



Over 2.2 Million Low-Income California Adults Are Food Insecure; 658,000 Suffer Hunger

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More than 2.24 million low-income adults in California cannot always afford to put food on the table, and as a result, almost one out of three of these adults, 658,000, experiences episodes of hunger. This is a sad reality in a state that has the largest agricultural economy in the United States and produces abundant high-quality fruits and vegetables for much of the nation. The ranks of “food insecure” Californians include not just the most impoverished individuals but working adults, retired older persons with fixed incomes, and many parents with children.

These new findings are based on data from the California Health Interview Survey (CHIS 2001). CHIS 2001 is California’s largest representative health survey of the state and its counties. The survey included a sizeable sample of the estimated 8 million low-income Californians – those living in households with incomes *below 200% of the federal poverty level*.^{*} It was found that more than 8.3% of these low-income adults experience food insecurity with hunger. Another 20.0%, one out of five low-income adults, experience food insecurity that falls short of hunger. Food insecurity, with or without hunger, causes families to forego such basic needs as rent, utilities, and medical care in order to put food on the table. *Food security* is defined as access to an adequate nutritious diet. Food security is a goal of any society, essential for the good health of all. Based on these new CHIS 2001 findings, the paradox of food insecurity and hunger in food-abundant California clearly shows that this state can do better.

Measuring Food Insecurity

Lack of assured access to enough food through socially acceptable means is termed *food insecurity*. In its extreme form, this results in hunger — going without food for lack of money or other resources. Over the last several decades, health advocates and researchers have worked on ways to accurately measure the prevalence of hunger and food insecurity in order to track trends using this basic indicator of human welfare. These efforts have resulted in the development of standard instruments to estimate the prevalence and severity of the problem. The food security measure that was used in CHIS 2001 is an abbreviated six-item scale derived from the 18-item U.S. Household Food Security Module used in national surveys.¹ In CHIS 2001, the food security questions were asked only of individuals in households whose incomes were estimated to be less than 200% of the federal poverty level. The survey asked about a person’s food security over the previous 12-month period and focused on the lack of resources or money as reasons for food insecurity. The survey only interviewed persons living in households with telephones. Households without telephones and the homeless population are not included in these results.

Food Insecurity Is a Risk to Health

While closely associated with poverty, food insecurity is a threat to well-being and long-term health. There is abundant evidence from other studies that hunger and food insecurity pose substantial risks to health resulting in large costs to society through

The ranks of “food insecure” Californians include working adults, retired older persons with fixed incomes, and many parents with children.

^{*} The annual income for a family of four at 200% FPL is \$36,200.

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increased needs for medical care. There are also related social and mental health costs. Individuals who are food insecure have been shown to have poor quality diets making them vulnerable to a wide variety of diseases. There are also health risks and consequences related to the worry, anxiety, and management trade-offs that must be employed in food-insecure households. Whether mediated through malnutrition or other routes, the negative impacts are substantial. Children living in food-insecure households tend to do less well in school, with increased absences, tardiness, more school suspensions, and poorer cognitive functioning.²⁻⁴ Their overall health status is worse, with more health problems such as headaches, colds, and ear infections than other children.^{5, 6} Adolescents in food-insecure households have higher rates of depressive and suicidal symptoms and are more than twice as likely to have seen a psychologist than other teenagers.⁷ Adults who are food insecure tend to forego needed medical care when hunger threatens. For example, food insecure adults with diabetes have more costly and life-threatening complications of their illness, requiring more physician visits and medical care than food-secure persons with diabetes.⁸

Food Insecurity and Hunger in California

CHIS data show that 28.3% of low-income adults in California are food insecure; this represents about 2.24 million adults. Although this study only looked at low-income adults, it should be understood that some fraction of adults above 200% of poverty also experience food insecurity intermittently, seasonally, or in response to sudden shocks such as job layoffs or illness. Thus, it is reasonable to conclude that among all California adults, the number of food insecure is higher than 2.24 million. When children in these households are taken into account, the actual number of persons may exceed 5 million according to estimates by the U.S. Department of Agriculture.⁹

Among all adults in households with incomes below 200% of poverty, 28.3%, or 2.24 million, were food insecure in 2001.

