# COVID-19 Monthly Epidemiological Report Released 11/9/2020

Unless otherwise indicated, all analyses conducted for this report are based on data within the Bexar County case management system up to 11/1/2020.

## Key Takeaways from this Report

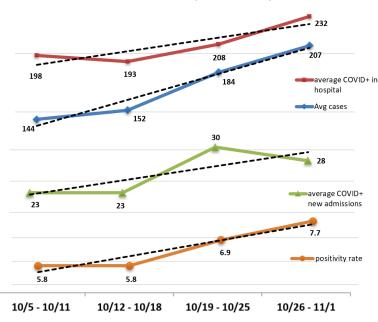
- Compared to September, the month of October showed a modest but steady increase in COVID-19 cases and hospitalizations.
- Total number of tests at no-cost testing sites increased by several thousand in October compared to September.
- Males are less likely to get tested for COVID-19 but more likely to die from it, indicating a need to emphasize messaging to the male population.
- Young adults in their 20s and 30s are getting COVID-19 at higher rates than the general population, and their case rate particularly spiked in June right before the summer surge that swept Bexar County in early July. This indicates that the rate of infection among young adults may be an early warning indicator of a surge in cases.
- Older individuals account for the lowest proportion of cases but carry the highest burden of COVID-19 disease severity leading to death.
- Hispanic/Latino cases continue to carry a disproportionate burden of hospitalization and death from COVID-19.
- When comparing September cases to October Cases, many of the zip codes with the largest relative improvement coincide with zip codes targeted for testing and community outreach by the City's COVID-19 Community Health and Prevention team (CHP), suggesting that the targeted efforts by the team are making a valuable impact.
- Among COVID-19 cases with occupation data, the most common occupational settings of cases include: 1) Retail, Customer Service, and Sales; 2) Health Care and Public Health; and 3) Grocery, Food Service, and Restaurants.
- Total number of cases that were potentially infectious while at school increased 3-fold from September to October.
- Male COVID-19 cases have an 18% higher risk for hospitalization and a 38% higher risk of death compared to females. This particularly occurs in the older age groups (60 and above).

# I. Current Status and Overview of COVID-19 in Bexar County

October marked month 8 of the COVID-19 pandemic affecting Bexar County. While the months of August and September showed a decline in case numbers and progress towards a milder phase of the pandemic, the month of October showed a modest but steady increase in COVID-19 cases and hospitalizations (graphic).

More than 8,000 additional COVID-19 infections occurred across the month of October. In the 3<sup>rd</sup> week of October, Bexar County's COVID-19 risk level moved from 'Low' to 'Moderate'.

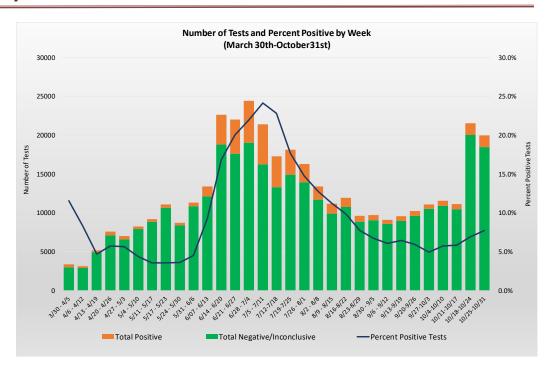
## Trends for each week (Mon-Sun) in October



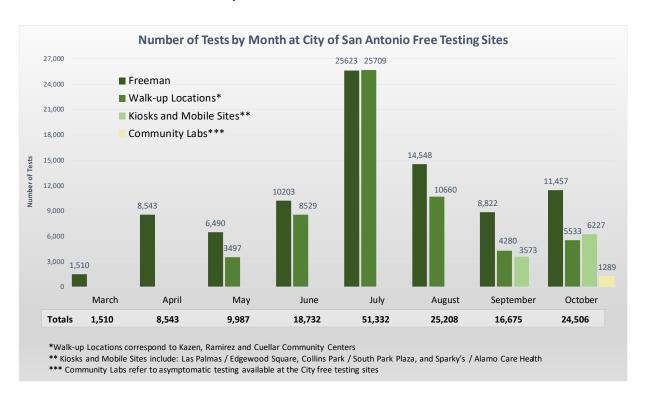


# II. Testing & Positivity Rate

The Bexar county COVID-19 weekly positivity rate reached a record high (24.2%) in early July and steadily declined to 4.9% at the end of September. In early October, the positivity rate began to trend upwards again, reaching 7.7% in the last week of October.



