



GENERAL POPULATION

Location	Cases	Deaths	Recovery	Total tests	Cases per 1000	Fatality rate (%)
World	142,116,751	3,035,300	120,847,173	N/A	18.2	2.14
USA	32,406,753	581,068	24,961,242	429,223,358	97.7	1.79
Texas	2,854,153	49,820	1,707,416	27,053,574	132.9	1.75
Bexar County	211,422	3,422	N/A	2,292,905	143.8	1.62

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Metropolitan Health Department Monthly Epidemiological Report (March 2021)

<https://covid19.sanantonio.gov/About-COVID-19/Dashboards-Data/Epidemiological-Reports>

- Continued Decrease in New Cases
 - The number of new COVID-19 cases continued to decline during March 2021, with the addition of 5,620 new cases with event date* during March. This is 2.7% of all cases to date. Young adults ages 20-29 contributed 22% of the March total.
 - 209,470 individuals are known to have had COVID-19. The age-adjusted case rate is 10,687 (per 100,000 population).

*Event date is the date of symptom onset or first positive COVID-19 test, whichever is known to occur first.

- Hospitalizations and Deaths
 - New COVID-19 hospital admissions continued to decline throughout March, leveling off on about 3/20/2021; daily new admissions averaged 33 per day. COVID-19 hospital occupancy also declined, to a daily average census of 245 beds.
 - By the end of March, daily counts of ICU patients and those on ventilators declined to 68 and 29 respectively.
 - ICU patients and those on ventilators peaked also declined by approximately 50%.
 - 169 deaths occurred during March, bringing the total to 3,276 deaths from COVID-19. Case fatality rate is 1.6%, higher for males (1.9%) than females (1.3%). Greatest risk of death is among the most elderly: 20% for cases 80+ years of age.
- Other Trends
 - For most of March, COVID-19 test positivity has remained below the target benchmark of 5%.
 - During March, 20 deaths occurred in Congregate settings, the lowest since the pandemic began.



MEDICALLY AT-RISK POPULATIONS

LATINX POPULATION

- As of April 16, 2021, Hispanic and Latino people were 3.0 times more likely than non-Hispanic white people to be hospitalized and 2.3 times more likely to die from COVID-19 infection.
- Disparities are attributed to co-morbidities, smaller living spaces, working frontline jobs, language barrier, loss of health insurance, and fear of losing immigration status. Diabetes, heart disease, and cirrhosis are co-morbidities and have an increased prevalence in Hispanic populations compared to other racial and ethnic groups.

Recommendation: Despite increasing data on racial and ethnic epidemiology, more data is needed to fully characterize the effects of COVID-19 on Latinx population, including the consideration of sex and race on hospitalization rates. Evidence suggests that disparity may be worsening due to lack of education and health awareness for Latinx people. National programs (such as CDC's REACH program) and local programs (such as Penn State Project ECHO) are being implemented to increase education and resources dedicated to the Latinx community. These community programs and partnerships are particularly effective at connecting Latinx communities with testing services and increasing the trust that Latinx communities have with said services. More programs at local, state, and national levels should be implemented to educate Latinos by translating information into Spanish and increasing outreach. As vaccination efforts continue across the United States, the racial and ethnic data of those receiving vaccines should be reported to ensure that disparities in vaccination are rapidly identified and addressed.

AFRICAN AMERICAN POPULATION

- A CDC report in April 16, 2021, shows that non-Hispanic black people were 1.4 times more likely to seek care for COVID-19 at an ED than non-Hispanic whites from Oct-Dec 2020.
- In the US, African Americans make up 30% of the (ESKD) population, who experience worse morbidity and mortality outcomes as a result of COVID-19 infection as compared to patients without kidney failure.

Recommendation: Documenting racial/ethnic variations in testing and treatment is essential. Public health officials must prioritize prevention activities in Black communities. Prioritizing access to early testing and equitably applied interventions (including vaccine administration and novel treatments) may alleviate the disparity of disease burden. The relationship between systemic racism and social determinants of health must be examined to increase health outcomes for historically underserved populations as well as to prepare for future infectious disease circumstances.



INCARCERATED POPULATION

- As of March 3, 2021, over 620,000 confirmed cases of people incarcerated in US prisons and detention centers were reported. Incarcerated individuals are 5.5 times as likely to be infected as the general population and 3 times more likely to die from Covid-19 infection. The mean age of death attributable to COVID-19 in ICE detention centers in 2020 was 56.9 years, compared to the overall U.S. mean of 78 years. Over a third of all incarcerated individuals have underlying conditions that make them high-risk for infection, hospitalization, and death. Over 81,000 incarcerated individuals are older than 60 years.
 - The SARS-CoV-2 basic reproduction number in large U.S. urban prisons is 8.44, which exceeds the threshold for which the effectiveness of vaccination is significantly diminished.
 - A COVID-19 outbreak from August 14 to October 22, 2021, at a Wisconsin correctional facility was investigated and found that risk for transmission increases when incarcerated people are transferred to facilities together. At the facility, 79% of people who were incarcerated and 23% of staff members tested positive for COVID-19, highlighting that transfers increase the risk of wider transmission.

Recommendation: Prevention efforts in incarcerated settings should prioritize both decarceration and vaccination. Due to overcrowding, poor sanitation, and poor ventilation in correctional facilities, vaccination alone may not be effective in protecting vulnerable subpopulations from infection, hospitalization, and death from COVID-19 infection. Decarceration efforts early on in the pandemic have shown effectiveness in minimizing transmission of infection in prisons.

