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Third Ward CASPER 2023 Final Report

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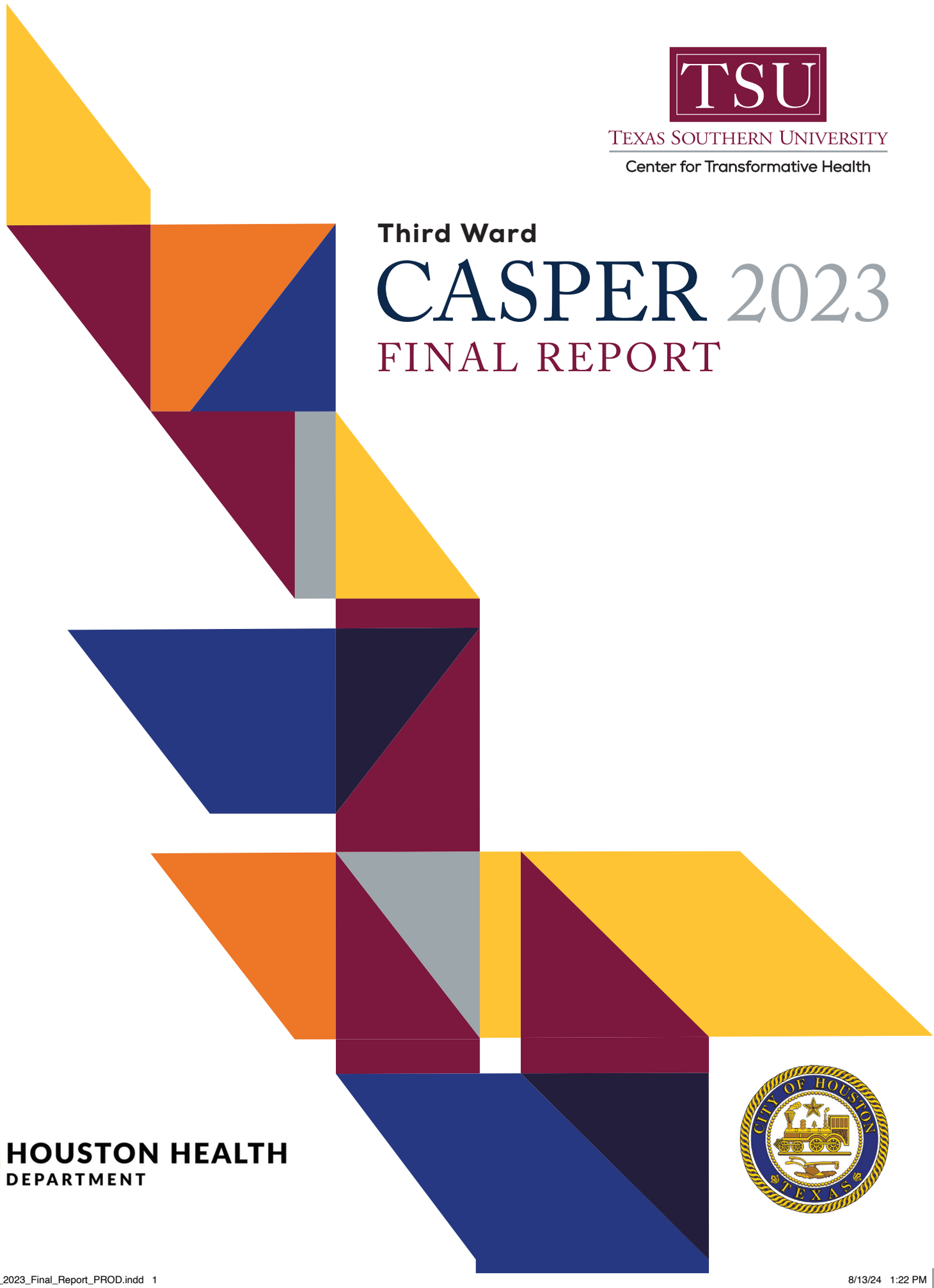
Center for Transformative Health

Third Ward

CASPER 2023

FINAL REPORT



HOUSTON HEALTH DEPARTMENT

CITY OF HOUSTON TEXAS

Third Ward

CASPER 2023

FINAL REPORT

For questions, please contact the Center for Transformative Health at **transformative.health@tsu.edu**

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Acknowledgments

The following individuals are acknowledged for their collaboration and commitment in developing this report.

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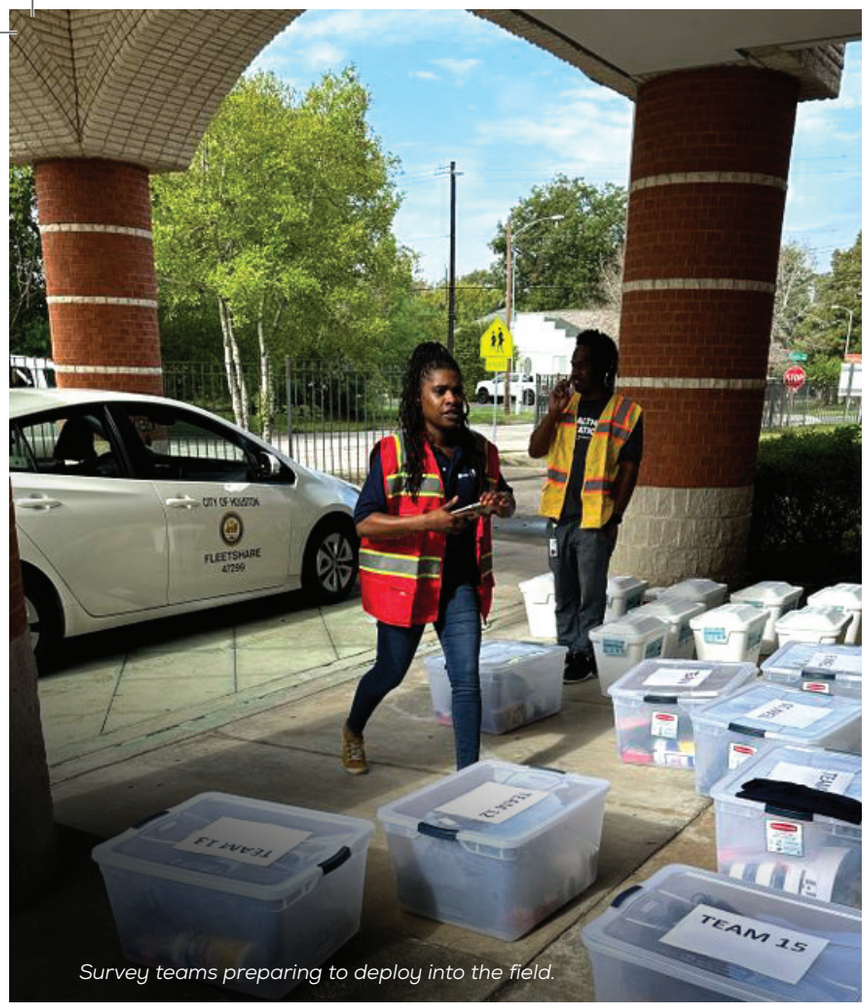


Survey teams preparing to deploy into the field.

TSU and HHD volunteers in the field.

TSU graduate student and HHD employee.

INTRODUCTION

In collaboration with the Houston Health Department, the Center for Transformative Health at Texas Southern University conducted a Community Assessment for Public Health Emergency Response (CASPER) along portions of South Houston (Third Ward). CASPER is a cross-sectional, evidence-based epidemiologic technique designed by the CDC to provide quick, inexpensive, accurate, and reliable household-based public health information about a community for public health decision-makers and emergency response officials.

MISSION

The mission of the Third Ward CASPER was to assess the state of health in Third Ward as a method to inform local officials who may use the results to strengthen intervention efforts in the future and ensure resources are distributed appropriately.

OBJECTIVES AND INTENDED OUTCOMES

Objectives of the Third Ward CASPER

- To present a Third Ward Super Neighborhood profile, including demographic and socioeconomic indicators, community trends, assets, and challenges.
- To inform Third Ward Super Neighborhood residents about health and human service resources available in or to the community.
- To provide health education and health promotion information to the Third Ward residents and provide and link residents identified as "in need" to available services.
- To collect health status data and community information that could be used in future planning for services and activities to improve health outcomes.
- To build relationships with stakeholders and community residents.

Additional Intended Outcomes

- Improved understanding and sensitivity of TSU/HHD staff to community conditions.
- Improved response readiness.
- Improved data-gathering ability.
- Improved capacity to build solutions to identified problems.

JUSTIFICATION FOR CASPER

CASPER is a validated method developed by the Centers for Disease Control and Prevention to obtain information about a community's needs through rapid needs assessment. It was designed to provide accurate and timely data through precise analysis and interpretation. While it was originally designed for emergency management disaster settings, it has opportunities to influence public health in non-disaster settings. CASPER has been previously used to estimate community needs and assess public health perceptions. Other benefits include monitoring changes in community needs post-COVID-19 and producing household-based population estimates of needs for decision-makers.

ASSUMPTIONS:

It was assumed that the CASPER methodology would provide enough households in the dataset to generate meaningful population-based estimates about the population of interest.

THIRD WARD CHARACTERISTICS:

The CASPER was conducted in the Third Ward in Houston, Texas **(Figure 1)**. Third Ward has a resident population of 38, 920, a population increase of 1.49 percent since 2020. The population by race is Black/African American (38.43%), White (30.75%), American Indian (.56%), Asian (14.01%), Native Hawaiian/Pacific Islander (0.05%), Other (7.46%) and/or Mixed (8.74%). The median household income is $59,026, and 18.72% of families live below the poverty line ($23,400) for a family of four.

METHODOLOGY

The CASPER study was conducted using a cross-sectional two-stage cluster sampling methodology, a approach that provides quick, low-cost household information. In the first stage, cluster selection, a sampling frame was determined, requiring a list of all clusters and the number of households within each cluster. Once the frame was determined, thirty clusters were randomly selected, with the probability of a census block being selected being proportional to the number of households located within the census block. The second stage involved the selection of seven households per cluster using systematic random sampling, avoiding convenience, target, or sequential sampling. In a CASPER design, all households are chosen without substitution, meaning the originally selected clusters were assessed without modification. The Third Ward cluster overview map can be found in **Figure 2**.

