

Extent of Food Insecurity Among Iowa WIC Participants

August 2004

2003 Iowa WIC Food Security Survey Executive Summary

Definitions⁵

Food Security - Access by all people at all times to enough food for an active, healthy life. Food security includes at a minimum: (1) the ready availability of nutritionally adequate and safe foods, and (2) an assured ability to acquire acceptable foods in socially acceptable ways (e.g., without resorting to emergency food supplies, scavenging, stealing or other coping strategies).

Food Insecurity - Limited or uncertain availability of nutritionally adequate and safe foods or limited or uncertain ability to acquire acceptable foods in socially acceptable ways.

Food Insecurity with Hunger - The uneasy or painful sensation caused by a lack of food. It is the recurrent and involuntary lack of access to food.

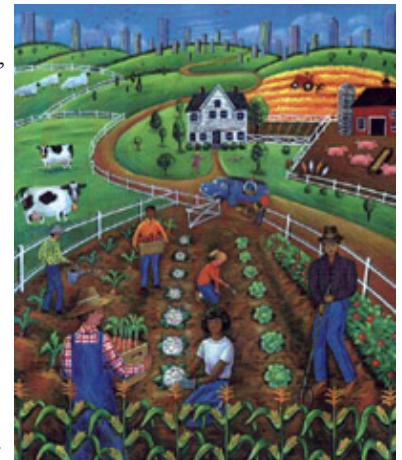
Introduction. Most Iowans are not concerned about when they will eat their next meal. However, almost 90,000 households in Iowa are food insecure, or have limited access or availability to safe and nutritious foods.¹ This equates to 240,000 people who are living in food insecure households, 101,000 are children and 100,000 are working Iowans.¹

The Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) is designed to improve the health of low-income, nutritionally at-risk pregnant, breastfeeding and postpartum women, infants, and children to the age of five. WIC is a central component of Iowa's food assistance system. WIC services are provided to more than 67,000 Iowa women, infants and children every month representing more than 40 percent of all infants born in Iowa² and accounting for nearly one in five children (ages 1 to 5) in the state.³

The Iowa WIC Program has periodically assessed the extent of food insecurity among the WIC families it serves. Surveys were provided to select WIC participants in 1997 when they came to their WIC appointment and in 2000 surveys were mailed to a random sample. Significant changes in food security status occurred between 1997 and 2000. Respondents experienced a greater degree of household food insecurity in 2000 than in 1997. Spanish-reading respondents experienced a greater degree of household food insecurity than English-reading respondents.⁴

Methodology. In 2003, the Iowa WIC Program assessed the extent of food insecurity among WIC participants using six validated items from the U.S. Household Food Security Survey. The shorter version provides a comparable substitute to the 18-item food security survey. The limitation of the abbreviated scale is that it does not measure the more severe levels of food insecurity where child hunger is generally observed. A 15 percent random sample was selected from each local WIC agency's active participation list. A letter, survey and postage-paid envelope were mailed to 9986 WIC participants in October 2003. All survey materials were provided in English and Spanish. Each self-administered survey was coded with the local agency number and by whether the survey was completed in English or Spanish. A postcard was mailed to the sample population two weeks after mailing the survey as a reminder to return the completed surveys.

Analysis. Results were tabulated by local WIC agencies ($n=20$) for combined state totals. The Iowa Department of Public Health Center for Health Statistics conducted descriptive analysis and Pearson's Coefficients using SPSS. Mark Nord at the USDA Economic Research Service used Rasch scaling to determine item discrimination and severity scores between the food security items on this survey and the 1998 Current Population Survey Food Security Supplement (CPS-FSS). This was to test how closely the Iowa WIC Food Security Survey responses correspond to the CPS-FSS.



