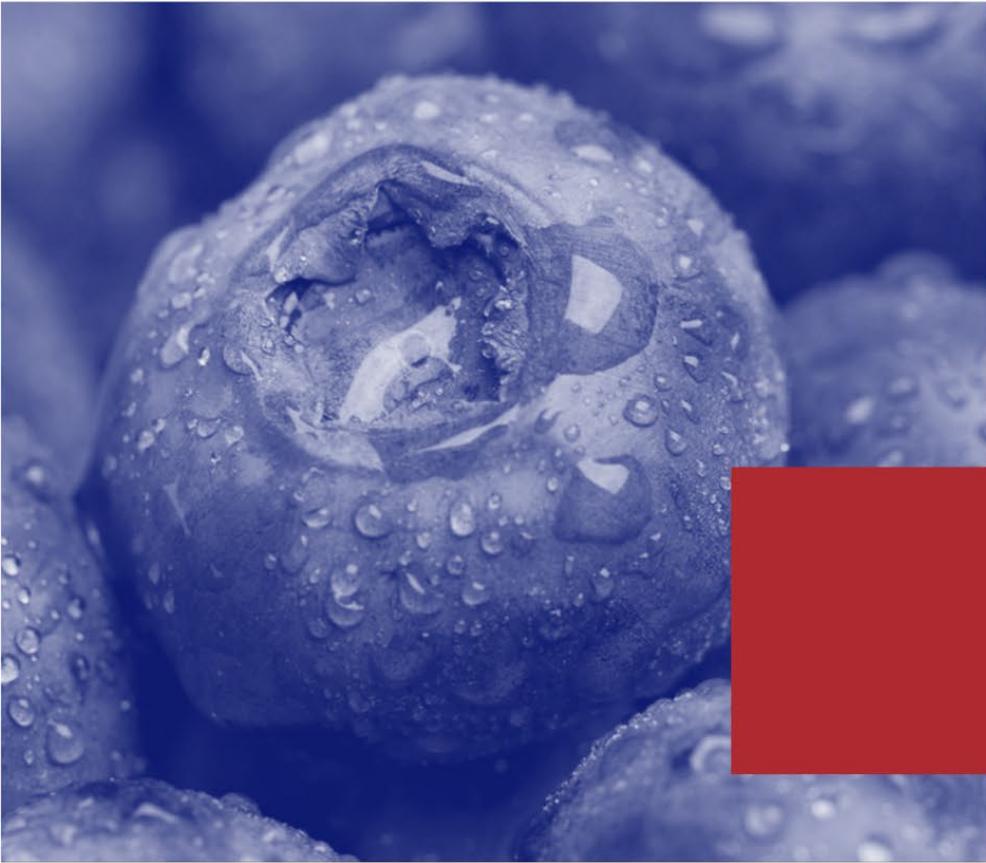


# FINDINGS FROM THE HEALTHY FOOD ACCESS SURVEY

A Survey of CalFresh Healthy Living Participants

September 2023



This material was funded by USDA's Supplemental Nutrition Assistance Program - SNAP. This institution is an equal opportunity provider. Visit [www.CalFreshHealthyLiving.org](http://www.CalFreshHealthyLiving.org) for healthy tips.

# TABLE OF CONTENTS

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- Introduction ..... 3
  - Study Aim ..... 4
- Methods ..... 5
  - Participant Characteristics ..... 5
- Key Findings ..... 7
  - Prevalence of Food Insecurity ..... 7
  - CalFresh Healthy Living Participation ..... 8
  - Healthy Food Event Satisfaction ..... 9
    - Produce Quality and Event Experiences ..... 9
  - Dietary Consumption by CFHL Participation ..... 10
  - Physical Activity ..... 12
- Recommended Strategies ..... 13



## INTRODUCTION

Los Angeles County is over 4,000 square miles and is the most populated county in the U.S. An estimated 1.4 million Los Angeles County residents are considered low-income,<sup>1</sup> with nearly 1 in 4 Los Angeles County low-income households experiencing food insecurity.<sup>2</sup> For nearly two decades, the Los Angeles County Department of Public Health (DPH) has delivered the Supplemental Nutrition Assistance Program Education (SNAP-Ed) in Los Angeles County. SNAP-Ed is the largest public nutrition education and promotion program in the U.S. which targets audiences with low income. In California, SNAP-Ed is known as CalFresh Healthy Living (CFHL) and seeks to improve access to healthy food and prevent diet-related chronic disease among communities characterized by low-income. Beginning in 2020, DPH partnered with 18 organizations to deliver CFHL nutrition education and physical activity programming and implement a variety of policy, systems, and environmental change strategies (PSEs).

