SEPTEMBER 2017

LA HEALTH

FOOD INSECURITY IN LOS ANGELES COUNTY

Introduction

Most Americans are able to consistently access and purchase high quality, nutritious food to live a healthy life. Nonetheless, recent data from 2016 demonstrate that approximately 12.3% of U.S. households remain food insecure, which means that they face barriers at some time during the year to purchasing healthy foods like fruits, vegetables, lean meats, and foods high in fiber.[1] Food insecurity is more likely to occur among racial and ethnic minorities and low-income communities.[1,2] The United States Department of Agriculture (USDA) considers a household to be food insecure if it experiences either:

1. *Low food security* – reports a reduction in the quality, variety, or desirability of diet with little to no indication of reduced food intake, or
2. *Very low food security* – reports of multiple indications of disrupted eating patterns and reduced food intake[3]

Families and individuals in food insecure households often have poor diets because they resort to buying less expensive foods that are high in calories but lacking in nutritional value. For instance, they are more likely to eat in fast food restaurants where foods are served in greater portions and are higher in salt, saturated fat, and added sugar.[4] Thus, they are also at increased risk for poorer health in the long run, as excess intake of calories, salt, saturated fat, and added sugar increases the risks for many chronic health conditions, including high blood pressure, obesity, diabetes, heart disease, stroke, and many types of cancer.[5, 6, 7]

Food insecurity during childhood can lead to delayed development, diminished academic performance, impaired social skills, and early onset of obesity.[8] It is especially important for children to not skip meals and to be supported in making healthy food choices early in their development. Doing so may help them sustain healthy eating habits and maintain optimal health and well-being throughout their lifetimes.

To assess trends in the status of food insecurity in households with incomes less than 300% of the federal poverty level (FPL) in Los Angeles County, four cycles of the Los Angeles County Health Survey, from 2002 to 2015, were analyzed.

1. Coleman-Jensen, A, Rabbitt MP, Gregory CA, Singh A. Household Food Security in the United States in 2016. Economic Research Report: Economic Research Service. September 2017. Available from https://www.ers.usda.gov/webdocs/publications/84973/err-237.pdf?v=42979
2. Rising Food Insecurity in Los Angeles County. Social Determinants of Health, Issue no.3. Los Angeles: Los Angeles County Department of Public Health; July 2015.
3. Coleman-Jenson A, Gregory CA, Rabbitt M. Definition of Food Security. 2016. Available from https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/definitions-of-food-security/.
4. Mello AJ et al. How is Food Insecurity Associated with Dietary Behaviors? An Analysis with Low-Income, Ethnically Diverse Participants in a Nutrition Intervention Study. J Am Diet Assoc. 2010; 110: 1906-1911.
5. Bauer UE, Briss PA, Goodman RA, Bowman BA. Prevention of Chronic Disease in the 21st Century: Elimination of the Leading Preventable Causes of Premature Death and Disability in the USA. Lancet 2014; 384: 45-52.
6. Seligman HK, Laraia BA, Kushel MB. Food Insecurity is Associated with Chronic Disease among Low-Income NHANES Participants. J Nutr 2010; 140: 304-310.
7. Roberts CK & Barnard RJ. Effects of Exercise and Diet on Chronic Disease. J Appl Physiol. 2005; 98: 3-30.
8. Jyoti DF, Frongillo EA, Jones SJ. Food Insecurity Affects School Children's Academic Performance, Weight Gain, and Social Skills. J Nutr 2005; 135: 2831-2839.

