

## RESEARCH BRIEF

# Diet Changes in L.A. County During the COVID-19 Pandemic



## Background

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The dietary guidelines given by the U.S. Department of Agriculture (USDA) include limiting sugar, sodium, and saturated fat, and eating nutritious foods like fruits and vegetables (USDA, 2021). Prior to the COVID-19 pandemic, most adults in Los Angeles (L.A.) County *did not* meet these guidelines. For example, just 1 in 10 adults (12%) in L.A. County ate five or more daily servings of fruit and vegetables in 2018 (LACHS 2018). Poor diets are an important public health issue because they are a leading risk factor for common, noncommunicable diseases like diabetes, obesity, and heart disease. Some groups, such as people with low-incomes or who experience food insecurity, are more likely to have an unhealthy diet because they face financial and other barriers to eating healthy foods.

The COVID-19 pandemic has likely caused changes in dietary patterns because it disrupted so many parts of daily life. As there were millions of cases in L.A. County (LAC DPH, 2021), 'safer at home' orders were implemented, and gyms, restaurants, schools, and workplaces were closed. Many people began working from home, with children who attended school virtually. Past research has shown that major changes in daily routines often lead to changes in what people eat (Brown et al., 2012; Devine et al., 1998).

Research outside of the U.S. has shown that diets changed during COVID-19, and that among people of diverse backgrounds, both unhealthy and healthy diet changes have happened (e.g., Bann et al., 2020; Scarmozzino & Visioli, 2020). This is especially true in places that have been hard hit by the pandemic and have had long lasting stay-at-home orders. L.A. County has been heavily impacted by the pandemic and has a history of unhealthy diet and disease, which may have been made worse by the pandemic. **This brief report summarizes changes in diets among L.A. County adults during the COVID-19 pandemic.**

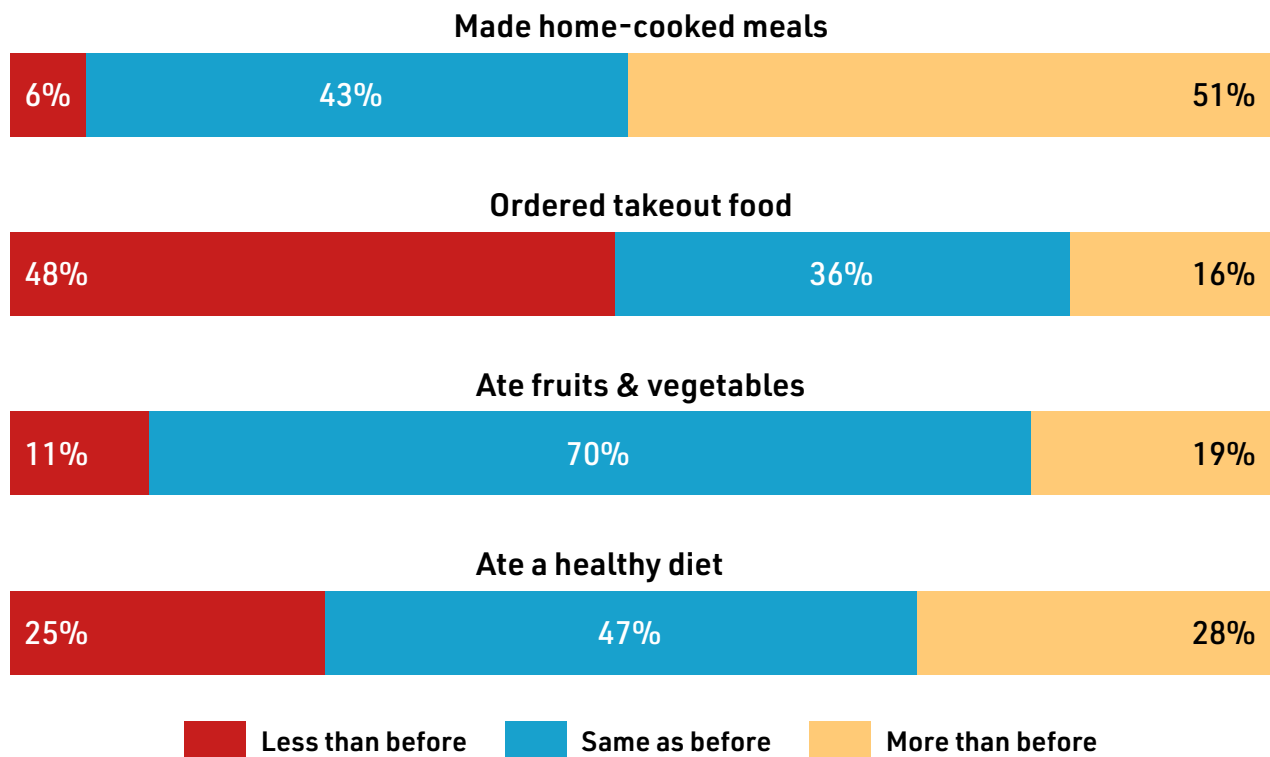
In July and October 2020, we collected data about diet and weight change through the Understanding Coronavirus in America tracking survey (UAS, 2021). This is a panel survey of about 1,800 adults who are representative of households in L.A. County. Participants reported on changes to their diet and weight since L.A. County's stay-at-home orders were issued in March 2020. (See Survey Measures.) The key findings are summarized here.