The CHIS 2001 results show that for all adults below 200% of poverty who are food insecure, one in three experiences hunger. Statewide this is estimated to be 658,000 persons. More than half of these persons, 365,000, are below 100% of poverty.

The level of food insecurity and hunger among low-income adults varies across the state. Exhibit 1 is a map showing the geographic distribution of food insecurity across California in the 33 counties and 8 county groupings measured in the survey.* Many of California's northern rural counties and the agriculturally rich San Joaquin Valley have the highest rates of food insecurity, exceeding 30% of low-income households in several northern counties and ranging from 33% to 41% in the San Joaquin Valley. The highest rates are found in Tulare (41.4%) and Fresno (35.7%) counties. Exhibit 2 shows the percent of low-income adults who are food insecure and the percent who are food insecure with and without experiencing hunger for each of the 41 counties and geographic areas surveyed. Hunger was also prevalent among low-income adults across most of the state's northern rural Sierra range counties and across the San Joaquin Valley.

In the more populous urban areas, Los Angeles County has a food insecurity prevalence of 30.1% among low-income households and, due to its large population, contributes the largest number of the state's adults, approximately 777,000, living under the threat of hunger or actually experiencing hunger.

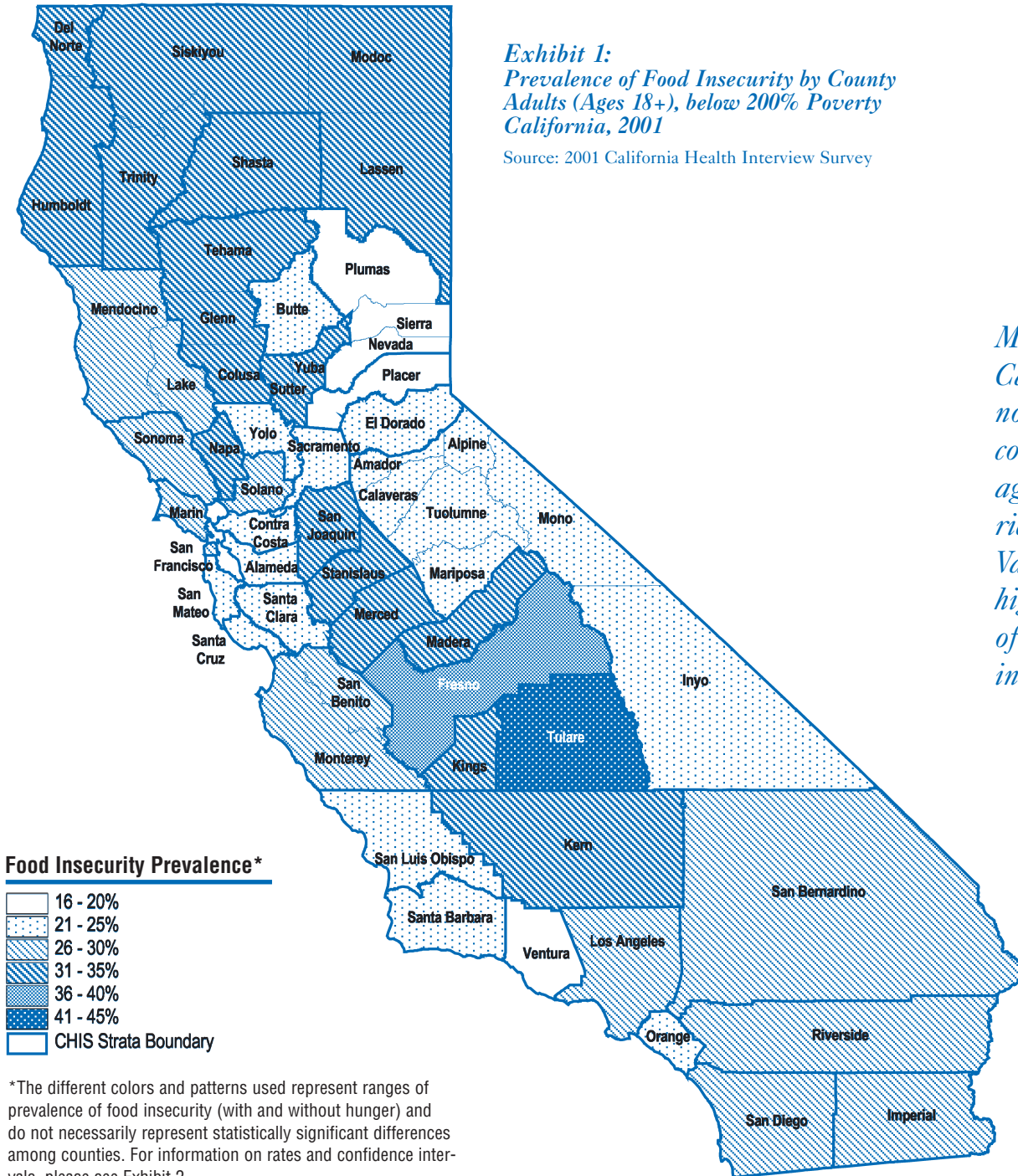
Among race/ethnic groups, the highest rates of food insecurity are among low-income American Indians and Alaska Natives, African Americans, and Latinos. American Indians and Alaska Natives and African Americans report the most severe problems, reflected in the highest hunger rates of 16.9% and 14.6%, respectively (see Exhibit 3).