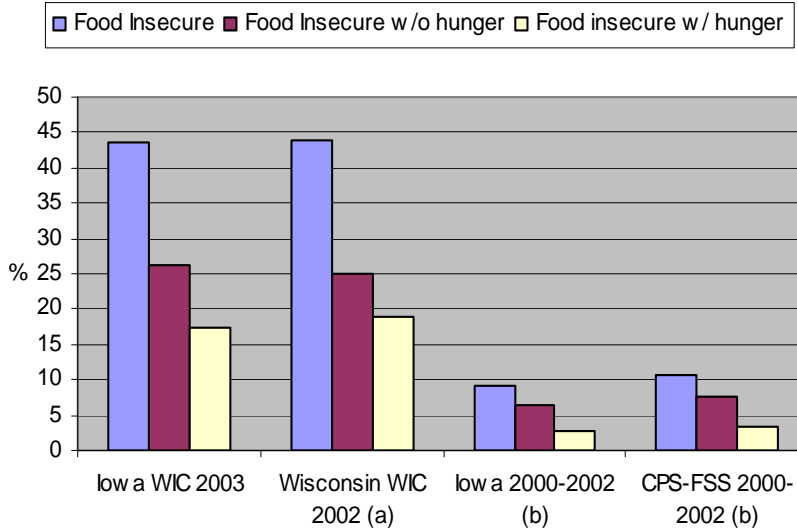
Survey Results

3018 completed food security surveys were returned for a 31.3 percent response rate. Five of the 20 local WIC agencies had fewer than 100 completed food security surveys returned. Almost 98 percent of the respondents were female. Fifteen percent of the respondents did not have any members of the household employed, whereas 53.4 percent of the respondents had one member of the household employed and 28.9 percent of the respondents had two members of the household employed.

More than 73 percent of the respondents made less than \$25,000 per year and 29.1 percent of the respondents made less than \$10,000 per year. Approximately 53 percent of the respondents had a high school education or less, whereas 47 percent of the respondents had technical or college level education. Sixteen percent of the respondents had a four-year college degree or more.

Almost 81 percent of the respondents were white; 12.4 percent were Hispanic or Latino; 3.0 percent of the respondents were black or African American; and 2.4 percent of the respondents were Asian, Native Hawaiian or Pacific Islander. More than 91 percent of the surveys were completed in English and 8.7 percent were completed in Spanish.

Figure 1. Comparison of Prevalence Rates of Food Insecurity and Hunger



(a) Wisconsin Food Security Survey in the WIC Population, June 2002, Wisconsin Division of Public Health, Dept of Health & Family Services
 (b) Census Population Survey-Food Security Supplement Data, Household Food Security in the United States, 2002/ FANRR-35, Economic Research Service, USDA.

Household Food Security

Households that responded affirmatively to two, three or four of the six food security questions were identified as food insecure without hunger. Households that responded affirmatively to five or all of the questions were identified as food insecure with hunger. Of the 43 percent of the respondents who were food insecure, 26.3 percent were food insecure without hunger and 17.4 percent of the respondents were food insecure with hunger (Figure 1). Approximately 56.3 percent of the respondents were food secure. The extent of food insecurity among Iowa WIC households is comparable to the results of the Wisconsin Food Security Survey of the WIC population.⁶

Approximately 44 percent of the white respondents were food insecure. Almost 41 percent of the Hispanic or Latino respondents were food insecure. More than 46 percent of the black or African American respondents were food insecure although there were fewer than 100 responses from this group.

The extent of household food insecurity among WIC participants in 2003 cannot be compared to the extent of household food insecurity among WIC participants in previous years due to using different survey questions. The Radimer-Cornell Food Security Survey was used in 1997 and in 2000 and the CPS-FSS scale was used in 2003, thus trend information cannot be examined.

Participation in Food Assistance Programs

More than 39 percent of the respondents did not participate in any other food assistance programs. Participation in the Food Stamp Program and the school lunch program were 32.4 percent and 29.8 percent respectively. Less than six percent of the respondents regularly received assistance from a food bank or food pantry.

Food Insecurity & BMI

After eliminating those surveys that had a pregnant woman in the household, BMI was calculated based on the self-reported height and weight of the respondent. More than 54 percent of the respondents were overweight (BMI=25.0 to 29.9) or obese (BMI \geq 30). Almost 57 percent of the respondents who had a BMI greater than 25 were in households that were food insecure without hunger. Approximately 56 percent of the respondents who were overweight or obese lived in households that were food insecure with hunger (Figure 2). This compares to 40.6 percent of the respondents who were of normal weight (BMI = 18.5 to 24.9) that lived in households that were food insecure without hunger and 40.3 percent of the respondents who were of normal weight that lived in households that were food insecure with hunger ($p=.062$).