# 1. The majority of L.A. County adults said their eating changed during COVID-19

Most of L.A. County adults reported that during the pandemic, they changed the **quantity** or **types** of food they were eating. About one in four (28%) said they had been eating *more food*, while 14% said they had been eating *less food* and 58% were eating about the same amount of food. In the past, studies have shown that meals cooked at home are typically healthier than those cooked in restaurants (Kant et al., 2015). Half of L.A. County adults said they had made *more* home-cooked meals (51%), and about half ordered *less* takeout food (48%), compared to before the pandemic. However, only 1 in 5 (19%) said they had eaten more fruits and vegetables, and about 1 in 4 (28%) said their diet had been healthier overall.

While some adults said their diets had not changed, some reported *unhealthy* changes: 6% made less home-cooked meals, 16% ordered more takeout, 11% ate less fruits and vegetables, and 25% reported that they ate less healthy overall.

Figure 1. Change in eating during the COVID-19 pandemic



N = 1,050

## 2. Diet changes were more common for people who were food insecure

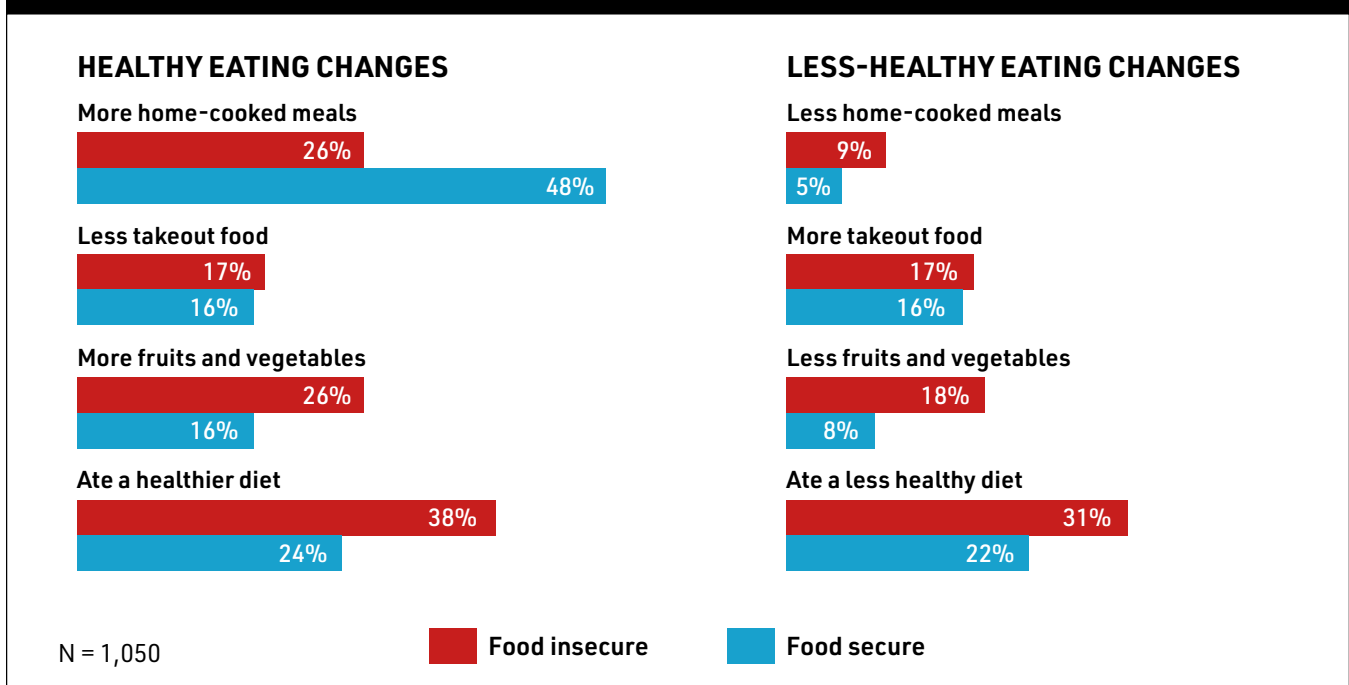
Food insecurity, which is a disruption in eating because of a lack of money, spiked in L.A. County during the COVID-19 pandemic. For example, from April to December 2020, 1 in 3 adults (34%) experienced food insecurity (de la Haye et al., 2020). Food insecurity is a risk factor for a poor diet (Gundersen & Ziliak, 2015).