Due to some clusters potentially being chosen more than once, some clusters may have had up to twenty-one interviews instead of the standard seven. Each cluster's total number of households was divided by seven to determine its sequence number (n). Survey teams then attempted to survey each "nth" home. A sample cluster map can be found in **Figure 3**.

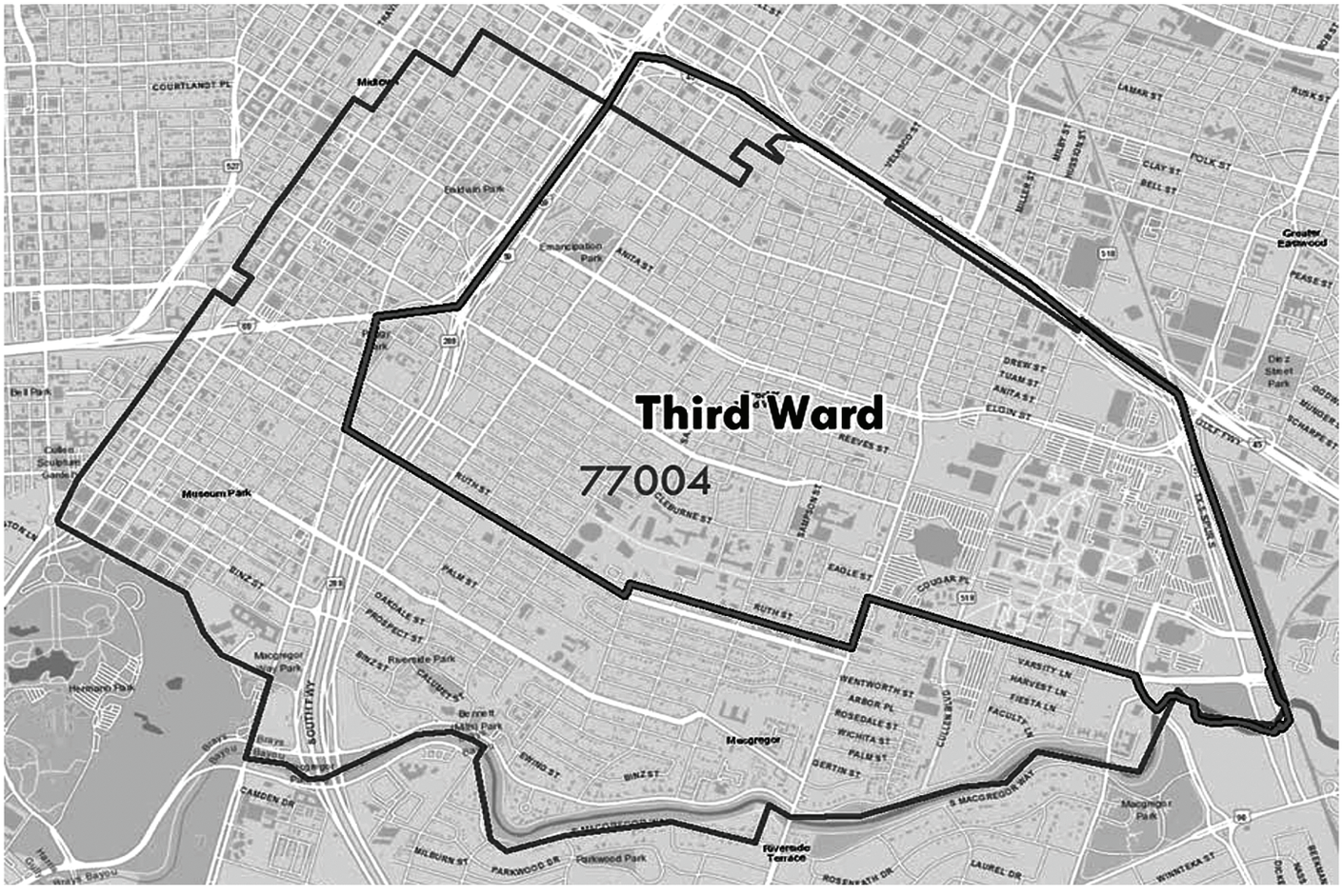


Figure 1 | Map of Third Ward, Houston, Texas

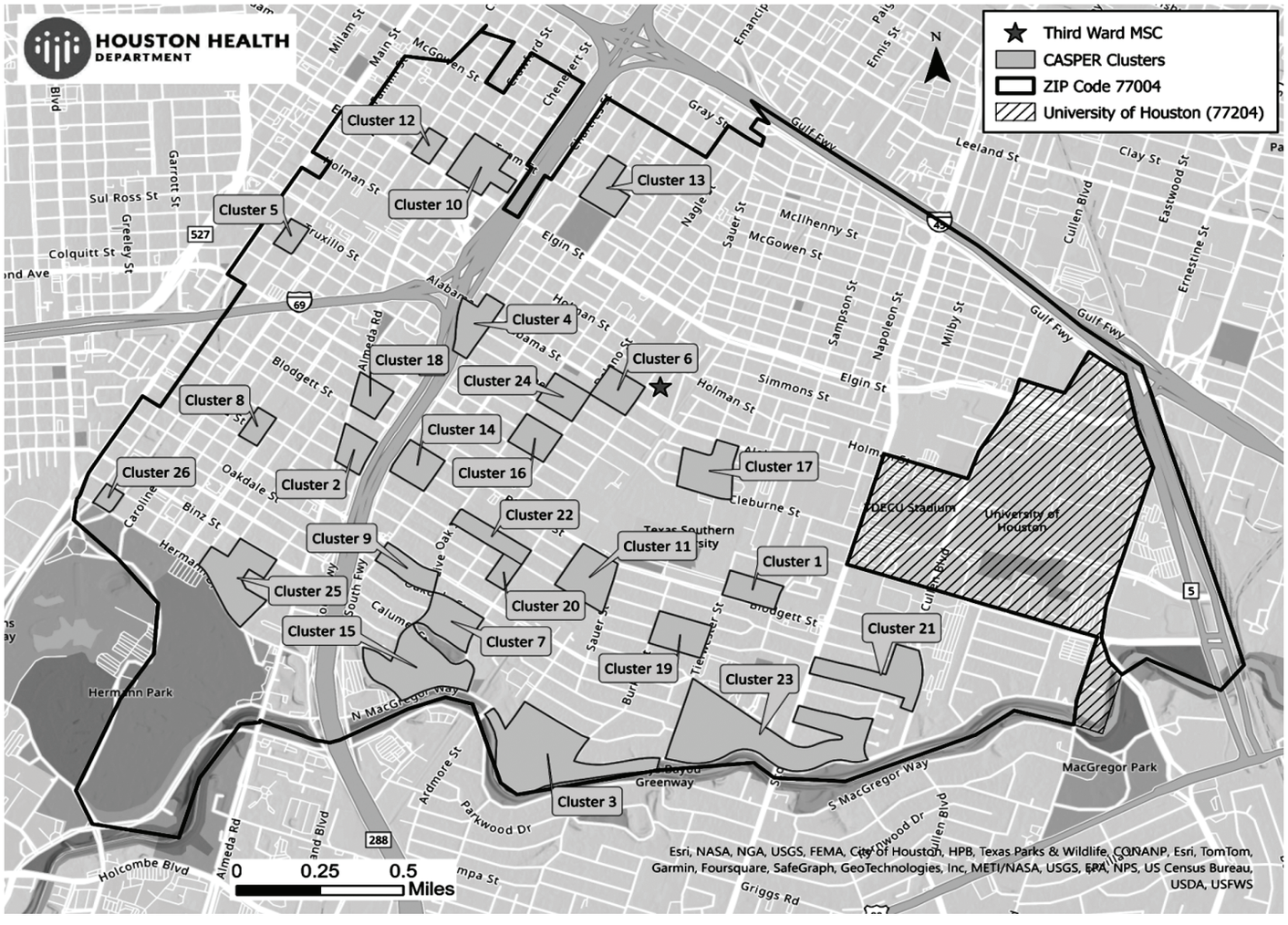


Figure 2 | Cluster overview map

Limitations

It's important to note that the CASPER methodology, while robust, is not immune to the effects of gentrification and the COVID-19 pandemic. The data used for the two-stage sampling, based on thirty randomly selected census blocks and 2020 U.S. Census Bureau data, may not have accurately reflected Third Ward Houston as of the 2023 CASPER implementation. The wide gentrification of the geographic area and the lingering aftereffects of COVID-19 could have led to significant changes in the overall number, composition, and geographic location of occupied housing units, which would not be reflected in the data used in the two-stage sampling process.

The gentrification of Third Ward has led to an increase in the number of multi-unit residences, including high-rise luxury apartments, gated townhomes, and private condominiums. These types of residences are not as easily accessible, which could have led to the systematic replacement of households and affected the representativeness of the data. This is an important consideration when interpreting the study results.