Looking back at monthly tests at no-cost testing sites in San Antonio, the month of July saw the highest numbers with more than 50,000 tests conducted at these sites. This corresponds with the exponential increase in cases that began at the end of June/early July and continued until early August. Number of tests dropped in August and September, however it began to increase again as of October. A total of 16,675 tests at were provided at no-cost testing sites in September, while number of tests increased to 24,506 in October.

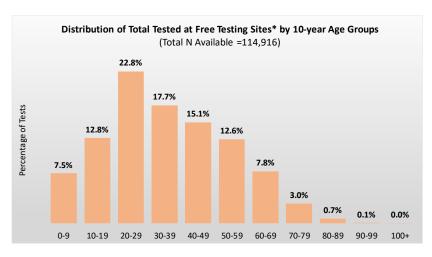


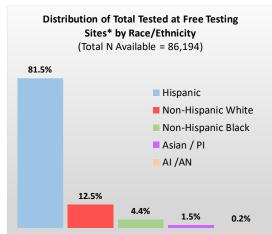


## Demographic Characteristics among those Tested at No-cost, City Run Testing sites

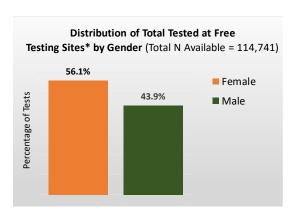
(\*Data available only includes testing sites for symptomatic individuals)

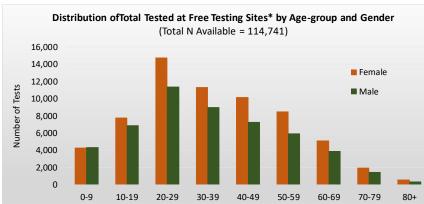
The demographic distribution of those tested at no-cost testing sites is similar to the distribution that has been seen among cases. Those in the 20-29 age group account for the largest proportion among total tests. In addition, tests among Hispanic/Latinos account for more than 80% of total tests, compared to Hispanic/Latinos accounting for 60% of the Bexar County population.





When looking at the distribution of total tested by gender, females account for a larger proportion than males. This is seen overall as well as within each 10-year age-group. A possible explanation for this may be that women are exposed to COVID-19 more so than men (e.g. due to caregiving occupations). However, an equally plausible explanation could be that women are more likely to seek testing; this is in line with the higher rate of health-seeking behaviors seen among women in general.

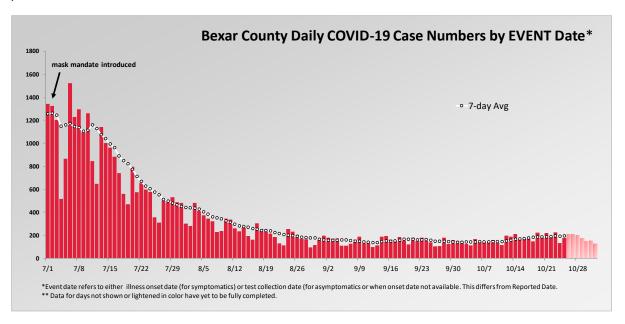




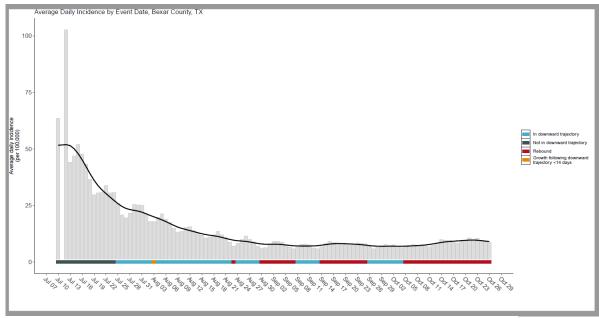


# III. Trends & Demographic Characteristics among COVID-19 Cases

Similar to the month of September, daily case numbers in October have generally remained under 300. However, the number of days with case numbers close to or above 200 have been more frequent in October, particularly in the 2<sup>nd</sup> half.



