

Examining Food Insecurity and Health Among Rhode Island Adults

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BACKGROUND

Food insecurity is defined as experiencing limited or uncertain availability of nutritionally adequate and safe foods or uncertain ability to acquire acceptable foods in socially acceptable ways.¹ In the United States, food insecurity continues to be prevalent, with food insecurity disproportionately affecting certain populations.² Those experiencing food insecurity often rely on social safety net programs, including federal food assistance programs, food pantries and hot meal sites, and nonfood social safety net programs such as housing/rental assistance and Temporary Assistance for Needy Families.³ Food insecurity is also associated with adverse health outcomes, including chronic diseases, and higher healthcare use and costs.^{4,5} This study examines the burden of food insecurity among adults in Rhode Island (RI), describes the prevalence across demographic groups, and compares selected health indicators among adults who report being food insecure with those who do not.

METHODS

Data were obtained from the 2025 RI Behavioral Risk Factor Surveillance System (BRFSS). The BRFSS is a state-based telephone survey of adults ≥ 18 years old and is used to measure risk behaviors and health. Survey data are weighted to obtain state population estimates. The survey was completed by 5,435 RI adults in 2025, representing a weighted population of 914,730.

Food insecurity was measured with the state-added question: "How often in the past 12 months would you say you were worried or stressed about having enough money to buy nutritious meals? Would you say – Always, Usually, Sometimes, Rarely, Never". Respondents who answered "Always," "Usually," or "Sometimes" were considered as being food insecure.

Analyses were conducted to measure: 1) burden of food insecurity, 2) prevalence of food insecurity by demographics, 3) prevalence of health indicators among adults who reported food insecurity compared to adults who were food secure. Chi-square tests were conducted to test for significant differences between demographics and health indicators, using a p -value < 0.05 . Demographics assessed included gender, race/ethnicity, age, education level, marital status, employment status, federal poverty level (FPL), and whether children were in the household. Analyzed health indicators

included fruit consumption, vegetable consumption, fair or poor overall health (measured from "Would you say that in general your health is excellent, very good, good, fair, poor?"), frequent physical distress (≥ 14 days in last 30 where physical health was not good), frequent mental distress (≥ 14 days in last 30 where mental health was not good), depression, obesity (Body Mass Index ≥ 30), diabetes, hypertension, high cholesterol, cardiovascular disease, physical inactivity (measured from "During the past month, other than your regular job, did you participate in any physical activities or exercises such as running, calisthenics, golf, gardening, or walking for exercise?"), and current tobacco use. All analyses were conducted using SAS Version 9.4. Weighted frequencies and percentages were used for all data figures.

RESULTS

In 2025, 24.6% of RI adults were "always", "usually", or "sometimes" worried or stressed about having enough money to buy nutritious foods. Food insecurity was reported more often for respondents who were female, Hispanic, 18–29 years old, had less than a high school education, were divorced, separated, or widowed, and unable to work [Table 1]. Individuals living below 400% of the FPL experienced food insecurity at a significantly higher prevalence than those living at or above 400% FPL, at 36.8% and 7.8%, respectively. Experiencing food insecurity was also more common among adults who had children in the household (31.1%) compared to those who did not (21.9%).

Half (50.2%) of adults reporting food insecurity consumed fruit less than once a day and nearly one-third (33.5%) consumed vegetables less than once a day, compared to 36.3% and 19.3% of food secure adults, respectively [Table 2]. Food insecurity was strongly associated with greater prevalence of health indicators including fair or poor health, frequent physical and mental distress, depression, and tobacco use, relative to food secure adults. The prevalence of obesity (40.3%), diabetes (17.5%), and cardiovascular disease (11.0%) were also significantly higher in adults who experienced food insecurity. Among food insecure individuals, 31.9% reported being physically inactive compared to 17.9% of food secure individuals. There were no significant differences in the prevalence of hypertension or high cholesterol between respondents who experienced food insecurity and those who did not.

Table 1. Demographics of Rhode Island adults reporting food insecurity

	Weighted N	%	95% CI
Gender*			
Male	76,782	21.6	19.1–24.2
Female	102,540	27.4	25.0–29.9
Race, ethnicity*			
NH White	88,113	17.6	15.8–19.4
NH Black	11,864	35.3	26.9–43.8
NH Other or Multiracial ^a	23,935	39.0	31.0–47.1
Hispanic	49,960	43.8	38.4–49.3
Age*			
18–29 years	39,295	30.6	25.1–36.0
30–44 years	51,810	29.1	25.0–33.2
45–64 years	61,127	27.8	24.8–30.8
65 years and older	25,642	13.4	11.3–15.5
Education*			
Less than high school	35,688	50.8	43.4–58.3
High school diploma or GED	57,656	29.6	25.8–33.5
Some college	54,020	27.1	23.7–30.6
Graduated college	30,279	11.6	9.9–13.4
Marital status*			
Married	56,348	16.7	14.5–18.9
Divorced, separated, widowed	45,084	31.6	28.0–35.3
Never married or member of unmarried couple	74,496	30.9	27.3–34.6
Employment Status*			
Employed	94,440	23.5	21.1–25.9
Unemployed	18,246	40.9	32.2–49.7
Unable to work	24,739	58.6	51.0–66.3
Other/not in labor force ^b	36,003	16.1	13.5–18.6
Federal poverty level*			
At or above 400% FPL	18,402	7.8	5.5–10.0
Below 400% FPL	128,843	36.8	34.0–39.6
Children in household*			
Yes	63,146	31.1	27.2–34.9
No	113,336	21.9	20.0–23.9

*Results of the chi-squared test were statistically significant ($p < 0.05$)

CI = Confidence Interval, NH = Non-Hispanic, FPL = Federal Poverty Level

^aincludes adults who identify as American Indian or Alaska Native, Asian, Native Hawaiian or Other Pacific Islander, or Other

^bincludes homemakers, students, and retired individuals

DISCUSSION

The passing of H.R.1 in 2025 changed who is eligible to receive Supplemental Nutrition Assistance Program (SNAP) benefits. Between January 2025–May 2026, there was a 13% decline in participation in RI and nearly 5.5 million people lost their SNAP benefits nationwide.⁶ Additionally, the cost of groceries continues to rise, with food prices 3.0% higher in July 2026 compared to July 2025.⁷ This combination is likely to result in an increase in food insecurity, which can lead to strain on the emergency food system.