Among the most vulnerable adults in the population in terms of the effects of being

* CHIS sampled 33 individual counties and 8 geographic areas made up of groupings of smaller counties. When combined, these 41 counties and geographic areas encompass the entire state.

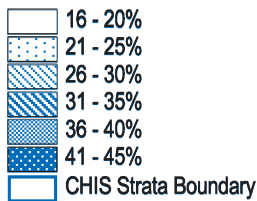
*Exhibit 1:
Prevalence of Food Insecurity by County
Adults (Ages 18+), below 200% Poverty
California, 2001*

Source: 2001 California Health Interview Survey



Many of California's northern rural counties and the agriculturally rich San Joaquin Valley have the highest rates of food insecurity...

Food Insecurity Prevalence*



*The different colors and patterns used represent ranges of prevalence of food insecurity (with and without hunger) and do not necessarily represent statistically significant differences among counties. For information on rates and confidence intervals, please see Exhibit 2.

hungry are pregnant women and the elderly. Approximately 14.4% of older, low-income adults, those over 65 years old, were found to be food insecure. Among low-income pregnant women, the prevalence of food insecurity was 29.5%. As many as 41.9% of low-income adults in single-parent families with children were food insecure, and one out of three of these experienced hunger. Among

low-income families, being unemployed and looking for work conferred additional risk. There was a 39.1% food-insecurity prevalence among these persons contrasted with 27.8% for those who reported working. Undocumented individuals seem to be at particular risk: 35.8% of low-income adults who reported not being legal residents were

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Over 2.2 Million Low-Income California Adults Are Food Insecure; 658,000 Suffer Hunger

*Exhibit 2:
Prevalence of Food Insecurity (with and without hunger) among Adults (Ages 18+) below 200% Poverty, by County/County Group,* California, 2001*

