NYC Health

Epi Data Brief

November 2021, No. 128

Food Insecurity and Access in New York City during the COVID-19 Pandemic, 2020-2021

The closure of businesses due to the COVID-19 pandemic has contributed to major shifts in financial conditions for New Yorkers, including a loss or decline in income and reduction of support services. These changes have fueled parallel crises of public health consequence including food insecurity, housing instability and financial stress.[1]

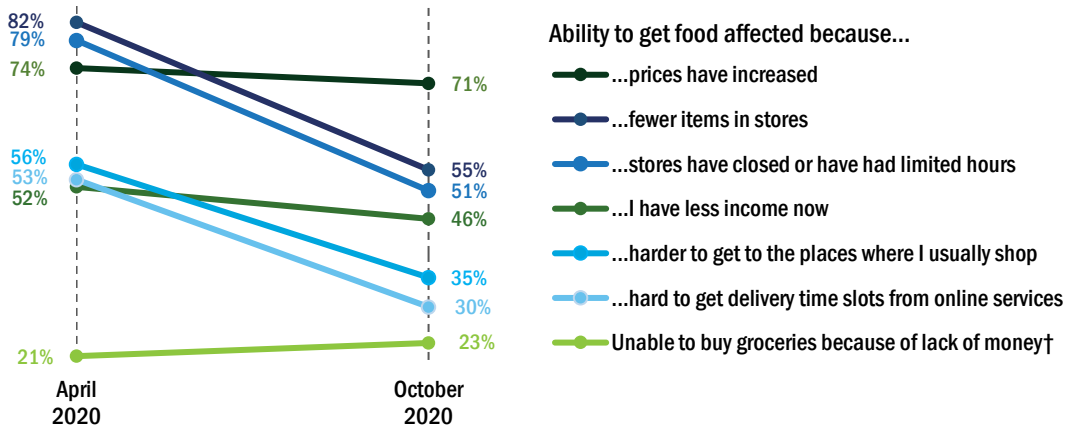
Food insecurity is the limited or uncertain availability of nutritionally adequate and safe foods, or the inability to acquire them without resorting to emergency food supplies or other coping strategies.[2] Access to nutritious food is essential to health and wellbeing.[3] In 2018, approximately 615,000 adult New Yorkers reported that they sometimes or often did not have enough food to eat - about 9% overall, ranging from as low as 4% among White New Yorkers to as high as 18% among Latino/a New Yorkers.[4] Structural racism has shaped policies that continue to result in economic exclusion and disadvantages for Black and Latino/a New Yorkers,[5] groups that disproportionately bear the burden of food insecurity as well as adverse chronic health conditions, such as diabetes and high blood pressure, which may be complicated by not being able to consistently access a nutritious diet.

This brief describes factors related to food insecurity and access faced by New Yorkers during the first year of the COVID-19 pandemic and presents some of their experiences. Given that the landscape of food security changed over the course of the year, data are presented sequentially, focusing on the most salient issues starting in spring 2020 and progressing through the first year of the pandemic.

The COVID-19 outbreak negatively affected New Yorkers' ability to get food

- While store availability improved from April to October 2020, economic barriers to food access were reported consistently during this period, with more than 70% of New Yorkers citing price increases, about 45% reporting less income, and about 20% reporting being unable to buy groceries due to lack of money for food.

From April to October 2020 New Yorkers reported improvement in food availability and accessibility to stores, but economic barriers to purchasing food persisted due to the COVID-19 outbreak



† Respondents were asked about ability to get food (first six items) and financial difficulties (final item) because of the COVID-19 outbreak.
Source: New York City Health Opinion Poll, April 16-23 and October 3-14, 2020.

Insight from the Harlem Health Advocacy Partners (HHAP) initiative

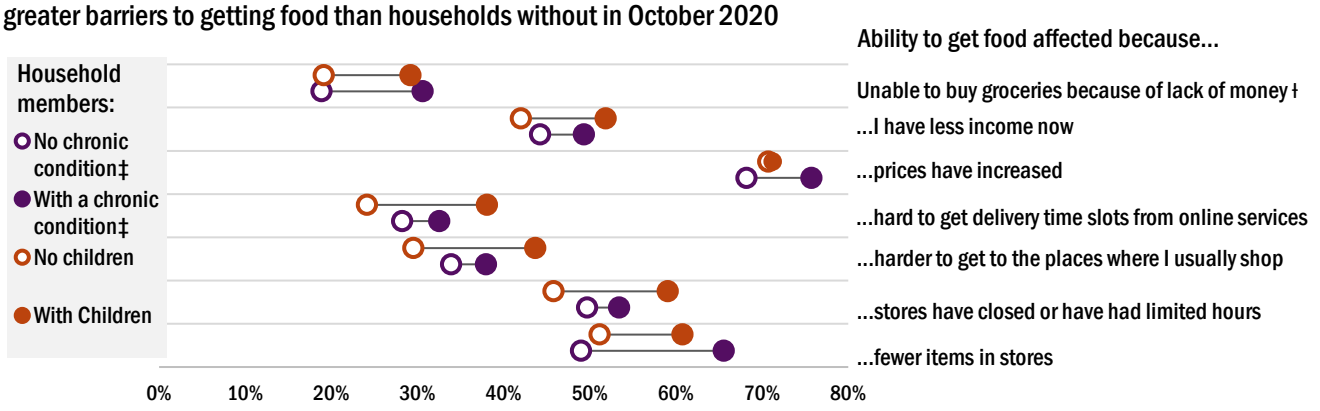
HHAP is a Community Health Worker initiative established in 2015 that supports residents of public housing in East and Central Harlem who have chronic conditions, including diabetes, asthma, and hypertension. Community Health Workers work with residents to improve their health and connect them to local health and social services. During the COVID-19 pandemic, the Community Health Workers have provided their clients referrals and supports to help combat food insecurity, which has been especially acute for many during the pandemic. While emergency food has been an essential support during this time, food available through such sources may not always provide nutrient dense options, which is important for people with chronic health conditions. Throughout this brief, we share stories from HHAP participants experiencing food insecurity. Look for the symbol to read their stories.

- Compared with April 2020, New Yorkers were less likely to report in October 2020 that stores had closed or had limited hours (79% vs. 50%) or that there were fewer items in stores (82% vs. 55%), though for half of New Yorkers these continued to be important factors in their households' ability to get food.
- In April 2020, increases in food prices were more likely to be perceived by Latino/a (77%), Black (79%) and Asian (83%) New Yorkers than by White New Yorkers (64%); by October 2020, this pattern persisted for Latino/a and Asian New Yorkers.
- Latino/a (59%), Black (51%) and Asian New Yorkers (63%) were more likely to report that they had less income for food than White New Yorkers (42%) in April 2020; by October 2020, this pattern persisted for Latino/a and Asian New Yorkers.
- In April 2020, men were more likely to report having less income for food than women (57% vs. 47%); by October 2020 this situation had reversed (42% men vs. 50% women).
- The proportion of Black and White New Yorkers reporting an inability to buy groceries because of a lack of money increased from April to October (Black: 22% vs. 27%; White: 13% vs. 17%).
- Compared with people in households without children, those in households with children were more likely to report having less income for food in both April (47% vs. 61%) and October (42% vs. 52%).
- In October, New Yorkers with a chronic health condition - such as heart disease, lung disease, cancer, diabetes or a weakened immune system - or living with someone with a chronic condition were more likely to report an increase in food prices, compared with those without chronic conditions (76% vs. 68%); this disparity was not seen in April 2020.

During the pandemic, food security was affected by issues such as disruptions in meals at senior centers, delivery costs and scheduling, and increased food prices. Food security was often accompanied by additional challenges brought on by the pandemic.

Before the pandemic, a retired man with complications from chronic diseases purchased household food using fixed income and SNAP benefits. During the pandemic, isolated at home, his income and SNAP benefits did not stretch to ensure ample high-quality food was brought to his home. Further, the pandemic resulted in his missing routine check-ups for medical conditions.

Due to the COVID-19 outbreak, New York City households with children or with members reporting a chronic condition faced greater barriers to getting food than households without in October 2020



ǂ Respondents were asked about financial difficulties (first item) and ability to get food (next six items) because of the COVID-19 outbreak.
‡Chronic condition: One or more household members has a condition such as heart disease, lung disease, cancer, diabetes, or a weakened immune system
Source: New York City Health Opinion Poll, October 3-14, 2020.

Definitions: **Race/ethnicity** For the purpose of this publication, Latino/a includes people of Hispanic or Latino/a origin, as identified by the survey question "Are you Hispanic or Latino/a?" and regardless of reported race. Black, White, Asian/Pacific Islander, and Other/Multi-racial race categories exclude those who identified as Latino/a.
Children at home: children 17 years of age or younger usually live or stay in the household
Chronic health conditions: respondent or anyone else living in the household has a chronic health condition, such as heart disease, lung disease, cancer, diabetes, or a weakened immune system.
Use of emergency food sources: In the last 30 days, respondent or anyone in the household often or sometimes got food from a food pantry, grab-and-go meals from the City (including the Department of Education), an emergency or senior meal program, or some other emergency food source.
Neighborhood poverty (based on ZIP code) is defined as the percentage of the population living below the Federal Poverty Line (FPL) based on the American Community Survey (2013-2017). Neighborhoods are categorized into four groups: Low poverty= <10% of the population living below the FPL; Medium poverty= 10-<20% below FPL; High poverty= 20-<30% below FPL; Very high poverty= ≥30% below FPL.

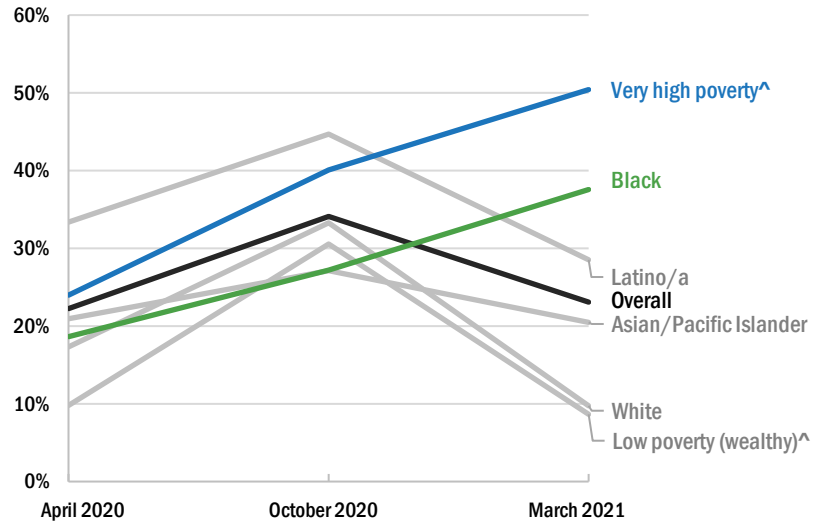
Barriers to emergency food services lessened from April to October, but reduced access to emergency food sources disproportionately affected households with children

- In April, Latino/a (38%) and Black (35%) New Yorkers were almost twice as likely to report having less access to emergency food services due to COVID-19, compared with White New Yorkers (19%).
- From April to October 2020, problems getting emergency food services decreased among New Yorkers overall, specifically a smaller proportion reported cancellations or reductions of emergency food services (29% vs. 23%) and limitations in accessing emergency food sources (29% vs. 22%).
- The reported reduction or cancellation of food support improved from April to October 2020 in households with children (42% vs. 34%) and without children (23% vs. 15%), though in October the overall burden for households with children was greater (one in three) compared with households without children (one in seven).

Use of emergency food services increased among most New Yorkers during the pandemic and has remained elevated for many

- By October 2020, one in three New Yorkers (34%) reported using emergency food services in the last 30 days, up from 22% in April 2020.
- By March 2021, emergency food use decreased to 23% among New Yorkers overall, though it increased for some New Yorkers, including Black New Yorkers (27% in October 2020 vs. 38% in March 2021), older adults (23% vs. 28%), people living in very high poverty neighborhoods (40% vs. 50%), and people who were unemployed (24% vs. 31%) or not in the labor force (26% vs. 31%).
- Emergency food use remained elevated in March 2021 for women (27%), New Yorkers born outside of the U.S. (25%) and people with less than a high school education (39%).