Questionnaire

The Center for Transformative Health and the Houston

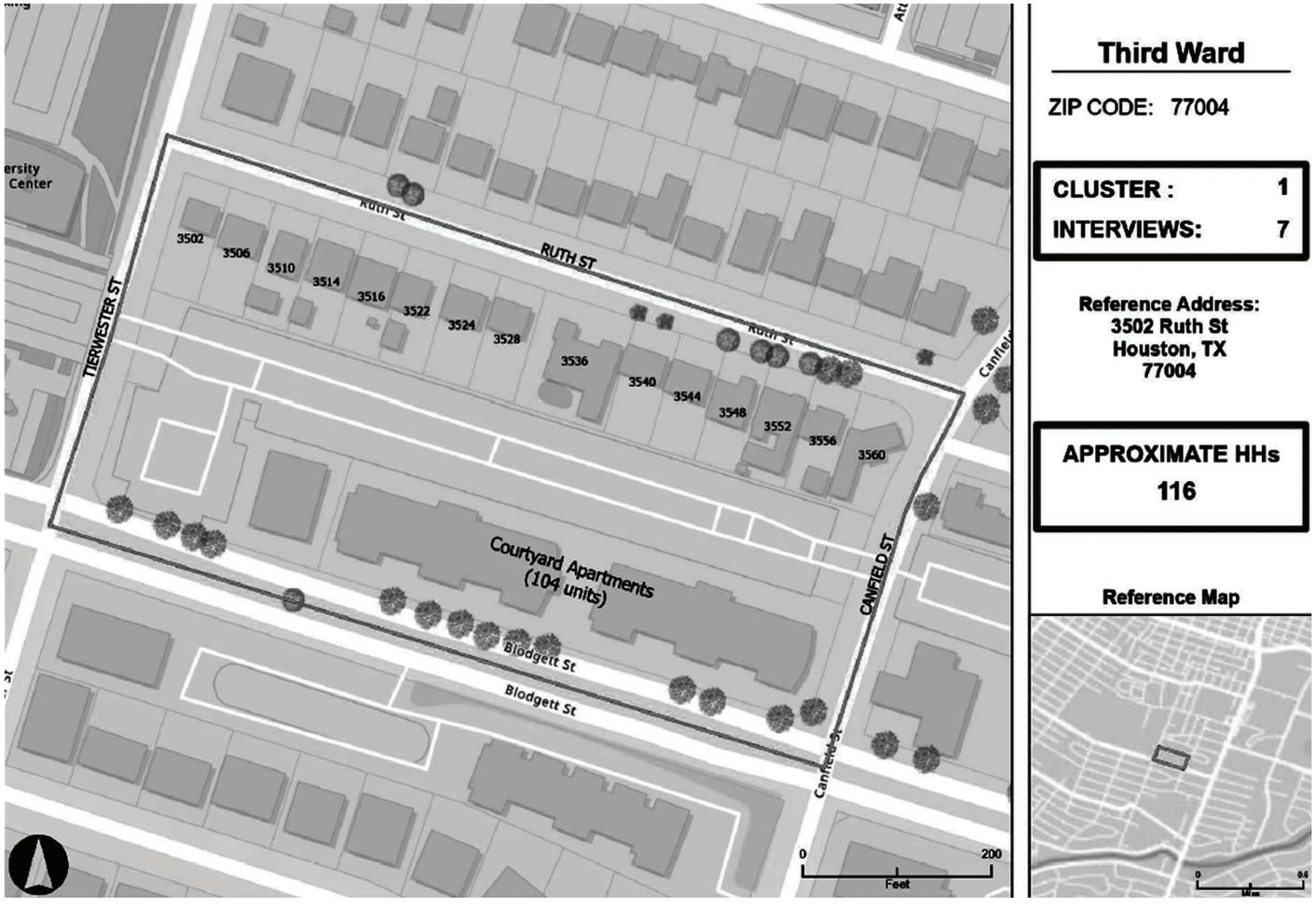


Figure 3 | Cluster 1 map with parcel labels

Health Department developed a comprehensive population-based questionnaire to collect information regarding household demographics, health communication methods, priority and perception, physical, emotional, and behavioral health, service utilization, and post-COVID conditions. Forms were translated into Spanish, and each field team had access to an interpreter. To streamline data collection, surveys were collected in the field in a paper-based format and entered electronically. Note: All questions were asked at the household level, and respondents were instructed to respond for their total household unless told otherwise.

Just-in-Time Training and Survey Teams

Field teams comprised Houston Health Department and Texas Southern University staff with additional support from community volunteers. All survey teams were required to attend Just in Time training before deployment into the field. Teams received a Third Ward CASPER playbook that included maps, team member responsibilities, safety protocols, logistics, methodology, consent scripts and forms, questionnaires, and tracking forms. Teams consisted of three members (one driver and two interviewers), and city fleet was utilized to transport field teams for the project. Teams conducted interviews between approximately 9:30 a.m. and 6: 00 p.m. on all field sampling days.

To adequately prepare field teams for the overall project initiative, a Just-In-Time (JIT) training was conducted at the Third Ward Multipurpose Center the day before the CASPER mission. This time was utilized to review household selection methods, questionnaire content, interview techniques, safety, and logistics. Trainees were sent home with the JIT PowerPoint Presentation and CASPER playbook that included the consent script, questionnaire, and tracking form to review.

Incident Command Structure

The National Incident Management System (NIMS) Incident Command Structure (ICS) was utilized as a basis for organizing, planning, and executing CASPER activities. The ICS team conducted a series of meetings throughout the mission's preparation and planning phases to ensure a successful CASPER. The following core sections with assigned responsibilities were prepared for the CASPER.

- **Incident Command**: Responsible for the overall effective and safe execution of the CASPER mission. This includes administering all human and material resources and overseeing public affairs/communication efforts with the public and public officials. Personnel: Texas Southern University
- **Planning**: Responsible for coordinating and overseeing the following planning functions: data collection and analysis, resource assessment, and management. Personnel: Houston Health Department and Texas Southern University.
- **Operations**: Responsible for coordinating and overseeing the planning and implementation of the following activities: field team composition and flow. Personnel: Houston Health Department
- **Logistics**: Provided logistical support, including facilities, supplies, food, ground transportation, communication, and employee care unit management. Personnel: Houston Health Department
- **Volunteer Team**: Responsible for recruiting and placing volunteers.
  Personnel: Houston Health Department and Texas Southern University.
- **Training**: Responsible for developing and implementing training presentations.
  Personnel: Houston Health Department and Texas Southern University.
- **Internal Communications and Public Information**: Responsible for developing and releasing information about the project to the public, media, etc.; developing materials for project promotion and keeping employees informed.
  Personnel: City of Houston Mayor's Office, Houston Health Department, Texas Southern University.

Community Engagement and Notification of CASPER

A series of community engagement activities were conducted to inform residents of the CASPER mission. Activities included a health fair at Emancipation Park, a focus group series, dissemination of promotional material at community events, advertisement on KTSU radio station 90.9, and emails to disseminate promotional materials by local government officials to Third Ward distribution lists. The week before the mission, flyers were placed on doors and in mailboxes, and yard signs were placed at major intersections.

Data Collection

On October 27, 2023, and October 28, 2023, fifteen teams of three were deployed into the field to conduct door-to-door interviews in thirty randomly selected clusters. Teams were provided detailed maps of the earth and neighborhood, a cluster-specific tracking sheet, and referral forms. To be eligible to participate, respondents provided verbal consent and were aged 18 or older. If a household member was not home to conduct the interview, promotional material was left to inform the household that a field team had come by. Households that completed the interviews were given a $20 HEB gift card, drawstring backpacks with educational materials, and city service information. All homes that field teams encountered irrespective of whether the interview was completed, were given drawstring backpacks with educational materials and city service information. On November 22, 2023, a strike team was sent back into the field to collect additional data to meet the 168 recommended minimum number of households.

Data Entry and Analysis

Upon returning to the incident command center, survey data was manually entered in Qualtrics by trained Houston Health Department and Texas Southern University data entry personnel. Data cleaning and analysis was done using SAS 9.4. One hundred sixty-eight of two hundred ten unique households completed

The week before the mission, flyers were placed on doors and in mailboxes, and yard signs were placed at major intersections.

the interviewer-administered survey. Each household for whom an interview was completed was assigned a weight based on the household's mathematical weight for the probability of selection. In doing so, the estimates obtained were generalizable to every household in the sampling frame, thus ensuring each cluster was weighted equally. SAS 9.4 was utilized, allowing the multistage sample design to be weighed. The following weight formula was used:

$$weight = \frac{total\ number\ of\ households}{(number\ of\ households\ interviewed\ within\ the\ cluster)\ X\ (number\ of\ clusters\ selected)}$$

Weighted frequencies, percentages, and 95% confidence intervals were then calculated for each interview question for cells with five or more observations. The 77004 sampling frame included 14,769 households, which were used in the weight calculation. Once the weight was assigned, frequencies and corresponding percentages were calculated for each question. Descriptive assessments were conducted among the 14,769 households.

RESULTS

Response Rates

Calculating response rates helps indicate the sample's representativeness to the population within the sampling frame and information collected on the tracking forms is used to calculate response rates. Interview teams contacted a person at two hundred and fifty-six households. Of these, one hundred and sixty-eight homes were surveyed, resulting in a cooperation rate of 65.6%. An attempt was made to interview three hundred and ninety-six households, resulting in a contact rate of 42.4%. The overall completion rate was 80% (168 surveys completed out of a goal of 210). Fifty-four households refused to participate, and one household did not participate due to a language barrier. Response rates are shown in **Table 1**.

Table 1 | Calculated response rated for 2023 Third Ward CASPER

Questionnaire response	Percent	Rate
Completion rate1	80%	168/210
Cooperation rate2	65.6%	168/256
Contact rate3	42.4%	168/396

1 Percent of surveys completed compared to the goal of 210

2 Percent of surveys completed compared to the total number of contacted households that were eligible and willing to participate

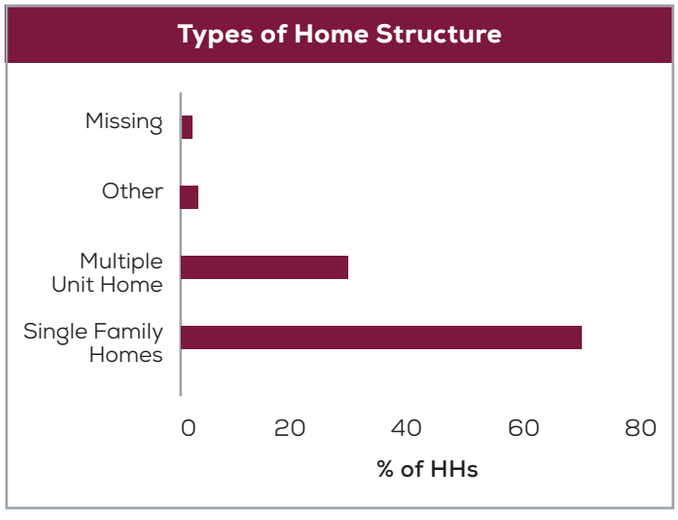
3 Percent of surveys completed compared to all randomly selected households

The final descriptive analysis included 168 households in Third Ward, representing 14,769 weighted households. Survey results are grouped by subject and summarized on the following pages. For frequencies greater than or equal to five, weighted frequencies with 95% confidence intervals are provided in the Appendices.