The graph of daily cases (as an incidence rate per 100,000), using a statistically enhanced method\*, identifies the trajectory of trends in cases occurring over time. The modest increase in case numbers starting early October has moved us away from a downward trajectory that we were experiencing for the majority of September. We are currently in a rebound phase.

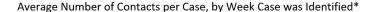


\*Method uses a 3-day rolling average in a cubic smoothing spline, as specified by the CDC: <a href="https://www.cdc.gov/coronavirus/2019-ncov/downloads/php/CDC-Activities-Initiatives-for-COVID-19-Response.pdf">https://www.cdc.gov/coronavirus/2019-ncov/downloads/php/CDC-Activities-Initiatives-for-COVID-19-Response.pdf</a>



## **Characteristics of Close Contacts among Cases**

- Based on close contact data from August to October, 14% of close contacts specified that they received a COVID-19 test or intended to do so. Of those who did specify getting tested, more than half (56%) indicated that they tested positive for COVID-19.
- Bexar County cases identified the highest number of close contacts in late May and early June, prior to the surge that commenced at the end of June. This suggests that the lower levels of caution and restriction occurring at that time contributed to the surge that was to come. Starting in July, the average number of close contacts per case began to decrease, suggesting that the implementation of strong public health measures and messaging in the face of the surge began to take effect.





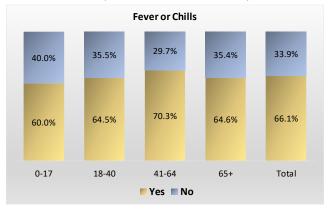
## **Symptom Status among Cases**

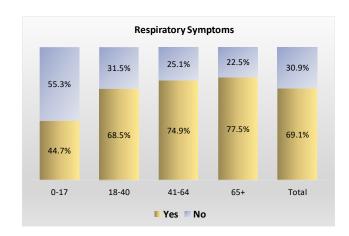
- Similar to the last month, approximately 83% of cases to date (with symptom data available) have expressed having symptoms due to their COVID-19 infection, while 17% are indicated as having no symptoms at the time of the case investigation.
- Among all age-groups, fevers, chills, and respiratory symptoms were more commonly reported as COVID-19 symptoms than diarrhea or vomiting. Pediatric cases experienced respiratory symptoms, diarrhea, and vomiting less prominently than those in other age-groups.

#### Diarrhea or Vomiting 61.4% 65.3% 64 5% 65.2% 78.0% 38.6% 34.7% 35.5% 34.8% 22.0% 0-17 18-40 41-64 65+ Total ■ Yes ■ No

#### Symptom Status by Age-group

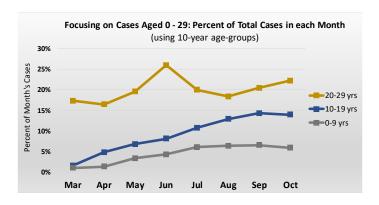
(Total N available = 21,239)