Source: 2001 California Health Interview Survey

	FOOD INSECURE (with and without hunger)			FOOD INSECURE WITH HUNGER		
	%	95% C.I.**	Estimated Pop.	%	95% C.I.	Estimated Pop.
Northern and Sierra Counties						
Shasta	35.0	(28.1-41.8)	16,000	15.6	(10.5-20.7)	7,000
Tehama, Glenn, Colusa	32.6	(26.7-38.6)	12,000	12.5	(8.1-16.9)	4,000
Humboldt, Del Norte	31.8	(25.6-38.0)	15,000	15.9	(10.9-20.8)	7,000
Sutter, Yuba	31.8	(25.5-38.0)	12,000	10.7	(6.7-14.6)	4,000
Siskiyou, Lassen, Trinity, Modoc	30.8	(24.6-37.0)	9,000	11.9	(7.3-16.5)	3,000
Mendocino, Lake	28.2	(21.9-34.4)	13,000	12.0	(8.0-16.0)	5,000
Tuolumne, Calaveras, Amador, Inyo, Mariposa, Mono, Alpine Butte	25.2	(18.5-31.7)	11,000	10.3	(5.6-15.1)	4,000
Nevada, Plumas, Sierra	24.2	(18.8-29.5)	14,000	11.2	(7.2-15.2)	7,000
	19.8	(11.9-27.7)	5,000	4.0	(1.4-6.6)	1,000
Greater Bay Area						
Napa	31.4	(22.1-40.6)	6,000	11.3	(4.6-18.0)	2,000
Solano	30.2	(23.8-36.6)	20,000	11.4	(7.7-15.1)	7,000
Sonoma	28.9	(19.7-38.1)	21,000	14.1	(7.2-21.1)	10,000
San Francisco	28.8	(23.7-33.9)	47,000	9.4	(6.6-12.2)	15,000
Marin	26.1	(14.5-37.7)	6,000	10.8	(1.2-20.4)	3,000
Santa Clara	25.1	(18.4-31.8)	74,000	5.2	(2.3-8.1)	15,000
San Mateo	22.0	(14.0-30.1)	25,000	6.5	(2.1-10.9)	7,000
Alameda	21.7	(16.4-27.0)	53,000	7.0	(4.1-10.0)	17,000
Contra Costa	21.6	(14.5-28.7)	27,000	4.5	(1.8-7.1)	6,000
Sacramento Area						
Sacramento	24.0	(18.4-29.7)	56,000	8.1	(4.8-11.4)	19,000
Yolo	22.9	(15.8-29.9)	10,000	8.6	(4.2-12.9)	4,000
El Dorado	22.0	(15.1-28.9)	6,000	13.0	(7.5-18.5)	4,000
Placer	19.0	(10.9-27.0)	6,000	7.6	(1.5-13.7)	2,000
San Joaquin Valley						
Tulare	41.4	(34.7-48.0)	50,000	10.6	(6.5-14.6)	13,000
Fresno	35.7	(29.9-41.4)	83,000	11.1	(7.0-15.2)	26,000
Kings	34.6	(27.9-41.4)	12,000	8.7	(5.3-12.1)	3,000
Merced	34.1	(28.0-40.3)	22,000	10.4	(6.8-14.0)	7,000
Kern	33.6	(28.6-38.7)	64,000	8.3	(5.3-11.2)	16,000
Stanislaus	33.0	(25.9-40.1)	37,000	10.4	(5.8-15.0)	12,000
Madera	32.9	(27.0-38.8)	13,000	11.6	(7.6-15.6)	4,000
San Joaquin	32.6	(26.7-38.5)	44,000	11.7	(7.9-15.5)	16,000
Central Coast						
Monterey, San Benito	29.4	(22.1-36.7)	29,000	7.5	(3.9-11.1)	7,000
San Luis Obispo	25.5	(19.0-32.0)	15,000	12.5	(7.4-17.7)	7,000
Santa Cruz	24.5	(17.6-31.4)	14,000	8.3	(4.2-12.4)	5,000
Santa Barbara	22.8	(17.4-28.1)	22,000	6.5	(3.6-9.4)	6,000
Ventura	19.8	(13.2-26.4)	30,000	4.8	(0.7-8.8)	7,000
Los Angeles						
Los Angeles	30.1	(28.4-31.8)	777,000	8.1	(7.2-9.0)	209,000
Other Southern California						
San Bernardino	28.5	(24.0-32.9)	125,000	9.3	(6.5-12.1)	41,000
Riverside	27.0	(22.3-31.7)	104,000	9.0	(6.0-11.9)	34,000
San Diego	26.9	(23.1-30.8)	168,000	8.0	(5.8-10.1)	50,000
Imperial	26.2	(21.3-31.1)	13,000	4.9	(2.7-7.1)	2,000
Orange	25.5	(21.2-29.8)	156,000	5.9	(3.9-7.8)	36,000
Statewide	28.3	(27.4-29.3)	2,243,000	8.3	(7.8-8.8)	658,000

*CHIS sampled 33 individual counties and 8 geographic areas made up of groupings of smaller counties. When combined, these 41 counties and geographic areas encompass the entire state.

**The prevalence results represent estimated values that are very close to the actual values for adults (ages 18+) living below 200% of the poverty who experienced food insecurity (with and without hunger) in California in 2001. Because the estimated value is based on a sample of this population, it has a degree of uncertainty, and the confidence interval (C.I.) shows the range where the actual value may lie. Hence, for 95% C.I., you can assume with 95% confidence that the actual value lies between the lower and upper C.I. range.

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food-insecure compared to 25.2% of U.S. citizens of similar income levels (see Exhibit 4).