Our data show that **L.A. County adults who experienced food insecurity during the pandemic had the most striking changes to their eating behaviors and diet** (Figure 2). The following statistically significant differences were found:

- Compared to people who experienced food insecurity, people who were food secure were more likely to report that the following aspects of their diet were the “same as before” the pandemic: the amount of food they ate, the number of home-cooked meals they made, their intake of fruits and vegetables, and the overall healthiness of their diet.
- **Eating fruits and vegetables:** 18% of adults with food insecurity ate *less* fruits and vegetables during the pandemic (vs. 8% of those who were food secure), and 26% of adults with food insecurity ate *more* fruits and vegetables (vs. 16% of those who were food secure).
- **Overall diet healthiness:** 31% of adults with food insecurity reported eating *less healthy diets* during the pandemic (vs. 24% of those who were food secure; this difference was marginally significant), and 38% of adults with food insecurity reported *more healthy diets* (vs. 24% of those who were food secure).

The diet changes reported by people who had experienced food insecurity were even more significant than those reported by people with low incomes.

Figure 2. Healthy and less-healthy eating changes



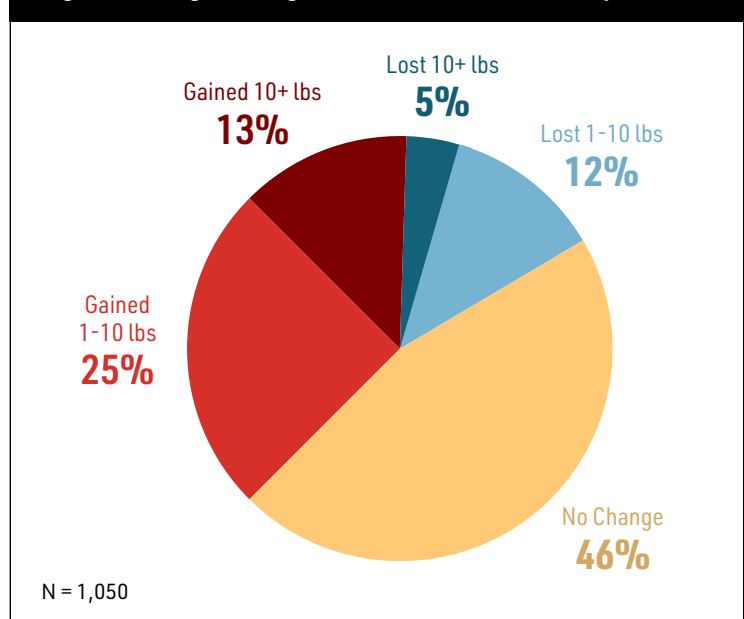
### 3. 38% of L.A. County adults reported gaining weight during the COVID-19 pandemic

Poor diets often result in weight gain, which increases the risk for many other diseases like type 2 diabetes and heart disease (CDC, 2020). Before the pandemic, 62% of adults in L.A. County were overweight or obese, 11% had diabetes, and 25% had hypertension (LAC DPH, 2018).

**Our analyses found that 38% of L.A. County adults reported gaining weight from the start of the COVID-19 pandemic until October 2020 (Figure 3).** This may increase the population's risk for related diseases.

We also found that **weight gain was significantly more common among adults who experienced food insecurity: 20%** of people who were food insecure gained 10 or more pounds, compared to **10%** of people who were food secure.

Figure 3. Weight changes since start of COVID-19 pandemic



## Implications and Next Steps

Adults' eating habits are usually stable and difficult to change. But the COVID-19 pandemic has created a great deal of change in Angelenos' diets, and this may be an important window to help people adopt healthier eating patterns.

An alarmingly large segment of L.A. County adults were food insecure during the pandemic (34%; de la Haye, 2021), with most being low-income and people of color. The high level of diet change in this population may reflect the instability of food resources for people who depend upon food pantries, friends and family, and government assistance programs. Many of the individuals with food insecurity in this study were susceptible to unhealthy shifts in dietary patterns (e.g., less fruits and vegetables) and weight gain. This aligns with previous research that links food insecurity to poor nutrition and diet-related disease (Gundersen & Ziliak, 2015). Notably, there were also many food insecure individuals who made *healthy shifts* in their diet. Understanding which resources enabled these healthy shifts could help policymakers and food providers to identify policies or initiatives that would support healthier diets for all food insecure individuals.

