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# Food Security Issues for Low-income Hawaii Residents

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Support provided by the US Food Stamp Program (FSP) is intended to promote health. The objective of this qualitative study was to examine food security for low-income Hawaii residents. A sample of low-income Hawaii residents (n = 86) were recruited to participate in a series of focus group discussions. Most participants were female (73.5%), Native Hawaiian/Pacific Islander (61.6%), ages 18-39 (62.7%), high school educated (80.5%), low-income (50.6% < \$10,000), used food stamps (73.5%), and had 4.07  $\pm$  2.89 persons per household. At 2 hour focus groups, participants received a healthy meal and a monetary incentive. Audio recordings were transcribed verbatim and analyzed using NVivo. Over 50% indicated FSP assistance was not enough. When this happened, most participants had alternatives including food banks, churches, friends and family members. Shopping strategies included budgeting, buying in bulk, or smarter shopping practices. Several participants were concerned about high living costs. Food insecurity should be addressed for FSP participants in Hawaii, with many residents not being able to meet nutritional and economic needs on their own.

Keywords: focus groups; food insecurity; food stamp program; Hawaii; low-income; nutrition

#### Introduction

Food insecurity and low-incomes have been linked to greater prevalence rates of childhood overweight and adult obesity. Food insecurity exists when people do not have suitable physical, social, or economic access to sufficient and nutritious food. Participation in the United States (US) Federal Food Stamp Program (FSP) helps low-income individuals and families purchase the food they need for good health, based on income guidelines, and has been found to help reduce the effects of food insecurity on health. However, for some households, the support provided by the FSP is not always enough to meet nutritional and economic needs. Figure 1.

As defined by the FSP, a household consists of individuals who reside in the same residence and purchase and prepare food together.<sup>5</sup> To determine eligibility and benefits, household income and resources are summed and compared to income guidelines based on household size. For Hawaii, income guidelines are 15% higher than those for the continental US.<sup>5</sup> In 2006, over 87,000 people from over 44,000 Hawaii households participated in the FSP program, with national participation rates of over 26 million

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people.<sup>5</sup> Between 2004 and 2006, 7.8% of Hawaii households that participated in the FSP reported being food insecure.<sup>2</sup>

Depending on family size, it costs 30%-60% more than the national average to live in Hawaii.<sup>6</sup> This is due, in part, to a reliance on imported goods and limited available land. The cost of consumables can be up to 66% more than the national average depending on family size, earnings, and spending patterns.<sup>6</sup> For example, in 1999, the cost of milk in Hawaii was the highest in the nation.<sup>7</sup> Between 2005 and 2007, the price of whole milk in Honolulu averaged 75 cents more per half-gallon than the national average.<sup>8</sup>

Hawaii is the most expensive state for renters, who need to make \$22.30 per hour to afford a two-bedroom apartment. This means that a family with two persons making minimum wage (i.e., \$7.25 per hour) would find it almost impossible to pay rent. As a result, for the average dual-income Hawaii family, rental housing and home ownership have become unaffordable or even impossible.

The combination of high living costs and low-incomes negatively impacts some Hawaii residents, contributing to food insecurity. To date, few studies exist regarding Hawaii's FSP eligible population. Even fewer exist regarding the population's specific strategies for dealing with food security issues. The purpose of this study was to examine food security issues for FSP participants and eligibles in Hawaii.

### Methods

This qualitative study used data from 10 focus groups conducted across the state of Hawaii in 2007. Focus group participants had to meet the inclusion criteria of annual household incomes ≥130% of the Federal Poverty Guidelines. <sup>12</sup> Additionally, proxy categories used to determine eligibility and included the following: 1) persons participating in the FSP; 2) persons who received Medicaid health insurance; 3) persons who lived in public housing; 4) persons who were consumers at food banks, food pantries, and soup kitchens; 5) persons whose children received free or reduced lunches; and 6) persons who participated in the Women, Infants, and Children (WIC) Federal assistance program.

Of the 86 total participants, 83 completed a demographic questionnaire. Sixty-one participants (73.5%) were female and twenty-two (26.5%) were male. Participant ages ranged from 18 to over age 60 and were grouped into categories. Thirty-five percent of participants (n = 29) were ages 18-29, 28% (n = 23) were ages 30-39, 37% (n = 22) were ages 40-49, 5% (n = 4) were ages 50-59, and 6% (n = 5) were age 60 or older. Average household size was  $4.07 \pm 2.89$  persons and ranged from 1-14 persons per household. One-third of the sample (n = 27) lived alone and almost 50% (n = 40) reported having no children. Over 63% of participants (n = 66) reported obtaining a high school education or more. The majority of participants (n = 53) were Native Hawaiian/Part Hawaiian/Pacific Islander, 17% (n = 14) were White, 9.6% were Asian (n = 8), 3.6% (n = 3) were African American, and 6% (n = 5) were of other ethnicities. Over half of the sample (n = 42) reported an annual household income of <\$10,000, with incomes ranging up to \$70,000. Over 73% of the sample (n = 61) reported using food stamps, 19 received Temporary Assistance to Needy Families (TANF), 13 received assistance from WIC, 2 received commodities, and 33 reported receiving other public assistance (e.g., free or reduced school lunches).