Given that an important goal of CFHL is to increase access to healthy food, a promising strategy for local health departments is through food recovery and facilitation of partnerships that help connect surplus, recovered food to people in need. In California, nearly 1.1 million tons of potentially donatable food is estimated to be discarded in landfills each year,<sup>3-4</sup> despite 250,000 households in Los Angeles County being food insecure.<sup>5</sup> Food insecurity is associated with adverse social, physical, and psychological outcomes, including diabetes, hypertension, and chronic kidney disease, developmental impacts in early life, and poor academic achievement.<sup>6, 7, 8, 9</sup> To address the increasing prevalence of diet and nutrition-related conditions, it is important to ensure programs like CFHL work to increase access to nutrient rich foods.

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<sup>1</sup> United States Census Bureau. (n.d.). Quick Facts: Los Angeles County. Census.gov. <https://www.census.gov/quickfacts/fact/table/losangelescountycalifornia/PST045222>

<sup>2</sup> Los Angeles Department of Public Health (2021). Food Insecurity in Los Angeles County: Before and During the COVID-19 Pandemic. [http://ph.lacounty.gov/nut/media/nutrition-physical-activity-resources/LA\\_County\\_Food\\_Insecurity\\_Report\\_2021\\_508Compliant.pdf](http://ph.lacounty.gov/nut/media/nutrition-physical-activity-resources/LA_County_Food_Insecurity_Report_2021_508Compliant.pdf)

<sup>3</sup> California Department of Resources Recycling and Recovery. (2020, May 15). Facility-Based Waste Characterization of Solid Waste in California. CalRecycle. <https://www2.calrecycle.ca.gov/Publications/Details/1666>

<sup>4</sup> California Department of Resources Recycling and Recovery. (2020, August 18). *Analysis of the Progress Toward the SB 1383 Organic Waste Reduction Goals*. CalRecycle. <https://www2.calrecycle.ca.gov/Publications/Details/1693>

<sup>5</sup> De la Haye, K. Livings, M.S., de Bruin, W.B., Wilson, J. Babboni, M., Wald R. (2022). 2021 Food Insecurity in Los Angeles County. Los Angeles, CA: University of Southern California.

<sup>6</sup> Amory R., Higashi R.T., Leonard T., Nguyen O.K., Pezzia, C., Pruitt S.L., Swales, S. & Xuan L. Who Is Food Insecure? Implications for Targeted Recruitment and Outreach, National Health and Nutrition Examination Survey, 2005–2010. (2016). *Preventing Chronic Disease*, 13(143), 1-16. <http://dx.doi.org/10.5888/pcd13.160103>

<sup>7</sup> Cuda, S. E., & Browne, N. T. (2022). Nutritional and activity recommendations for the child with normal weight, overweight, and obesity with consideration of food insecurity: An Obesity Medical Association (OMA) Clinical Practice Statement 2022. *Obesity Pillars*, 100012. <https://doi.org/10.1016/j.obpill.2022.100012>

<sup>8</sup> Kushel, M. B., Laraia, B. A., & Seligman, H. K. (2010). Food insecurity is associated with chronic disease among low-income NHANES participants. *The Journal of Nutrition*, 140(2), 304–310. <https://doi.org/10.3945/jn.109.112573>

<sup>9</sup> Irving, S. M., Njai, R. S., & Siegel, P. Z. (2014). Food insecurity and self-reported hypertension among Hispanic, black, and white adults in 12 states. Behavioral Risk Factor Surveillance System, 2009. *Preventing Chronic Disease*, 11. <https://doi.org/10.5888/pcd11.140190>

DPH recognized the opportunity to implement a multi-sector approach to address disparities in access to healthy food. Through the CFHL program, DPH formed a network of community-based organizations and food rescue organizations who were paired with early childhood education centers, schools, parks, and healthcare sites. Through these partnerships, CFHL funded partners facilitated the distribution of free fruits and vegetables at healthy food events in sites where communities with households with incomes less than or equal to 185% of the Federal Poverty Level frequently visited.

To understand the impact of the CHFL healthy food events, DPH and Harder+Company Community Research conducted an intercept survey at food and produce distribution events at traditional (i.e., food pantries) and non-traditional sites (i.e., early childhood education centers, schools, healthcare clinics). The Healthy Food Access Survey was conducted at three timepoints during 2021-2023 across the county. This report provides a profile of the demographic characteristics of a sample of adults who attended the food events, household food insecurity, satisfaction, and experiences with CHFL participation, and dietary consumption. Recommendations are provided to inform DPH's Nutrition and Physical Activity Program.

## **Study Aim**

The goal of this study was to develop a better understanding of the demographic characteristics of individuals and households who participated in healthy food events throughout Los Angeles County. The findings describe how CFHL programming, particularly during times of crises like the COVID-19 pandemic, can support partnerships that increase access to healthy food that can complement existing nutrition education and PSE strategies.