After increasing from April to October 2020, use of emergency food services decreased after October for most groups, however use increased among New Yorkers who are Black and those living in very high-poverty neighborhoods



Percentage who sometimes or often used emergency food services in the last 30 days.
Race/ethnicity: White, Black, Asian/Pacific Islander race categories exclude Latino ethnicity. Latino includes Hispanic or Latino of any race.
^Neighborhood poverty (based on ZIP code) = percentage of the population living below the Federal Poverty Line (FPL) based on the American Community Survey (2013-2017). Low poverty= <10% of the population living below the FPL; Very high poverty= ≥30% below FPL.
Source: New York City Health Opinion Poll, April 16th to 23rd, October 3-14, 2020; March 10-28, 2021

- In March 2021, use of emergency food services continued to be more likely among households with children versus without children (30% vs 19%) and households with at least one member with a chronic condition compared to none (29% vs 19%) a trend seen since April of 2020.

Food pantries are an essential emergency resource, but food insecurity still presents challenges to health which were exacerbated by the pandemic.

Food pantries vary in how much choice they offer and in how often they provide food to clients. During periods of the pandemic, pantries faced challenges such as staffing, increased demand, and food shortages. Pantries' resources were stretched, and many pantries closed or had limited hours.

A woman with multiple chronic health conditions experienced prolonged food insecurity prior to the pandemic. Around the time of the pandemic, she requested insurance coverage for medically tailored meals. The insurance company did not grant her request and during the pandemic, her family relied on SNAP benefits and food pantries.

Prior to the pandemic, a young adult was employed and was managing chronic health conditions. During the pandemic, he lost his job and had to access food pantry resources for his household. Under these circumstances, medical management of his health became an added challenge.

Implications

Structural racism has shaped policies that continue to result in economic exclusion and disadvantage for Black and Latino/a New Yorkers,[7] including lower household income and access to affordable, nutritious food. Policies designed to improve food access should be tailored to ensure benefits to those groups that have faced the most barriers in food access. These groups include Black, Latino/a, and Asian New Yorkers, as well as older adults, those with children, those living with chronic disease, those with less education, and those living in high poverty neighborhoods. Undocumented residents, while not explicitly represented in this report, also face significant barriers to securing food.[6]

At the start of the COVID-19 pandemic, New York City quickly mobilized, standing up GetFoodNYC, a suite of new emergency food operations aimed at combatting the City's dramatic increase in food insecurity. Through GetFoodNYC, the City established over 500 grab-and-go meal distribution sites at public schools for both children and adults to receive free meals. GetFood NYC also stood up the Emergency Food Home Delivery (EFD) program that delivered meals directly to individuals who were unable to leave their homes. Since March 2020, the GetFoodNYC programs have distributed over 225 million free meals to New Yorkers. In addition, New York City and State invested largely in the existing network of food pantries, soup kitchens, and other emergency food providers, in tandem with efforts by community groups and organizations to meet the growing food needs of New Yorkers. The Health Department's nutrition incentive programs, Health Bucks and Get the Good Stuff, continued to support healthy food access throughout the COVID-19 pandemic and distributed over $2.2 million worth of nutrition incentives through these programs from January to December 2020. Recent policy developments at the federal government level, such as the expansion of the Supplemental Nutrition Assistance Program (SNAP), Special Supplemental Nutrition Program for Women Infants and Children (WIC), and Pandemic-EBT may be improving food access and security for beneficiaries but analysis of inequities in impact are warranted. The City's inaugural Food Forward: A 10-Year Food Policy Plan, published February 2021, lays out a comprehensive policy framework for a more equitable and healthy food system, incuding specific strategies for expanding food benefits to reach more New Yorkers. Routine monitoring of food insecurity, availability and accessibility of food resources, and the impact of expanded food benefits on inequities, as well as use of these data to elevate the issues and advocate for broader income support, should remain priorites for public health departments.

Data Sources: **NYC Health Opinion Poll (HOP)** of adults ages 18 or older is implemented by the NYC Department of Health and Mental Hygiene to measure New Yorkers' knowledge, opinions, and experiences related to health. Data presented are from polls of about 1,200 adults each fielded April 16-23 and October 3-14 2020 and March 10-28 2021 in English (and Spanish and Chinese in April). Data from April and October, 2020 were collected via nonprobability online panels and weighted to match the NYC population on borough, race/ethnicity, age, sex, and educational attainment per the 2013-2017 American Community Survey (ACS) for the April poll, and per ACS 2014-2018 for the October poll. Online panels have limitations such as coverage and selection bias, and low participation rates. Data from March 2021 were collected from Healthy NYC, a probability-based panel, and were weighted to the same demographic characteristics. Because of this change in methodology, any change over time should be interpreted with caution. **Harlem Health Advocacy Partners (HHAP)** is a DOHMH community health worker initiative which aims to improve the health outcomes of residents of the New York City Housing Authority (NYCHA) in East and Central Harlem by linking residents with community health workers and health advocates. Data presented here come from community health workers' conversations and notes with HHAP participants, captured through assessment forms, case notes, and wellness calls.

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Acknowledgements: Kinjia Hinterland, L. Hannah Gould, Kimberly Kessler

References:

1 Clapp J, Calvo-Friedman A, Cameron S, et al. The COVID-19 Shadow Pandemic: Meeting Social Needs For A City In Lockdown. *Health Aff*, 2020; 39(9):1592-1596.

2 Core indicators of nutritional state for difficult-to-sample populations. *J Nutr.* 1990;120 Suppl 11:1559-600. doi: 10.1093/jn/120.suppl_11.1555. PMID: 2243305

3 Gundersen C, Ziliak JP. Food Insecurity and Health Outcomes. *Health Aff*, 2015;34(11):1830-9.

4 New York City Department of Health and Mental Hygiene. Community Health Survey 2018. www1.nyc.gov/site/doh/data/data-sets/community-health-survey.page

5 Bailey ZD, Krieger N, Agénor M, Graves J, Linos N, Bassett MT. Structural racism and health inequities in the USA: evidence and interventions. *Lancet*. 2017;389(10077):1453-1463. doi: 10.1016/S0140-6736(17)30569-X. PMID: 28402827.

6 Munger AL, Lloyd TDS, Speirs KE, et al. More than Just Not Enough: Experiences of Food Insecurity for Latino Immigrants. *J Immigrant Minority Health,* 2015;17:1548–1556. https://doi.org/10.1007/s10903-014-0124-6

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Epi Data Tables

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Food Insecurity and Access in New York City during the COVID-19 Pandemic, 2020-2021

Data Tables

Table 1a	**Prevalence of decreased accessibilty of stores and availability of food items due to COVID-19 outbreak, New York City, April and October, 2020 and March 2021**
Table 1b	**Prevalence of decreased store hours or timing of food delivery services due to COVID-19 outbreak, New York City, April and October, 2020 and March 2021**
Table 1c	**Financial barriers to purchasing food due to COVID-19 outbreak, New York City, April and October, 2020 and March 2021**
Table 1d	**Closure and limitations in the availability of emergency food sources due to COVID-19 outbreak, New York City, April and October, 2020 and March 2021**
Table 2	**Use of emergency food services "often" or "sometimes," New York City, April and October 2020 and March 2021**

Data Sources

NYC Health Opinion Poll (HOP) of adults ages 18 or older is implemented by the NYC Department of Health and Mental Hygiene to measure New Yorkers' knowledge, opinions, and experiences related to health. Data presented are from polls of about 1,200 adults each fielded April 16-23 and October 3-14 2020 and March 10-28 2021 in English (and Spanish and Chinese in April). Data were collected via nonprobability online panels and weighted to match the NYC population on borough, race/ethnicity, age, sex, and educational attainment per the 2013-2017 American Community Survey (ACS) for the April poll, and per ACS 2014-2018 for the October poll. Online panels have limitations such as coverage and selection bias, and low participation rates.

Table 1a - Prevalence of decreased accessibilty of stores and availability of food items due to COVID-19 outbreak, New York City, April and October, 2020 and March 2021

Source: New York City Health Opinion Polls (NYC HOP) waves 8, 10

NYC HOP wave 8 fielded from April 16 - April 23, 2020

NYC HOP wave 10 fielded from October 3-14, 2020

NYC HOP wave 12 fielded from March 10-28 2021

Data from HOP wave 8 are weighted to NYC's borough, age X gender, borough X race/ethnicity, and education per the 2013-2017 US Census Bureau's ACS 5-year estimates

Data from HOP wave 10 are weighted to NYC's borough, age X gender, borough X race/ethnicity, and education per the 2014-2018 US Census Bureau's ACS 5-year estimates

Data from HOP wave 12 are weighted to NYC's borough, age X gender, borough X race/ethnicity, and education per the 2014-2018 US Census Bureau's ACS 5-year estimates