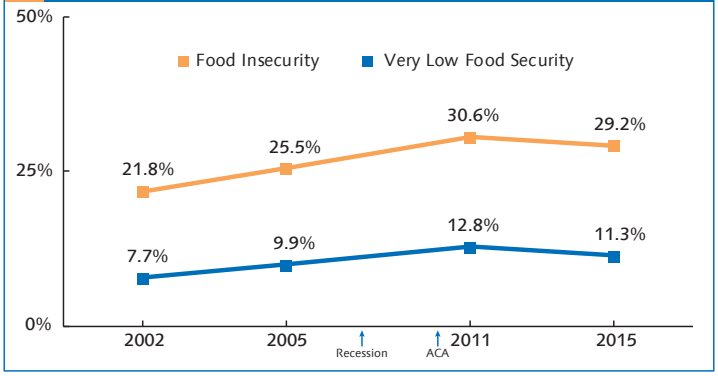
Household Food Insecurity Trends

- In households with incomes less than 300% FPL, food insecurity steadily increased from 21.8% in 2002 to 30.6% in 2011, and then leveled off from 2011 to 2015 (29.2%) (Figure 1).
- Very low food security paralleled the trend of overall food insecurity.
- Food insecurity among households with and without children steadily increased from 2002 to 2011. However, in 2015, households with children saw a decrease, while those without children continued to increase (Figure 2).
- In 2002 and 2005, households with children had higher rates of food insecurity than households without children; this gap between households with and without children narrowed in 2011 and reversed in 2015, although these differences were not statistically significant.

Household Food Insecurity in 2015

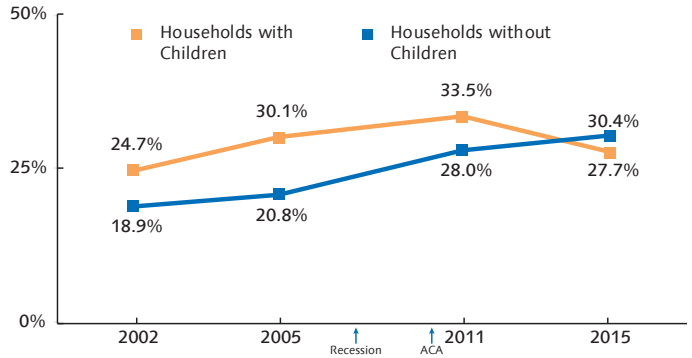
- In 2015, food insecurity affected 29.2% of Los Angeles County households with incomes less than 300% FPL, or 561,000 households[†]; very low food security impacted 11.3% of households, or 217,000 households (Table 1).

FIGURE 1: Food Security Trends among Households <300% FPL, LACHS 2015



[†] With the average food insecure household composed of 3.0 individuals, this equates to approximately 1,683,000 people who could be suffering from food insecurity.

FIGURE 2: Food Security Trends among Households <300% FPL With and Without Children, LACHS 2015



- As household income decreased, the prevalence of food insecurity and very low food security increased significantly. Households living below 100% of the FPL were at the greatest risk of experiencing food insecurity (41.1%) and very low food security (17.5%).
- Among households without children, 30.4% reported food insecurity and 12.6% reported very low food security; compared to households with children, 27.7% reported food insecurity and 9.6% reported very low food security.
- Food insecurity varied by Service Planning Areas (see Table 1), with the highest prevalence found in Antelope Valley (34.4%) and the lowest in San Gabriel (21.8%). The prevalence of very low food security was highest in both Metro (16.9%) and Antelope Valley (16.3%) and lowest in the West (6.4%*) and in San Gabriel (6.1%).

Adult Demographics by Household Food Security Status

When comparing demographic characteristics of adults with household incomes less than 300% FPL living in food insecure households to those living in food secure households, we found that:

- A higher proportion of adults ages 65 years

*The estimate is statistically unstable and therefore may not be appropriate to use for planning or policy purposes.