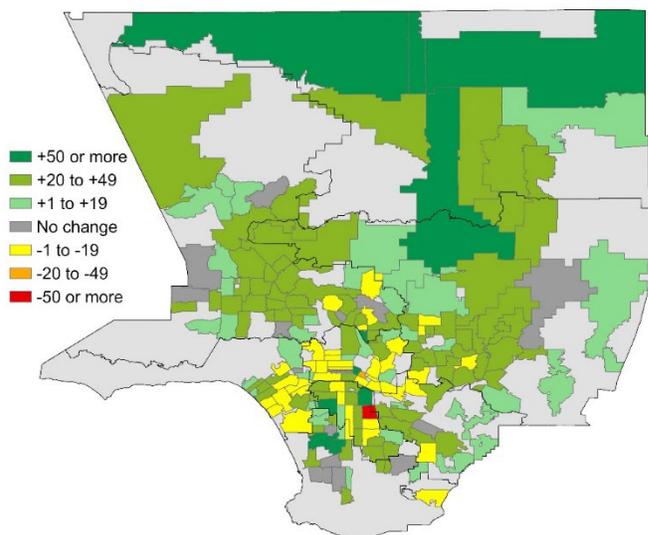
## METHODS

The 45-item Healthy Food Access Survey was designed in partnership with the LADPH Nutrition and Physical Activity Program to assess household food insecurity, disease status, participation in public nutrition assistance programs, and satisfaction and experience with services among adults aged 18 years and older. Participants were recruited from households that attended CFHL events that occurred at 53 sites. These sites were served by nine Los Angeles CFHL funded partners. Data collection was conducted between February and June in 2021, 2022, and 2023. Note that the first year of the survey was conducted during the height of the COVID-19 pandemic when health and safety protocols were in place in Los Angeles County. Funded partner agencies were categorized as those with Traditional Food Distribution sites (i.e., food pantries) or Non-Traditional Food distribution sites (i.e., schools, early childhood education, and healthcare clinics).<sup>10</sup>

### Participant Characteristics

The geographic distribution of participants in the study varied across the study years. There was an increase in representation of rural communities in 2023 compared to 2021 (see Exhibit 1).

*Exhibit 1. Changes in the Number of Study Participants by Geography, 2021 compared to 2023*



Across all years the proportion of participants enrolled in SNAP remained consistent with nearly one-third of all participants being enrolled in the Supplemental Nutrition Assistance Program (SNAP) (See Exhibit 2).

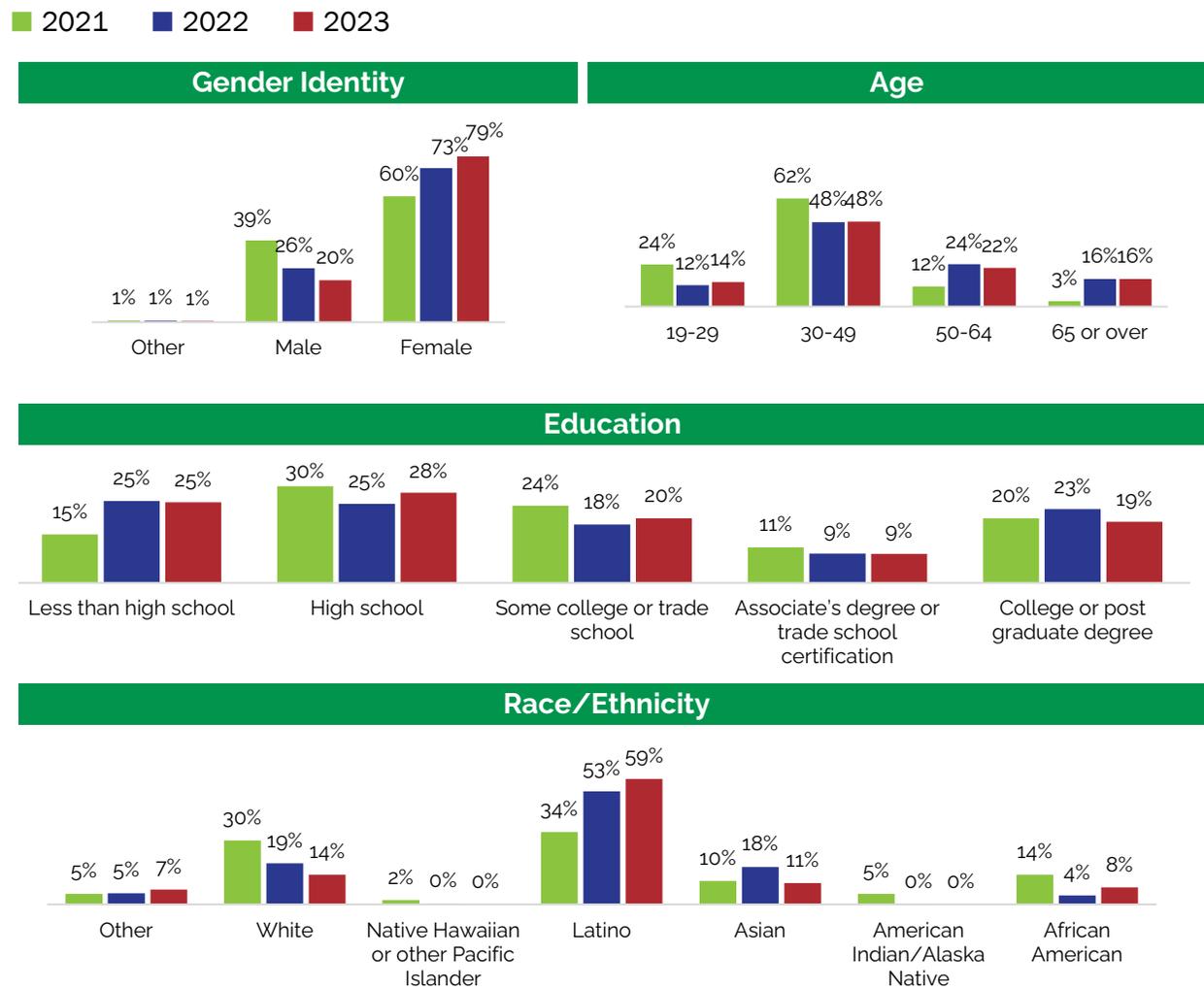
<sup>10</sup> Funded partner agencies included: Asian Pacific Healthcare Venture, Glendale Unified School District- Nutrition Service Department, Lawndale Elementary School District, Northeast Valley Health Corporation, Pasadena Unified School District, The Children's Collective Inc., Venice Family Clinic, Antelope Valley Partners for Health, and Los Angeles Regional Food Bank.