Demographic characteristics of the population summary

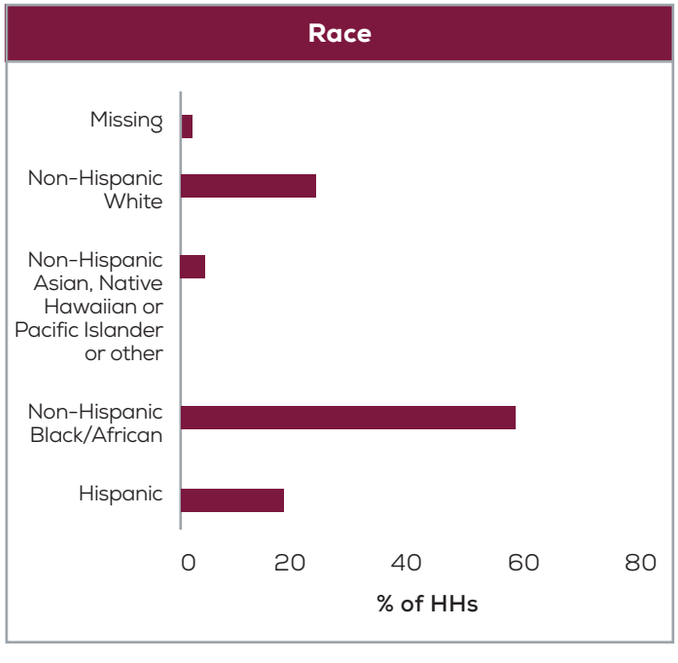
All CASPER surveys begin by asking for basic household information. Weighted frequencies, percentages, and 95% confidence intervals were then calculated for each interview question for cells with five or more observations. The following figures show the complete descriptive characteristics of the surveyed population.

Figure 4 | Percentage of household's structure



Of the participants, 57.78% (N= 8432) of households identified as non-Hispanic Black/African American and 16. 78% (N= 2449) identified as Hispanic (**Figure 5**).

Figure 5 | Percentage of households Race



Most households identified as employed (42.45%, N= 6076) (**Figure 6**), had a household income of $75,000 or more (29.70%, N=3999) (**Figure 7**), and had at least one individual in the home who had attended college (74.58%, N=9938) (**Figure 8**). Most respondents identified the members of their household as representing the 18-64 age group (73.35%, N=10,833) (**Figure 9**). The primary language spoken among households was English (**Figure 10**).

Figure 6 | Percentage of household's employment status

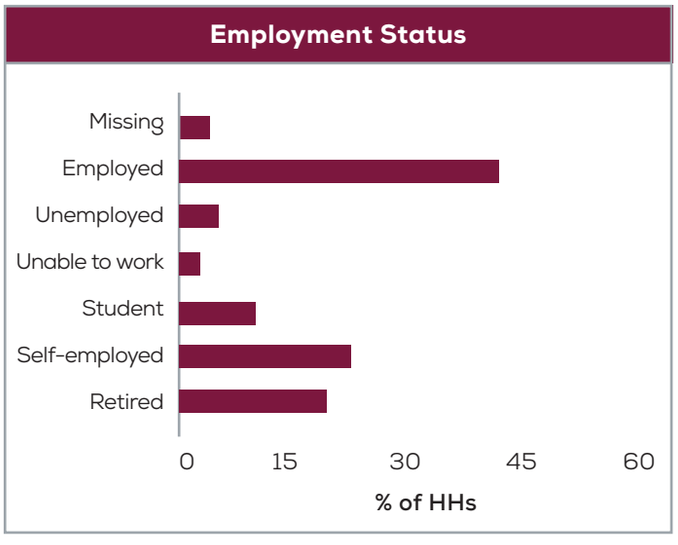


Figure 7 | Percentage of household's annual income

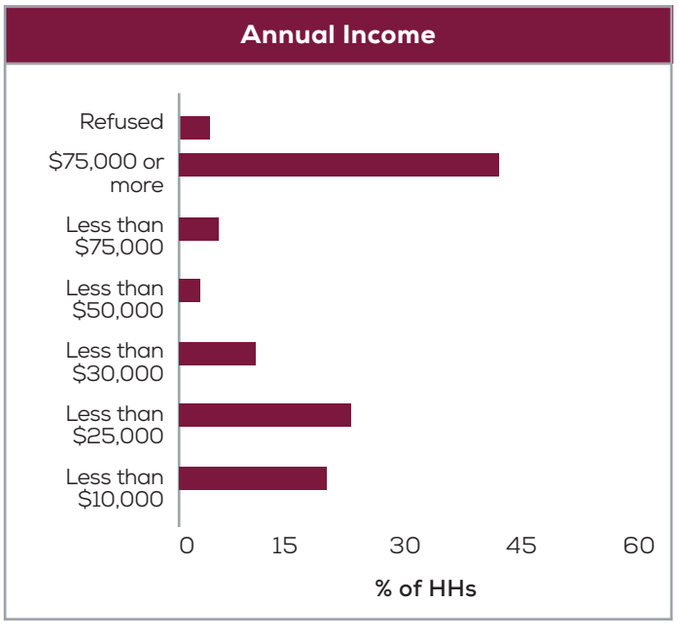


Figure 8 | Percentage of household's annual income

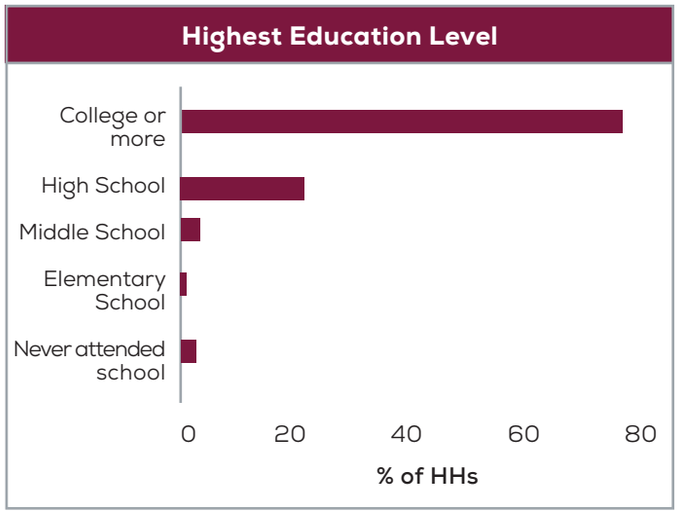


Figure 9 | Percentage of household's age

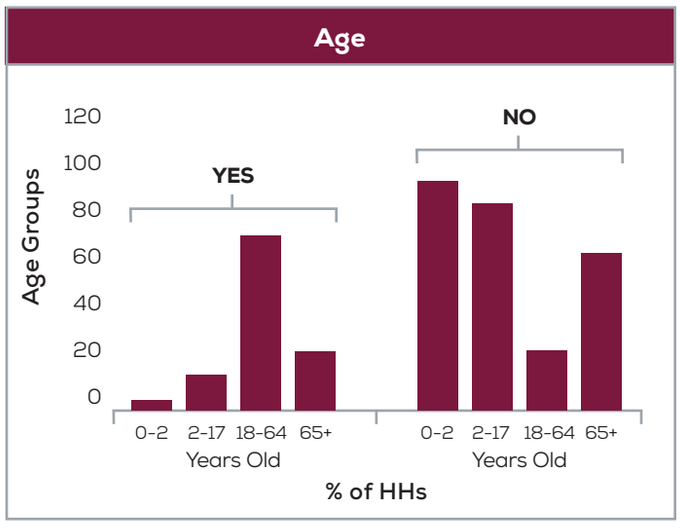
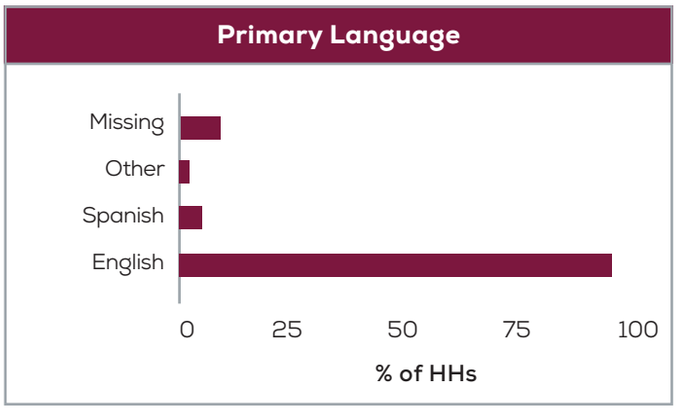


Figure 10 | Percentage of household's primary language



Clinical characteristics of the population

Approximately seventy percent of households (78.01%, N=11,233) of households identified as not having health insurance coverage (**Figure 11**) and cited a doctor's office as the place visited most often to see a doctor (52.81%, N=7707) (**Figure 12**) with private insurance being the largest source of coverage (**Figure 13**).