TABLE 1: Percent of Households <300% Federal Poverty Level That Have Food Insecurity and Very Low Food Security, LACHS 2015

	Food Insecurity			Very Low Food Security		
	Percent	95% CI	Estimated #	Percent	95% CI	Estimated #
LA COUNTY HOUSEHOLDS	29.2%	27.1 - 31.3	561,000	11.3%	9.8 - 12.8	217,000
FEDERAL POVERTY LEVEL[$]						
0-99% FPL	41.1%	37.3 -44.9	307,000	17.5%	14.5 – 20.5	131,000
100%-199% FPL	25.4%	22.4 – 28.4	203,000	9.2%	7.1 - 11.3	73,000
200%-299% FPL	13.7%	10.2 - 17.2	51,000	3.6%	2.0 - 5.2	14,000
HOUSEHOLDS WITH CHILDREN						
Yes	27.7%	24.3 - 31.1	223,000	9.6%	7.2 - 11.9	77,000
No	30.4%	27.7 - 33.1	338,000	12.6%	10.6 - 14.6	141,000
SERVICE PLANNING AREA						
Antelope Valley	34.4%	27.5 - 41.3	27,000	16.3%	9.9 - 22.6	13,000
San Fernando	27.2%	22.7 - 31.6	96,000	10.5%	7.7 - 13.2	37,000
San Gabriel	21.8%	17.2 - 26.4	72,000	6.1%	3.4 - 8.8	20,000
Metro	32.0%	25.6 - 38.4	93,000	16.9%	11.4 - 22.4	49,000
West	30.5%	18.5 - 42.5	26,000	6.4%*	1.8 - 11.0	5,000
South	32.4%	27.3 - 37.6	71,000	12.9%	9.2 - 16.6	28,000
East	32.4%	26.2 - 38.6	79,000	12.4%	7.3 - 17.4	30,000
South Bay	30.3%	24.7 - 36.0	97,000	10.7%	6.9 - 14.4	34,000

*The estimate is statistically unstable and therefore may not be appropriate to use for planning or policy purposes.

[$]Based on U.S. Census 2013 Federal Poverty Level (FPL) thresholds which for a family of four (2 adults, 2 dependents) correspond to annual incomes of $23,624 (100% FPL), $47,248 (200% FPL), and $70,872 (300% FPL). [These thresholds were the values at the time of survey interviewing.]

or older were living in food secure households (14.8%) than living in food insecure households (11.0%), however the reverse was found for those ages 50-64 years; 25.3% were living in food insecure households compared to 19.4% in food secure households (Table 2).

- A higher proportion of Latinos and a lower proportion of Asians were found to live in food insecure households compared to food secure households. Latinos made up over two-thirds (67.4%) of food insecure households. (Figure 3)
- Adults living in food insecure households reported a lower level of education compared to those living in food secure households. The percentage of adults with less than a high school education living in food insecure households was 48.1% compared to 30.2% among those living in food secure households.
- A higher proportion of unemployed adults lived in food insecure households (17.7%) compared to food secure households (12.3%) while a lower proportion of employed adults lived in food insecure households (40.5%) compared to food secure households (50.0%).

TABLE 2: Demographic Characteristics of Los Angeles County Adults (ages 18+ years) with Household Incomes <300% FPL[$] by Food Security Status, LACHS 2015