Exhibit 2. SNAP Enrollment Status at Time of Survey Completion



Across three years of data collection activities, 4,795 households participated in this survey study. In 2021, most participants (70%) were employed (either full time or part time), but this decreased over time to 53% in 2022 and to 52% in 2023. The percentage of participants who were not employed and seeking employment remained consistent across the years (average across three years was 20%). Those who were not in the labor force almost tripled from 10.0% in 2021 to 28.6% in 2022 and 26.8% in 2023. Between 2021-2023, most participants who reported household incomes fell at or below 185% of the Federal Poverty Level (FPL) (85.8% in 2021, 89.6% in 2022, 95.3% in 2023). The average household size was between 3.8 (in 2022) and 4.0 (in 2021 and 2023). Participant demographic characteristics by time are shown in Exhibit 3.

Exhibit 3. Socio-Demographic Characteristics of Study Participants

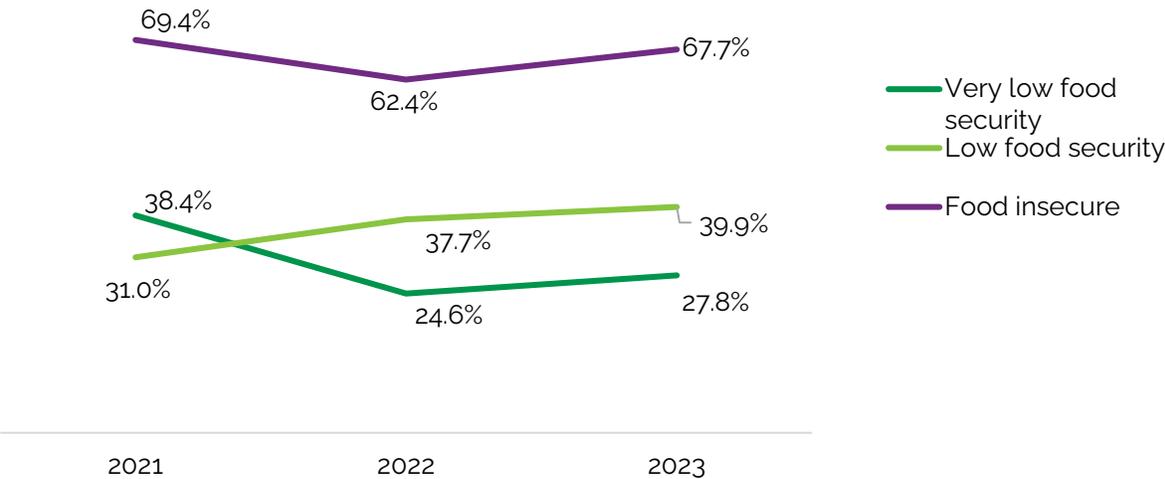


# KEY FINDINGS

## Prevalence of Food Insecurity

Results showed that nearly two-thirds of participants were food insecure (see Exhibit 4). Between 2021 and 2023, participants characterized with very low food insecurity was highest in 2021 (38.4%).

Exhibit 4. Food Insecurity Level

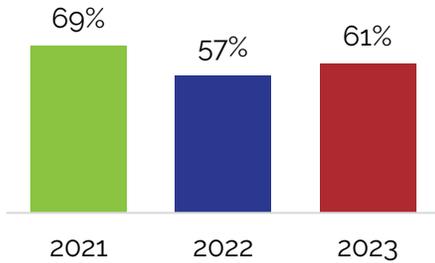


## CalFresh Healthy Living Participation

Approximately two-thirds of participants had heard of the CalFresh Healthy Living program (see Exhibit 5).