Food Assistance Programs

Good jobs with livable wages and an adequate social safety net for people who are unable to work are California’s primary defenses against hunger. Absent these, the next best response to hunger and food insecurity is wide participation in the federal food assistance programs. Each program (see box) has a unique and necessary role in reducing food insecurity.

The CHIS 2001 data show that some adults in need of help are participating in the federal Food Stamp program. Also, women in most need are likely to be enrolled in the Women, Infants, and Children Special Supplemental Nutrition Program (WIC). Among the estimated 4.95 million adults in families with incomes low enough to be eligible for food stamps, that is, below 130% of the federal poverty level, about 496,000, or 10.2%, reported receiving food stamps. Of these Food Stamp participants, 51.1% had experienced food insecurity in the previous year compared to only 27.7% of the nonparticipants. However, among adults below 130% of poverty who experience hunger, 80.5% (approximately 358,000 adults) were not in the Food Stamp Program.

For all pregnant women who are below WIC’s income eligibility criterion, that is, 185% of the poverty level, 31.7%, or almost 31,000, report being food insecure. One out of four of these food-insecure women (24.1%) reports not being enrolled in WIC. Among these 31,000 food-insecure pregnant women, over 8,300 reported experiencing hunger with one in three (34.2%) not being enrolled in the WIC program (see Exhibit 5).

Nutritional risk as well as income are criteria used for WIC eligibility. Just looking at the estimated 1 million income-eligible women who reported being pregnant and/or had one or more children under age 5, almost 58.5% reported being enrolled in WIC with two out of five of these women being food insecure. And although about 8%, or 78,000, of this population of women reported hunger whether or not they were enrolled in WIC, the WIC enrollees tended to be poorer (70.7% below the poverty line vs. 46.2% for nonenrollees), younger, and much more likely to be unemployed. Since poverty is associated with hunger, these data suggest that the WIC program is enrolling those in greatest need. This also suggests that WIC is potentially curbing hunger among participants because the hunger rate is not greater than that of nonparticipants.

FEDERAL FOOD ASSISTANCE PROGRAMS

The Food Stamp Program:

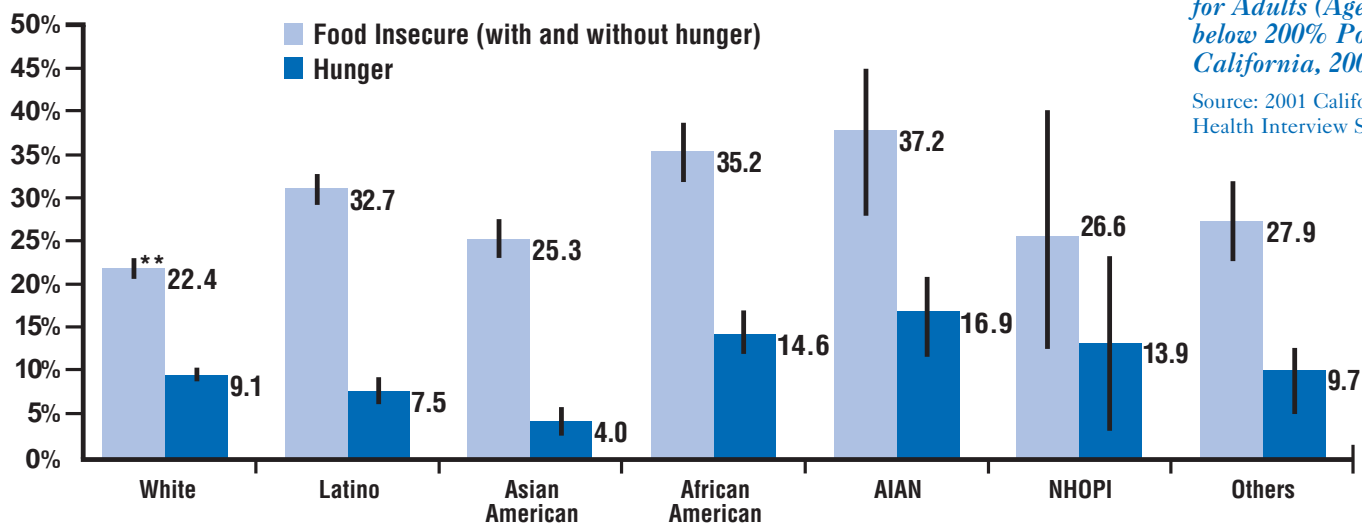
Enables low-income children, families, and individuals to buy nutritious food through normal channels such as supermarkets and grocers. Visit <http://www.fns.usda.gov/fsp/>