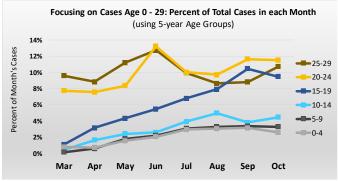




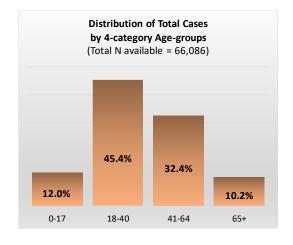


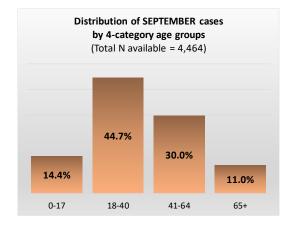
- The distribution of COVID-19 cases by age-group has remained consistent over the past several months (see previous Epi report published in October). As previously reported, 22% of cases to date (i.e. more than 1 in 5) have been in their 20s. Those in their 30s follow closely behind, making up 18% of total cases to date.
- Focusing more specifically on younger cases, the two graphics below show the contribution of those under 30 to the total case load in each month of the pandemic. When examining by 10-year age groups (left graphic), those in the 20-29 age group consistently accounted for the largest proportion of cases each month, and particularly showed a spike in the month of June just when the summer surge began. Those in the 10-19 age group accounted for a low proportion of cases in the early months of the pandemic but their relative proportion became notably larger with each passing month. When further dissecting by age-group (right graphic), it becomes evident that the monthly increase in the proportion of cases that are in the 10-19 age group is largely attributed to those specifically between 15-19 years of age.

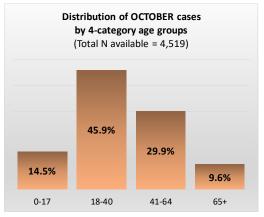




Similar to previous reports on the age distribution of cases, pediatric cases have consistently accounted for 12% of total cumulative cases. However, when looking only at cases that occurred in September or only cases that occurred in October, the proportion of cases that are pediatric is slightly higher, at 14%.



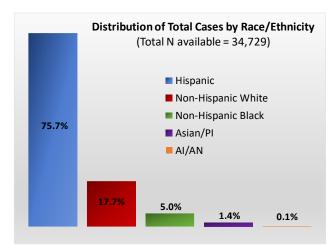






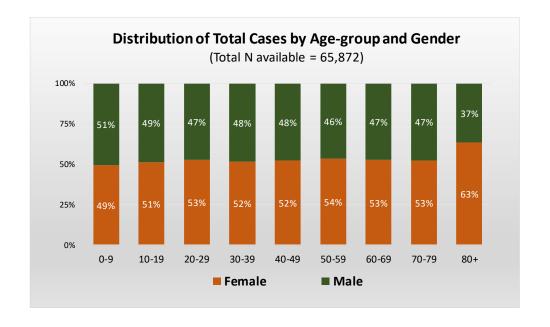
The distribution of total cases according to race/ethnicity has also remained consistent in the past several months. Among cases with race/ethnicity data available, Hispanic/Latinos continue to account for more than three-quarters of total cases, despite composing only 60% of the population.

Note: A large proportion of cases are missing race/ethnicity data, which may lead to an underestimation for some racial/ethnic groups and overestimation for others. In addition, differential misclassification of cases' race/ethnicity by any external data collection entity (e.g. hospitals, doctors, labs. Contact tracers) can lead to misleading findings.



PI=Pacific Islander; AI/AN = American Indian/Alaska Native

At 53%, females account for a slightly larger proportion of total cases to date. When examining by 10-year agegroups, this is similarly seen in the young adulthood and older age groups. As stated earlier in this report, this may be due to a higher burden of exposure to COVID-19 among females (e.g. due to occupational characteristics, but it can also result if infected females are going out to get tested more so than infected males.



# IV. The Extent of COVID-19 in the Bexar County Population

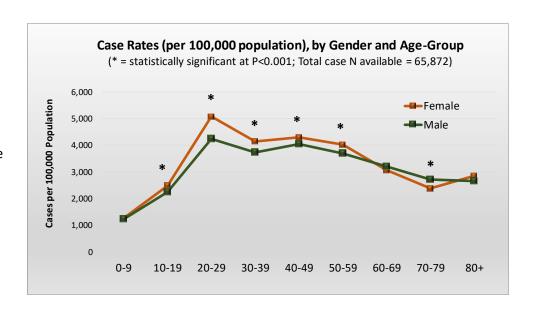
In addition to examining the characteristics among COVID-19 cases, it is also important to examine the extent that COVID-19 has reached in the population. The cumulative COVID-19 case rate\* (including both probable and confirmed cases) in Bexar County is now approximately 3,375 per 100,000 population, compared to being just under 3,000 per 100,000 population one month ago.