RI is combating food insecurity through several mechanisms. Collaboration, communication, and cohesive efforts

are sought through statewide dissemination of the RI Food Access Bulletin from the Healthy Eating and Active Living (HEAL) program at RI Department of Health and by way of food access-focused groups, which include state agencies and community partners. Legislative efforts have also highlighted importance and focus on food access. In June 2026, the RI State Legislature mandated a Food as Medicine (FAM) Taskforce to create a report of FAM recommendations around food access in the state. Additionally, state funds were allocated for fruit and vegetable incentive programs at both retailers (Department of Human Service's Eat Well, Be Well program) and farmers markets (Farm Fresh Rhode Island's Bonus Bucks program) to stretch the dollar of those using SNAP benefits and encourage consumption of fruits and vegetables. Lastly, the state continues to stay abreast of federal changes. The Office of Lieutenant Governor, RI Commerce, and the HEAL program are informing SNAP retailers of stocking standard changes required to continue to accept SNAP.

Given that people experiencing food insecurity are less likely to consume fruit and vegetables, it is important to promote produce consumption through federal food assistance programs, including the Special Supplemental Nutrition Program for Women, Infants and Children that offers a standard monthly cash-value benefit designated for fresh, frozen or canned produce and fruit/vegetable incentive vouchers at farmers markets; SNAP that offers produce incentives through Eat Well, Be Well and Bonus Bucks at grocery stores and farmers markets, respectively; and Senior Farmers Market Nutrition Program which is distributed through the Department of Environmental Management alongside RI Office of Healthy Aging. It is also imperative to increase access to produce in communities at high risk of becoming food insecure through improvements to the food environment. This includes grocery or corner store initiatives, pop-up farmers markets or mobile markets, and urban and community gardens.⁸

Further, because food insecurity is associated with chronic disease risk, social service programs must collaborate with one another. Many public health and clinical programs rely on the two-question Hunger Vital Sign tool as a screener for food insecurity. Universal adoption of this tool, along with development of a system to reduce barriers to accessing food resources is warranted. Additionally, programs such as produce prescriptions and medically tailored meals can offer tailored, nutritious foods to help manage chronic diseases.

The findings from the study are subject to a few limitations. First, data are self-reported and subject to recall and social desirability bias. Thus, the respondents might not have wanted to report they experienced food insecurity. Second, there may have been differences in how individuals interpreted "nutritious meal" and what they considered to be nutritious. Third, the study cannot determine causality, and any observed associations between food insecurity and

Table 2. Prevalence of health indicators among Rhode Island adults by food security status

	Food Insecure			Food Secure		
	Weighted N	%	95% CI	Weighted N	%	95% CI
Consumed fruit less than one time a day	89,997	50.2	46.0–54.4	199,343	36.3	34.1–38.5
Consumed vegetables less than one time a day	60,112	33.5	29.5–37.5	105,730	19.3	17.4–21.1
Fair or poor health	65,891	36.9	32.9–40.9	66,228	12.1	10.6–13.5
Frequent physical distress	45,386	26.0	22.1–29.9	51,007	9.5	8.3–10.7
Frequent mental distress	58,025	33.8	29.7–38.0	53,098	9.8	8.4–11.2
Depression	72,797	40.9	36.8–45.0	116,600	21.3	19.5–23.2
Obesity	66,236	40.3	36.0–44.7	149,103	29.1	27.0–31.2
Diabetes	31,233	17.5	14.5–20.5	59,702	10.9	9.6–12.2
Hypertension	69,439	39.0	35.0–43.0	188,128	34.3	32.3–36.4
High cholesterol	57,894	37.9	33.8–42.1	185,503	37.7	35.6–39.8
Cardiovascular disease	19,522	11.0	8.8–13.2	44,011	8.1	7.0–9.1
Physical inactivity	57,066	31.9	28.1–35.7	97,838	17.9	16.1–19.6
Tobacco use	30,224	17.0	13.6–20.3	33,189	6.1	5.1–7.1

Bolded values are statistically significant results of the chi-squared test ($p < 0.05$)

CI = Confidence Interval

health indicators may be affected by unmeasured or uncontrolled factors. Lastly, the survey included a single-item question to assess food insecurity. It would be helpful to include a multi-item module to provide a more complete and accurate measurement.

National food insecurity data was captured yearly using a comprehensive survey until it was discontinued in 2025. In its absence, it is especially important that RI gathers state-level data on the burden of food insecurity. It would be beneficial to include the six-item USDA Food Security Module on the RI BRFSS survey to gather more comprehensive data on level of household food insecurity. It may also be helpful to include state-added questions for individuals identified as food insecure to assess their knowledge and utilization of resources and food assistance programs. RI Life Index, an annual survey that captures Rhode Islanders' perceptions of health and well-being, should be paired with BRFSS data to truly understand the health of the population.

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