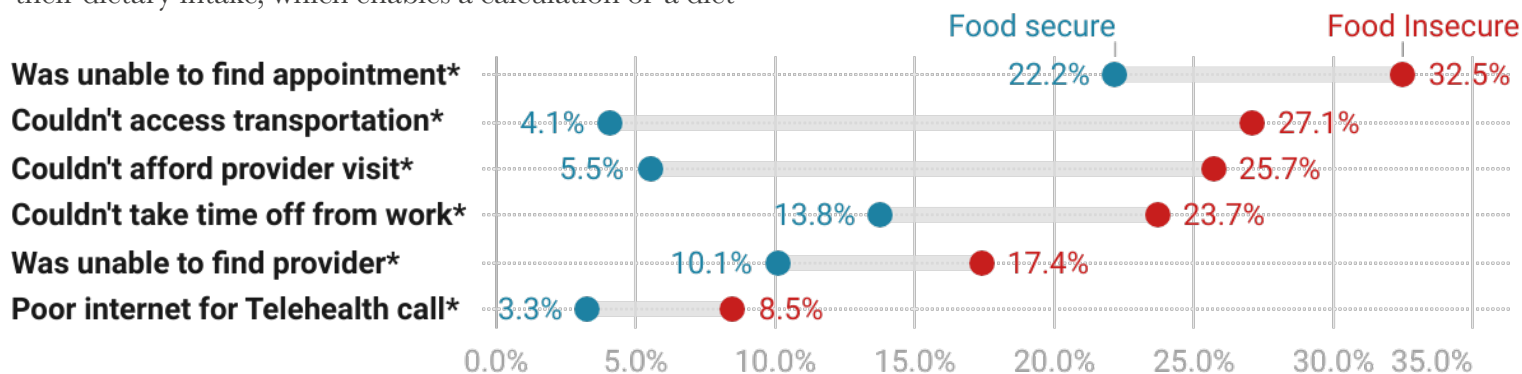


Figure 7. Challenges in accessing healthcare in the past 12 months, by food security status. * indicates a statistically significant difference (p<0.05)

“The lack of available appointments is frustrating. Waiting 6 months to see my personal doctor is upsetting when there are issues that need to be addressed timely. The cost of health visits, and hospital visits have caused me to go into debt.”
 Female respondent, family of five in Kennebec County, Maine

More than half (62.3%) of FI respondents reported being diagnosed with anxiety or depression - twice the rate of FS respondents (31.2%), yet only one out of three (34%) of FI respondents received counseling or therapy from a mental health professional in the past year. Similarly, while 31.2% of FS respondents had anxiety or depression, far fewer (17.2%) received mental health counseling. FI respondents had higher rates of prediabetes, while FS respondents were more likely to have diagnoses of hypertension and cancer (Figure 8).

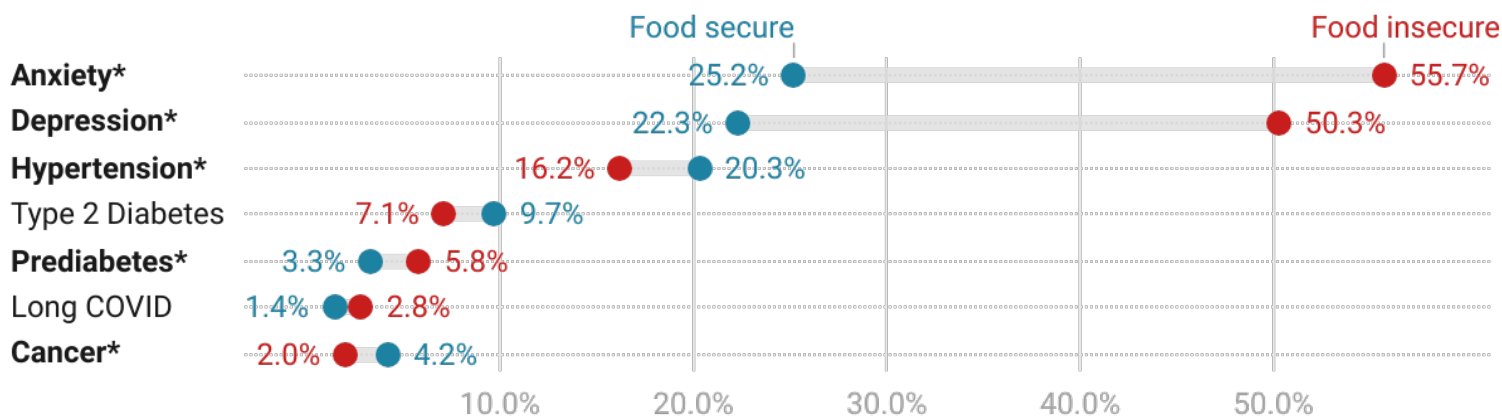


Figure 8. Current diagnoses, by food security status. * indicates a statistically significant difference (p<0.05).