The case rates by 10-year age-groups show a pattern similar to last month (see previous Epi report published in October). The 20-29 age group has the highest case rate, followed by the 40-49 and 30-39 age groups.

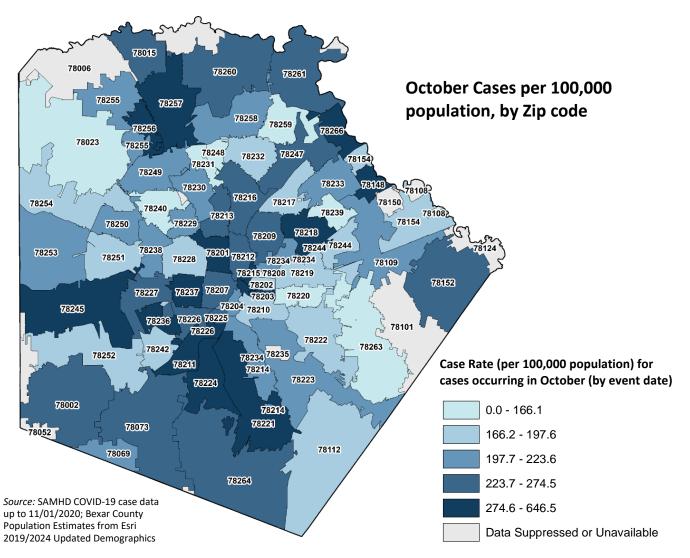
(\*Note: this month case rates are shown per 100,000 population instead of per 10,000 population, in order to better align with methods by CDC).



Similar to gender patterns shown in sections above, case rates among females in Bexar County are higher overall than among males. This is also seen when examining by 10-year age groups, particularly the 10-19 through 50-59 age group as well as the 70-79 age-group.