These periods of instability are an important time to support healthy eating and prevent diet-related disease. Any program that significantly improves food security, such as CalFresh (de la Haye, 2020), is likely to support healthy dietary patterns. Of the individuals in this study who were food insecure and likely eligible for CalFresh, only 38% reported recently receiving CalFresh benefits. Interventions that could increase CalFresh enrollment are an opportunity to support food security and, subsequently, healthier dietary patterns. Furthermore, supplemental programs such as Market Match could help provide greater financial access to healthy food. Expansion of these programs could help food insecure individuals to adopt healthier diets at a time when they are experiencing instability making changes to what they eat.

## Research Team

This brief report was prepared in coordination with the Los Angeles County Emergency Food Security Branch as part of an ongoing strategic partnership on food insecurity between L.A. County and the USC Dornsife Public Exchange. We are grateful for the expert advice of the Emergency Food Security Branch's staff and leadership, particularly Gary Gero and Alison Frazzini. This project was supported by the USC Dornsife Emergency Fund and by the Keck School of Medicine of USC COVID-19 Research Fund through a generous gift from the W. M. Keck Foundation. We would also like to acknowledge the University of Southern California for providing the funding for Los Angeles surveys under USC Dornsife's Understanding Coronavirus in America project, as well as the USC Dornsife's Center for Economic and Social Research, which administers the surveys and provided support for the data analysis.

## Research Methods

This report is based on data from the Understanding Coronavirus in America tracking survey, administered by the USC Dornsife Center for Economic and Social Research (CESR). Respondents are members of CESR's Understanding America Study (UAS) probability-based internet panel who participated in tracking survey waves conducted between April 1 and October 27, 2020. All respondents are 18 years or older, and sampling is representative of all households in L.A. County. The survey is conducted in English and Spanish. All results are weighted to CPS benchmarks, accounting for sample design and nonresponse. The weighted sample size for this report is 1,050. Participants were recruited for the UAS internet panel using an ABS household sample; methodological details for the UAS panel are available at <https://uasdata.usc.edu>. The Understanding Coronavirus in America tracking survey has been funded in part by the Bill & Melinda Gates Foundation, the University of Southern California, and many others who have contributed questions to individual waves or sets of waves.

## Survey Measures

**Diet changes.** Diet changes were self-reported in July and October 2020, in response to the following survey items:

Topic	Prompt	Response options
<i>"Since L.A. County's stay-at-home orders started in March 2020, have you been ..."</i>		
Quantity of food	... eating more than usual, less than usual, or about the same as usual?	<ul style="list-style-type: none"> <li>▪ I am eating much more than usual</li> <li>▪ I am eating slightly more than usual</li> <li>▪ I am eating about the same amount as usual</li> <li>▪ I am eating less than usual</li> </ul>
Healthiness of food	... eating different types of foods?	<ul style="list-style-type: none"> <li>▪ Yes, I am eating healthier food than before (e.g., more fruits and vegetables and/or less sugary and fried food)</li> <li>▪ Yes, I am eating less healthy food than before (e.g., less fruits and veggies and/or more sugary or fried food)</li> <li>▪ No, I am not eating different types of foods than before</li> </ul>
<i>"During the coronavirus pandemic period (since March 2020), did you do the following things more than before, less than before, or about the same as before?"</i>		
Eating at home	Made home-cooked meals	<ul style="list-style-type: none"> <li>▪ Less than before</li> <li>▪ About the same</li> <li>▪ More than before</li> </ul>
Ordering takeout	Ordered takeout food from a fast food or full service restaurant	
Fruit and vegetable intake	Ate fruit and vegetables	
Weight	How much did your weight change since before the coronavirus pandemic (February 2020) until now?	<ul style="list-style-type: none"> <li>▪ I gained more than 10 pounds</li> <li>▪ I gained 1-10 pounds</li> <li>▪ My weight is about the same</li> <li>▪ I lost 1-10 pounds</li> <li>▪ I lost more than 10 pounds</li> </ul>

**Food insecurity.** We measure food insecurity using three items from the validated Food Insecurity Experience Survey that assess behavioral markers of mild, moderate, and severe levels of food insecurity (Cafiero, 2018). As is standard in research on food insecurity, a household is classified as being food insecure if they report experiencing moderate or severe levels of food insecurity. Participants were coded as having experienced food insecurity if they reported food insecurity during any time point from April to October.

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## Disclaimer

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The views expressed herein are those of the authors and not necessarily those of Los Angeles County, the USC Dornsife College of Letters, Arts and Sciences, the Keck School of Medicine of USC, or the University of Southern California as a whole.

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