Figure 11 | Percentage of household's health insurance coverage

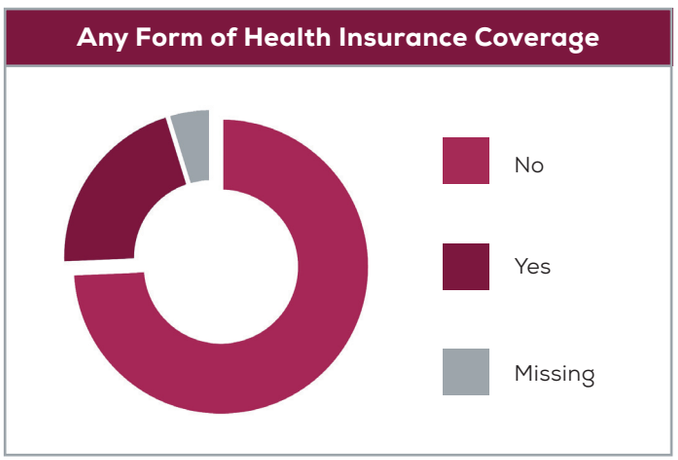


Figure 12 | Percentage of household's access to personal or family doctor

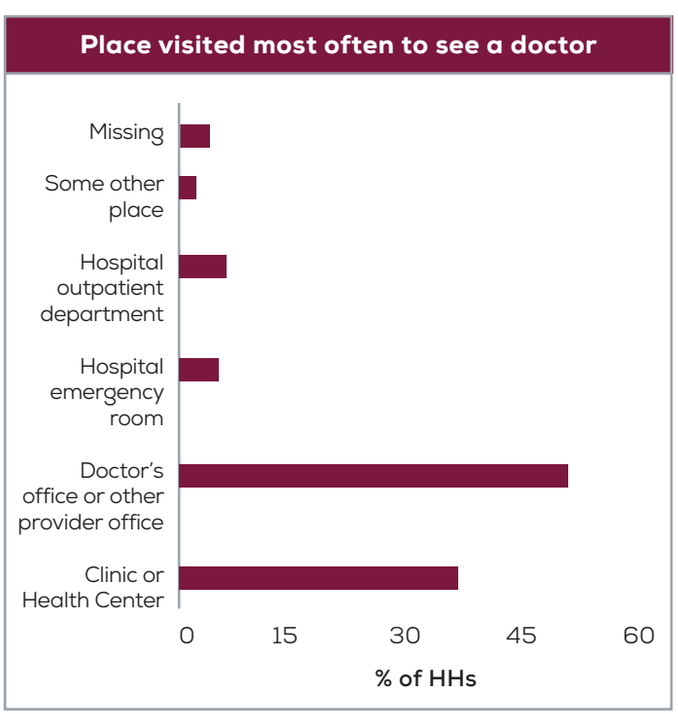
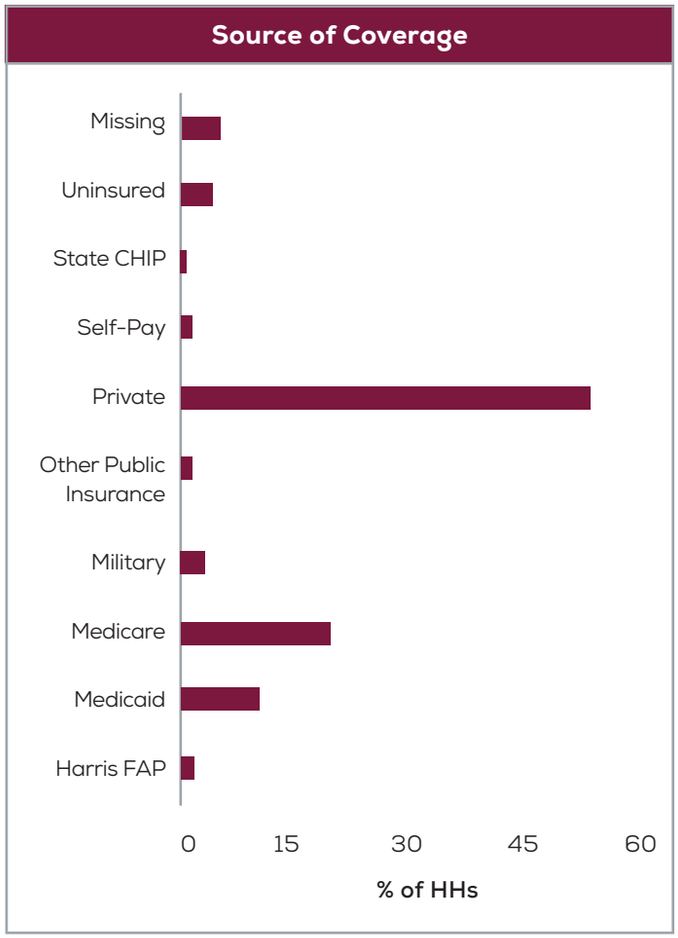
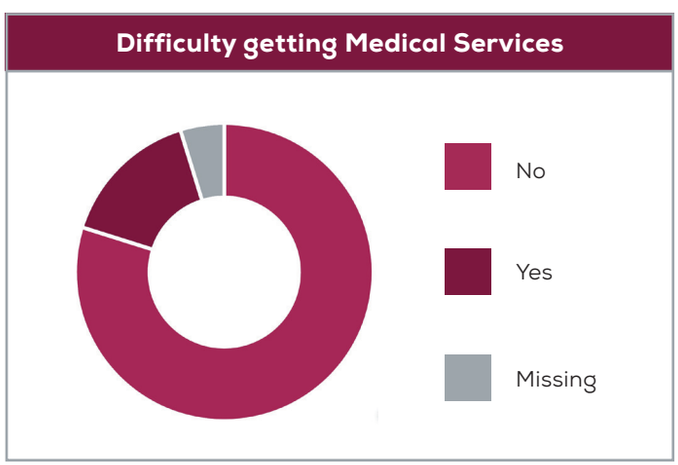


Figure 13 | Percentage of household's source of coverage



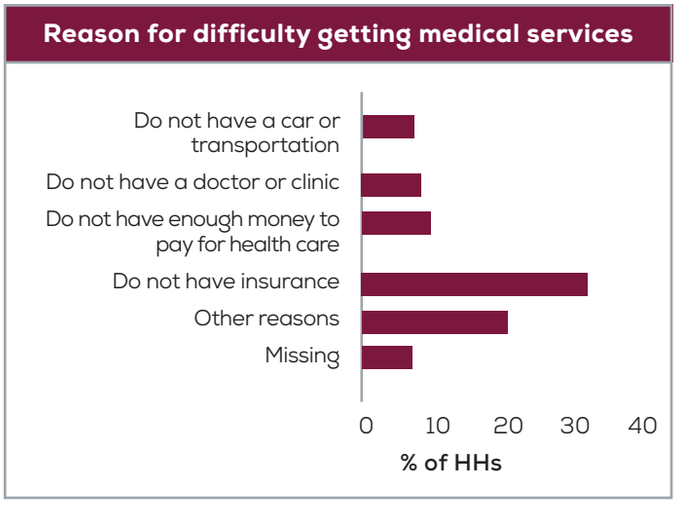
83.86%, N=12,011 of households indicated no difficulty getting medical services in the prior twelve months (**Figure 14**).

Figure 14 | Percentage of households' difficulty getting medical services



Of those who cited difficulty (16.14%, N=2312), lack of insurance represented the greatest barrier to care (39.33%, N=950) (**Figure 15**).

Figure 15 | Percentage of household's reason for difficulty getting medical services



Health status and wellbeing

Approximately half of households cited their household health rating as good (34.58%, N=5107) or very good (21.29%, N=3145) (**Figure 16** & **17**). High blood pressure (36.79%, N=5321), high cholesterol (25.92%, N=3701), poor mental health (19.18%, N=2740), obesity (18.79%, N=2699) and diabetes/high blood sugar (17.53%, N=2511) were cited as the more prevalent health conditions. Weighted and unweighted frequencies of each comorbid condition can be found in **Table 4**.

Figure 16 | Respondent's personal health rating

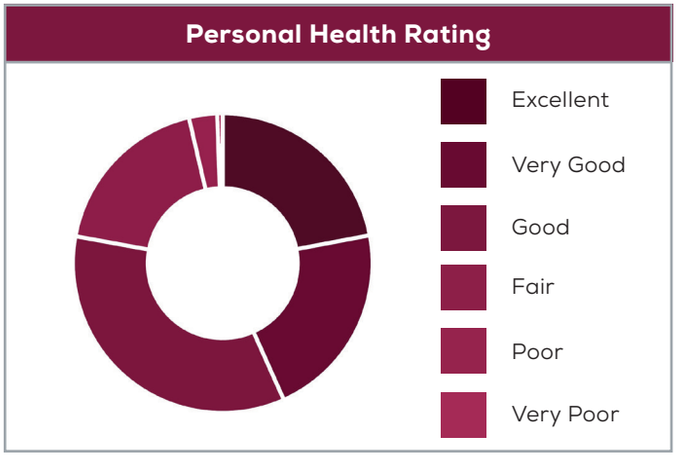
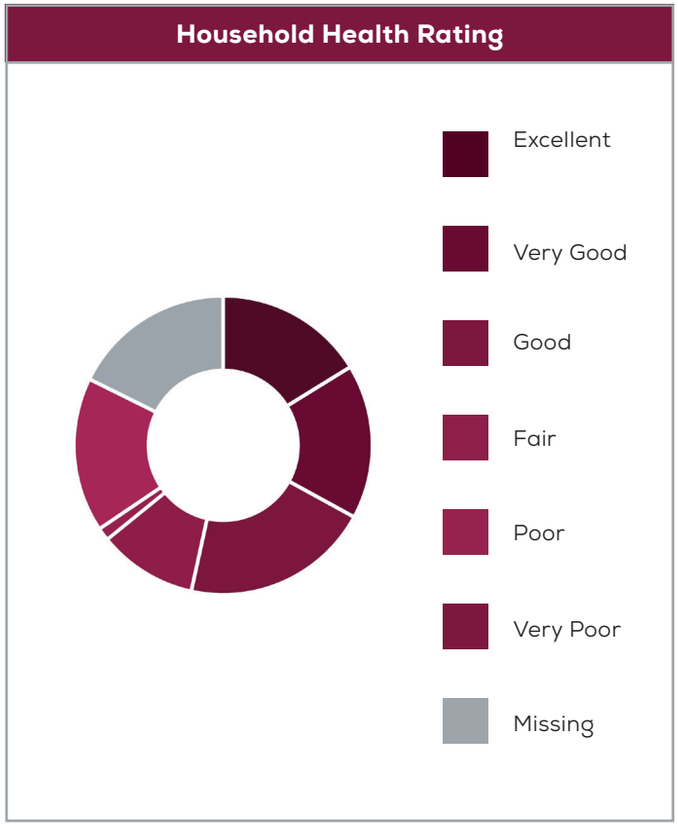


Figure 17 | Percentage of household's household rating



Behavioral Characteristics

85.05% of households report moderate physical activity (**Figure 18**), and 73.91% report frequently walking outside their home (**Figure 19**).