Women, Infants, and Children Special Supplemental Nutrition Program (WIC):

This highly effective program sees that low-income pregnant women and their babies and young children determined to be at nutritional risk have access to the nutritious food and prenatal care they need. Visit <http://www.fns.usda.gov/wic/>

Exhibit 3:
Prevalence of Food Insecurity (with and without hunger) and Prevalence of Hunger by Race/Ethnicity for Adults (Ages 18+), below 200% Poverty California, 2001*

Source: 2001 California Health Interview Survey

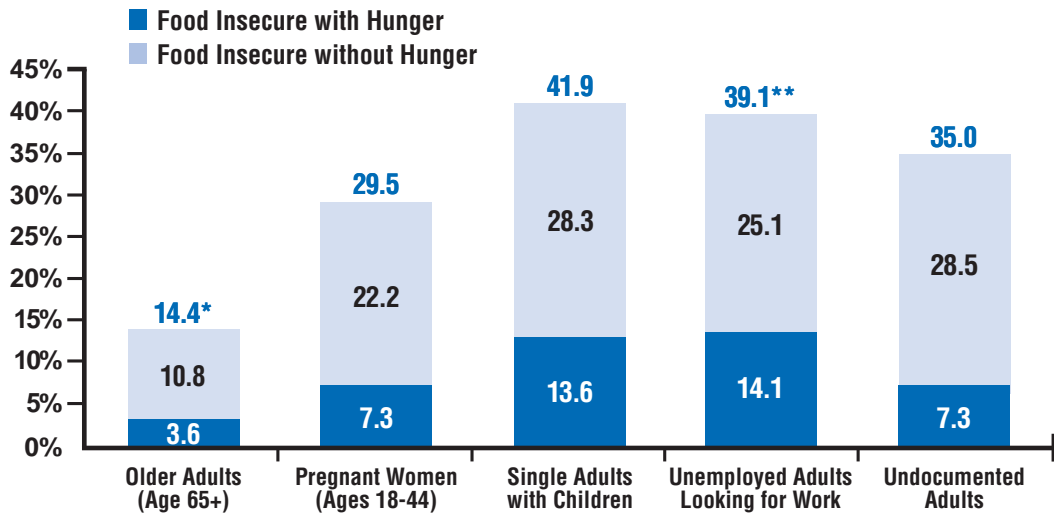


*Race/Ethnicity is presented here using the UCLA Center for Health Policy Research’s definition which treats Latino as a mutually exclusive category and takes into account the race/ethnicity with which respondents most identify. American Indian and Alaska Native is abbreviated AIAN. Native Hawaiian and Other Pacific Islander is abbreviated NHOPI.

**The bold, vertical bars represent the 95% confidence interval (C.I.) bands. Because the estimated value is based on a sample of this population, it has a degree of uncertainty, and the C.I. band shows the range where the actual value may lie.

Exhibit 4:
Prevalence of Food Insecurity (with and without hunger) among Vulnerable Adult Groups, below 200% Poverty, California, 2001

Source: 2001 California Health Interview Survey



*Top numbers represent total prevalence of food insecurity (with or without hunger) for each group.

**Total prevalence of food insecurity does not add up due to rounding.

While these federal programs help reduce hunger and food insecurity, they are underutilized. The Food Stamp Program reaches only 49% of eligible Californians according to the U.S. Department of Agriculture.¹⁰ There are several determining factors for eligibility for food stamps, including income. Households may be eligible for food stamps if their incomes are below 130% of the federal poverty level. CHIS suggests that 1.46 million adults experiencing food insecurity in California have incomes below this 130% level, yet

almost 1.21 million are not getting food stamps. The CHIS findings indicate that this is resulting in unnecessary hunger because food stamps can and do help.