	Has the COVID-19 outbreak affected your household's ability to get the food you need in any of the following ways?																											
	..There are fewer items in stores														...It is harder to get to the places where I usually shop													
	April 2020				October 2020				Apr-Oct 2020 Comparison		March 2021				Oct 2020-Mar 2021 Comparison		April 2020				October 2020				Apr-Oct 2020 Comparison		March 2021				Oct 2020-Mar 2021 Comparison	
	%	95% CI Lower	95% CI Upper	p-value	%	95% CI Lower	95% CI Upper	p-value	Diff.	p-value	%	95% CI Lower	95% CI Upper	p-value	Diff.	p-value	%	95% CI Lower	95% CI Upper	p-value	%	95% CI Lower	95% CI Upper	p-value	Diff.	p-value	%	95% CI Lower	95% CI Upper	p-value	Diff.	p-value
Overall																														
Overall	82.1	79.6	84.5	--	55.0	51.8	58.3	--	27.0	**0.0000**	31.5 U	27.1	35.9	--	23.5	**0.0000**	56.0	52.8	59.1	--	35.2	32.2	38.3	--	20.7	**0.0000**	24.5 D	20.5	28.4	--	10.8	**0.0000**
Sex																														
Male	81.7	77.9	85.5	0.7829	53.7	49.0	58.4	0.4504	28.0	**0.0000**	30.8	23.6	38.1	0.7996	22.9	**0.0000**	55.6	50.8	60.3	0.8188	34.0	29.6	38.4	0.4504	21.6	**0.0000**	21.9	15.6	28.2	0.2360	12.1	**0.0000**
Female	82.4	79.1	85.6	REF	56.2	51.8	60.6	REF	26.2	**0.0000**	32.0	26.7	37.3	REF	24.2	**0.0000**	56.3	52.0	60.6	REF	36.4	32.1	40.7	REF	19.9	**0.0000**	26.7	21.8	31.7	REF	9.6	**0.0000**
Race/ethnicity §																														
White Non-Latino	80.7	76.3	85.1	REF	61.1	55.8	66.5	REF	19.6	**0.0000**	30.3	24.9	35.8	REF	30.8	**0.0000**	48.4	42.7	54.0	REF	40.9	35.5	46.3	REF	7.4	**0.0000**	19.7	14.6	24.9	REF	21.2	**0.0000**
Latino	84.2	80.1	88.4	0.2544	54.1	48.0	60.2	0.0905	30.1	**0.0000**	37.1 *	26.9	47.2	0.2549	17.0	**0.0000**	60.0	54.0	66.0	**0.0055**	33.7	28.0	39.3	0.0704	26.3	**0.0000**	23.3	15.0	31.6	0.4758	10.4	**0.0000**
Black Non-Latino	77.1	71.0	83.2	0.3472	48.7	41.5	55.8	**0.0062**	28.4	**0.0000**	34.3 *	22.4	46.3	0.5503	14.3	**0.0000**	50.3	43.5	57.0	0.6702	28.7	22.3	35.1	**0.0043**	21.5	**0.0000**	29.2 *	18.4	40.1	0.1203	-0.5	0.3603
Asian/Pacific Islander Non-Latino	87.9	82.4	93.4	**0.0465**	52.0	43.2	60.8	0.0813	35.9	**0.0000**	23.9	15.8	32.1	0.1991	28.1	**0.0000**	74.3	67.1	81.5	**0.0000**	33.5 U	25.3	41.8	0.1415	40.8	**0.0000**	29.3	19.8	38.8	0.0825	4.2	**0.0001**
Other/Multi-Racial Non-Latino	86.1 *	73.6	98.5	0.4252	54.8 *	34.8	74.8	0.5499	31.3	**0.0000**	17.8 *	0.9	34.6	0.1636	37.0	**0.0000**	56.4 *	35.6	77.1	0.4651	42.4 *	21.8	63.0	0.8902	14.0	**0.0000**	18.9 *	2.1	35.6	0.9215	23.6	**0.0000**
Age group																														
18-64	82.5 D	79.3	85.7	0.7422	57.1	53.2	60.9	0.2056	25.4	**0.0000**	35.1	29.0	41.2	0.1154	22.0	**0.0000**	65.1	61.1	69.1	**0.0000**	40.3	36.5	44.1	**0.0010**	24.8	**0.0000**	26.4	21.2	31.6	0.3464	13.9	**0.0000**
65+	81.6	77.8	85.5	REF	52.9	47.5	58.2	REF	28.8	**0.0000**	28.1	21.7	34.4	REF	24.8	**0.0000**	46.1	41.2	51.0	REF	29.8	24.9	34.8	REF	16.3	**0.0000**	22.6	16.7	28.5	REF	7.2	**0.0003**
US birth																														
US born	81.8	79.1	84.5	0.5229	56.6	53.0	60.1	0.0513	25.2	**0.0000**	37.6	32.2	42.9	**0.0007**	19.0	**0.0000**	55.3	51.8	58.8	0.3527	36.5 U	33.1	40.0	0.0788	18.8	**0.0000**	27.7	22.8	32.7	**0.0446**	8.8	**0.0001**
non-US born	83.9	78.1	89.6	REF	47.8	39.7	55.9	REF	36.1	**0.0000**	22.3	15.3	29.3	REF	25.5	**0.0000**	59.3	51.7	66.9	REF	29.3	22.0	36.6	REF	30.0	**0.0000**	19.6	13.3	25.8	REF	9.8	**0.0000**
Educational attainment																														
HS or less	77.2	71.9	82.5	0.0941	57.1	51.0	63.3	0.7862	20.1	**0.0000**	33.1	24.0	42.1	0.8482	24.0	**0.0000**	49.2	42.9	55.5	**0.0333**	33.3	27.6	39.1	0.2355	15.9	**0.0000**	26.0	18.1	33.9	0.4912	7.3	**0.0001**
Some College	86.8	83.0	90.6	0.1212	48.2	41.9	54.4	**0.0117**	38.6	**0.0000**	27.7	19.7	35.7	0.3507	20.4	**0.0000**	61.2	55.6	66.9	0.3461	33.9	28.0	39.9	0.3169	27.3	**0.0000**	24.5 U	17.1	32.0	0.6956	9.4	**0.0000**
College+	82.7	79.1	86.2	REF	58.2	53.6	62.8	REF	24.5	**0.0000**	32.1	27.6	36.6	REF	26.1	**0.0000**	57.7	53.1	62.3	REF	37.8	33.2	42.3	REF	20.0	**0.0000**	22.8	18.4	27.2	REF	14.9	**0.0000**
Employment status																														
Employed	83.7	80.7	86.8	REF	55.3	51.3	59.4	REF	28.4	**0.0000**	37.7	31.5	43.8	REF	17.7	**0.0000**	60.9	56.8	65.1	REF	36.8	32.9	40.6	REF	24.2	**0.0000**	25.1	19.4	30.8	REF	11.6	**0.0000**
Unemployed	79.8	71.9	87.7	0.3642	53.5 D	44.7	62.2	0.7045	26.3	**0.0000**	28.1 *	18.0	38.1	0.1101	25.4	**0.0000**	50.2	40.7	59.6	**0.0414**	38.8	30.3	47.3	0.6626	11.4	**0.0000**	22.2	14.5	29.8	0.5392	16.7	**0.0000**
Not in labor force	80.4	75.8	84.9	0.2321	55.2	48.5	61.8	0.9676	25.2	**0.0000**	24.9	17.4	32.3	**0.0091**	30.3	**0.0000**	50.6	45.0	56.2	**0.0039**	30.6	24.3	36.9	0.1005	20.0	**0.0000**	25.5 D	17.9	33.1	0.9399	5.1	**0.0012**
Children at home																														
No children	81.1	78.0	84.2	0.3057	51.1	46.7	55.5	**0.0032**	30.0	**0.0000**	28.4	23.4	33.3	0.0713	22.8	**0.0000**	53.0	49.0	57.0	**0.0110**	29.5 U	25.5	33.6	**0.0000**	23.5	**0.0000**	24.5 U	19.8	29.2	0.9925	5.0	**0.0084**
With Children	83.8	79.7	87.9	REF	60.8	56.1	65.5	REF	23.0	**0.0000**	37.3	28.9	45.7	REF	23.5	**0.0000**	61.6	56.3	67.0	REF	43.7	39.0	48.4	REF	18.0	**0.0000**	24.5 D	17.4	31.6	REF	19.2	**0.0000**
Chronic condition																														
Yes	84.8	80.8	88.7	0.1260	65.6	60.4	70.7	**0.0000**	19.2	**0.0000**	34.9	27.0	42.8	0.2593	30.6	**0.0000**	56.5 D	51.0	62.0	0.6606	38.0	32.7	43.2	0.2245	18.5	**0.0000**	29.6	22.2	37.0	0.0621	8.4	**0.0000**
No	80.8	77.6	84.0	REF	49.0	44.8	53.1	REF	31.8	**0.0000**	29.5 D	24.2	34.7	REF	19.5	**0.0000**	55.0	51.0	59.0	REF	33.9	30.0	37.8	REF	21.1	**0.0000**	21.3	16.8	25.8	REF	12.6	**0.0000**
Borough																														
The Bronx	77.7	71.1	84.2	0.3958	56.3	47.9	64.8	0.6065	21.3	**0.0000**	38.2 *	25.6	50.8	0.5196	18.1	**0.0000**	50.0	42.0	58.0	0.5105	33.9	25.9	41.8	0.5856	16.1	**0.0000**	26.5 D*	16.1	36.9	0.8800	7.4	**0.0000**
Brooklyn	78.0	73.0	82.9	0.3661	55.9	50.0	61.8	0.5986	22.1	**0.0000**	27.3	19.9	34.6	0.2918	28.7	**0.0000**	55.0	49.3	60.7	0.7687	38.7	32.9	44.6	0.6411	16.2	**0.0000**	26.0	19.0	33.1	0.9166	12.7	**0.0000**
Manhattan	81.4	75.8	87.0	REF	53.5 D	46.8	60.2	REF	27.9	**0.0000**	33.2	24.9	41.6	REF	20.3	**0.0000**	53.6	46.4	60.8	REF	36.7	30.4	43.0	REF	16.9	**0.0000**	25.5 D	17.4	33.6	REF	11.2	**0.0000**
Queens	88.2	84.4	92.0	**0.0497**	51.3	45.0	57.5	0.6336	36.9	**0.0000**	27.3	18.9	35.7	0.3246	24.0	**0.0000**	63.4	57.7	69.1	**0.0370**	33.1	27.2	39.0	0.4111	30.3	**0.0000**	19.0	11.8	26.3	0.2447	14.1	**0.0000**
Staten Island	88.9	79.7	98.0	0.1752	71.0 *	58.5	83.6	**0.0156**	17.8	**0.0000**	53.0 *	33.6	72.3	0.0666	18.1	**0.0000**	49.9 *	35.0	64.8	0.6623	25.5 U*	14.3	36.6	0.0859	24.4	**0.0000**	34.6 *	13.0	56.1	0.4393	-9.1	**0.0000**
Neighborhood poverty ǂ																														
Low poverty (<10%)	81.9	76.3	87.5	REF	57.7	50.4	65.0	REF	24.2	**0.0000**	33.3	25.1	41.5	REF	24.4	**0.0000**	44.9	37.9	51.9	REF	30.6	24.1	37.2	REF	14.3	**0.0000**	19.6	12.4	26.8	REF	11.0	**0.0000**
Medium poverty (10 to <20%)	83.7	80.1	87.3	0.5967	50.8	46.0	55.6	0.1198	32.9	**0.0000**	30.2	23.6	36.8	0.5644	20.6	**0.0000**	59.4	54.5	64.2	**0.0009**	34.4	29.9	38.9	0.3485	25.0	**0.0000**	20.5 U	15.5	25.6	0.8370	13.9	**0.0000**
High poverty (20 to <30%)	81.9	76.5	87.4	0.9878	57.8	50.8	64.9	0.9806	24.1	**0.0000**	32.5 D*	22.4	42.5	0.8992	25.4	**0.0000**	58.8	51.8	65.7	**0.0059**	41.2	34.1	48.3	**0.0320**	17.6	**0.0000**	35.2 *	24.7	45.8	**0.0167**	5.9	**0.0003**
Very high poverty (30%+)	77.9	71.3	84.4	0.3632	59.9	50.9	69.0	0.7056	17.9	**0.0000**	29.8 *	16.4	43.2	0.6652	30.1	**0.0000**	58.8	50.8	66.7	**0.0106**	33.1	24.6	41.7	0.6483	25.6	**0.0000**	29.7 *	17.0	42.4	0.1751	3.4	**0.0026**
Household poverty																														
<200% FPL	80.0	75.4	84.7	0.4182	51.3	45.5	57.2	0.0881	28.7	**0.0000**	33.7	25.9	41.5	0.6511	17.7	**0.0000**	56.2	50.4	61.9	0.8969	32.7	27.3	38.1	0.3525	23.5	**0.0000**	30.0	22.9	37.1	**0.0370**	2.7	0.0967
>=200% FPL	82.4	79.3	85.5	REF	57.5 U	53.5	61.5	REF	24.8	**0.0000**	31.5 D	26.0	37.0	REF	26.0	**0.0000**	55.7	51.7	59.7	REF	35.8	32.0	39.7	REF	19.8	**0.0000**	20.8	15.9	25.8	REF	15.0	**0.0000**

§ White, Black, Asian/Pacific Islander race categories exclude Latino/a ethnicity. Latino/a includes Hispanic or Latino/a of any race.

ǂ Neighborhood poverty (based on self-reported ZIP code) is defined as the percentage of the population living below the Federal Poverty Line (FPL) based on the American Community Survey (ACS) (2013-17) for HOP wave 8 and (ACS 2014-2018) for HOP wave 10. Neighborhoods are categorized into four groups as follows: "Low poverty" neighborhoods are those with <10% of the population living below the FPL; "Medium poverty" neighborhoods have 10-<20% of the population below FPL; "High Poverty" neighborhoods have 20-<30% of the population living below the FPL; "Very high poverty" neighborhoods have ≥30% of the population living below the FPL.

Significance test is based on the Z score test. P values are significant at the 0.05 level and are indicated in bold text. Ref: Reference group.

U When reporting to nearest whole percent, round up

D When reporting to nearest whole percent, round down

* Estimate should be interpreted with caution. Estimate's Relative Standard Error (a measure of estimate precision) is greater than 30%, or the 95% Confidence Interval's half width is greater than 10, or the sample size is too small making the estimate potentially unreliable

Table 1b. Prevalence of decreased store hours or timing of food delivery services due to COVID-19 outbreak, New York City, April and October, 2020 and March 2021

Source: New York City Health Opinion Polls (NYC HOP) waves 8, 10, 12

NYC HOP wave 8 fielded from April 16 - April 23, 2020

NYC HOP wave 10 fielded from October 3-14, 2020

NYC HOP wave 12 fielded from March 10-28 2021

Data from HOP wave 8 are weighted to NYC's borough, age X gender, borough X race/ethnicity, and education per the 2013-2017 US Census Bureau's ACS 5-year estimates

Data from HOP wave 10 are weighted to NYC's borough, age X gender, borough X race/ethnicity, and education per the 2014-2018 US Census Bureau's ACS 5-year estimates

Data from HOP wave 12 are weighted to NYC's borough, age X gender, borough X race/ethnicity, and education per the 2014-2018 US Census Bureau's ACS 5-year estimates

Has the COVID-19 outbreak affected your household's ability to get the food you need in any of the following ways?

