



GENERAL POPULATION

Globally

- As of 6/1/2020, there have been a total of 6,217,949 cases reported (**Cases/1,000~0.80** based on a population of 7.8 billion; ↑ from **0.61** on 5/18.), 2,667,262 patients recovered, and 373,032 fatalities (**6.0% fatality rate**; ↓ from **6.64%** on 5/18) from COVID-19.

United States

- As of 6/1/2020, there have been a total of 1,795,555 cases reported (**Cases/1,000~5.47**, based on a population of 328.2 million, ↑ from 4.54 on 5/18), 444,758 patients recovered, and 104,584 fatalities (**5.85% fatality rate**, ↓ from **6.01%** on 5/18) from COVID-19. A total of 16,794,182 tests have been performed.

Texas

- As of 6/1/2020, there have been a total of 64,287 cases reported (**Cases/1,000~2.24**, ↑ from **1.56** on 5/18), 42,423 patients recovered and 1,672 fatalities (**2.6% fatality rate**, ↓ from **2.81%** on 5/18) from COVID-19. There is an estimate of 20,192 active cases with a total of 1,073,491 tests performed.

San Antonio

- Bexar County: As of 6/1/2020, there have been a total of 2,825 cases reported (**Cases/1,000~1.35**, ↑ from **1.03** on 5/18), 1,337 patients recovered and 73 fatalities (**2.59% fatality rate**, ↓ from **2.92%** on 5/18) from COVID-19. There is an estimate of 1,144 active cases with a total of 52,336 tests performed.



MARGINALIZED POPULATIONS

African American Population

- In the United States, the infection rate is more than 3-fold higher and the death rate is 6-fold higher in predominantly black counties than in predominantly white counties. In California, the odds of hospitalization is 2.7x higher when compared to non-hispanic whites.
- Some reports suggest the COVID-19 discrepancy is due to a higher rate of comorbidities in the African American population, but recent studies found that persisting social inequities, such as poverty, racial discrimination and spatial exclusion, also play a role.
- Other systematic and structural factors such as implicit bias from providers also needs to be further investigated with a special attention to Do Not Resuscitate (DNR) orders in their patients.
- Recommendation: With specific COVID-19 medical coding, documenting racial/ethnic variations in testing and treatment is essential. Public health officials must prioritize prevention activities in communities and racial/ethnic groups most affected by COVID-19.

LatinX Population

- In Chicago, Baltimore and parts of California, Oregon, Washington and Iowa, the LatinX population has seen a higher infection rate.
- In NYC, a higher mortality rate is present (74.3/100,00 vs 45.2 in the white population).
- Possible causes include LatinX workers having less flexibility to work remotely, less access to healthcare and language barriers.
- Recommendation: The potential impact of both sex and race on COVID-19-associated hospitalization rates, needs to be confirmed with additional data.

LGBTQ Population

- The LGBTQ Population may be more at risk for COVID-19 due to increased tobacco rates usage (50% greater than general population), higher rates of HIV and cancer, and health disparities (both pre-existing and current).
- A large survey (n=1051) of men who have sex with men (MSM) population found that 25.4% of participants reported decreased access to STI testing or treatment.
- Recommendation: To avert increased HIV and STI incidence, steps need to be taken immediately to improve access to HIV prevention and treatment services, such as telehealth and mailed self-collection of specimens. To avoid exacerbating health disparities, large-scale seroprevalence studies need to be deployed to better understand potential co-morbidity of HIV and SARS-CoV-2 among MSM.



MEDICALLY AT RISK POPULATIONS

Male Population

- A greater incidence of disease and mortality as well as a longer clinical course for COVID-19 infection in the male versus female population has been documented.
- The strongest support for the COVID-19 discrepancy in males is linked to the pathophysiology of the virus. Angiotensin-converting enzyme 2 (ACE2) is a functional receptor for coronaviruses and is highly expressed in the heart, lungs, kidneys and testis. Levels are generally higher in males versus females.
- Comorbidities may also play a factor in the COVID-19 discrepancy.
- 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

- To date, there is no evidence of vertical transmission of COVID-19 barring 1 case study in Peru.
- In terms of clinical outcomes, data is still limited and conflicting. Most studies agree that clinical manifestations and severity are similar between pregnant and non-pregnant adults, however, one systematic review found that COVID-19 infection was associated with a relatively higher rate of preeclampsia and caesarian.
- Several studies found a higher rate of preterm birth though other poor perinatal outcomes are less supported.
- Recommendation: Systematic screening of any suspected 2019-nCoV infection during pregnancy and extensive intensive follow-up for confirmed mothers and their fetuses is recommended.



MEDICALLY AT RISK POPULATIONS CONT.

ELDERLY POPULATION

- Male sex, age ≥ 60 years, delay in diagnosis and severe pneumonia have been associated with an increased CFR (Case Fatality Rate).
- In China, the CFR was 3.6, 1.3 and 0.4 for those greater than or equal to 80, 70-79 and 60-69 years of age, respectively, versus a CFR of 0.4 in those aged 30-59 years old.
- Higher proportion of severe to critical cases have been observed in the elderly population with dyspnea, lymphocytopenia, comorbidities including cardiovascular disease and chronic obstructive pulmonary disease, and acute respiratory distress syndrome being predictive of poor outcome..
- Recommendation: Preventive measures (e.g., social distancing, respiratory hygiene, and wearing face coverings in public settings) should be continued to protect older adults and persons with underlying medical conditions.

PEDIATRIC POPULATION

- Children make up only 1-5% of confirmed cases so far, though this may be due to under-testing of asymptomatic or mild cases.
- While most cases in children are mild, severe illness requiring hospitalization and mortality do occur. Children with pre-existing comorbidities and infants may be at higher risk for severe illness.
- Children of Sub-Saharan African or Caribbean descent may be at higher risk for developing Kawasaki Disease secondary to infection.
- Male children may be more susceptible to COVID-19.
- Recommendation: Clinicians should monitor for progression of illness in children, especially in infants, children with pre-existing conditions, and children of African or Caribbean descent. In addition, preventive measures should be continued to avoid transmission from mild or asymptomatic children.