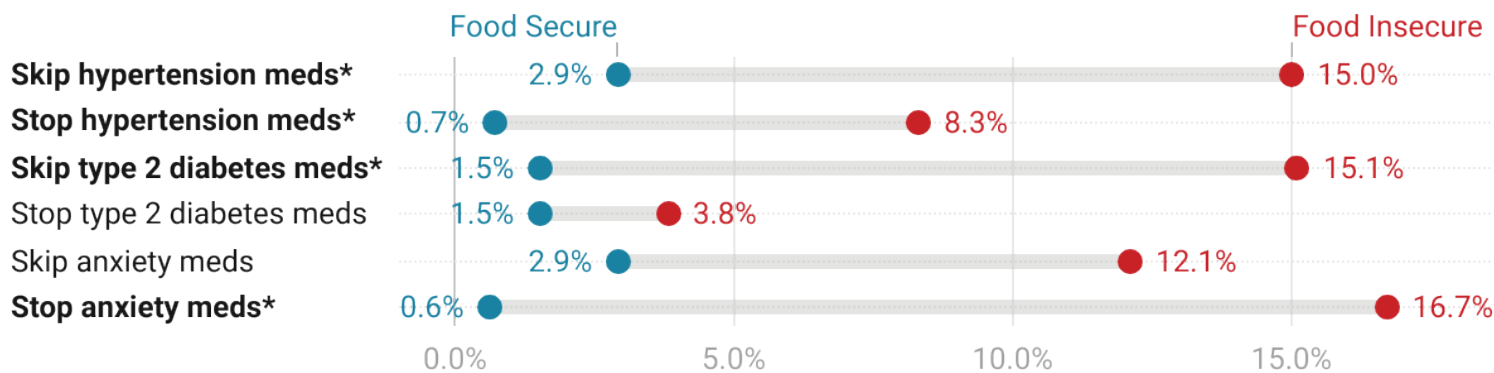


Figure 9. Rates of stopping or skipping prescription medications during the past 30 days due to cost, by food security status. * indicates a statistically significant difference ($p < 0.05$).

FI respondents were more likely to stop or skip medication prescribed for hypertension, type 2 diabetes mellitus, and anxiety because of prescription cost (Figure 9).

“Shortage of doctors in my area. Must travel about 2 hrs. to specialists.”

Female respondent, family of three in Orleans County, Vermont

Summary and Implications

This brief presents findings from a 2024 survey of nearly 1,500 residents from Maine and Vermont exploring food access, financial challenges, and health-related outcomes and experiences. Among the most striking findings are the significant differences in the ongoing financial challenges that FI households have faced in the last several years, as well as the inflation-related purchasing strategies they have employed. Compared to FS households, FI households had 3-8 times greater prevalence of experiencing adverse financial challenges and more likely to have experienced multiple financial challenges.

There were also differences in healthcare access and health outcomes between FS and FI respondents. FI respondents were significantly more likely to face challenges accessing healthcare, especially due to cost and

lack of transportation. Anxiety and depression were diagnosed at twice the rate among FI respondents. A significantly higher share of FI respondents also stopped or skipped medicines in the last 30 days, including prescribed medications for anxiety.

These findings highlight the interconnected challenges FI households face in Maine and Vermont (Figure 10). They add to the body of evidence indicating that FI households are forced to make tradeoffs between paying for food, transportation, healthcare, and housing. When there is not enough money to meet all these basic needs, they forgo meals, medications, going to the doctor, or keeping up with bills. Elevated rates of anxiety and depression among FI respondents may reflect the psychological toll of such financial stress. This work also highlights that three key issues span food and healthcare access: 1. Adequate financial resources; 2. Availability and cost of transportation; and 3. Time poverty. Attention to these key issues are critical to assist households that continue to struggle with food insecurity and many related challenges even many years after a financial shock.

Acknowledgments

This work was funded by the USDA National Institute of Food and Agriculture (2022-67023-3645) and the USDA National Institute of Food and Agriculture (Hatch project numbers ME022325 and MEO-22332) through the Maine Agricultural & Forest Experiment Station. We’d like to thank the members of our advisory board for their feedback on the development of this survey and interpretation of results.

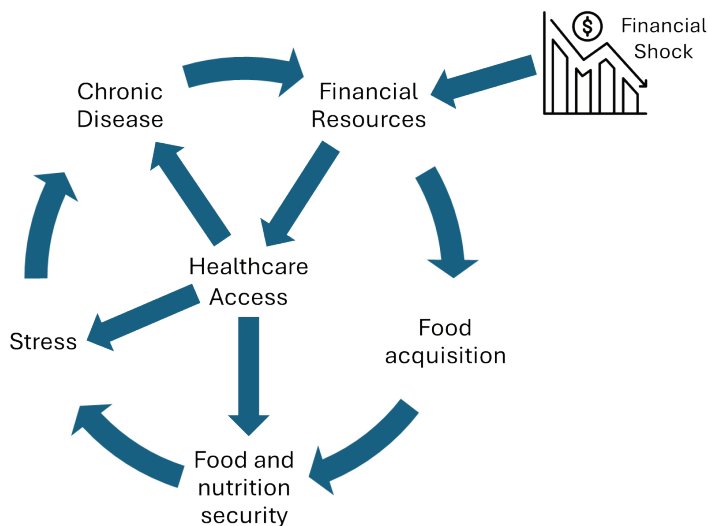


Figure 10. Relationship between financial shocks, household finances, and food and health outcomes.