Open-ended questions were asked about 13 different content areas: 1) food purchasing behaviors, 2) knowledge and attitudes about food, 3) food behaviors and

cultural concerns, 4) food-related barriers, 5) knowledge of nutrition programs and resources, 6) attitudes about nutrition programs and resources, 7) nutrition program barriers and motivators, 8) food stamp program barriers and motivators, 9) physical activity behavior and practices, 10) attitudes about physical activity, 11) physical activity barriers and motivators, 12) physical activity programs, and 13) opinions about selected printed messages. This study analyzed relevant data from content areas 1-8.

Potential participants were contacted by phone or in-person. Focus groups were conducted relative to the state's population distribution with six in Honolulu County, two in Hawaii County, one in Kauai County, and one in Maui County. Locations were determined by the availability of appropriate facilities. After arrival at a focus group location, each participant gave informed consent and then filled out a demographic information sheet. Participants were next given a healthy meal and the focus group process was explained by a trained facilitator. The facilitator established ground rules and facilitated group introductions. Each focus group lasted for two hours or less and was audio recorded. At the end of each focus group, participants were thanked for their participation and debriefed. Each participant received a monetary incentive and parking reimbursement, if necessary.

Each focus group recording was transcribed verbatim. Transcripts were imported and analyzed using NVivo 7 software (QSR International, Cambridge, MA). Two researchers individually read each transcript and then jointly decided on 5 key themes relevant to food security. The themes were as follows: 1) amount of food stamps, 2) alternative food resources, 3) food security strategies, 4) lack of facilities, and 5) high cost of living. Each transcript was then individually coded.

#### Results

#### Theme 1 – Amount of Food Stamps

Thirty statements were found that mentioned the amount of food stamps provided by the FSP. The vast majority of participants said the amount of food stamps they received was often not enough, with one participant stating, "I always run out of food." Another participant said the lack of sufficient food stamps and the consequent food situation was "scary. It scares me." Many participants reported running out of food stamps by the middle of the month, while a few agreed, "Yeah, the food stamps that they give only last one week or less." Several participants tried to budget, but with minimal success; as one participant stated, "...there are still times when I still find myself within the month buying with cash."

Inadequate food stamps also made it difficult to purchase and consume healthier foods: "So it's like maybe you can eat certain foods and try and eat good [sic] for two weeks. Then the next two weeks you not [sic] because you not [sic] going have [sic] the food stamps to buy the vegetables and the so [sic] you just going have [sic] the meat and the rice. Chicken and rice, you know." Another participant added, "More and more to the healthy and light whole wheat stuff cereal, that's another five dollars: good cereal, real healthy cereal. So I mean, I want to eat healthy, but again, I'm like, okay if I buy a regular bag of Cheetos, that's two dollars versus the baked organic Cheetos that is [sic] five dollars."

A few participants did feel that the assistance provided with the FSP was enough. One participant said, "I don't normally run out. I normally [sic] helping out other people with what I got [sic]." Another stated that they "Never ran out but came to, like, the same thing for the last couple days of the month."

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# Theme 2 - Alternative Food Resources

Avariety of places were mentioned in the 50 references about additional food resources used by participants when they ran out of food stamps. These included the FoodBank, Salvation Army, churches, family members, and friends. The FoodBank was frequently mentioned, though several participants found it hard to find fresh foods there: "you get if you [sic] lucky." Some fished for their food; "I forgot to mention that a lot of times, because how I was brought up, a lot of times we ate fish, you know. We went diving for manini or aholehole or tako or whatever and we would fry that up with a bowl of rice, shoyu and couple [sic] maninis, and we all [sic] good. So still, until this day, a lot of our meals is [sic] things that I get out of the ocean." Surplus food sources were also utilized, though the quality of food given at surpluses varied: "they give more candy than food." Programs, such as the Care-A-Van and River of Life, were also mentioned.

# Theme 3 - Food Security Strategies

To ensure they had enough food to last them through the month, participants employed a variety of tactics, including budgeting carefully, shopping only at sales, and shopping in bulk (15 references). Participants mentioned several creative shopping practices, "...do half your [sic] month's shopping all one [sic] time," "I go according to what's on sale," "I try to budget it, but you know, like, to make it last. It saves me money with food. I try to stretch it for a whole month," and "I usually buy in bulk." Some participants grew their own produce, such as "green onions, lettuce, [and] papaya." Others purchased food from fast food establishments to supplement their food stamps. Several participants mentioned pooling and sharing food stamps.

## Theme 4 – Lack of Facilities

In 7 references, participants mentioned not having adequate food storage and preparation areas: "I don't have a kitchen so it's kind of hard for me." One participant only had "...a bathroom sink and refrigerator." Some participants had to improvise food storage areas, such as using ice and coolers as a substitute for a refrigerator. One participant stored his food by putting "...it all in a box and throw [sic] it in the van" and then prepared the food on a propane stove. Another participant did have food storage and preparation areas in her household but had to share with "five women all together" in the same space.