	...It is hard to get delivery time slots from online delivery services														...Stores have closed or have had limited hours											
	April 2020				October 2020				Apr-Oct 2020 Comparison		March 2021				Oct 2020-Mar 2021 Comparison		April 2020				October 2020				Apr-Oct 2020 Comparison		March 2021				Oct 2020-Mar 2021 Comparison	
	%	95% CI Lower	95% CI Upper	p-value	%	95% CI Lower	95% CI Upper	p-value	Diff.	p-value	%	95% CI Lower	95% CI Upper	p-value	Diff.	p-value	%	95% CI Lower	95% CI Upper	p-value	%	95% CI Lower	95% CI Upper	p-value	Diff.	p-value	%	95% CI Lower	95% CI Upper	p-value	Diff.	p-value
Overall																																
Overall	53.2	50.1	56.4	--	29.8	26.9	32.7	--	23.5	**0.0000**	22.0	18.4	25.6	--	7.8	**0.0005**	78.8	76.2	81.4	--	51.2	47.9	54.4	--	27.6	**0.0000**	37.3	32.7	41.9	--	13.9	**0.0000**
Sex																																
Male	49.6	44.9	54.4	**0.0390**	29.5 D	25.2	33.7	0.8546	20.2	**0.0000**	18.6	12.9	24.3	0.0831	10.8	**0.0000**	81.4	77.7	85.1	0.0697	50.7	46.0	55.5	0.8140	30.6	**0.0000**	34.4	27.1	41.7	0.2484	16.4	**0.0000**
Female	56.4	52.1	60.7	REF	30.0	26.0	34.0	REF	26.3	**0.0000**	25.1	20.5	29.7	REF	4.9	**0.0025**	76.6	72.9	80.2	REF	51.5 U	47.0	56.0	REF	25.0	**0.0000**	39.9	34.1	45.6	REF	11.7	**0.0000**
Race/ethnicity §																																
White Non-Latino	51.7	46.0	57.3	REF	34.0	28.9	39.1	REF	17.7	**0.0000**	21.1	16.9	25.3	REF	12.9	**0.0000**	72.8	67.8	77.8	REF	51.3	45.8	56.9	REF	21.5	**0.0000**	31.7	26.6	36.9	REF	19.6	**0.0000**
Latino	55.2	49.3	61.2	0.3941	30.1	24.6	35.6	0.3135	25.1	**0.0000**	21.3	13.5	29.2	0.9567	8.8	**0.0000**	82.4	77.9	86.9	**0.0050**	50.8	44.7	57.0	0.9005	31.6	**0.0000**	38.7 *	28.5	48.9	0.2288	12.1	**0.0000**
Black Non-Latino	46.1	39.4	52.8	0.2154	23.8	17.8	29.7	**0.0110**	22.3	**0.0000**	20.3	11.5	29.1	0.8730	3.5	**0.0020**	78.5 U	72.9	84.2	0.1358	47.9	40.8	55.0	0.4496	30.7	**0.0000**	34.9 *	22.9	46.8	0.6349	13.0	**0.0000**
Asian/Pacific Islander Non-Latino	65.0	57.1	72.8	**0.0072**	28.6	20.8	36.4	0.2555	36.4	**0.0000**	20.1	12.2	28.0	0.8268	8.5	**0.0000**	86.5 U	81.2	91.9	**0.0003**	56.4	47.8	65.0	0.3348	30.2	**0.0000**	41.2 *	30.7	51.7	0.1105	15.2	**0.0000**
Other/Multi-Racial Non-Latino	46.0 *	25.6	66.5	0.6029	27.3 *	10.4	44.1	0.4562	18.8	**0.0000**	39.7 *	13.1	66.3	0.1761	-12.4	**0.0000**	76.6 *	59.6	93.7	0.6721	50.1 *	29.7	70.6	0.9117	26.5	**0.0000**	38.5 U*	11.9	65.2	0.6234	11.6	**0.0000**
Age group																																
18-64	57.7	53.6	61.8	**0.0045**	38.0	34.2	41.7	**0.0000**	19.7	**0.0000**	26.0	21.0	31.0	**0.0318**	12.0	**0.0000**	80.1	76.8	83.3	0.3173	53.9	50.0	57.7	0.0923	26.2	**0.0000**	39.3	33.1	45.5	0.3958	14.6	**0.0000**
65+	48.4	43.5	53.4	REF	21.0	16.7	25.3	REF	27.4	**0.0000**	18.1	13.0	23.3	REF	2.9	0.0536	77.4	73.3	81.5	REF	48.2	42.9	53.6	REF	29.2	**0.0000**	35.3	28.6	42.0	REF	12.9	**0.0000**
US birth																																
US born	52.6	49.1	56.1	0.4571	30.5 D	27.3	33.7	0.2664	22.1	**0.0000**	24.4	20.1	28.8	0.1116	6.1	**0.0013**	77.7	74.8	80.6	**0.0337**	50.7	47.2	54.3	0.7238	27.0	**0.0000**	39.8	34.4	45.1	0.1969	11.0	**0.0000**
non-US born	55.8	48.2	63.4	REF	26.2	19.4	33.0	REF	29.6	**0.0000**	18.4	12.2	24.5	REF	7.9	**0.0000**	84.5 D	79.0	90.0	REF	52.3	44.2	60.4	REF	32.1	**0.0000**	33.4	25.4	41.4	REF	18.9	**0.0000**
Educational attainment																																
HS or less	47.8	41.5	54.1	**0.0191**	29.1	23.7	34.6	0.4376	18.7	**0.0000**	19.4	12.7	26.0	0.1179	9.8	**0.0000**	76.2	70.9	81.6	0.4131	52.8	46.6	59.0	0.5587	23.4	**0.0000**	38.4	29.1	47.7	0.6253	14.4	**0.0000**
Some College	53.9	48.1	59.7	0.3916	27.6	22.0	33.2	0.2308	26.4	**0.0000**	20.6	13.3	27.9	0.2374	7.0	**0.0000**	81.5 U	77.1	85.9	0.3810	50.2	43.9	56.4	0.9357	31.4	**0.0000**	37.8	28.7	46.8	0.7030	12.4	**0.0000**
College+	57.2	52.6	61.7	REF	31.9	27.6	36.1	REF	25.3	**0.0000**	25.7	21.4	30.1	REF	6.1	**0.0000**	79.0	75.2	82.7	REF	50.5 D	45.8	55.2	REF	28.5	**0.0000**	35.8	31.2	40.4	REF	14.7	**0.0000**
Employment status																																
Employed	56.6	52.4	60.8	REF	35.2	31.4	39.0	REF	21.4	**0.0000**	27.0	21.6	32.4	REF	8.2	**0.0000**	80.5 U	77.3	83.7	REF	54.0	50.0	58.1	REF	26.5	**0.0000**	38.8	32.8	44.9	REF	15.2	**0.0000**
Unemployed	45.2	35.9	54.6	**0.0299**	27.0	19.2	34.9	0.0676	18.2	**0.0000**	21.5 D	13.7	29.2	0.2515	5.6	**0.0000**	82.2	74.6	89.7	0.6999	50.0	41.2	58.8	0.4173	32.1	**0.0000**	42.1 *	31.3	52.8	0.6052	8.0	**0.0000**
Not in labor force	51.1	45.5	56.8	0.1279	20.4	15.0	25.7	**0.0000**	30.8	**0.0000**	15.1	9.7	20.6	**0.0026**	5.2	**0.0000**	75.0	70.0	79.9	0.0636	46.0	39.3	52.7	**0.0427**	29.0	**0.0000**	31.8	23.3	40.4	0.1900	14.1	**0.0000**
Children at home																																
No children	50.4	46.4	54.4	**0.0136**	24.1	20.4	27.9	**0.0000**	26.3	**0.0000**	19.9	16.0	23.9	0.1564	4.2	**0.0094**	78.5 U	75.3	81.7	0.7969	45.8	41.4	50.2	**0.0001**	32.7	**0.0000**	33.2	28.1	38.4	**0.0265**	12.6	**0.0000**
With Children	58.7	53.4	64.0	REF	38.1	33.5	42.7	REF	20.6	**0.0000**	25.8	18.7	32.9	REF	12.3	**0.0000**	79.2	74.8	83.6	REF	59.1	54.3	63.8	REF	20.2	**0.0000**	44.6	36.0	53.2	REF	14.5	**0.0000**
Chronic condition																																
Yes	55.6	50.2	61.0	0.3281	32.5 U	27.6	37.4	0.1709	23.1	**0.0000**	23.7	17.2	30.2	0.4946	8.8	**0.0000**	78.2	73.7	82.7	0.7883	53.4	48.0	58.9	0.2861	24.8	**0.0000**	38.4	30.2	46.7	0.7042	15.0	**0.0000**
No	52.2	48.2	56.3	REF	28.2	24.5	31.9	REF	24.0	**0.0000**	21.0	16.8	25.2	REF	7.2	**0.0001**	78.9	75.7	82.2	REF	49.7	45.6	53.8	REF	29.2	**0.0000**	36.5 U	31.1	42.0	REF	13.2	**0.0000**
Borough																																
The Bronx	45.1	37.2	53.0	**0.0377**	29.6	22.1	37.0	0.7590	15.5	**0.0000**	21.5 U	12.0	31.0	0.9692	8.0	**0.0000**	78.4	71.8	85.1	0.4824	46.2	37.7	54.6	0.0895	32.3	**0.0000**	33.7 *	21.8	45.7	0.5175	12.4	**0.0000**
Brooklyn	51.2	45.5	56.9	0.2655	33.0	27.4	38.6	0.2378	18.2	**0.0000**	21.3	15.1	27.6	0.9281	11.6	**0.0000**	78.3	73.6	83.0	0.4271	52.3	46.3	58.3	0.4841	26.1	**0.0000**	36.5 U	28.1	44.9	0.7339	15.7	**0.0000**
Manhattan	56.4	49.2	63.5	REF	28.1	22.2	34.0	REF	28.3	**0.0000**	21.8	15.3	28.3	REF	6.3	**0.0000**	75.2	68.9	81.4	REF	55.4	48.8	62.1	REF	19.7	**0.0000**	38.6	29.9	47.4	REF	16.8	**0.0000**
Queens	56.4	50.5	62.2	0.9995	26.0	20.8	31.2	0.6053	30.4	**0.0000**	21.9	14.5	29.3	0.9756	4.1	**0.0017**	81.5 D	77.0	86.0	0.1079	49.4	43.1	55.6	0.1914	32.1	**0.0000**	38.7	29.7	47.8	0.9849	10.6	**0.0000**
Staten Island	60.6 *	45.9	75.3	0.6110	38.1 *	24.7	51.4	0.1785	22.5	**0.0000**	29.2 *	11.1	47.4	0.4471	8.8	**0.0000**	82.7 *	71.6	93.8	0.2434	51.7 *	38.0	65.5	0.6324	31.0	**0.0000**	39.6 *	20.0	59.2	0.9287	12.1	**0.0000**
Neighborhood poverty ǂ																																
Low poverty (<10%)	54.2	47.2	61.3	REF	30.3	23.7	36.8	REF	23.9	**0.0000**	26.0	18.6	33.3	REF	4.3	**0.0001**	78.9	72.9	84.8	REF	44.1	36.9	51.3	REF	34.8	**0.0000**	33.3	25.1	41.5	REF	10.8	**0.0000**
Medium poverty (10 to <20%)	54.2	49.3	59.1	0.9973	27.8	23.7	31.9	0.5291	26.4	**0.0000**	19.5 D	14.5	24.4	0.1493	8.3	**0.0000**	81.2	77.5	84.9	0.5151	50.7	45.9	55.5	0.1323	30.5	**0.0000**	38.6	31.7	45.6	0.3304	12.1	**0.0000**
High poverty (20 to <30%)	54.6	47.6	61.5	0.9435	30.1	23.5	36.6	0.9657	24.5	**0.0000**	26.1	16.6	35.5	0.9886	4.0	**0.0031**	72.7	66.4	79.1	0.1652	56.4	49.4	63.5	**0.0164**	16.3	**0.0000**	44.0 *	33.1	55.0	0.1242	12.4	**0.0000**
Very high poverty (30%+)	47.9	39.9	55.8	0.2413	33.8	25.2	42.5	0.5191	14.0	**0.0000**	18.9	9.3	28.5	0.2527	14.9	**0.0000**	80.7	74.7	86.8	0.6685	53.0	43.6	62.4	0.1389	27.7	**0.0000**	28.5 U*	15.4	41.7	0.5455	24.5	**0.0000**
Household poverty																																
<200% FPL	45.1	39.4	50.9	**0.0006**	25.0	20.1	30.0	**0.0310**	20.1	**0.0000**	19.9	14.0	25.8	0.3054	5.2	**0.0014**	77.6	72.7	82.5	0.7762	54.2	48.4	60.1	0.1488	23.3	**0.0000**	42.0	34.0	50.1	**0.0465**	12.2	**0.0000**
>=200% FPL	57.4	53.5	61.4	REF	31.9	28.2	35.6	REF	25.5	**0.0000**	23.8	19.0	28.7	REF	8.0	**0.0000**	78.4	75.2	81.7	REF	49.0	44.9	53.0	REF	29.4	**0.0000**	32.1	26.6	37.7	REF	16.9	**0.0000**

§ White, Black, Asian/Pacific Islander race categories exclude Latino/a ethnicity. Latino/a includes Hispanic or Latino/a of any race.