	Living in Food Insecure Household			Living in Food Secure Household		
	Percent	95% CI	Estimated #	Percent	95% CI	Estimated #
GENDER						
Male	42.1%	38.0 -46.1	499,000	46.4%	43.9 - 48.9	1,565,000
Female	57.9%	53.9 - 62.0	687,000	53.6%	51.1 - 56.1	1,810,000
AGE GROUP						
18-29	25.2%	21.3 - 29.2	299,000	29.9%	27.5 - 32.3	1,009,000
30-49	38.4%	34.5 - 42.4	456,000	35.9%	33.5 - 38.3	1,212,000
50-64	25.3%	22.1 - 28.5	300,000	19.4%	17.6 - 21.2	654,000
65 or over	11.0%	8.9 - 13.2	131,000	14.8%	13.5 - 16.2	500,000
RACE/ETHNICITY[◊]						
Latino	67.4%	63.8 - 71.0	799,000	54.4%	51.9 - 56.8	1,835,000
White	14.7%	12.1 - 17.2	174,000	17.9%	16.3 - 19.6	606,000
African American	10.9%	8.8 - 13.1	130,000	8.8%	7.7 - 10.0	299,000
Asian	6.6%	4.4 - 8.7	78,000	18.4%	16.3 - 20.6	621,000
Native Hawaiian and Other Pacific Islander	-	-	-	0.2%*	0.0 - 0.4	N/A
American Indian/ Alaskan Native	0.3%*	0.1 - 0.6	N/A	0.2%*	0.1 - 0.3	N/A
EDUCATION						
Less than high school	48.1%	44.0 - 52.2	569,000	30.2%	27.7 - 32.6	1,012,000
High school	23.6%	20.2 - 27.1	280,000	25.6%	23.5 - 27.8	860,000
Some college or trade school	20.4%	17.5 - 23.4	242,000	29.8%	27.6 - 32.1	1,000,000
College or post graduate degree	7.8%	6.1 - 9.5	92,000	14.4%	12.9 - 15.8	482,000
EMPLOYMENT STATUS						
Employed	40.5%	36.5 - 44.6	479,000	50.0%	47.5 - 52.5	1,679,000
Unemployed	17.7%	14.6 - 20.8	209,000	12.3%	10.7 - 13.9	412,000
Not in the labor force[ǂ]	41.8%	37.8 - 45.8	494,000	37.7%	35.3 - 40.0	1,264,000

*The estimate is statistically unstable and therefore may not be appropriate to use for planning or policy purposes.

[$]Based on U.S. Census 2013 Federal Poverty Level (FPL) thresholds which for a family of four (2 adults, 2 dependents) correspond to annual incomes of $23,624 (100% FPL), $47,248 (200% FPL), and $70,872 (300% FPL). [These thresholds were the values at the time of survey interviewing.]

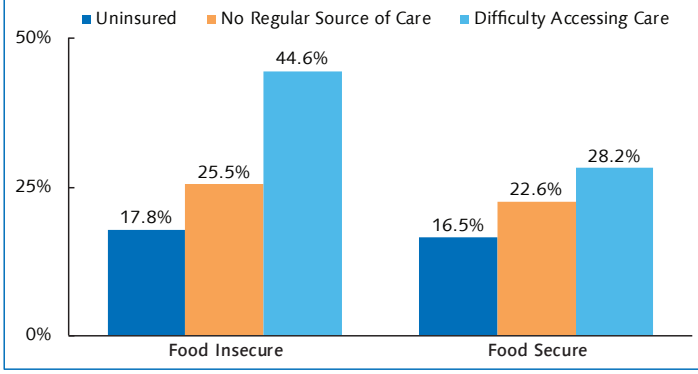
[◊]Percentages do not sum to 100%. Data for Native Hawaiian and other Pacific Islander, American Indian/Alaska Native, and Other are not presented due to unstable estimates (relative standard error > 30%) or suppressed due to confidentiality (cell size less than 5).

[ǂ]The Bureau of Labor Statistics defines "not in the labor force" as those who have no job and are not looking for one.

Health Care Access and Food Insecurity

- The proportion of adults (ages 18-64 years) with household incomes less than 300% FPL who were uninsured was similar for those who were food insecure (17.8%) and those who were food secure (16.5%) (Figure 3).