Quality of WIC Services

The Iowa WIC Program periodically asks current WIC participants about their perception of the quality of services received at the local WIC agency. In 2003, 91.5 percent of the respondents rated the services received from WIC as excellent or good. In 2000, 91.8 percent of the respondents rated the services received from WIC as excellent or good. In 1997, the response was 98.1 percent.

Conclusion

Food insecurity and hunger within households is a combined outcome of limited income, access to food, and social networks. Limited access to safe and nutritious food is a determinant of health, nutritional status and the presence of developmental or chronic problems.

The results of the 2003 Iowa WIC Food Security Survey reveal that families who are receiving WIC supplemental foods are still struggling to obtain regular access to safe and nutritious food. Although a small percentage of respondents resort to emergency food supplies (food bank/pantry), there is a larger percentage of respondents who do not use additional food assistance programs beyond WIC.

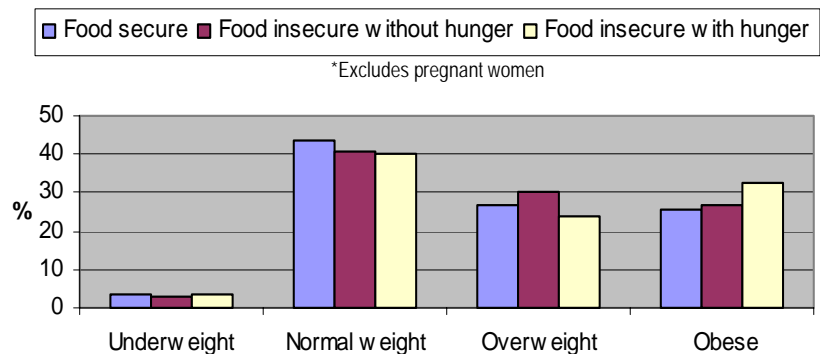
The cross-tabulation of household food security status and respondents' weight revealed a positive correlation between the presence of household food insecurity and overweight and obesity of the respondent. The results of the Iowa WIC Food Security Survey mirror the results of other studies that support the correlation between food insecurity and obesity.⁷⁻⁹ However, additional studies are needed to further investigate this relationship.

A Call to Action

The Iowa WIC Program understands the effects of food insecurity on health across the lifecycle and shares new information on efforts to best serve WIC participants and eliminate food insecurity in Iowa. WIC participants are screened to determine their regular access to safe and nutritious foods. WIC personnel make referrals to the various community food assistance resources for participants who may live in food insecure households. WIC participants also receive nutrition education to improve their household purchasing power and consumer skills.

Local WIC agencies are vital to local collaborative efforts and network with public health departments, community-based organizations, emergency food providers and programs that address food insecurity. The Iowa WIC Program keeps abreast of current legislation and the establishment of local, state and national food policies that pertain to food assistance programs. It is through these state and national partnerships that the food security safety net is strengthened and more Iowans will have access to safe and nutritious foods.

Figure 2. Household Food Security and BMI of Respondent* ($n=2,335$, $p=.062$)



Standard 6-Item Indicator Set for Classifying Household by Food-Security-Status Level (Short form of the 12-month Food Security Scale)¹⁰

1. “The food that we bought just didn’t last, and we didn’t have money to get more.” Was that often, sometimes, or never true for your household in the last 12 months?

- (1) Often true
- (2) Sometimes true
- (3) Never true
- (4) I don’t know

2. “We couldn’t afford to eat balanced meals.” Was that often, sometimes, or never true for your household in the last 12 months?

- (1) Often true
- (2) Sometimes true
- (3) Never true
- (4) I don’t know

3. In the last 12 months, did you or other members in your household ever cut the size of your meals or skip meals because there wasn’t enough money for food?

- (1) Yes
- (2) No
- (3) I don’t know

4. **If #3 is Yes**, how often did this happen?

- (1) Almost every month
- (2) Some months but not every month
- (3) Only 1 or 2 months
- (4) I don’t know

5. In the last 12 months, did you ever eat less than you felt you should because there wasn’t enough money to buy food?

- (1) Yes
- (2) No
- (3) I don’t know

6. In the last 12 months, were you ever hungry but didn’t eat because you couldn’t afford enough food?

- (1) Yes
- (2) No
- (3) I don’t know

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