Exhibit 5. Respondent participation in CalFresh Healthy Living activities

Heard of CFHL program activities



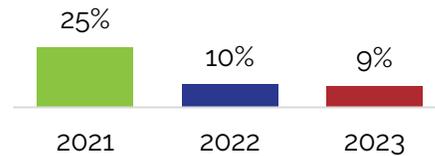
Received a **CFHL cookbook or recipe card** in the last 12 months



Participated or received a weblink to a CFHL **nutrition or cooking class** in the last 12 months



Participated or received a weblink to a CFHL **physical activity class** in the last 12 months



Received **messages** about healthy eating from CFHL in the last 12 months



Received **information** about community resources in the last 12 months

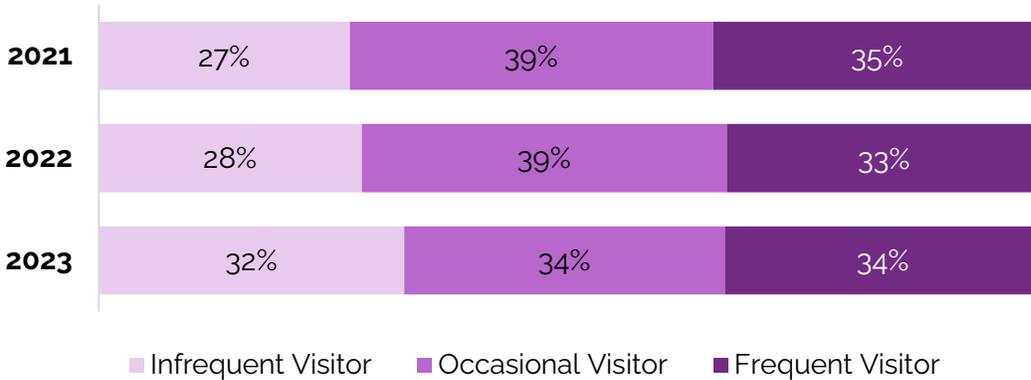


## Healthy Food Event Satisfaction

### Produce Quality and Event Experiences

Overall, most participants identified as occasional visitors with approximately one-third of participants reporting attending food distribution sites to get free food several months during the year or monthly.<sup>11</sup> (see Exhibit 6).

Exhibit 6. Healthy Food Event Visit Frequency



Participant satisfaction with fruits and vegetables at the CFHL sites was consistently high across all three years (4 is the highest possible ranking).