FIGURE 3: Insurance# and Access to Care for Adults in Households <300% FPL by Food Security Status, LACHS 2015



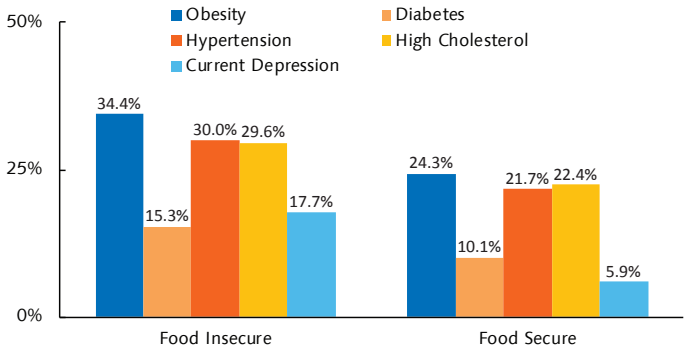
#Data for uninsured is for ages 18-64 years

- Among adults 18 years and older, 25.5% who were food insecure reported not having a regular source of care compared to 22.6% who were food secure.
- A higher percentage of adults 18 years and older who lived in food insecure households reported difficulty obtaining medical care when needed (44.6%), compared to 28.2% of those living in food secure households.

Chronic Conditions, Housing Instability and Food Insecurity

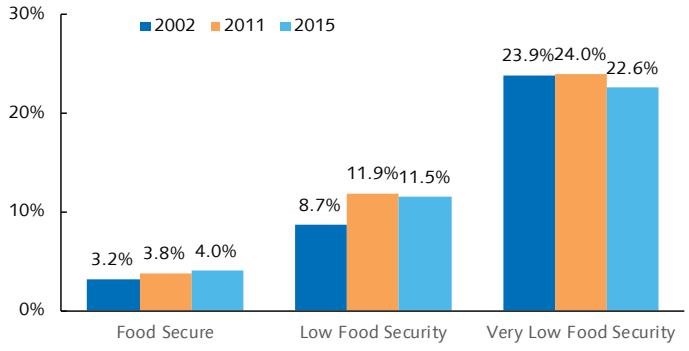
- The proportion of adults with chronic conditions of obesity, diabetes, hypertension, high cholesterol, and current depression was higher for each condition among those living in food insecure households compared to those living in food secure households (Figure 4).

FIGURE 4: Percent of Adults with Chronic Conditions in Households <300% FPL by Food Security Status, LACHS 2015



- Housing instability, defined as a history of being homeless or not having one's own place to live or sleep at some point in the past five years, was highest among households with very low food security and lowest among food secure households. This pattern was consistent from 2002 to 2015 (Figure 5).

FIGURE 5: Percent of Adults with Housing Instability in the Past 5 Years Households <300% FPL by Food Security Status, LACHS 2002-2015



Recommendations

A multi-sector approach that involves government agencies, health care providers, schools, faith-based institutions, and community-based organizations can assist individuals and families in accessing affordable, nutritious food. Strategies and recommendations to improve food security include the following:

Explore and launch new initiatives to increase participation in CalFresh

In May 2017, the County of Los Angeles Board of Supervisors issued a motion that instructed its Department of Public Social Services to reduce the prevalence of food insecurity and poverty by increasing CalFresh participation by 20% by 2019 from the current 66.3%.[9] This motion provides the opportunity to explore new partnerships between the Department of Public Social Services and private organizations as well as public agencies to reach more seniors, families, single adults, homeless individuals, and other groups who experience food insecurity.

Enhance nutrition standards in food pantries and meal programs

Many food banks, including the Los Angeles Regional Food Bank, have established nutrition policies that guide food solicitation efforts. Many food pantries and meal programs now offer balanced food packages, including fresh produce and other foods required to meet the nutritional requirements of clients. However, the large number of people seeking food assistance who have diabetes, hypertension, and high cholesterol reinforces the need for food pantries and meal programs to offer tailored food choices to clients who have these health conditions.