ǂ Neighborhood poverty (based on self-reported ZIP code) is defined as the percentage of the population living below the Federal Poverty Line (FPL) based on the American Community Survey (ACS) (2013-17) for HOP wave 8 and (ACS 2014-2018) for HOP wave 10. Neighborhoods are categorized into four groups as follows: "Low poverty" neighborhoods are those with <10% of the population living below the FPL; "Medium poverty" neighborhoods have 10-<20% of the population below FPL; "High Poverty" neighborhoods have 20-<30% of the population living below the FPL; "Very high poverty" neighborhoods have ≥30% of the population living below the FPL.

Significance test is based on the Z score test. P values are significant at the 0.05 level and are indicated in bold text. Ref: Reference group.

U When reporting to nearest whole percent, round up

D When reporting to nearest whole percent, round down

* Estimate should be interpreted with caution. Estimate's Relative Standard Error (a measure of estimate precision) is greater than 30%, or the 95% Confidence Interval's half width is greater than 10, or the sample size is too small making the estimate potentially unreliable

Table 1c - Financial barriers to purchasing food due to COVID-19 outbreak among adults 18 years or older, New York City, April and October, 2020 and March 2021

Source: New York City Health Opinion Polls (NYC HOP) waves 8, 10, 12
NYC HOP wave 8 fielded from April 16 - April 23, 2020
NYC HOP wave 10 fielded from October 3-14, 2020
NYC HOP wave 12 fielded from March 10-28 2021
Data from HOP wave 8 are weighted to NYC's borough, age X gender, borough X race/ethnicity, and education per the 2013-2017 US Census Bureau's ACS 5-year estimates
Data from HOP wave 10 are weighted to NYC's borough, age X gender, borough X race/ethnicity, and education per the 2014-2018 US Census Bureau's ACS 5-year estimates
Data from HOP wave 12 are weighted to NYC's borough, age X gender, borough X race/ethnicity, and education per the 2014-2018 US Census Bureau's ACS 5-year estimates

	Has the COVID-19 outbreak affected your household's ability to get the food you need in any of the following ways?																																			
	...I have less income now														...Prices have increased														Because of the financial problems caused by the COVID-19 pandemic, has your household...											
	Been unable to buy groceries because of lack of money?																																			
	April 2020				October 2020				Apr-Oct 2020 Comparison		March 2021				Oct 2020-Mar 2021		April 2020				October 2020				Apr-Oct 2020 Comparison		March 2021				Oct 2020-Mar 2021 Comparison		April 2020				October 2020				Apr-Oct 2020 Comparison		March 2021				Oct 2020-Mar 2021 Comparison	
	%	95% CI		p-value	%	95% CI		p-value	Diff.	p-value	%	95% CI		p-value	Diff.	p-value	%	95% CI		p-value	%	95% CI		p-value	Diff.	p-value	%	95% CI		p-value	Diff.	p-value	%	95% CI		p-value	%	95% CI		p-value	Diff.	p-value	%	95% CI		p-value	Diff.	p-value
		Lower	Upper			Lower	Upper					Lower	Upper					Lower	Upper			Lower	Upper					Lower	Upper					Lower	Upper			Lower	Upper					Lower	Upper		
Overall																																				
Overall	51.9	48.7	55.1	--	46.0	42.7	49.2	--	5.9	**0.0056**	45.5 D	40.6	50.3	--	0.5	0.4281	73.7	70.9	76.5	--	70.9	68.0	73.9	--	2.8	0.0898	68.2	63.9	72.5	--	2.8	0.1479	20.8	18.2	23.4	--	23.2	20.5	25.8	--	-2.4	0.1004	19.6	15.5	23.7	--	3.6	0.0734
Sex																																				
Male	57.3	52.6	61.9	**0.0018**	42.0	37.3	46.6	**0.0213**	15.3	**0.0000**	47.2	39.4	55.1	0.5366	-5.3	**0.0251**	71.1	66.8	75.5	0.0965	64.9	60.4	69.4	**0.0001**	6.2	**0.0020**	66.8	59.7	73.8	0.5649	-1.9	0.2600	24.2	20.2	28.3	**0.0148**	24.1	20.1	28.0	0.5308	0.2	0.4548	19.5 U	12.7	26.3	0.9811	4.6	**0.0115**
Female	47.2	42.9	51.5	REF	49.6	45.1	54.0	REF	-2.4	0.1197	44.2	38.3	50.0	REF	5.4	**0.0123**	75.9	72.3	79.5	REF	76.2	72.5	79.9	REF	-0.3	0.4409	69.3	64.2	74.5	REF	6.9	**0.0071**	17.7	14.4	21.0	REF	22.4	18.8	25.9	REF	-4.7	**0.0004**	19.6	14.7	24.5	REF	2.8	0.0574
Race/ethnicity §																																				
White Non-Latino	42.1	36.5	47.7	REF	39.8	34.3	45.2	REF	2.4	0.0733	30.0	24.8	35.2	REF	9.7	**0.0000**	64.0	58.6	69.4	REF	64.4	59.2	69.6	REF	-0.4	0.4124	51.8	46.1	57.5	REF	12.6	**0.0000**	12.6	8.9	16.3	REF	17.1	13.2	21.1	REF	-4.5	**0.0000**	7.2	4.7	9.7	REF	9.9	**0.0000**
Latino	59.4	53.6	65.3	**0.0000**	51.8	45.6	58.0	**0.0042**	7.6	**0.0000**	48.6 *	38.3	58.9	**0.0016**	3.2	0.0725	77.5 U	72.7	82.4	**0.0003**	74.0	68.6	79.4	**0.0126**	3.5	**0.0292**	76.2	66.7	85.8	**0.0000**	-2.2	0.1899	31.0	25.4	36.7	**0.0000**	31.1	25.6	36.6	**0.0001**	0.0	0.4877	28.6	19.2	38.1	**0.0000**	2.4	0.0812
Black Non-Latino	51.3	44.6	58.1	**0.0402**	45.4	38.2	52.5	0.2209	6.0	**0.0000**	51.6 *	38.2	65.0	**0.0032**	-6.2	**0.0028**	78.7	73.1	84.3	**0.0002**	70.3	63.9	76.7	0.1643	8.4	**0.0000**	81.7	72.8	90.6	**0.0000**	-11.4	**0.0000**	22.0	16.3	27.6	**0.0068**	27.5	21.3	33.8	**0.0059**	-5.6	**0.0000**	26.7 *	15.0	38.4	**0.0015**	0.9	0.2985
Asian/Pacific Islander Non-Latino	62.6	55.0	70.3	**0.0000**	50.2	41.4	59.0	**0.0486**	12.5	**0.0000**	51.5 U*	40.7	62.3	**0.0005**	-1.3	0.1819	82.7	76.8	88.6	**0.0000**	81.4	74.8	88.0	**0.0001**	1.3	0.1952	68.7 *	58.2	79.2	**0.0057**	12.7	**0.0000**	17.2	11.1	23.4	0.2090	15.0	8.7	21.4	0.5786	2.2	**0.0011**	14.9	5.6	24.3	0.1199	0.1	0.4532
Other/Multi-Racial Non-Latino	42.2 *	22.3	62.2	0.9921	48.4 *	27.7	69.0	0.4294	-6.1	**0.0000**	72.2 *	48.9	95.4	**0.0005**	-23.8	**0.0000**	66.0 *	47.0	84.9	0.8431	70.4 *	53.9	87.0	0.4954	-4.5	**0.0000**	71.9 *	48.0	95.7	0.1087	-1.4	**0.0381**	28.4 *	9.2	47.6	0.1132	28.6 *	11.8	45.3	0.1939	-0.1	0.3562	15.8 *	0.6	30.9	0.2757	12.8	**0.0000**
Age group																																				
18-64	58.2	54.1	62.2	**0.0001**	49.3	45.4	53.2	**0.0387**	8.8	**0.0000**	46.3	39.9	52.7	0.7307	3.0	0.1134	71.0	67.2	74.8	**0.0478**	65.9	62.2	69.6	**0.0005**	5.1	**0.0077**	59.5 U	53.4	65.7	**0.0001**	6.3	**0.0078**	26.2	22.5	29.9	**0.0000**	31.2	27.7	34.8	**0.0000**	-5.0	**0.0005**	18.0	13.0	23.1	0.4700	13.2	**0.0000**
65+	45.1	40.2	50.0	REF	42.4	37.1	47.7	REF	2.7	0.0941	44.6	37.5	51.7	REF	-2.2	0.1983	76.6	72.5	80.7	REF	76.3	71.8	80.8	REF	0.3	0.4528	76.6	70.8	82.3	REF	-0.3	0.4665	14.9	11.4	18.4	REF	14.6	10.8	18.3	REF	0.3	0.4061	21.1	14.7	27.4	REF	-6.5	**0.0007**
US birth																																				
US born	48.5 D	45.0	52.0	**0.0000**	44.1	40.6	47.7	**0.0177**	4.4	**0.0259**	38.9	33.5	44.3	**0.0018**	5.2	**0.0203**	73.3	70.2	76.4	0.4756	70.3	67.1	73.5	0.5416	3.0	0.0939	65.6	60.9	70.4	0.1802	4.7	**0.0494**	19.4	16.6	22.2	0.0608	24.0	21.0	26.9	0.1627	-4.6	**0.0047**	17.3	12.8	21.9	0.2187	6.6	**0.0004**
non-US born	68.0	61.0	75.0	REF	54.8	46.7	62.9	REF	13.2	**0.0000**	55.4	46.5	64.3	REF	-0.6	0.4028	75.9	69.5	82.4	REF	72.8	65.4	80.2	REF	3.1	**0.0243**	72.0	64.0	80.0	REF	0.8	0.3784	26.5 D	19.6	33.3	REF	19.1	13.0	25.3	REF	7.3	**0.0000**	23.0	15.2	30.7	REF	-3.8	**0.0157**