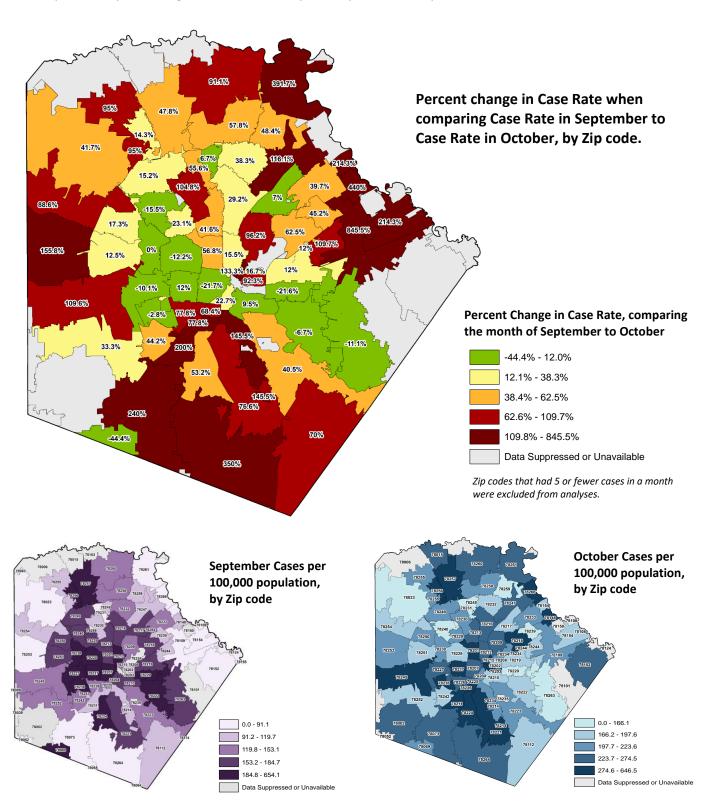


# **Geographic Distribution of COVID-19 Cases**





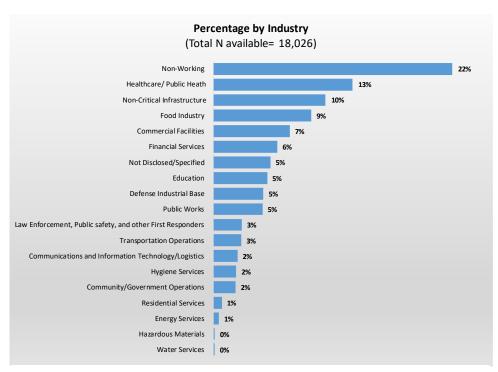
The red and green map below shows 'growth' or 'reduction' in monthly COVID-19 burden for each zip code, comparing cases that occurred in the month of September to those occurring in October. Zip codes in red and dark red indicate that the % growth in case numbers were notably high for those zip codes. Zip codes in green, such as 78210, 78207, and 78227 indicate an improvement in their COVID-19 status over the past month. These zip codes have particularly been targeted for outreach by the City's Community Health and Prevention team.





# VI. COVID-19 & Occupation

Based on the occupation data available from COVID-19 cases, the highest proportion of cases fell in the "Nonworking" (e.g. retired, disabled, unemployed) category. For those working, the most common occupation /Industry categories were "Non-Critical Infrastructure" (e.g. Retail, Customer Service, Sales) followed by "Healthcare/ Public Health" (e.g. Nurse, Physician, Health care worker) and "Food Industry" (e.g. Grocery, Restaurant Food Service).

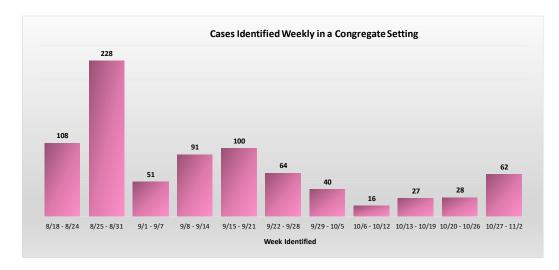


Note – occupations specified by Cases refer to place of work, and are not necessarily related to or indicative of where the case became exposed to COVID-19.

\*Categories are selected from the Essential Critical Infrastructure Workers Guidance Version 4.0 - which provides guidance on how jurisdictions and critical infrastructure owners can use the list to assist in prioritizing the ability of essential workers to work safely while supporting ongoing infrastructure operations across the nation: <a href="https://www.cisa.gov/identifying-critical-infrastructure-during-covid-19">https://www.cisa.gov/identifying-critical-infrastructure-during-covid-19</a>

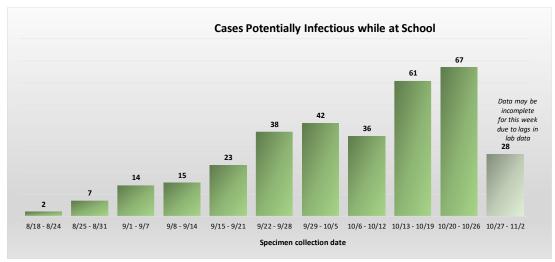
# VII. Congregate Setting & School-related Cases

Cases occurring in a congregate setting steadily dropped in the month of September as well as early October, however a slight uptick occurred again in late October. Similar to that reported last month, total number of deaths associated with a congregate setting is 260.





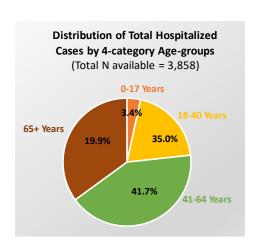
**Total number of cases that were potentially infectious while at school increased 3-fold between September and October.** *Note: this does not indicate that the infection was a result of being exposed to COVID-19 at school.* 

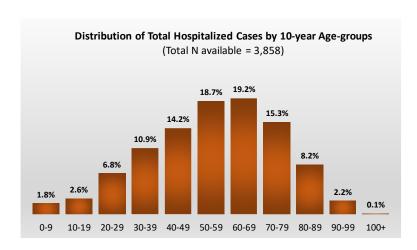


# VIII. Hospitalizations and Deaths Among COVID-19 Cases

# Hospitalizations

Demographic patterns among those hospitalized are largely similar to that reported in previous reports. Pediatrics account for slightly more than 3% of cases hospitalized to date. In addition, 1 out of every 5 hospitalized cases has been someone between 18-40 years of age.

