INTRODUCTION AND FINDINGS

Introduction
In early April 2020, the City of Austin Office of Sustainability reached out to Dell Medical School and UTHealth School of Public Health in Austin for assistance in identifying areas where there are unmet food needs in Austin pertaining to COVID-19. The team from the UTHealth School of Public Health analyzed 2-1-1 call data from January-April 2019 and January-April 2020 and performed geospatial analyses with 2-1-1 call data and access to food need assets to identify areas with unmet food needs related to COVID-19 in Travis County. Through this analysis we were able to gain greater understanding of food needs among 2-1-1 callers from Travis County as well as identify areas with high volume and percentage of food need calls with limited access to food assets.

Demographics of Callers
According to the 2019 2-1-1 Trends Report from the United Way for Greater Austin, a typical caller to 2-1-1 are single mothers who are having issues with economic and food insecurity factors. The findings of from our 2020 analysis validated these findings, in that callers to 2-1-1 are most commonly women, primarily speak English or Spanish, and have called 2-1-1 previously (but there was an increase in first time users in April 2020). There is higher call volume to 2-1-1 in the Eastern Crescent of Travis County. Many of the zip codes that make up the Eastern Crescent of Travis County have higher poverty rates, have a lower median income, and are predominantly racial/ethnic minority, according to 2018 American Community Survey data as shown in Figure 1.
Figure 1: Demographics of Travis County by Zip Code Using 2018 American Community Survey Data
FINDINGS

Overall and Food Need 2-1-1 Call Trends

In order to contextualize the seasonality and trends of 2-1-1 call data, we compared January, February, March, and April 2019 call data to January, February, March and April 2020 call data. Typically call volume is highest in January, then declines monthly through March and then increases slightly in April, as evident in the 2019 data. However, the following occurred in 2020:

- Increased overall call volume in March (7161 vs. 5326 calls) and April (9498 vs. 5659 calls) 2020 than in 2019.
- Increased food need call volume in March (1941 vs. 1125) and April* (4123 vs. 1203 calls) 2020 than in 2019
  - *Note: the primary driver for this increase in food need calls in April 2020 were SNAP-related transfer, information and referral calls to 2-1-1 which were then transferred to Health and Human Service Commission (HHSC).
- The majority of calls to 2-1-1 were regarding health/mental health, food, and housing issues, which was also the case in March and April 2020.

When analyzing by week as seen in Figure 2 of note:
- There was a clear increase in call volume during the week of March 15-21, 2020, which was the same week as Governor Abbott’s order promoting self-quarantining, and closure of bars, gyms and restaurants (dine-in) (on March 19, 2020).
- The week of March 22-28, 2020 also had a high call volume, which is the week that the shelter-in-place order for Austin went into effect.
- Total call and food need specific call volume increased dramatically during the weeks of April 5-11th and 12th-18th respectively, and Governor Abbott extended the state of disaster on April 12th.
Overall and Food Need 2-1-1 Call Trends Continued

- As previously stated, the main drivers for this call increase were due to the high volume of calls to 2-1-1 that were transferred to HHSC on SNAP.
- The final week of April seems to decrease rather dramatically, but the data presented are only for five days (April 26th-30th), thus analysis of May data would be needed to fully understand the call patterns of that week.

Figure 2: Overall and Food Need 2-1-1 Calls in Travis County in March and April 2020 by Week
Spatial Examination of Food Need 2-1-1 Calls–March/April 2020

Spatial analysis of the 2-1-1 overall and food call data for Travis County required translating the 2-1-1 call data from March and April 2020 to be mapped by zip code and including locations of COVID-19 food assets that were listed on ConnectATX.org that were located in Travis County and open during the respective months. With this analysis there were several key trends:

- The majority of callers to 2-1-1 (overall and for food needs) were from zip codes located in the Eastern Crescent of Travis County.
- Areas with the highest proportion of their calls regarding food needs in March and April 2020 are shown in Figures 3 and 4 respectively. Also, locations of COVID-19 food assets are shown in these figures as well.
- There was an increase in the number of zip codes with a higher proportion of food needs in April 2020 than in March 2020.
- There were fewer COVID-19 food assets in April than in March because many closed in order to develop strategies and systems to ensure safety for their employees and clients (such as having sufficient PPE, adapting to drive thru or curbside strategies, etc.). Future analysis of May and subsequent months will provide greater insight since some of these locations have since opened back up.
- There are pockets in western and eastern Travis County that do not have COVID-19 food assets located within the zip code. These pockets located within the Eastern Crescent are particularly alarming given the high call volume to 2-1-1 and the historically underserved communities in these areas.
Figure 3: Percent of Food Need Calls to 2-1-1 by Zip Code and COVID-19 Food Needs Assets in Travis County in March 2020
Figure 4: Percent of Food Need Calls to 2-1-1 by Zip Code and COVID-19 Food Needs Assets in Travis County in April 2020
Conclusion and Recommendations

Given our analysis, zip codes with potential unmet food needs have been identified. There are a couple of key zip codes of interest as areas with unmet food needs, specifically: 78754, 78747, 78724. All three of these zip codes are located in the Eastern Crescent and are zip codes that had a high overall and food need call volume to 2-1-1 in March and April 2020. Additionally, there are COVID-19 food assets only located in neighboring and not within the zip code as of April 2020. While there are other zip codes with a high proportion of food needs calls within zip code outside of the Eastern Crescent of Travis County, these areas have a small total call volume, thus future analysis should be conducted to further examine these trends. Furthermore, the greatest call volume of food needs calls to 2-1-1 exists in other zip codes in the Eastern Crescent that do have food needs assets located within the zip code. These resources should not be shifted or removed given the high need in these areas. Continued analysis of 2-1-1 call data in May and June 2020 can help further identify call trends and areas with unmet food needs.

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