Educational attainment																																				
HS or less	49.9	43.5	56.2	0.9702	47.6	41.3	53.8	0.1172	2.3	0.1060	53.2	43.4	63.0	**0.0001**	-5.6	**0.0200**	75.8	70.5	81.1	**0.0265**	70.5 U	64.9	76.1	0.8382	5.3	**0.0071**	79.2	70.9	87.4	**0.0000**	-8.7	**0.0023**	26.4	20.9	32.0	**0.0048**	30.1	24.5	35.7	**0.0001**	-3.6	**0.0057**	29.9	20.9	38.8	**0.0000**	0.2	0.4575
Some College	57.3	51.5	63.0	**0.0443**	50.6	44.4	56.9	**0.0199**	6.6	**0.0000**	54.1	45.1	63.1	**0.0000**	-3.5	**0.0345**	79.3	74.5	84.0	**0.0006**	73.0	67.4	78.6	0.3655	6.2	**0.0005**	67.6	58.9	76.4	**0.0286**	5.4	**0.0046**	19.3	14.8	23.9	0.4373	23.3	18.3	28.3	0.0528	-3.9	**0.0001**	19.3	12.6	25.9	**0.0037**	4.0	**0.0002**
College+	49.7	45.1	54.3	REF	41.4	36.8	46.0	REF	8.3	**0.0000**	32.0	27.6	36.4	REF	9.4	**0.0000**	68.0	63.7	72.4	REF	69.8	65.6	74.0	REF	-1.8	0.1840	56.6	52.1	61.2	REF	13.2	**0.0000**	17.1	13.7	20.5	REF	17.4	14.1	20.6	REF	-0.3	0.3953	8.7	6.1	11.2	REF	8.7	**0.0000**
Employment status																																				
Employed	56.4	52.3	60.5	REF	44.4	40.4	48.4	REF	12.0	**0.0000**	36.9	30.8	43.1	REF	7.5	**0.0006**	72.9	69.1	76.6	REF	71.2	67.5	74.8	REF	1.7	0.2227	64.1	58.8	69.5	REF	7.0	**0.0043**	22.0	18.5	25.5	REF	24.3	20.9	27.7	REF	-2.3	0.0566	16.5 D	10.9	22.0	REF	7.8	**0.0000**
Unemployed	70.2	61.5	78.8	**0.0050**	73.4	65.9	80.9	**0.0000**	-3.2	**0.0101**	78.3	69.3	87.3	**0.0000**	-4.9	**0.0092**	72.5 D	64.0	80.9	0.9338	72.7	65.3	80.1	0.7120	-0.2	0.4300	72.7	63.0	82.5	0.1314	0.0	0.4986	28.5 U	19.9	37.2	0.1692	28.3	20.4	36.2	0.3668	0.3	0.3848	32.6 *	21.9	43.3	**0.0089**	-4.3	**0.0019**
Not in labor force	38.5 U	33.1	43.9	**0.0000**	36.5 U	30.0	43.0	**0.0420**	2.0	0.1037	36.3	26.8	45.9	0.9204	0.2	0.4683	75.4	70.6	80.1	0.4160	69.6	63.6	75.7	0.6748	5.7	**0.0030**	71.3	62.6	80.1	0.1697	-1.7	0.2693	16.1	11.9	20.2	**0.0324**	18.6	13.7	23.5	0.0578	-2.5	**0.0122**	16.2	9.4	22.9	0.9443	2.4	**0.0425**
Children at home																																				
No children	47.3	43.4	51.3	**0.0001**	42.0	37.7	46.3	**0.0029**	5.3	**0.0061**	40.3	34.5	46.1	**0.0063**	1.7	0.2616	73.7	70.2	77.1	0.9946	70.7	66.8	74.7	0.8660	2.9	0.1045	64.2	59.1	69.4	**0.0196**	6.5	**0.0132**	17.9	14.8	21.1	**0.0044**	19.1	15.8	22.5	**0.0003**	-1.2	0.2176	16.6	12.0	21.3	0.0736	2.5	0.0967
With Children	60.7	55.4	66.0	REF	51.8	47.1	56.6	REF	8.9	**0.0000**	54.8	46.2	63.3	REF	-2.9	0.1132	73.7	68.9	78.5	REF	71.2	67.0	75.5	REF	2.4	0.1111	75.3	67.6	83.0	REF	-4.0	0.0656	26.1	21.4	30.7	REF	29.2	24.9	33.4	REF	-3.1	**0.0090**	24.9	17.1	32.7	REF	4.3	**0.0103**
Chronic condition																																				
Yes	52.1	46.6	57.5	0.7725	49.3	43.9	54.8	0.1440	2.8	0.0638	47.4	38.7	56.2	0.5456	1.9	0.2199	76.9	72.4	81.4	0.1218	75.7	71.3	80.2	**0.0123**	1.2	0.2905	76.4	69.3	83.6	**0.0031**	-0.7	0.4039	24.7	19.9	29.6	**0.0276**	30.6	25.7	35.5	**0.0001**	-5.8	**0.0000**	21.4	14.4	28.4	0.5023	9.2	**0.0000**
No	51.1	47.1	55.1	REF	44.2	40.1	48.4	REF	6.9	**0.0008**	44.2	38.6	49.8	REF	0.0	0.4998	72.3	68.8	75.9	REF	68.2	64.4	72.1	REF	4.1	**0.0387**	63.1	57.9	68.3	REF	5.1	**0.0369**	18.3	15.2	21.4	REF	18.9	15.8	22.0	REF	-0.6	0.3517	18.4	13.4	23.5	REF	0.4	0.4155
Borough																																				
The Bronx	49.2	41.3	57.2	0.8309	45.3	36.8	53.8	0.3730	4.0	**0.0006**	54.5 D*	42.1	66.8	0.0533	-9.2	**0.0000**	74.7	68.0	81.4	**0.0285**	67.5 U	59.5	75.5	0.7512	7.2	**0.0000**	85.8	79.1	92.5	**0.0000**	-18.3	**0.0000**	23.2	16.4	30.0	0.4728	31.4	23.9	39.0	**0.0126**	-8.2	**0.0000**	23.7 *	12.3	35.0	0.3331	7.8	**0.0000**
Brooklyn	52.2	46.5	57.9	0.7073	48.2	42.2	54.2	0.0873	4.0	**0.0075**	42.7	33.4	52.1	0.6225	5.5	**0.0059**	74.8	70.0	79.7	**0.0117**	71.9	66.7	77.2	0.4855	2.9	0.0665	67.3	58.9	75.7	0.0655	4.6	**0.0392**	20.1	15.6	24.6	0.9608	23.8	18.8	28.7	0.2713	-3.7	**0.0005**	20.4	13.0	27.8	0.5262	3.4	**0.0119**
Manhattan	50.4	43.2	57.6	REF	40.4	33.7	47.0	REF	10.0	**0.0000**	39.5 U	30.7	48.3	REF	0.9	0.2837	63.8	56.8	70.9	REF	69.1	63.2	75.0	REF	-5.3	**0.0005**	56.1	47.5	64.6	REF	13.0	**0.0000**	19.9	14.1	25.8	REF	19.8	14.6	24.9	REF	0.2	0.4201	17.0	9.9	24.2	REF	2.7	**0.0040**
Queens	53.7	47.8	59.6	0.4872	50.6	44.3	56.8	**0.0285**	3.1	**0.0267**	49.1	40.2	58.1	0.1329	1.4	0.2455	79.0	74.3	83.7	**0.0004**	73.5 D	68.0	79.0	0.2891	5.5	**0.0017**	66.1	57.4	74.9	0.1062	7.3	**0.0005**	22.9	17.8	27.9	0.4608	21.5 U	16.6	26.5	0.6271	1.3	0.1126	20.4	11.7	29.1	0.5562	1.1	0.2434
Staten Island	54.2 *	39.4	68.9	0.6532	34.5 D*	21.2	47.7	0.4341	19.7	**0.0000**	37.8 *	19.1	56.6	0.8721	-3.4	**0.0000**	75.3 *	63.0	87.6	0.1125	69.5 D*	56.0	83.0	0.9614	5.8	**0.0000**	78.6 *	62.6	94.6	**0.0151**	-9.1	**0.0000**	9.4	0.1	18.6	0.0586	18.1 *	7.9	28.3	0.7761	-8.7	**0.0000**	7.6	0.0	15.2	0.0768	10.5	**0.0000**
Neighborhood poverty ‡																																				
Low poverty (<10%)	44.0	37.0	51.0	REF	39.5 U	32.5	46.5	REF	4.5	**0.0003**	39.6	30.9	48.3	REF	-0.1	0.4736	71.4	64.9	77.9	REF	65.5 D	58.4	72.5	REF	5.9	**0.0001**	60.2	52.0	68.5	REF	5.3	**0.0014**	11.2	7.1	15.3	REF	16.2	11.3	21.1	REF	-5.0	**0.0000**	7.5 U	4.1	10.9	REF	8.7	**0.0000**
Medium poverty (10 to <20%)	52.8	48.0	57.7	**0.0430**	46.8	42.0	51.6	0.0909	6.0	**0.0008**	44.5 D	37.2	51.8	0.3988	2.3	0.1663	73.1	68.9	77.4	0.6567	72.6	68.5	76.8	0.0871	0.5	0.4076	68.8	62.3	75.2	0.1086	3.9	0.0759	22.1	17.9	26.2	**0.0003**	22.6	18.8	26.5	**0.0449**	-0.6	0.3359	16.0	10.5	21.6	**0.0107**	6.6	**0.0000**
High poverty (20 to <30%)	57.1	50.2	64.0	**0.0092**	49.8	42.7	57.0	**0.0433**	7.3	**0.0000**	45.1 *	34.1	56.1	0.4441	4.8	**0.0051**	74.9	68.9	80.9	0.4328	72.1	65.9	78.3	0.1688	2.8	0.0525	66.7 *	56.2	77.2	0.3404	5.4	**0.0099**	24.4	18.1	30.6	**0.0006**	23.3	17.4	29.2	0.0697	1.0	0.1614	26.2	16.3	36.1	**0.0005**	-2.8	**0.0267**
Very high poverty (30%+)	54.1	46.2	62.1	0.0612	45.4	36.1	54.7	0.3219	8.7	**0.0000**	62.4 *	49.0	75.9	**0.0053**	-17.0	**0.0000**	76.5 D	70.0	82.9	0.2763	70.9	62.7	79.1	0.3264	5.6	**0.0001**	85.0	77.2	92.8	**0.0000**	-14.1	**0.0000**	26.0	19.0	32.9	**0.0004**	33.9	25.3	42.6	**0.0005**	-8.0	**0.0000**	40.0 *	25.0	55.1	**0.0000**	-6.1	**0.0001**
Household poverty																																				
<200% FPL	56.4	50.6	62.1	**0.0278**	51.8	45.9	57.7	**0.0162**	4.5	**0.0076**	55.8	47.7	63.8	**0.0003**	-4.0	0.0758	78.2	73.4	82.9	**0.0470**	73.8	68.7	78.8	0.2765	4.4	**0.0195**	77.0	69.8	84.2	**0.0001**	-3.2	0.1371	27.1	22.0	32.2	**0.0016**	29.3	24.1	34.5	**0.0028**	-2.2	0.0545	31.0	23.2	38.9	**0.0000**	-1.7	0.2283
>=200% FPL	48.5 U	44.5	52.5	REF	43.1	39.1	47.1	REF	5.4	**0.0060**	36.8	30.5	43.1	REF	6.3	**0.0077**	72.1	68.6	75.7	REF	70.3	66.6	74.0	REF	1.8	0.2185	58.8	53.2	64.5	REF	11.5	**0.0000**	17.5 D	14.4	20.6	REF	20.1	16.9	23.2	REF	-2.6	**0.0452**	9.5 U	5.7	13.4	REF	10.5	**0.0000**