Exhibit 7. Satisfaction with Food

#### Quality and freshness of fruits/vegetables



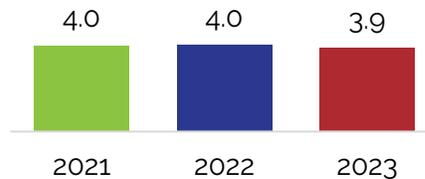
#### Variety of fruits/vegetables



#### The box/bag contains fruits/vegetables that I grew up eating



#### The box/bag contains fruits and vegetables that I know how to cook and/or include in my meals

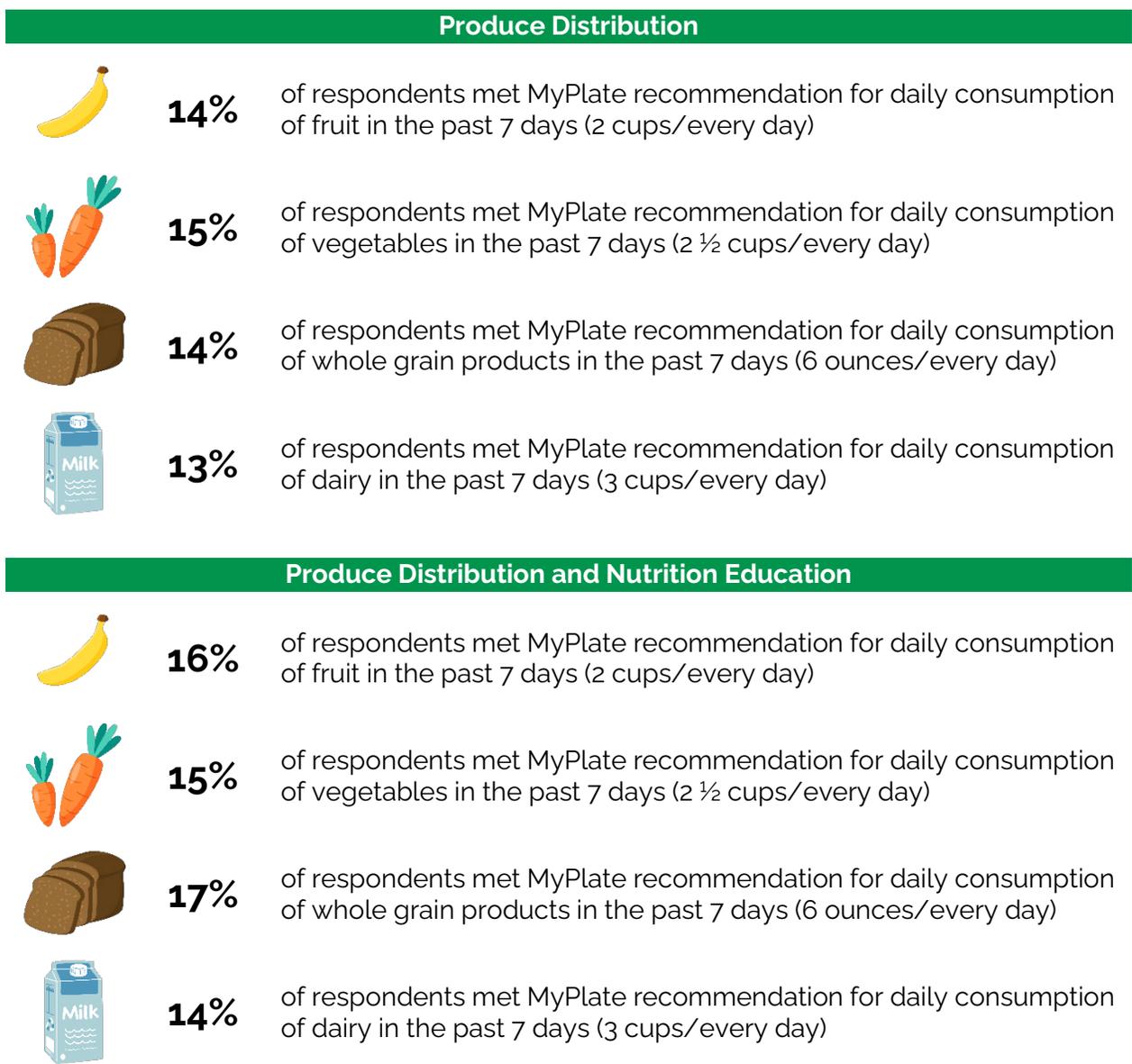


<sup>11</sup> Infrequent visitors are participants who attended a food distribution for the first time, occasional visitors are participants who attended food distributions several months during the year or monthly, and frequent visitors are participants who attended food distributions twice a month or weekly.

## Dietary Consumption by CFHL Participation

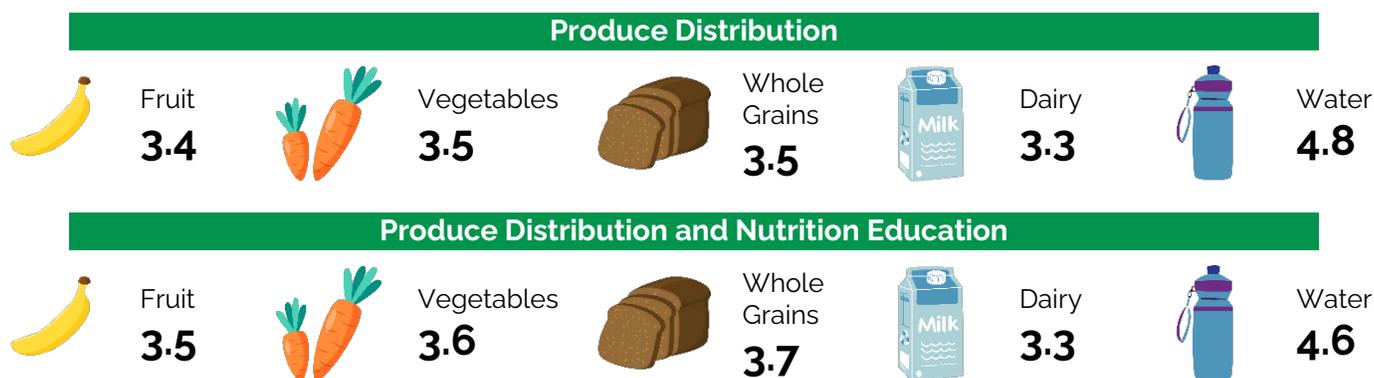
Those who participated in food distributions and nutrition education compared to food distributions alone showed slight variation in their recommended dietary consumption in the past seven days (see Exhibit 8). Those who participated in food distributions and nutrition education generally met MyPlate recommendations for daily consumption of fruit, whole grain products, and dairy at a higher rate than participating in food distributions alone. Vegetable consumption was similar for participants in both groups (15%).