Figure 18 | Percentage of household's engagement in moderate physical activity

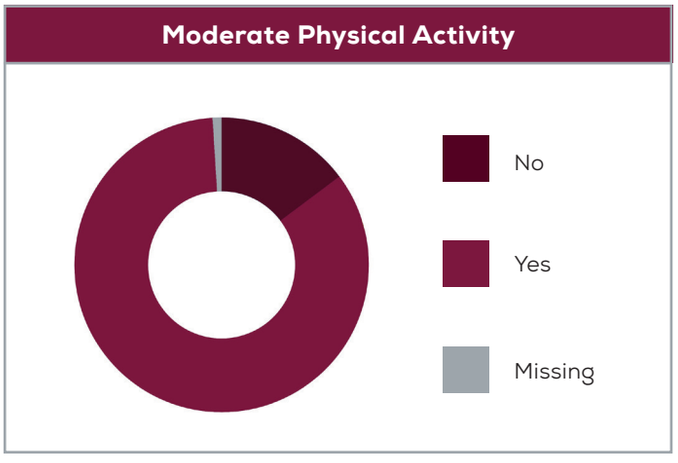


Figure 19 | Percentage of household's frequency of walking outside

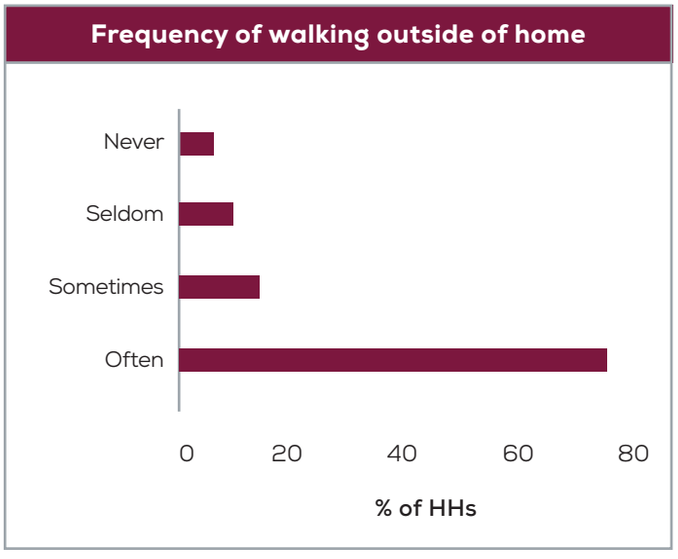


Figure 20 | Percentage of households experiencing emotional problems keeping them from work

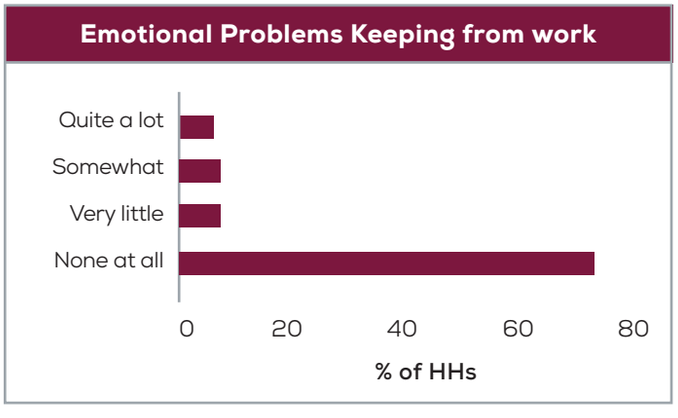


Figure 21 | Percentage of households eating 3-5 fruit and vegetable servings per day

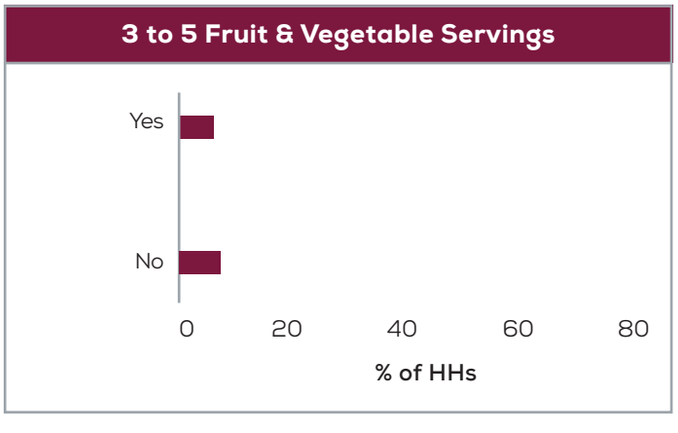
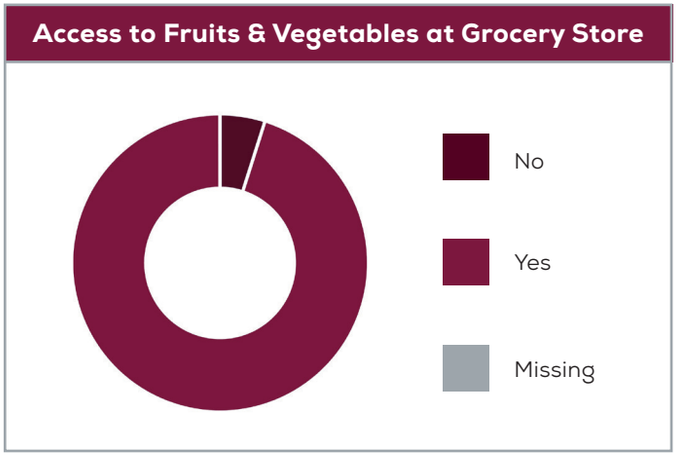


Figure 22 | Percentage of households with access to fresh fruit and vegetables at the grocery store



64.53% of households report actively controlling or monitoring their weight (**Figure 23**), and 71.69% do not smoke (**Figure 24**).

Figure 23 | Percentage of households with access to fresh fruit and vegetables at the grocery store

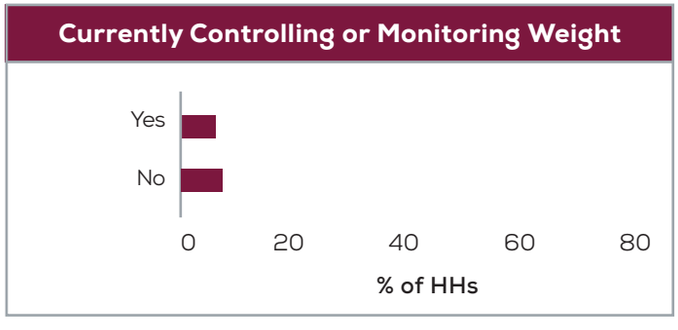
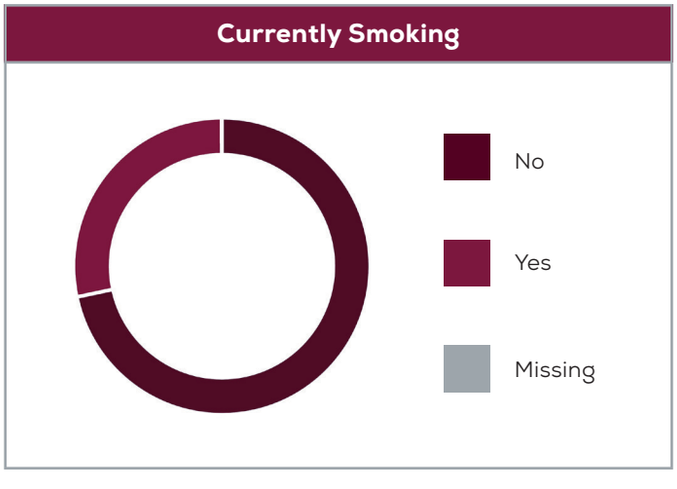


Figure 24 | Percentage of households smoking status



The Third Ward CASPER also explored long-COVID activities of daily living impacted by COVID-19 symptoms.

COVID characteristics and post-COVID manifestations

Approximately half of households (48.87%, N=7088) reported having tested positive for COVID-19 with most households (76.46%, N=5346) reporting it had been 12 months of more since their diagnosis. 18.06%, N=1134 reported long-COVID (still experiencing symptoms beyond 30 days after their initial COVID-19 infection). Most households reported moderate symptoms (50.77%, N=3505) with 12.05% (N=832) of household indicating symptoms to be severe. Systemic symptoms including tiredness or fatigue, joint or muscle pain, taste or smell changes, headache, brain fog, and shortness of breath were the most frequently experienced household symptoms anytime during infection. The most persistent symptoms lasting 30 days or more included anxiety, brain fog, depression, joint or muscle pain, shortness of breath, exercise inability, tiredness or fatigue, and weight loss. Eight hundred and forty (12.23%) households indicated at least one household member was hospitalized for COVID with 20.27% (N=1399) reporting at least one outpatient clinic visit after COVID recovery. 1134 (18.06%) households reported long-COVID according to the Center for Disease Control definition (**Table 5**). The Third Ward CASPER also explored activities of daily living impacted by COVID-19 symptoms. Shopping, meal preparation, and household chores were cited to be among the activities of daily living most impacted by COVID-19 infection.

DISCUSSION AND RECOMMENDATIONS

Based on analysis of the data collected during the CASPER, the following is recommended:

1. In the past, Third Ward residents have identified access to healthcare as a concern, and as of the 2023 CASPER implementation, 26% of households still reported difficulty accessing care, with the majority citing lack of health insurance being the greatest barrier.

   RECOMMENDATION: As of March 2023, continuous Medicaid eligibility ended for some adults and children resulting in many users having to re-establish eligibility. Ensuring residents know how to renew Medicaid and CHIP coverage programs may be needed to accommodate residents that are no longer covered. In addition, increased outreach and visibility to ensure residents know about the Houston Health Center locations that provide patient services can increase neighborhood well-being. Moreover, expanding preventative clinical care services beyond the current services provided at the four health center locations may improve neighborhood health.

2. High blood pressure (36.79%, N=5321), high cholesterol (25.92%, N=3701), poor mental health (19.18%, N=2740), obesity (18.79%, N=2699) and diabetes/high blood sugar (17.53%, N=2511) were cited as the more prevalent health conditions in Third Ward.

   RECOMMENDATION: Supporting campaigns/ organizations that promote healthy eating and increased physical activity, tracking the number of Houstonians who receive health care preventative services, and measuring the social and environmental factors that influence health can each lessen the burden of chronic disease.

3. Approximately half of the households (48.87%, N=7088) reported having tested positive for COVID-19, with (18.06%) of households reporting long-COVID.

   RECOMMENDATION: The federal government no longer provides free COVID-19 vaccines, treatments, and tests, and after September 30, 2024, access to vaccines, treatments, and tests may be reduced through Medicaid. Continuing to offer free testing and vaccination sites will help lessen disease transmission. Maintaining the wastewater dashboard will also provide pooled surveillance when clinical testing numbers are low. Establishing a long-term impact team that conducts routine surveillance on the burden of long-term COVID-19 in Houston will assist in measuring the disease burden.

4. Anxiety and depression were two symptoms experienced during COVID-19 infection and were reported to have lasted longer than thirty days post-COVID-19 infection. Experiencing anxiety during infection was also associated with the development of long-term COVID-19 after controlling for confounding variables. In the 2018 Third Ward Complete Communities action plan, it was cited that 14% of the adults in the Third Ward neighborhood struggled with mental health for 14 days or more during 2013-2014.

   RECOMMENDATION: Further explore mental health needs in the community in the post-COVID landscape. Consider expanding mental health supportive services to be included in each health clinic as it is expected that the prevalence of anxiety and depression may have increased post-COVID.