PEDIATRIC POPULATION

- Children and adolescents (below 18 years of age) account for 11.5% of confirmed cases in the US.
 - From March 1, 2020 to March 7, 2021, in the US, 21,893,154 cases of COVID-19 were confirmed in people 0-24 years old. People 0-4 years old made up 2% of cases and 5-17 made up 9.5%. Older children (10-18) may have a higher secondary attack rate compared to younger children (under 10).
 - While most cases in children are mild, severe illness requiring hospitalization and mortality do occur. One in three children who are hospitalized are admitted to the ICU. Children with preexisting comorbidities and infants are at higher risk for severe illness.
- Whether children transmit COVID-19 less readily than adults is controversial. Recent literature indicates children may have similar transmission rates as adults.
 - A large contact tracing study in India found no difference in infection risk between contacts of adults and contacts of children infected with COVID-19.

Recommendation: Clinicians should monitor for progression of illness in children, especially in infants, and children with pre-existing conditions. Public health efforts should ensure equitable allocation of testing and culturally appropriate prevention education. More research is needed to determine the modifiable reasons for disparities in COVID infection rates and hospitalizations. Schools will need to have adequate preventive measures (distancing, sanitization, and air ventilation and filtration) to reopen safely. Close contact sports in which mask wearing is not safe should be postponed due to increase in transmission rates.

MALE POPULATION

- Males face a greater incidence, longer clinical course, and mortality than women.
- Disparities might be due to prevalence of co-morbidities and higher presence of angiotensin-converting enzyme 2 (ACE-2) in males.

Recommendation: The sex and gender disparities observed in COVID-19 vulnerability emphasize the need to better understand the impact of sex and gender on incidence and case fatality of the disease and to tailor treatment according to sex and gender. Clinical suspicion, accompanied by a relevant epidemiological history, should be followed by early imaging and a virological assay.

PREGNANT POPULATION

- There is minimal evidence of vertical transmission and no evidence of transmission through breastfeeding. Risk for pregnancy related complications is inconclusive, but there is evidence of increased risk of preeclampsia, caesarian delivery, and pre-term birth.

Recommendation: Systematic screening of potential COVID-19 infection during pregnancy and extensive intensive follow-up for confirmed mothers and their fetuses is recommended. Breastfeeding can be continued if the parent is COVID-19 positive but precautions (hand washing before touching the infant and mask wearing) should be taken. There is still uncertainty if COVID-19 can cross the placenta in-utero but study suggest low rates of vertical transmission of COVID-19 during the third trimester. Ensuring proper social distancing, handwashing, and mask-wearing might decrease COVID transmission to pregnant women, which could lower hospitalized and COVID-related illness.

LGBTQ+ POPULATION

- Specific data is not collected on COVID-19 incidence, hospitalizations, or mortality in the LGBTQ+ population.
- The pandemic has exacerbated social and economic stressors on this population, increasing unemployment and poor mental health status, while decreasing access to routine care, medication and mental health services.

Recommendation: Telehealth and a mailed specimen self-collection services should be developed to ensure continued access to mental health care (including to address the mental health impacts of social distancing) and HIV/STI prevention and treatment. To avoid exacerbating health disparities, large-scale seroprevalence studies must be deployed to better understand the potential co-morbidity of HIV and SARS-CoV-2 among MSM. LGBTQ individuals may also benefit from periodic home-calls from healthcare providers. This is to ensure that these individuals are not in any dangerous/unfavorable situations at home while under stay-at-home orders. These home-calls should include a multidisciplinary team of providers who can provide care in different aspects of the individual's life. While home-calls can be beneficence, those who are living in homes where their LGBTQ status is unknown or not supported at home, a secure text-based support may provide a better way to ensure the individuals privacy and safety.

VACCINATION DISTRIBUTION

VACCINATION COVERAGE AND DISPARITY

- From December 14, 2020 to March 1, 2021, 51,873,700 residents of 49 U.S. states and DC received at least one dose of COVID-19 vaccine. Counties with low social vulnerability index (SVI), a CDC-approved metric reflective of 15 social indicators as listed in the figure below, have 1.9% higher vaccination coverage than high SVI counties (15.8% v 13.9%).
- Counties with high social vulnerability, which tend to represent communities of color, were more likely to be a COVID hotspot.

Recommendation for effective vaccine allocation:

- Local communities should play a key role in the promotion and delivery of vaccines; opinion leaders, faith leaders, community health workers and navigators are essential in educating vulnerable communities and assisting individuals to get vaccinated.
- Data on vaccination uptake must be timely, transparent, and disaggregated by key demographic indicators, such as race/ethnicity, gender, age and income level. Such data can be used to identify and address bottlenecks and gaps to improve equality and equality in vaccine dissemination.

INTENTION TO VACCINATE

- In late 2020, 45% of residents from 3 prisons and 13 jails in four states (Washington, California, Florida, and Texas) expressed an intent to be vaccinated.
- From September to December 2020, household panel surveys were conducted to gauge intent to receive COVID-19 vaccination. Intent increased from 39.4% to 49.1% among adults and across all priority groups, and nonintent decreased from 38.1% to 32.1%.
 - Despite decreases in nonintent, younger adults, women, non-Hispanic Black adults, adults living in nonmetropolitan areas, adults living in jails, and adults with less education and income, and without health insurance have the highest of nonintent to receive COVID-19 vaccination.

Recommendation: Tailoring information to address concerns of individual communities is effective in increasing intent of vaccination. Educate essential workers, minority populations, and the public about the safety of the vaccine development process, and the known effectiveness and safety of authorized COVID-19 vaccines helps boost confidence. Health care providers are a trusted resource of information about vaccines and can use CDC guidance to talk to patients about the need for vaccination.