§ White, Black, Asian/Pacific Islander race categories exclude Latino/a ethnicity. Latino/a includes Hispanic or Latino/a of any race.
‡ Neighborhood poverty (based on self-reported ZIP code) is defined as the percentage of the population living below the Federal Poverty Line (FPL) based on the American Community Survey (ACS) (2013-17) for HOP wave 8 and (ACS 2014-2018) for HOP wave 10. Neighborhoods are categorized into four groups as follows: "Low poverty" neighborhoods are those with <10% of the population living below the FPL; "Medium poverty" neighborhoods have 10-<20% of the population below FPL; "High Poverty" neighborhoods have 20-<30% of the population living below the FPL; "Very high poverty" neighborhoods have ≥30% of the population living below the FPL.
Significance test is based on the Z score test. P values are significant at the 0.05 level and are indicated in bold text. Ref: Reference group.
U When reporting to nearest whole percent, round up
D When reporting to nearest whole percent, round down
* Estimate should be interpreted with caution. Estimate's Relative Standard Error (a measure of estimate precision) is greater than 30%, or the 95% Confidence Interval's half width is greater than 10, or the sample size is too small making the estimate potentially unreliable
Confidence Intervals are a measure of estimate precision: the wider the CI, the more imprecise the estimate.

Table 1d. Closure and limitations in the availability of emergency food sources due to COVID-19 outbreak among adults 18 years or older, New York City, April and October, 2020 and March 2021

Source: New York City Health Opinion Polls (NYC HOP) waves 8, 10, 12
NYC HOP wave 8 fielded from April 16 - April 23, 2020
NYC HOP wave 10 fielded from October 3-14, 2020
NYC HOP wave 12 fielded from March 10-28 2021
Data from HOP wave 8 are weighted to NYC's borough, age X gender, borough X race/ethnicity, and education per the 2013-2017 US Census Bureau's ACS 5-year estimates
Data from HOP wave 10 are weighted to NYC's borough, age X gender, borough X race/ethnicity, and education per the 2014-2018 US Census Bureau's ACS 5-year estimates
Data from HOP wave 12 are weighted to NYC's borough, age X gender, borough X race/ethnicity, and education per the 2014-2018 US Census Bureau's ACS 5-year estimates

	Has the COVID-19 outbreak affected your household's ability to get the food you need in any of the following ways?																											
	...Food support services I usually use have been reduced or cancelled (school meals, senior center means, etc)														...I have less access to emergency food sources (pantries, church, etc)											
	April 2020				October 2020				Apr-Oct 2020 Comparison		March 2021				Oct 2020-Mar 2021 Comparison		April 2020				October 2020				Apr-Oct 2020 Comparison		March 2021				Oct 2020-Mar 2021 Comparison	
	%	95% CI Lower	Upper	p-value	%	95% CI Lower	Upper	p-value	Diff.	p-value	%	95% CI Lower	Upper	p-value	Diff.	p-value	%	95% CI Lower	Upper	p-value	%	95% CI Lower	Upper	p-value	Diff.	p-value	%	95% CI Lower	Upper	p-value	Diff.	p-value
Overall																																
Overall	29.4	26.6	32.3	--	22.7	20.1	25.3	--	6.8	**0.0003**	11.6	8.6	14.7	--	11.0	**0.0000**	29.3	26.5	32.2	--	22.0	19.4	24.6	--	7.4	**0.0001**	10.9	8.0	13.9	--	11.0	**0.0000**
Sex																																
Male	35.5 U	31.0	40.0	**0.0001**	24.7	20.7	28.6	0.1575	10.9	**0.0000**	9.1	4.7	13.6	0.1380	15.5	**0.0000**	32.7	28.4	37.1	**0.0287**	23.2	19.3	27.1	0.3793	9.5	**0.0000**	11.1	6.3	16.0	0.9351	12.1	**0.0000**
Female	24.2	20.6	27.7	REF	20.9	17.5	24.3	REF	3.3	**0.0107**	13.7	9.6	17.9	REF	7.2	**0.0000**	26.4	22.7	30.1	REF	20.9	17.4	24.4	REF	5.5	**0.0001**	10.9	7.2	14.5	REF	10.0	**0.0000**
Race/ethnicity §																																
White Non-Latino	22.8	18.2	27.4	REF	22.3	18.1	26.6	REF	0.5	0.3437	4.6	1.7	7.5	REF	17.8	**0.0000**	19.3	15.1	23.4	REF	19.9	15.7	24.1	REF	-0.6	0.2797	3.8	0.5	7.1	REF	16.1	**0.0000**
Latino	36.0	30.2	41.7	**0.0005**	26.9	21.7	32.2	0.1833	9.1	**0.0000**	15.2	8.1	22.2	**0.0065**	11.7	**0.0000**	38.5 D	32.6	44.3	**0.0000**	26.5 U	21.2	31.8	0.0555	11.9	**0.0000**	15.9	9.1	22.6	**0.0017**	10.7	**0.0000**
Black Non-Latino	30.5 U	24.5	36.5	**0.0461**	21.4	15.6	27.3	0.8048	9.1	**0.0000**	13.1	6.3	20.0	**0.0245**	8.3	**0.0000**	34.5 U	28.2	40.8	**0.0001**	22.6	16.8	28.4	0.4639	11.9	**0.0000**	17.0	8.4	25.6	**0.0050**	5.6	**0.0000**
Asian/Pacific Islander Non-Latino	30.6	23.2	38.0	0.0813	18.3	11.8	24.7	0.2998	12.3	**0.0000**	13.0	4.9	21.1	0.0538	5.2	**0.0000**	27.3	20.2	34.4	0.0567	17.9	11.4	24.3	0.6037	9.4	**0.0000**	8.1	1.5	14.6	0.2531	9.8	**0.0000**
Other/Multi-Racial Non-Latino	31.1 *	11.9	50.4	0.4103	16.3 *	2.3	30.3	0.4170	14.8	**0.0000**	8.8 *	0.0	19.6	0.4649	7.5	**0.0000**	32.3 *	12.3	52.2	0.2111	19.0 *	4.6	33.3	0.9017	13.3	**0.0000**	5.8 *	0.0	14.9	0.6809	13.1	**0.0000**
Age group																																
18-64	39.3	35.3	43.3	**0.0000**	31.3	27.7	34.9	**0.0000**	8.0	**0.0000**	12.0	7.9	16.1	0.7994	19.3	**0.0000**	36.8	32.9	40.8	**0.0000**	27.3	23.9	30.8	**0.0000**	9.5	**0.0000**	8.6	5.6	11.6	0.1221	18.7	**0.0000**
65+	18.8	15.0	22.7	REF	13.4	9.8	17.0	REF	5.4	**0.0000**	11.2	6.7	15.7	REF	2.2	0.0720	21.3	17.3	25.3	REF	16.3	12.5	20.1	REF	5.0	**0.0002**	13.2	8.2	18.3	REF	3.1	**0.0330**
US birth																																
US born	28.8	25.7	31.9	0.4061	24.0	21.1	26.9	**0.0343**	4.8	**0.0046**	11.4	7.8	15.1	0.8822	12.5	**0.0000**	28.0	25.0	31.1	0.0575	22.4	19.5	25.3	0.4510	5.6	**0.0010**	10.7	7.0	14.5	0.8629	11.7	**0.0000**
non-US born	32.1	24.9	39.2	REF	17.0	11.2	22.8	REF	15.1	**0.0000**	11.9	6.6	17.2	REF	5.1	**0.0000**	35.7	28.4	43.1	REF	19.7	13.4	26.0	REF	16.0	**0.0000**	11.3	6.4	16.2	REF	8.5	**0.0000**
Educational attainment																																
HS or less	26.8	21.4	32.3	0.2260	25.2	20.0	30.3	0.2690	1.7	0.1104	17.7	11.0	24.4	**0.0026**	7.5	**0.0000**	32.4	26.5	38.2	0.1114	25.6	20.5	30.8	**0.0381**	6.7	**0.0000**	16.8	10.1	23.4	**0.0017**	8.9	**0.0000**
Some College	30.1	24.8	35.4	0.7810	21.2	16.3	26.1	0.8872	8.9	**0.0000**	9.2	4.9	13.6	0.2995	12.0	**0.0000**	29.6	24.5	34.7	0.3768	21.9	16.9	26.9	0.3464	7.6	**0.0000**	9.6	5.3	13.9	0.0991	12.3	**0.0000**
College+	31.1	26.9	35.3	REF	21.6	18.0	25.3	REF	9.5	**0.0000**	6.5 D	3.7	9.3	REF	15.1	**0.0000**	26.7	22.8	30.6	REF	19.0	15.4	22.6	REF	7.7	**0.0000**	5.5 D	3.2	7.8	REF	13.5	**0.0000**
Employment status																																
Employed	35.8	31.8	39.8	REF	26.7	23.3	30.2	REF	9.1	**0.0000**	7.8	4.3	11.4	REF	18.9	**0.0000**	32.9	29.0	36.8	REF	24.1	20.7	27.4	REF	8.9	**0.0000**	6.8	3.7	9.9	REF	17.3	**0.0000**
Unemployed	30.7	22.2	39.2	0.2856	22.9	15.7	30.1	0.3460	7.8	**0.0000**	18.2	9.6	26.8	**0.0290**	4.7	**0.0000**	35.4	26.4	44.4	0.6209	23.0	15.7	30.2	0.7907	12.4	**0.0000**	14.9	7.1	22.6	0.0573	8.1	**0.0000**
Not in labor force	19.5 D	15.2	23.8	**0.0000**	14.5 D	9.9	19.1	**0.0000**	5.0	**0.0000**	12.9	7.2	18.6	0.1368	1.5	0.0986	21.8	17.3	26.3	**0.0002**	17.4	12.5	22.3	**0.0288**	4.4	**0.0001**	14.5 D	8.1	20.9	**0.0339**	3.0	**0.0131**
Children at home																																
No children	22.8	19.5	26.1	**0.0000**	14.7	11.8	17.7	**0.0000**	8.1	**0.0000**	8.0	4.9	11.1	**0.0052**	6.7	**0.0000**	23.9	20.5	27.2	**0.0000**	16.0	12.9	19.2	**0.0000**	7.8	**0.0000**	10.4	6.9	14.0	0.6396	5.6	**0.0001**
With Children	42.3	37.0	47.5	REF	34.4	29.9	38.8	REF	7.9	**0.0000**	18.1	11.7	24.6	REF	16.2	**0.0000**	39.9	34.8	45.1	REF	30.8	26.4	35.1	REF	9.1	**0.0000**	11.9	6.6	17.3	REF	18.8	**0.0000**
Chronic condition																																
Yes	28.7	23.8	33.5	0.6661	27.4	22.7	32.1	**0.0123**	1.3	0.1706	12.9	7.8	18.1	0.5120	14.4	**0.0000**	32.1	27.0	37.2	0.1606	28.7	23.9	33.5	**0.0003**	3.5	**0.0081**	11.9	6.8	17.0	0.6278	16.8	**0.0000**
No	30.0	26.4	33.6	REF	20.2	17.0	23.3	REF	9.8	**0.0000**	10.8	7.0	14.6	REF	9.4	**0.0000**	27.7	24.3	31.2	REF	18.1	15.1	21.2	REF	9.6	**0.0000**	10.4	6.7	14.0	REF	7.8	**0.0000**
Borough																																
The Bronx	31.8	24.5	39.1	0.9487	27.9	20.7	35.1	0.6742	3.9	**0.0000**	20.6 *	10.5	30.7	**0.0171**	7.3	**0.0000**	30.3	23.3	37.3	0.7915	25.6	18.5	32.6	0.3434	4.7	**0.0000**	21.6 *	11.3	32.0	**0.0177**	4.0	**0.0002**
Brooklyn	28.5 D	23.5	33.4	0.4755	21.6	16.9	26.2	0.2481	6.9	**0.0000**	12.7	7.0	18.5	0.1347	8.8	**0.0000**	29.3	24.3	34.3	0.9500	20.3	15.6	24.9	0.7757	9.0	**0.0000**	10.9	5.8	16.0	0.3594	9.4	**0.0000**
Manhattan	31.5 D	24.9	38.1	REF	25.9	20.2	31.7	REF	5.6	**0.0000**	7.1	2.4	11.7	REF	18.8	**0.0000**	29.0	22.8	35.3	REF	21.3	15.9	26.7	REF	7.7	**0.0000**	7.3	1.7	13.0	REF	14.0	**0.0000**
Queens	29.1	23.8	34.5	0.5853	18.9	14.2	23.5	0.0613	10.3	**0.0000**	7.4	2.8	11.9	0.9320	11.5	**0.0000**	30.5 D	25.0	36.0	0.7340	21.6	16.6	26.6	0.9368	8.9	**0.0000**	7.2	3.1	11.4	0.9701	14.4	**0.0000**
Staten Island	21.5 D*	8.9	34.0	0.1667	20.5 U*	9.6	31.5	0.3927	0.9	**0.0367**	18.1 *	0.3	35.8	0.2393	2.4	**0.0001**	21.9 *	9.2	34.5	0.3179	25.5 U*	13.9	37.2	0.5180	-3.7	**0.0000**	12.7 *	0.0	30.4	0.5698	12.8	**0.0000**
Neighborhood poverty ǂ																																
Low poverty (<10%)	19.1	13.8	24.5	REF	19.8	14.4	25.3	REF	-0.7	0.2062	7.0	2.2	11.9	REF	12.8	**0.0000**	20.7	15.2	26.2	REF	16.5 U	11.4	21.6	REF	4.2	**0.0000**	6.2	1.1	11.2	REF	10.4	**0.0000**
Medium poverty (10 to <20%)	32.8	28.3	37.3	**0.0001**	22.5 D	18.7	26.2	0.4360	10.3	**0.0000**	8.5 D	4.4	12.5	0.6598	14.0	**0.0000**	29.6	25.3	34.0	**0.0123**	22.7	18.7	26.6	0.0622	7.0	**0.0000**	7.4	3.9	10.8	0.7010	15.3	**0.0000**
High poverty (20 to <30%)	30.4	24.1	36.7	**0.0075**	22.4	16.6	28.2	0.5335	8.0	**0.0000**	16.4	8.9	24.0	**0.0411**	5.9	**0.0000**	32.5 U	26.1	38.9	**0.0062**	23.0	17.3	28.8	0.0955	9.5	**0.0000**	13.5 D	7.1	19.8	0.0770	9.6	**0.0000**
Very high poverty (30%+)	33.8	26.4	41.2	**0.0017**	26.9	19.0	34.8	0.1494	6.9	**0.0000**	21.5 D*	10.0	33.0	**0.0235**	5.4	**0.0000**	36.3	28.8	43.9	**0.0010**	23.9	16.4	31.5	0.1121	12.4	**0.0000**	26.1 *	13.1	39.1	**0.0050**	-2.2	**0.0344**
Household poverty																																
<200% FPL	31.4	26.1	36.7	0.5481	25.8	20.8	30.9	0.1587	5.5	**0.0000**	14.9	9.9	20.0	**0.0302**	10.9	**0.0000**	36.7	31.2	42.2	**0.0012**	30.5 U	25.2	35.9	**0.0000**	6.2	**0.0000**	15.2	10.1	20.3	**0.0183**	15.4	**0.0000**
>=200% FPL	29.4	25.9	33.0	REF	21.6	18.5	24.7	REF	7.8	**0.0000**	7.8	3.7	11.9	REF	13.8	**0.0000**	26.0	22.7	29.4	REF	17.8	15.0	20.7	REF	8.2	**0.0000**	7.4	3.3	11.4	REF	10.5	**0.0000**