# Theme 5 - High Cost of Living

Six references were made about the high cost of living in Hawaii. "Hawaii is so expensive. The cost of living is outrageous here and a lot of people you know have a hard time making it." High costs were mentioned for rent, gas, and groceries. "The price of food going [sic] up." Several participants reported living on the beach because of the high cost of living, "You can't even afford rent to put a roof over your head." "Even if you have a job, I mean, you still can't afford rent.'

Participants liked the assistance provided by the FSP, "I heard some talk about food stamps and welfare. Whoever is getting that is pretty lucky to be receiving that because I used to be on that too, [sic] and I could spend time with my kids doing activities and stuff. But now I got cut off, so I just try to work hard." The food stamps also helped out several participants most in need; those that would otherwise have a hard decision to make: "pay for rent or pay for food."

## Discussion

This study provides novel data about issues related to food security for low-income Hawaii residents. Despite food stamp assistance, food insecurity was still a problem for many of these low-income Hawaii residents.<sup>2</sup> As found in previous studies, a number of participants found FSP assistance inadequate, as they reported running out of food before the end of the month, and the amount of food stamps was seen by some participants as insufficient for healthier food choices.<sup>4</sup> Participants who did run out of food mentioned having additional resources in the community or through friends and family members. Creative shopping techniques were mentioned by participants to "stretch" their food stamp dollars by budgeting, buying in bulk, or even pooling food stamp resources together with other households. Some participants lacked adequate facilities to store and prepare food, and many mentioned the difficulties associated with the high cost of living in Hawaii.<sup>6,9</sup> In fact, a few participants were unable to afford rent and had to resort to living on the beach.<sup>10</sup>

Some participants received assistance from multiple sources but still experienced food insecurity. It is clear that the unique location and living situations in Hawaii posed additional problems for several low-income residents, even if they received FSP assistance.<sup>6,9-11</sup> Underlying attitudes and emotions detected in participants' comments were both positive (e.g., resourcefulness, determination, gratitude) and negative (e.g., fear, frustration).

#### Conclusion

In order to help reduce food insecurity, local FSP offices should publicize additional community food programs and resources. Classes could be held to teach food security strategies, such as budgeting, buying in bulk, or other creative shopping practices. Future research should also explore the impact of FSP qualification guidelines and language limitations for recent non-English-speaking immigrants to Hawaii. Additionally, since adult obesity and childhood overweight have been associated with food insecurity and low-income, future studies could conduct health assessments in this population to determine specific health needs. <sup>1</sup>

## Acknowledgments

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## References

- Martin KS, Ferris AM. Food insecurity and gender are risk factors for obesity. J Nutr Educ Behav. 2007;39:31-36.
- Nord M, Andres M, Carlson S. Household Food Security in the United States, 2006. ERR-49, USDA, Economic Research Service; 2007. http://www.ers.usda.gov/Publications/ERR29/ ERR29.pdf. Accessed January 25, 2008.
- 3. Cook JT, Frank DA, Levenson SM, et al. Child food insecurity increases risks posed by household food insecurity to young children's health. *J Nutr.* 2006;136:1073-1076.

- Oberholser CA, Tuttle CR. Assessment of household food security among food stamp recipient families in Maryland. Am J Public Health. 2004;94:790-795.
- U.S. Department of Agriculture, Food and Nutrition Service, Office of Analysis, Nutrition and Evaluation. Characteristics of Food Stamp Households, Fiscal Year 2006. Alexandria, VA: United States Department of Agriculture; 2007.
- ERI. Geographic reference report 2006. Cost of Living Analyses for Honolulu, Hawaii vs. U.S.: Average Level; 2006. http://www.erieri.com. Accessed January 25, 2008.
- Kojima CT. Isle Milk Prices Highest in the Nation. http://starbulletin.com/1999/04/02/news/ story1.html. Accessed January 27, 2008.
- Essoyan S. State has Priciest Milk in the U.S. http://starbulletin.com/2007/08/05/news/ story01.html. Accessed January 27, 2008.
- BLR. 10 Most Expensive States for Renters, 2005. http://hr.blr.com/news.aspx?id=17179. Accessed December 15, 2007.
- 10. U.S. Department of Labor. Minimum Wage Laws in the States, 2008. http://www.dol.gov/esa/ minwage/america.htm. Accessed January 29, 2008.
- 11. Alternative-Hawaii. The Price of Paradise, 2006. http://www.alternative-hawaii.com/ overpop.htm. Accessed January 27, 2008.
- 12. US Federal Register. 2007 Poverty Guidelines. Fed Register. 2007;72(15):3147-3148.
- 13. US Census Bureau. Hawaii Quickfacts from the US Census Bureau; 2007. http://quickfacts. census.gov/qfd/states/15000.html. Accessed December 15, 2008.