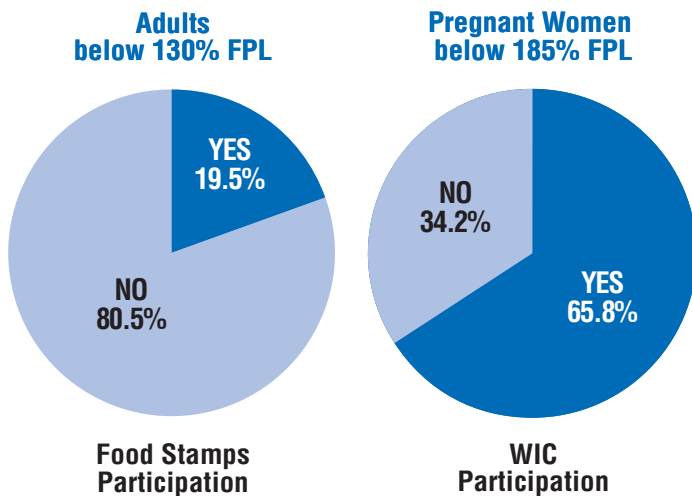
Policy Recommendations

It is no surprise that poverty and hunger go hand in hand. Increases in the resources that Californians have for food can be achieved through improved wages and adequate cash assistance programs for seniors, the disabled, and the unemployed and underemployed. In the meantime, the following policy options should be considered:

1. Hunger and food insecurity should be routinely included as basic health indicators in all health surveillance surveys in California, as they are in national surveys.
2. Increase participation in the federal food programs by streamlining enrollment procedures. State policymakers can make application processes easier, especially for busy working families, by doing the following:
 - a. Reduce trips to the food stamp office. It takes an average of 5 hours and 3 trips to a county office to get food stamps.¹¹ Legislators can require the use of appropriate alternatives, such as telephone and mail-in applications.
 - b. Automatically enroll low-income children in school meals. California is just one of three states that do not match state welfare data with state education

Exhibit 5:
Percent of Income-Eligible Persons Reporting Hunger Participating in Food Assistance Programs (FPL = Federal Poverty Level)

Source: 2001 California Health Interview Survey



data to automatically enroll its children in the free and reduced-price school meals programs.

c. Eliminate the practice of finger-imaging applicants. Food Stamp applicants in California must submit to a fingerprint-type scan in order to get help. This costly imaging adds time to an already lengthy process. The California State Auditor is currently examining if and how this may be deterring eligible people from applying.

3. Seize the opportunity provided by the Congressional Reauthorization of Child Nutrition Programs in 2003. As the data indicate, families with children, especially single-parent families, have higher rates of food insecurity. Congress can address this next year when it reviews child nutrition. Among the things Congress can do:

a. Expand the reach of the School Breakfast Program and move toward a “universal” breakfast system where all students can start the day with breakfast regardless of income. It can also promote the “breakfast in the classroom” alternative that is intended to remove the problems of space and time for breakfast at many schools.

b. Ensure children are fed year round by making it easier for community-based organizations to serve meals when school is out by combining the Summer Food Program and Child Care Food Program.

c. Serve more children in school by offering all low-income children free meals. Schools offer meals in three categories: full-price, reduced-price, and free. The reduced-price category serves children between 130% and 185% of poverty and these students are required to partially pay for their meals. This partial payment can be burdensome for many low-wage families and is also burdensome for schools to administer.

4. Invest in outreach for the Food Stamp Program and WIC since their target populations are the groups with the highest prevalence of food insecurity and hunger.

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Data Source

This policy brief on food insecurity and hunger in California is based on findings from the 2001 California Health Interview Survey (CHIS 2001). CHIS 2001, the largest health survey ever conducted in any state and one of the largest in the nation, covers a broad range of public health concerns including health status and conditions,

...among adults below 130% of poverty who experience hunger, 80.5%...were not in the Food Stamp Program.

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health-related behaviors, health insurance coverage, and access to health-care services. CHIS 2001 interviewed 55,428 households randomly drawn from every county in California for its random-digit dial (RDD) telephone survey, providing a sample that is representative of the state's noninstitutionalized population (data were weighted based on the 2000 Census). CHIS 2001 interviewed one sample adult in each household. The data on food insecurity and hunger are based on 17,673 adult interviews in households with incomes below 200% of the federal poverty level (FPL). The Food Stamp analysis was based on 10,399 adult interviews in households with incomes below 130% FPL. The WIC analysis was based on 1,901 interviews with women who were pregnant and/or had a child under age 5 living in households with incomes below 185% FPL. The interviews, available in six languages, were conducted between November 2000 and September 2001.

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