§ White, Black, Asian/Pacific Islander race categories exclude Latino/a ethnicity. Latino/a includes Hispanic or Latino/a of any race.
ǂ Neighborhood poverty (based on self-reported ZIP code) is defined as the percentage of the population living below the Federal Poverty Line (FPL) based on the American Community Survey (ACS) (2013-17) for HOP wave 8 and (ACS 2014-2018) for HOP wave 10. Neighborhoods are categorized into four groups as follows: "Low poverty" neighborhoods are those with <10% of the population living below the FPL; "Medium poverty" neighborhoods have 10-<20% of the population below FPL; "High Poverty" neighborhoods have 20-<30% of the population living below the FPL; "Very high poverty" neighborhoods have ≥30% of the population living below the FPL.
Significance test is based on the Z score test. P values are significant at the 0.05 level and are indicated in bold text. Ref: Reference group.
U When reporting to nearest whole percent, round up
D When reporting to nearest whole percent, round down
* Estimate should be interpreted with caution. Estimate's Relative Standard Error (a measure of estimate precision) is greater than 30%, or the 95% Confidence Interval's half width is greater than 10, or the sample size is too small making the estimate potentially unreliable

Table 2. Use of emergency food services "often" or "sometimes," New York City, April and October 2020 and March 2021

Source: New York City Health Opinion Polls (NYC HOP) waves 8, 10, 12

NYC HOP wave 8 fielded from April 16 - April 23, 2020

NYC HOP wave 10 fielded from October 3-14, 2020

NYC HOP wave 12 fielded from March 10-28 2021

Data from HOP wave 8 are weighted to NYC's borough, age X gender, borough X race/ethnicity, and education per the 2013-2017 US Census Bureau's ACS 5-year estimates

Data from HOP wave 10 are weighted to NYC's borough, age X gender, borough X race/ethnicity, and education per the 2014-2018 US Census Bureau's ACS 5-year estimates

Data from HOP wave 12 are weighted to NYC's borough, age X gender, borough X race/ethnicity, and education per the 2014-2018 US Census Bureau's ACS 5-year estimates

	Prior to the pandemic **, how often did you or anyone in your household get food from a food pantry, grab-and-go meals (…) or some other emergency food source[A]**				***In the past 30 days*** **, how often did you or anyone in your household get food from a food pantry, grab-and-go meals from the City (including the Department of Education), an emergency or senior meal program, or some other emergency food source?**															
		Apr-20				Apr-20				October 2020				Apr-Oct 2020 Comparison			March 2021				Oct 2020-Mar 2021 Comparison	
	%[B]	95% CI		p-value	%[B]	95% CI		p-value	%[B]	95% CI		p-value	Diff	p-value	%[B]	95% CI		p-value	Diff	p-value
		Lower	Upper			Lower	Upper			Lower	Upper					Lower	Upper			
Overall																				
Overall	20.5 [U]	18.0	23.1	--	22.2	19.6	24.9	--	34.1	31.1	37.1	--	-12	**0.0000**	23.1	18.5	27.7	--	11.0	**0.0000**
Sex																				
Male	24.8	20.8	28.9	**0.0021**	26.3	22.2	30.5	**0.0049**	41.4	36.8	46.1	**0.0000**	-15	**0.0000**	18.6	11.9	25.3	0.0678	22.8	**0.0000**
Female	16.8	13.6	19.9	REF	18.7	15.4	22.0	REF	27.6	23.8	31.4	REF	-8.9	**0.0000**	27.1	20.9	33.3	REF	0.50	0.4110
Race/ethnicity [§]																				
White Non-Latino	16.6	12.4	20.7	REF	17.3	13.0	21.7	REF	33.3	28.3	38.2	REF	-16	**0.0000**	9.7	6.10	13.4	REF	23.5	**0.0000**
Latino	25.4	20.3	30.5	**0.0087**	33.4	27.8	38.9	**0.0000**	44.7	38.6	50.8	**0.0045**	-11	**0.0000**	28.5 [U]	18.9	38.2	**0.0004**	16.2	**0.0000**
Black Non-Latino	25.0	19.2	30.8	**0.0210**	18.6	13.5	23.8	0.7045	27.2	21.0	33.4	0.1328	-8.6	**0.0000**	37.6 *	24.1	51.1	**0.0001**	-10	**0.0000**
Asian/Pacific Islander Non-Latino	12.1	6.75	17.4	0.1896	20.9	14.1	27.8	0.3827	27.1	19.5	34.7	0.1835	-6.2	**0.0000**	20.5 [D]	10.7	30.2	**0.0431**	6.65	**0.0000**
Other/Multi-Racial Non-Latino	30.8 *	11.3	50.4	0.1618	6.5 [U]*	0.00	14.6	**0.0206**	28.3 *	11.3	45.3	0.5829	-22	**0.0000**	16.6 *	0.00	36.9	0.5108	11.7	**0.0000**
Age group																				
18-64	24.9	21.3	28.4	**0.0005**	29.9	26.1	33.7	**0.0000**	44.6	40.7	48.4	**0.0000**	-15	**0.0000**	17.6	12.3	22.9	**0.0172**	27.0	**0.0000**
65+	15.8	12.2	19.5	REF	14.1	10.6	17.5	REF	23.0	18.5	27.5	REF	-8.9	**0.0000**	28.5 [D]	21.2	35.7	REF	-5.5	**0.0114**
US birth																				
US born	21.3	18.5	24.1	0.1433	22.9	20.0	25.9	0.1846	36.3	32.9	39.7	**0.0008**	-13	**0.0000**	21.8	16.8	26.9	0.5223	14.5	**0.0000**
non-US born	16.4	10.4	22.3	REF	18.4	12.4	24.4	REF	23.4	16.6	30.1	REF	-5.0	**0.0000**	25.1	16.5	33.7	REF	-1.7	0.2050
Educational attainment																				
HS or less	23.3	18.0	28.5	0.1766	23.8	18.5	29.2	0.3276	38.9	32.9	44.8	0.0923	-15.0	**0.0000**	39.2	29.6	48.9	**0.0000**	-0.4	0.4427
Some College	19.7	15.3	24.1	0.7831	22.7	17.9	27.6	0.4883	30.6	24.9	36.4	0.5871	-7.9	**0.0000**	16.4	9.3	23.5	0.0800	14.2	**0.0000**
College+	18.9	15.2	22.5	REF	20.6	16.9	24.3	REF	32.6	28.4	36.8	REF	-12.0	**0.0000**	9.6	7.0	12.2	REF	23.0	**0.0000**
Employment status																				
Employed	22.9	19.4	26.4	REF	26.0	22.3	29.8	REF	40.9	36.9	44.8	REF	-14.8	**0.0000**	14.4	9.6	19.3	REF	26.4	**0.0000**
Unemployed	17.3	10.4	24.3	0.1614	16.8	9.9	23.8	**0.0226**	24.0	16.5	31.4	**0.0001**	-7.1	**0.0000**	30.8 *	20.0	41.7	**0.0069**	-6.9	**0.0000**
Not in labor force	18.1	13.8	22.4	0.0905	18.5 [U]	14.2	22.8	**0.0097**	25.5 [D]	19.7	31.3	**0.0000**	-7.0	**0.0000**	31.1	21.3	40.9	**0.0028**	-5.6	**0.0040**
Children at home																				
No children	16.9	13.9	20.0	**0.0002**	17.1	14.1	20.1	**0.0000**	22.8	19.2	26.4	**0.0000**	-5.7	**0.0001**	19.3	14.3	24.3	**0.0389**	3.5	**0.0456**
With Children	27.5 [D]	22.8	32.1	REF	32.5 [D]	27.5	37.5	REF	50.7	46.0	55.5	REF	-18.3	**0.0000**	30.0	21.2	38.8	REF	20.8	**0.0000**
Chronic condition																				
Yes	23.6	19.0	28.2	0.0965	23.9	19.3	28.5	0.3612	41.4	36.0	46.7	**0.0005**	-17.4	**0.0000**	29.4	20.8	38.1	**0.0452**	11.9	**0.0000**
No	18.9	15.8	22.0	REF	21.3	18.0	24.6	REF	29.8	26.1	33.5	REF	-8.5	**0.0000**	19.2	14.1	24.3	REF	10.6	**0.0000**
Borough																				
The Bronx	23.6	17.1	30.1	0.6668	23.7	17.3	30.1	0.6150	35.4	27.3	43.5	0.7519	-11.7	**0.0000**	33.2 *	21.1	45.4	**0.0284**	2.2	0.0626
Brooklyn	20.3	15.8	24.7	0.1808	22.4	17.8	27.0	0.3781	34.0	28.5	39.5	0.4808	-11.6	**0.0000**	26.6	17.0	36.1	0.1288	7.5	**0.0001**
Manhattan	25.6	19.2	32.0	REF	26.0	19.5	32.5	REF	37.1	30.7	43.4	REF	-11.1	**0.0000**	16.8	8.7	25.0	REF	20.2	**0.0000**
Queens	18.0	13.4	22.6	0.0590	20.7	15.8	25.6	0.2006	31.1	25.4	36.8	0.1706	-10.4	**0.0000**	20.7	12.7	28.8	0.5028	10.3	**0.0000**
Staten Island	5.9	0.4	11.4	**0.0000**	10.6	0.9	20.2	**0.0093**	34.6 *	21.4	47.9	0.7461	-24.1	**0.0000**	8.3	0.4	16.2	0.1428	26.3	**0.0000**
Neighborhood poverty [ł]																				
Low poverty (<10%)	10.2	6.0	14.3	REF	9.8	5.7	13.8	REF	30.6	24.0	37.1	REF	-20.8	**0.0000**	8.6	3.7	13.6	REF	21.9	**0.0000**
Medium poverty (10 to <20%)	23.8	19.6	28.0	**0.0000**	26.1	21.7	30.4	**0.0000**	31.5 [D]	27.2	35.8	0.8129	-5.4	**0.0001**	20.2	13.9	26.6	**0.0047**	11.3	**0.0000**
High poverty (20 to <30%)	23.6	17.7	29.5	**0.0002**	25.7	19.6	31.9	**0.0000**	37.1	30.3	43.9	0.1749	-11.4	**0.0000**	23.7 *	12.7	34.8	**0.0147**	13.4	**0.0000**
Very high poverty (30%+)	21.5 [U]	15.2	27.9	**0.0032**	24.0	17.5	30.4	**0.0003**	40.1	30.9	49.3	0.0987	-16.1	**0.0000**	50.4 *	35.7	65.2	**0.0000**	-10.3	**0.0000**
Household poverty																				
<200% FPL	26.1	21.2	31.1	**0.0076**	25.8	20.9	30.7	0.1361	39.5 [D]	33.8	45.2	0.0296	-13.7	**0.0000**	35.3	27.3	43.3	**0.0000**	4.2	**0.0454**
>=200% FPL	18.2	15.1	21.3	REF	21.3	18.0	24.6	REF	32.0	28.3	35.6	REF	-10.7	**0.0000**	11.1	6.8	15.3	REF	20.9	**0.0000**

[A] In the April 2020 HOP survey, participants were asked to describe they use of emergency food services "Prior to the pandemic"; [B]Percent answering Often/Sometimes

§ White, Black, Asian/Pacific Islander race categories exclude Latino/a ethnicity. Latino/a includes Hispanic or Latino/a of any race.

ł Neighborhood poverty (based on self-reported ZIP code) is defined as the percentage of the population living below the Federal Poverty Line (FPL) based on the American Community Survey (ACS) (2013-17) for HOP wave 8 and (ACS 2014-2018) for HOP wave 10. Neighborhoods are categorized into four groups as follows: "Low poverty" neighborhoods are those with <10% of the population living below the FPL; "Medium poverty" neighborhoods have 10-<20% of the population below FPL; "High Poverty" neighborhoods have 20-<30% of the population living below the FPL; "Very high poverty" neighborhoods have ≥30% of the population living below the FPL.

Significance test is based on the Z score test. P values are significant at the 0.05 level and are indicated in bold text. Ref: Reference group.

U When reporting to nearest whole percent, round up

D When reporting to nearest whole percent, round down

* Estimate should be interpreted with caution. Estimate's Relative Standard Error (a measure of estimate precision) is greater than 30%, or the 95% Confidence Interval's half width is greater than 10, or the sample size is too small making the estimate potentially unreliable