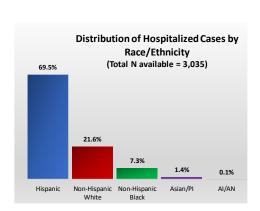


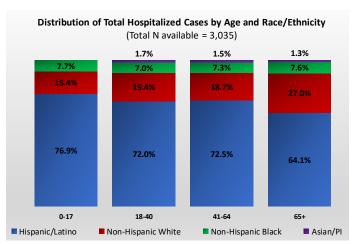


Hispanic/Latinos are disproportionately hospitalized compared to their respective population size in Bexar County. This is also observed when examining hospitalizations by age group. For example, 77% of pediatric cases hospitalized to date have been Hispanic/Latino, while only 68% of children the Bexar County are Hispanic/Latino.



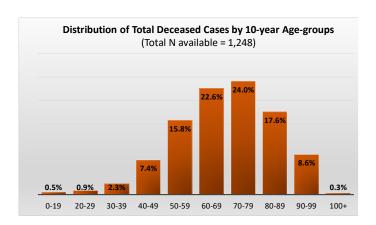


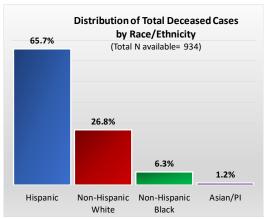




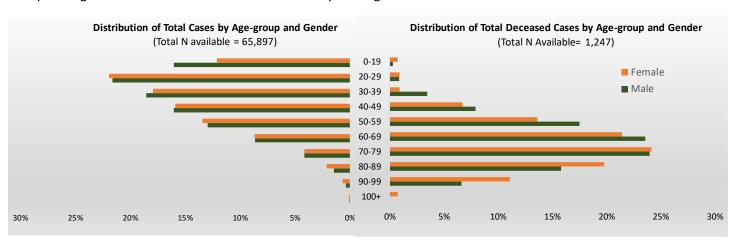
#### **Deaths**

Demographic patterns among total deceased cases are largely similar to that previously reported. **Hispanic/Latinos** carry a disproportionate burden of death due to COVID-19.



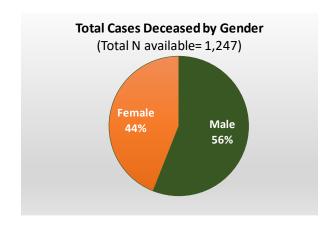


The graphic below demonstrates the distribution of cases vs. deceased according to 10-year age-groups and stratified by gender. Whether looking among males or females, the proportion of cases decreases with age while the proportion of deaths decreases with age. This demonstrates that older individuals account for the lowest proportion of cases but carry the highest burden of COVID-19 disease severity leading to death.





While females account for a higher proportion of cases (see sections above), males carry a higher burden of disease severity. Males account for 56% of total deceased cases while females account for 44%.

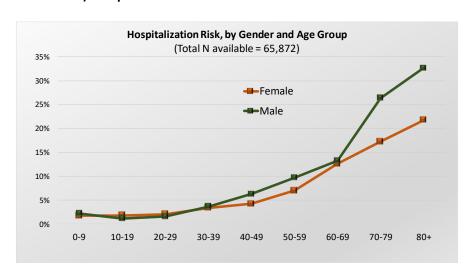


## IX. Risk of Hospitalization and Death

Risk of hospitalization or death due to COVID-19 can vary according to several characteristics, including age, gender and underlying conditions. This month, risk of hospitalization and death according to these characteristics are largely similar to last month (see previous Epi report published in October).

According to data as of 11/01/2020, Male COVID-19 cases have an 18% higher risk of hospitalization (risk ratio = 1.18) and a 38% higher risk of death (risk ratio = 1.38) compared to females.

When examining gender differences in hospitalization risk by age-group, younger males and females largely experience the same level of risk. However, gender differences in risk of hospitalization begin to surface after 60 years of age.



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