5. Most households report their health as good, very good, or excellent. Households also report that they engage in moderate physical activity daily, have access to fresh fruits and vegetables, and are currently controlling their weight. The CASPER has shed light on the impacts of gentrification and how the landscape of Third Ward has changed. While most of the households represented are the African American race, it is noteworthy to mention

the impact gentrification in Third Ward may have had on findings. According to the 2015 Census, the percentage of non-Hispanic white Americans in 77004 increased from 9% to 28% percent, and the black population declined from 77% to 60% during the same period. As of April 2024, the percentage of Black/African Americans is 38.21% and that of non-Hispanic white Americans is 31.65%. These shifts in the neighborhood are evident as windshield tours depict how luxury condominiums, townhomes, and high-rise complexes are replacing old buildings and single-family homes. CASPER utilizes a two-stage cluster sampling methodology to prevent convenience sampling but it is important to note that the demographic breakdown of respondents may not represent the demographic distribution of residents. This has the potential to skew the data heavily, and further research is needed to elucidate the impact gentrification may have had on the long-term data.

RECOMMENDATION: Exercise caution when measuring data as averages across populations. Distributing resources equally in Third Ward may not have the intended impact. We must think differently about how we allocate resources, especially as it relates to the non-clinical health factors that disproportionately affect populations. Emphasis can be placed on Census tracts 3123, 3122, 3124, and 3127.

HHD employee and community worker collecting data at a multiunit resident in 77004.

REFERENCES

1. Centers for Disease Control and Prevention (CDC). Community Assessment for Public Health Emergency Response (CASPER) Toolkit: Second edition. Atlanta (GA): CDC; 2012.
2. Bayleyegn, T. M., Schnall, A. H., Ballou, S. G., Zane, D. F., Burrer, S. L., Noe, R. S., & Wolkin, A. F. (2015). Use of community assessments for public health emergency response (CASPERs) to rapidly assess public health issues—United States, 2003-2012. Prehospital and disaster medicine, 30(4), 374-381.

APPENDIX A | GLOSSARY OF KEY TERMS

1. CASPER – The Community Assessment for Public Health Emergency Response, is a robust epidemiologic technique. It is specifically designed to provide public health leaders and emergency managers with household-based information about a community. This ensures the data we gather is comprehensive and reliable, instilling confidence in the methodology.
2. Cluster-Non-overlapping section in a geographic area with a known number of households. The key metric's completion rate indicates how close interview teams came to collecting the desired number of interviews, typically n=210. Completion rates below 80% are considered unacceptably low, as they result in an insufficient number of completed interviews. To address this, it's recommended that additional interview teams be available to revisit low-responding clusters the following day(s) to complete data collection. In the 2023 Third Ward CASPER instance, a strike team was dispatched to low-responding clusters to ensure the recommended minimum of 168 interviews was reached.
3. Cooperation Rate: The corporation rate represents the proportion of completed interviews out of all households in which the interview teams contacted a person. This rate signifies the community's eligibility and willingness to complete the CASPER interview. The lower the cooperation rate, the more the sample becomes one of convenience
4. Contact Rate: This rate represents the proportion of completed interviews out of all households the interview teams attempted to interview. Higher contact rates indicate better representativeness of the sample to the population. Lower contact rates indicate that interview teams had to attempt interviews at many households (i.e., knock on many doors) to obtain the final number of completed interviews. In this instance, the sample becomes more convenient in the second stage.
5. Household- All dwelling inhabitants intended for occupancy as separate living quarters. This can be a house, apartment, single room, or group of rooms. Note: Each individual apartment in an apartment complex is considered a separate household.
6. Representative Sample- A subgroup representing the entire sampling frame or population from which the sample is drawn.
7. Sampling Frame- The population from which the sample is drawn.
8. Weight- The inverse of the probability that a given household will be included in the sample due to the sampling design.

APPENDIX B | FREQUENCY TABLES

Table 2 | Weighted and unweighted frequencies of descriptive characteristics for households in Third Ward Houston, TX

	Unweighted N = 168	Weighted N	Weighted % HH	95% CI (lb.)	95% CI (ub.)
Type of Structure					
Single Family Homes	108	9820	66.89	54.74	79.05
Multiple Units	57	4684	31.9	19.28	44.52
Other	2	177	1.2	0	2.92
Missing	1	-	-	-	-
Primary Language					
English	143	12825	92.51	86.80	98.22
Spanish	11	862	6.22	0.54	11.89
Other	2	177	1.27	0.00	3.10
Missing	12	-	-	-	-
Annual Income					
$10-24K	33	2430	18.05	7.42	28.68
$25K-34K	12	965	7.16	1.83	12.50
$35K-49K	9	766	5.69	1.43	9.95
$50K-74K	29	2408	17.88	9.82	25.95
$75K+	34	2898	21.52	12.43	30.61
$75,000 or more	36	3999	29.70	16.20	43.19
Refused	15	-	-	-	-
Highest Education Level					
Never Attended School	2	177	1.33	0.00	3.25
Elementary School	1	44	0.3	0.00	1.01
Middle School	3	243	1.82	0.00	4.00
High School	38	2924	21.94	13.67	30.21
College	107	9938	74.58	65.93	83.22
Missing	17	-	-	-	-

Table 2 | Continued

	Unweighted N = 168	Weighted N	Weighted % HH	95% CI (lb.)	95% CI (ub.)
Employment Status					
Retired	29	2607	18.21	10.86	25.57
Self-Employed	36	3030	21.17	14.46	27.88
Student	15	1296	9.06	0.00	19.12
Unable to Work	7	449.22	3.14	0.37	5.91
Unemployed	10	854.26	5.97	1.16	10.78
Employed	66	6076	42.45	31.27	53.62
Missing	5	-	-	-	-
Race					
Hispanic	30	2449	16.78	8.17	25.39
Non-Hispanic Black/African American	103	8432	57.78	42.7	72.78
Non-Hispanic Asian, Native Hawaiian or Pacific Islander, or other	7	608	4.16	1.34	6.99
Non-Hispanic White	26	3104	21.27	8.18	34.36
Missing	2	-	-	-	-
Age					
<2 years old					
Yes	5	361	2.44	0.29	4.59
No	163	14408	97.56	95.41	99.71
2-17					
Yes	28	2276	15.41	7.75	23.06
No	140	12494	84.59	76.94	92.25
18-64					
Yes	121	10833	73.35	63.05	83.64
No	47	3936	26.65	16.36	36.95
>65 years					
Yes	43	3494	23.66	14.01	85.99
No	125	11275	76.34	66.69	33.31

HH= Frequency of households (HH) | CI (ub)= Confidence interval upper bound | CI (lb) = Confidence interval lower bound

Table 3 | Weighted and unweighted frequencies of healthcare access characteristics for households in Third Ward Houston, TX

	Unweighted N = 168	Weighted N	Weighted % HH	95% CI (lb.)	95% CI (ub.)
Any health insurance coverage					
No	125	11223	78.01	71.09	84.94
Yes	38	3163	21.99	15.06	28.91
Missing	5	-	-	-	-
Source of Coverage					
Harris FAP	5	331	2.31	0.03	4.6
Medicaid	18	1355	9.46	3.57	15.35
Medicare	31	2585	18.04	10.60	25.48
Military	6	530	3.7	0.35	7.06
Other Public Insurance	5	368	2.57	0.1	5.04
Private	83	7924	55.31	44.13	66.48
Self-Pay	6	519	3.62	0.00	7.38
State CHIP	2	140	0.98	0.00	2.42
Uninsured	7	574	4.01	0.64	7.38
Missing	5	-	-	-	-
Access to personal or family doctor					
No	28	2894	20.67	9.02	32.31
Yes	130	11109	79.33	67.69	90.98
Missing	10				
Difficulty getting medical services					
No	135	12011	83.86	77.24	90.47
Yes	28	2312	16.14	9.53	22.76
Missing	5	-	-	-	-

Table 3 | Continued

	Unweighted N = 168	Weighted N	Weighted % HH	95% CI (lb.)	95% CI (ub.)
Place visited most often to see a doctor					
A clinic of health center	57	5199	35.63	22.97	48.29
A doctor's office or other provider's office	88	7707	52.81	39.03	66.59
A hospital emergency room	9	707	4.84	1.35	8.34
A hospital outpatient department	10	803	5.50	1.61	9.40
Some other place	2	177	1.21	0.00	2.94
Missing	2	-	-	-	-
Reason for difficulty getting medical services					
Do not have a car or transportation	3	280	11.59	0.00	23.61
Do not have a doctor/clinic	4	353	14.63	0.00	29.83
Do not have enough money to pay for health care	6	464	19.21	4.14	34.28
Do not have insurance	11	950	39.33	20.30	58.35
Other reasons	5	368	15.24	2.64	27.85
Yes	139	-	-	-	-
Missing	3	280	11.59	0.00	23.61

N= Frequency of households (HH) | CI (ub)= Confidence interval upper bound | CI (lb) = Confidence interval lower bound

Table 4 | Weighted and unweighted frequencies of health status/wellbeing for households in Third Ward Houston, TX

	Unweighted N = 168	Weighted N	Weighted % HH	95% CI (lb.)	95% CI (ub.)
Personal Health Rating					
Excellent	31	3251	22.01	12.32	31.71
Very Good	39	3145	21.29	13.90	28.68
Good	57	5107	34.58	25.63	43.53
Fair	34	2728	18.47	10.17	26.78
Poor	6	449	3.04	0.68	5.41
Very Poor	1	88	0.60	0.00	1.84
Household Health Rating					
Excellent	30	3082	24.74	13.13	36.35
Very Good	39	3181	25.54	17.24	33.84
Good	44	3892	31.24	23.80	38.69
Fair	25	2036	16.35	9.10	23.59
Poor	3	265	2.13	0	4.56
Very Poor	39	3181	25.54	17.24	33.84
Missing	27	-	-	-	-
Heart Disease					
No	139	12398	87.52	81.57	93.48
Yes	21	1767	12.48	6.52	18.43
Missing	8	-	-	-	-
Blood Pressure					
No	103	9143	63.21	53.26	73.16
Yes	61	5321	36.79	26.84	46.74
Missing	4	-	-	-	-
Stroke					
No	152	13388	93.14	89.03	97.24
Yes	11	987	6.86	2.76	10.97
Missing	5	-	-	-	-
Asthma					
No	139	12383	87.15	81.4	92.9
Yes	22	1826	12.85	7.1	18.6
Missing	7	-	-	-	-
Cancer					
No	145	12611	89.38	82.94	95.82
Yes	15	1499	10.62	4.18	17.06
Missing	8	-	-	-	-