Screen for food insecurity and intervene at scheduled health visits

Exploring opportunities for increasing health care provider involvement in screening and intervening on food insecurity could lead to improved health outcomes for many Los Angeles County residents, especially given the intersection of food insecurity and diet-related chronic diseases. Physicians or other medical staff can play an important role in identifying food insecurity in a clinical setting by implementing a short screening tool called the Hunger Vital Sign™.[10, 11, 12] Patients who identify as food insecure can be referred to appropriate resources

9. LA County Department of Public and Social Services Board Memo; Motion by Supervisors Sheila Kuehl and Janice Hahn to Reduce Prevalence of Rood Insecurity and Poverty by Increase CalFresh Participation; July 25, 2017.
10. Hager ER, Quigg AM, Black MM, et al. Development and validity of a 2-item screen to identify families at risk for food insecurity. Pediatrics. 2010;126(1). Available at: http://pediatrics.aappublications.org/content/126/1/e26.
11. American Academy of Pediatrics. Addressing Food Insecurity: A Toolkit for Pediatricians. February 2017. http://www.frac.org/wp-content/uploads/frac-aap-toolkit.pdf
12. Cannon M. Screening and Interventions for Food Insecurity in Health Care Settings: State Strategies to Increase an Underutilized Practice in California. California Food Policy Advocates. September 2016. http://cfpa.net/CalFresh/CFPAPublications/CFPA-FIScreeningsWhitePaper_FINAL.pdf.

such as CalFresh, Women Infants and Children (WIC), and other food assistance programs. Healthcare organizations can collaborate with government agencies and community-based organizations to identify feasible referral processes that connect patients to these resources, such as on-site enrollment into food assistance programs and follow-up phone referrals from community-based organizations.

Increase nutrition education resources

Nutrition education (e.g., classes), learning tools, and other resources from food pantries, schools, faith-based organizations, retail settings, and health care organizations should be made more available to aid individuals with maximizing food dollars in their family budget and preparing healthy meals.[13]

Reduce food waste by feeding hungry people

In 2014, over 38 million tons of wasted food were thrown away in the United States. The United States Environmental Protection Agency (EPA) recommends donating extra food to feed hungry people as the second most effective action an organization can take to reduce food waste.[14] Schools, grocery stores, hotels, hospitals, and restaurants can donate unspoiled, healthy food to food gleaning organizations, faith-based organizations, soup kitchens, and shelters. Donors are protected from liability under the Bill Emerson Good Samaritan Food Donation Act and could potentially receive tax benefits.[15]

Support broad societal efforts to eliminate poverty and increase household incomes

Food insecurity is strongly associated with other social determinants of health including income, education, employment, and housing stability. The most compelling association is that with household income. Efforts to eliminate food insecurity are unlikely to be successful without broad anti-poverty measures, including social, educational, and economic interventions that create living wages and expanded employment opportunities for those most at risk of poverty.

13. Adult EFNEP. University of California Cooperative Extension. Los Angeles County. Accessed on August 3, 2017. http://celosangeles.ucanr.edu/Nutrition_Family_and_Consumer_Sciences/Adult_EFNEP/
14. Reduce Wasted Food by Feeding Hungry people. United States Environmental Protection Agency. Updated March 8, 2017. https://www.epa.gov/sustainable-management-food/reduce-wasted-food-feeding-hungry-people.
15. Tax Deduction for Food Donation a Legal Guide. Harvard Food Law and Policy Clinic. April 2016. http://www.chlpi.org/wp-content/uploads/2013/12/Food-Donation-Fed-Tax-Guide-for-Pub-2.pdf.

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For additional information about the LA County Health Survey, visit: www.publichealth.lacounty.gov/ha

The Los Angeles County Health Survey is a periodic, population-based telephone survey that collects information on sociodemographic characteristics, health status, health behaviors, and access to health services among adults and children in the County. The 2015 survey collected information on a random sample of 8,008 adults and 5,982 children. The survey was conducted for the Los Angeles County Department of Public Health by Abt SRBI Inc., and was supported by grants from First 5 LA, the Los Angeles County Department of Mental Health, and Department of Public Health programs including the Division of Chronic Disease and Injury Prevention, Children's Medical Services, the Emergency Preparedness and Response Program, Substance Abuse Prevention and Control, and Environmental Health.