*Exhibit 8. Percentage of Participants that Met MyPlate Recommendations by CFHL Participation Type*



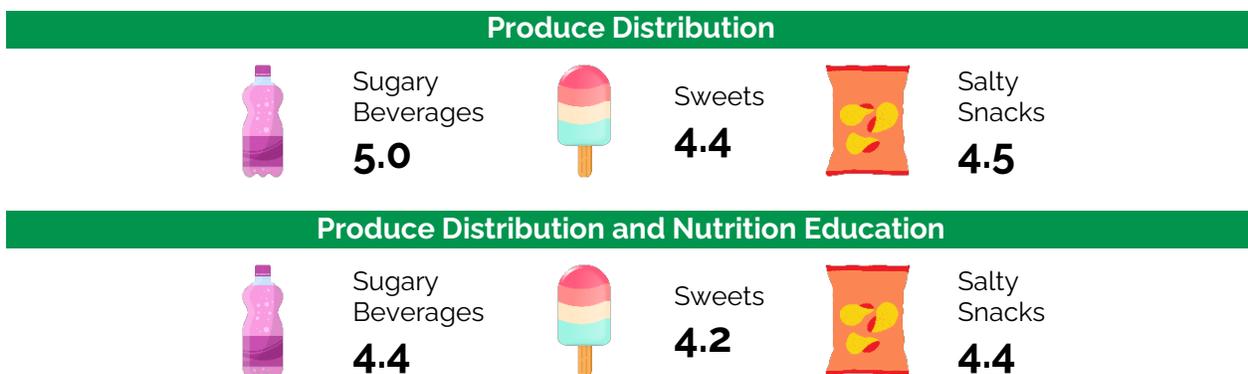
Participants who reported attending food distribution events and participating in nutrition education classes also reported higher fruit consumption scores than those who only attended food distribution events (3.5 vs. 3.4 respectively, scores ranged from 0 to 7, with higher scores indicating higher consumption) (see Exhibit 9). Those who attended food distribution events and participated in nutrition education also reported higher consumption scores for vegetables (3.6 vs 3.5) and whole grains (3.7 vs. 3.5). Nutrition education did not impact dairy consumption and was related to a lower consumption score for water (4.6 vs. 4.8).

*Exhibit 9. Average number of days, in the past 7 days, participants meet MyPlate Recommendation by CFHL Participation Level*



Participants who reported attending food distribution events and participating in nutrition education classes had lower non-healthy consumption scores than those who only attended food distribution events (i.e., scores on sugary beverages, sweets, and salty snacks) (see Exhibit 10). The addition of nutrition education to produce distribution events had the largest impact on the consumption of sugary beverages (4.4 vs. 5.0).

*Exhibit 10. Dietary Consumption Score by CFHL Participation Level*



# Physical Activity

Nearly a quarter (22%) of those who participated in food distributions alone were moderately to very active. While 28% of those who participated in produce distribution and nutrition education classes were moderately to very active (see Exhibit 11).

Exhibit 11. Physical Activity Level in a Typical Week by CFHL Participation Level

## Produce Distribution



## Produce Distribution and Nutrition Education



Participants were asked how many days they are active in a typical week. Results showed a significant increase in reported physical activity from 2021 to 2023 (see Exhibit 12).

Exhibit 12. Number of Days Active by Time Point



## RECOMMENDED STRATEGIES

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This study assessed food insecurity, SNAP enrollment, satisfaction, and experiences with participation in CHFL activities, and dietary consumption among adults who participated in CalFresh Healthy Living healthy food events across a three-year period. Results revealed changes across time in the distribution in participants from rural communities. There were consistently high levels of food insecurity, with a relatively small proportion enrolled in SNAP. Participants reported high levels of satisfaction of the food events and findings showed small, but positive associations of produce distributions on dietary consumption and physical activity. Based on the key findings the following strategies are recommended for the Los Angeles County Department of Public Health (DPH) Nutrition and Physical Activity Program to increase the reach and impact of CFHL.



### **Continue to foster partnerships with community-based organizations to facilitate produce distributions, which increase access to free produce for rural and diverse populations in Los Angeles County**

- The geographic distribution of study participants varied across the study period, with an increase in the representation of rural communities. Many rural areas in Los Angeles County (e.g., the Antelope Valley) experience the dual challenge of limited access to healthy food and lack of charitable or community food assistance programs such as food pantries.<sup>12</sup>
- DPH can consider focusing on geographic areas which lack access to healthy food and where produce distributions are being held (e.g. site selection). This ensures geographic areas which lack access to affordable fresh fruits and vegetables have produce distribution sites, such as rural areas in the Antelope Valley.
- DPH and funded partners can seek to understand the difficulties populations have with access to reliable transportation to events. Consider organizations that can offer subsidized or free transportation (e.g. CityRide).



### **Collaborate with partners to offer social service referrals and wrap around services**

- Results showed over 60% of participants experienced household food insecurity across the three years despite most people working. This finding is similar to a 2018 study of five CFHL food distribution sites in Los Angeles County.<sup>13</sup> Results are much higher than estimates by the Los Angeles County Health Survey which indicate 27% of households with incomes <300% of the Federal Poverty Level were food insecure in 2018.