Table 4 | Continued

	Unweighted N = 168	Weighted N	Weighted % HH	95% CI (lb.)	95% CI (ub.)
High Cholesterol					
No	116	10579	74.08	67.24	80.93
Yes	45	3701	25.92	19.07	32.76
Missing	7				
Overweight/Obesity					
No	131	11665	81.21	74.32	88.1
Yes	32	2699	18.79	11.9	25.68
Missing	5				
Diabetes/High Blood Sugar					
No	132	11812	82.47	75.75	89.18
Yes	30	2511	17.53	10.82	24.25
Missing	6				
Poor Mental Health					
No	133	11547	80.82	72.53	89.12
Yes	29	2740	19.18	10.88	27.47
Missing	6				
Poor Physical Health					
No	141	12567	87.96	82.29	93.64
Yes	21	1720	12.04	6.36	17.71
Missing	6				
COPD					
No	151	13388	94.89	91.26	98.51
Yes	9	722	5.11	1.49	8.74
Missing	8				
Chronic Kidney Disease					
No	154	13661	96.21	93.53	98.9
Yes	7	538	3.79	1.1	6.47
Missing	7				
Emotional Problems					
Extremely	6	530	3.79	0.35	7.24
Quite a lot	15	1296	9.28	2.32	16.23
Moderately	24	2088	14.94	9.47	20.41
Slightly	22	2029	14.52	8.46	20.57
Yes	15	1499	10.62	4.18	17.06
Missing	8	-	-	-	-

CoN= Frequency of households (HH) | CI (ub)= Confidence interval upper bound | CI (lb) = Confidence interval lower bound

Table 5 | Weighted and unweighted frequencies of COVID characteristics and post COVID manifestations

	Unweighted N = 168	Weighted N	Weighted % HH	95% CI (lb.)	95% CI (ub.)
Positive COVID test or symptoms					
No	91	7416	51.13	41.05	61.21
Yes	74	7088	48.87	38.79	58.95
Missing	3				
Still Experiencing COVID symptoms					
No	50	5144	81.94	68.39	95.48
Yes	13	1134	18.06	4.52	31.61
Missing	105				
Time since diagnosis					
1 to 3 months	5	405	5.79	0.00	12.12
3 to 6 months	2	140	2.00	0.00	5.03
6 to 9 months	4	353	5.06	0.00	10.91
9-12 months	9	747	10.69	3.06	18.32
12 months or more	52	5346	76.46	63.82	89.1
Long COVID					
No	50	5144	81.94	68.39	95.48
Yes	13	1134	18.06	4.52	31.61
Missing	105				
Worst COVID symptoms					
No symptoms	3	486	7.04	0.00	16.17
Mild	25	2080	30.13	16.45	43.81
Moderate	32	3505	50.77	36.37	65.18
Severe	11	832	12.05	4.81	19.3
Missing	97				
Hospitalized for COVID					
No	61	6028	87.77	79.24	96.31
Yes	10	840	12.23	3.69	20.76
Missing	97				
Outpatient clinic visit after COVID recovery					
No	54	5505	79.73	69.38	90.09
Yes	17	1399	20.27	9.91	30.62
Missing	97				
COVID symptoms during infection					
Anxiety					
No	163	14312	96.91	94.31	99.51
Yes	5	457	3.09	0.49	5.69

Table 5 | Continued

	Unweighted N = 168	Weighted N	Weighted % HH	95% CI (lb.)	95% CI (ub.)
Brain Fog					
No	149	12619	85.44	76.34	94.54
Yes	19	2150	14.56	5.46	23.66
Chest Pain					
No	156	13782	93.32	89.30	97.34
Yes	12	987	6.68	2.66	10.7
Constipation					
No	165	14541	98.45	96.64	100.00
Yes	3	228	1.55	0	3.36
Depression					
No	165	14489	98.11	95.94	100.00
Yes	3	280	1.89	0	4.06
Diarrhea					
No	159	13775	93.27	88.43	98.10
Yes	9	994	6.73	1.9	11.57
Dizziness					
No	159	13782	93.32	88.16	98.47
Yes	9	987	6.68	1.53	11.84
Exercise Inability					
No	148	13105	88.73	83.36	94.10
Yes	20	1664	11.27	5.9	16.64
Hair Loss					
No	166	14592	98.80	97.09	100.00
Yes	2	177	1.2	0	2.91
Headache					
No	144	12063	81.68	72.32	91.03
Yes	24	2706	18.32	8.97	27.68
Heart Palpitations					
No	161	14180	96.01	92.73	99.29
Yes	7	589	3.99	0.71	7.27
Hypersomnia					
No	163	14312	96.91	94.31	99.51
Yes	5	457	3.09	0.49	5.69
Insomnia					
No	163	14371	97.31	94.37	100.00
Yes	5	398	2.69	0	5.63
Joint or Muscle Pain					
No	130	10726	72.63	62.34	82.91
Yes	38	4043	27.37	17.09	37.66

N= Frequency of households (HH) | CI (ub)= Confidence interval upper bound | CI (lb) = Confidence interval lower bound

Table 5 | Continued

	Unweighted N = 168	Weighted N	Weighted % HH	95% CI (lb.)	95% CI (ub.)
Menstrual Changes					
No	166	14592	98.80	97.09	100.00
Yes	2	177	1.2	0	2.91
Nightmares					
No	165	14489	98.11	95.94	100.00
Yes	3	280	1.89	0	4.06
Rash					
No	167	14681	99.40	98.16	100.00
Yes	1	88	0.6	0	1.84
Shortness of Breath					
No	144	12751	86.34	80.01	92.66
Yes	24	2018	13.66	7.34	19.99
Taste or smell changes					
No	142	11742	79.51	69.27	89.75
Yes	26	3027	20.49	10.25	30.73
Tiredness or fatigue					
No	111	9242	62.58	53.27	71.88
Yes	57	5527	37.42	28.12	46.73
COVID symptoms lasting 30 days or more					
Anxiety					
No	163	14327	97.01	93.02	100.00
Yes	5	442	2.99	0	6.98
Brain Fog					
No	162	14320	96.96	94.59	99.32
Yes	6	449	3.04	0.68	5.41
Chest Pain					
No	164	14497	98.16	96.28	100.00
Yes	4	272	1.84	0	3.72
Constipation					
No	166	14592	98.80	97.09	100.00
Yes	2	177	1.2	0	2.91
Depression					
No	162	14261	96.56	93.93	99.18
Yes	6	508	3.44	0.82	6.07
Diarrhea					
No	166	14629	99.05	97.65	100.00
Yes	2	140	0.95	0	2.35
Dizziness					
No	164	14541	98.45	96.64	100.00
Yes	4	228	1.55	0	3.36
Exercise Inability					

Table 5 | Continued

	Unweighted N = 168	Weighted N	Weighted % HH	95% CI (lb.)	95% CI (ub.)
No	163	14357	97.21	94.78	99.64
Yes	5	412	2.79	0.36	5.22
Hair Loss					
No	164	14416	97.61	94.18	100.00
Yes	4	353	2.39	0	5.82
Headache					
No	164	14460	97.91	95.15	100.00
Yes	4	309	2.09	0	4.85
Heart Palpitations					
No	164	14460	97.91	95.81	100.00
Yes	4	309	2.09	0	4.19
Hypersomnia					
No	164	14445	97.81	95.60	100.00
Yes	4	324	2.19	0	4.4
Insomnia					
No	164	14445	97.81	95.60	100.00
Yes	4	324	2.19	0	4.4
Joint or Muscle Pain					
No	159	14084	95.36	92.49	98.24
Yes	9	685	4.64	1.76	7.51
Menstrual Changes					
No	166	14629	99.05	97.65	100.00
Yes	2	140	0.95	0	2.35
Nightmares					
No	165	14489	98.11	95.94	100.00
Yes	3	280	1.89	0	4.06
Rash					
No	166	14629	99.05	97.65	100.00
Yes	2	140	0.95	0	2.35
Shortness of Breath					
No	162	14224	96.31	92.57	100.00
Yes	6	545	3.69	0	7.43
Taste or Smell changes					
No	165	14489	98.11	95.3	100
Yes	3	280	1.89	0	4.7
Tiredness or Fatigue					
No	164	14401	97.51	95.1	99.92
Yes	4	368	2.49	0.08	4.9
Weightloss					
No	163	14401	97.51	95.1	99.92
Yes	5	368	2.49	0.08	4.9

N= Frequency of households (HH) | CI (ub)= Confidence interval upper bound | CI (lb) = Confidence interval lower bound

Table 6 | Weighted and unweighted frequencies of behavioral characteristics for households in Third Ward Houston, TX

	Unweighted N = 168	Weighted N	Weighted % HH	95% CI (lb.)	95% CI (ub.)
Moderate Physical Activity					
No	26	2191	14.92	8.48	21.36
Yes	141	12490	85.08	78.64	91.52
Missing	1	-	-	-	-
Walk Outside Home Frequency					
Often	115	10295	73.91	65.42	82.39
Sometimes	24	1889	13.56	7.44	19.68
Seldom	16	1303	9.36	4.88	13.83
Never	6	442	3.17	0.00	6.43
Missing	7	-	-	-	-
Emotional Problems Keeping from Work					
Quite a lot	14	1215	8.81	2.63	14.98
Somewhat	16	1303	9.45	4.44	14.45
Very little	15	1270	9.21	3.87	14.54
None at all	112	10008	72.54	60.94	84.14
Missing	11	-	-	-	-
3 to 5 Fruit and Vegetable Servings					
No	50	4334	30.25	23.82	36.68
Yes	113	9993	69.75	63.32	76.18
Missing	5	-	-	-	-
Fruits and Vegetables at Grocery					
No	8	707	4.9	0.96	8.85
Yes	156	13709	95.1	91.15	99.04
Missing	4	-	-	-	-
Currently Controlling or Monitoring Weight					
No	51	5081	35.47	23.72	47.21
Yes	112	9246	64.53	52.79	76.28
Missing	5	-	-	-	-
Currently Smoke					
No	114	10398	71.69	63.99	79.4
Yes	51	4106	28.31	20.60	36.01
Missing	3	-	-	-	-


I
3W

Third Ward

CASPER 2023
FINAL REPORT

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