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<sup>12</sup> Bruine de Bruin, W., de la Haye, K., Li, K., Livings, M., Miller, S., Wilson, J., & Xu, M. (2022, June). Enough To Eat: The Impact Of COVID-19 On Food Insecurity And The Food Environment In L.A. County April 2020 –September 2021. Dornsife Public Exchange, University of Southern California. <https://publicexchange.usc.edu/wp-content/uploads/2021/10/Enough-to-Eat.pdf>

<sup>13</sup> Los Angeles County Department of Public Health (2018). Food Distribution Efforts in Los Angeles County, 2018. [http://publichealth.lacounty.gov/nut/Media/Assess-Program-Impact/Food\\_Distribution\\_Efforts\\_LACounty\\_2018.pdf](http://publichealth.lacounty.gov/nut/Media/Assess-Program-Impact/Food_Distribution_Efforts_LACounty_2018.pdf)

- Gaps remain in public nutrition assistance programs. Only a quarter of study participants were enrolled in SNAP despite most participants being income eligible for SNAP.
- DPH and its funded partners can make participants better aware of SNAP enrollment opportunities at healthy food events as one way to address food insecurity.



**Expand access to CFHL healthy food events, including events at schools, early childhood education centers, and healthcare clinics**

- Findings showed the community need for greater access to fresh fruits and vegetables; approximately two-thirds of participants were occasional or frequent visitors to the healthy food events. Offering free produce at community sites removes cost and some of the access-related barriers which are common challenges to consuming fresh produce for populations with low-income.<sup>14</sup>
- DPH can seek additional funding to work with funded partners to strengthen and expand relationships with non-traditional sites to offer produce distributions. Community-sites such as schools, early childhood education centers, and healthcare clinics can increase access to food at locations convenient to households.
- Particularly for schools and early childhood and education, where there were a fewer number of events held each month compared to healthcare clinics and food banks, consider adding more healthy food events and extending the hours of operation at events. This could improve participant access to fresh fruits and vegetables.
- Continue to customize outreach to the targeted population at each site. Outreach approaches need to account for the wide cultural and linguistic diversity of CFHL participants.



**Expand opportunities for learning about how to supplement existing diets with diverse and culturally relevant fruits and vegetables**

- While many study participants received recovered produce, a large majority of participants were satisfied with the food at the events and many received items they said they grew up eating. This is contrary to previous research which identified a systems related barrier for food redistribution efforts is often related to the poor quality of food that community sites receive, especially rotting food.<sup>15</sup>
- DPH and food redistribution partner agencies can explore ways to expand access to diverse and culturally appropriate fruits and vegetables that are recovered. Effective strategies to address food insecurity should prioritize culturally responsive foods and strategies to support dignity and respect in the distribution of free food. Food

<sup>14</sup> Rao, M., Afshin, A., Singh, G., Mozaffarian, D. (2013). Do healthier foods and diet patterns cost more than less healthy options? A systematic review and meta-analysis. *BMJ Open*; 3:e004277.

<sup>15</sup> Los Angeles County Department of Public Health (2018). Food Distribution Efforts in Los Angeles County, 2018. [http://publichealth.lacounty.gov/nut/Media/Assess-Program-Impact/Food\\_Distribution\\_Efforts\\_LACounty\\_2018.pdf](http://publichealth.lacounty.gov/nut/Media/Assess-Program-Impact/Food_Distribution_Efforts_LACounty_2018.pdf)

redistribution agencies could inform sites before the day of event what recovered produce is being delivered.

- DPH to provide continued trainings to funded partners to ensure staff understand the complex history and lived experiences of participants and the impact on dietary patterns.
- DPH can consider and examine the ways in which funded partner agencies currently implement CFHL approved curriculum and the extent to which curriculum modifications are made to meet the diverse cultural needs of participants.



**Continue to build capacity among funded partners to develop innovative strategies that incorporate nutrition education with healthy food events**

- Study participants at healthy food events consumed slightly more fruits, fewer sugar sweetened beverages, and had higher levels of physical activity when they participated in nutrition education classes relative to those that just participated in the healthy food events alone. Others have shown similar food access models coupled with nutrition education can improve access to and intake of fresh fruits and vegetables among low-income children and their families.<sup>16</sup>
- DPH can continue to build and expand on ways that funded partners can deliver nutrition education in innovative ways at healthy food events. Examples might include classes focused on healthy cooking, food waste prevention, and food resource management that are offered alongside healthy food events.
- DPH to work with the California Department of Public Health to continue to expand culturally and linguistically diverse resources and materials including cookbooks, recipe cards, and tip sheets.

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<sup>16</sup> Sharma, S.V., Chow, J., Pomeroy, M., Raber, M., Salako, D., Markham, C. (2017). Lessons Learned From the Implementation of Brighter Bites: A Food Co-op to Increase Access to Fruits and Vegetables and Nutrition Education Among Low-Income Children and Their Families. *Journal of School Health*. 87(4); 286-295.

