

Alexander Isakov, MD, MPH

Professor of Emergency Medicine

Director, Section of Prehospital and Disaster Medicine

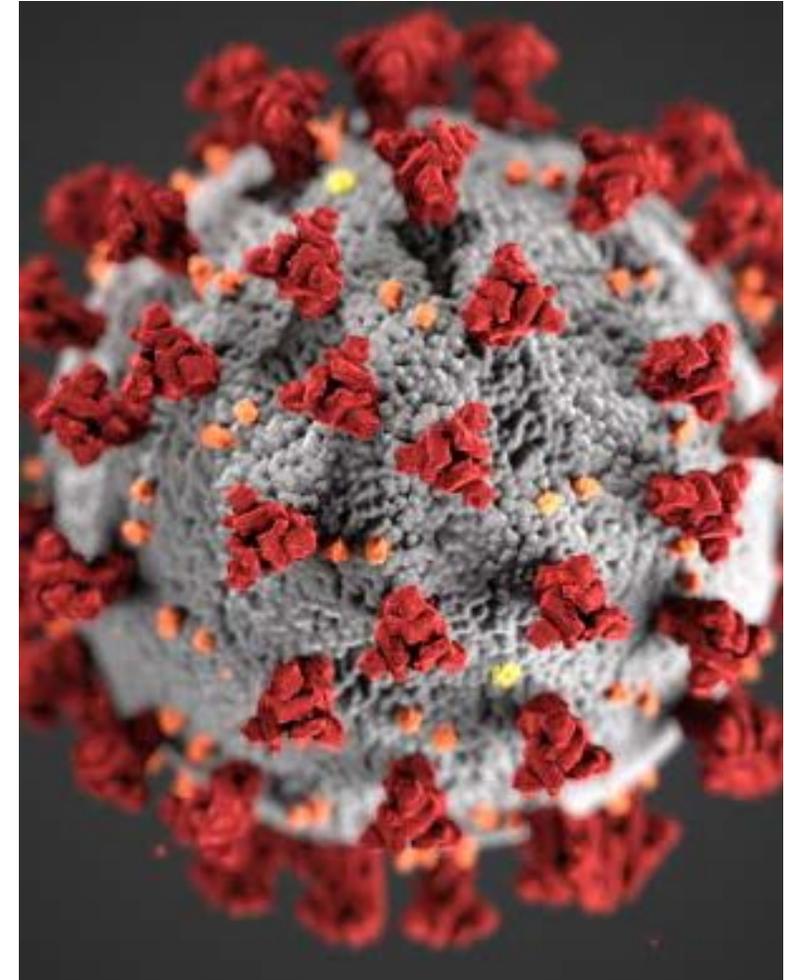
Executive Director, Office of Critical Event Preparedness and Response

Emory University

Atlanta, Georgia

COVID-19

- Over 67 million cases, over 1.5 million deaths
– 12/7/20
- US over 14.7 million cases and 280,000 deaths – 12/7/20



Image/CDC

Tracking Our COVID-19 Response

Each state's progress towards a new normal



Uncontrolled
Spread

Trending
Poorly

Caution
Warranted

Trending
Better

<https://www.covidexitstrategy.org>

COVID-19

- How sick do people get?
 - ▶ 80% of cases are mild, but...
 - ▶ Over 15,000 people died in the US with COVID-19 in the last week
 - ▶ It is now the leading cause of death of Americans – heart disease and cancer each kill about 12,000 Americans per week

COVID-19 HOSPITALIZATION AND DEATH BY AGE

FACTORS THAT INCREASE COMMUNITY SPREAD AND INDIVIDUAL RISK



CROWDED SITUATIONS



CLOSE / PHYSICAL CONTACT



ENCLOSED SPACE



DURATION OF EXPOSURE

Rate ratios compared to 18-29 year olds

0-4 years

5-17 years

18-29 years

30-39 years

40-49 years

50-64 years

65-74 years

75-84 years

85+ years

HOSPITALIZATION¹

4x lower

9x lower

Comparison Group

2x higher

3x higher

4x higher

5x higher

8x higher

13x higher

DEATH²

9x lower

16x lower

Comparison Group

4x higher

10x higher

30x higher

90x higher

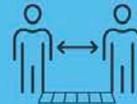
220x higher

630x higher

ACTIONS TO REDUCE RISK OF COVID-19



WEARING A MASK



SOCIAL DISTANCING (6 FT GOAL)



HAND HYGIENE



CLEANING AND DISINFECTION



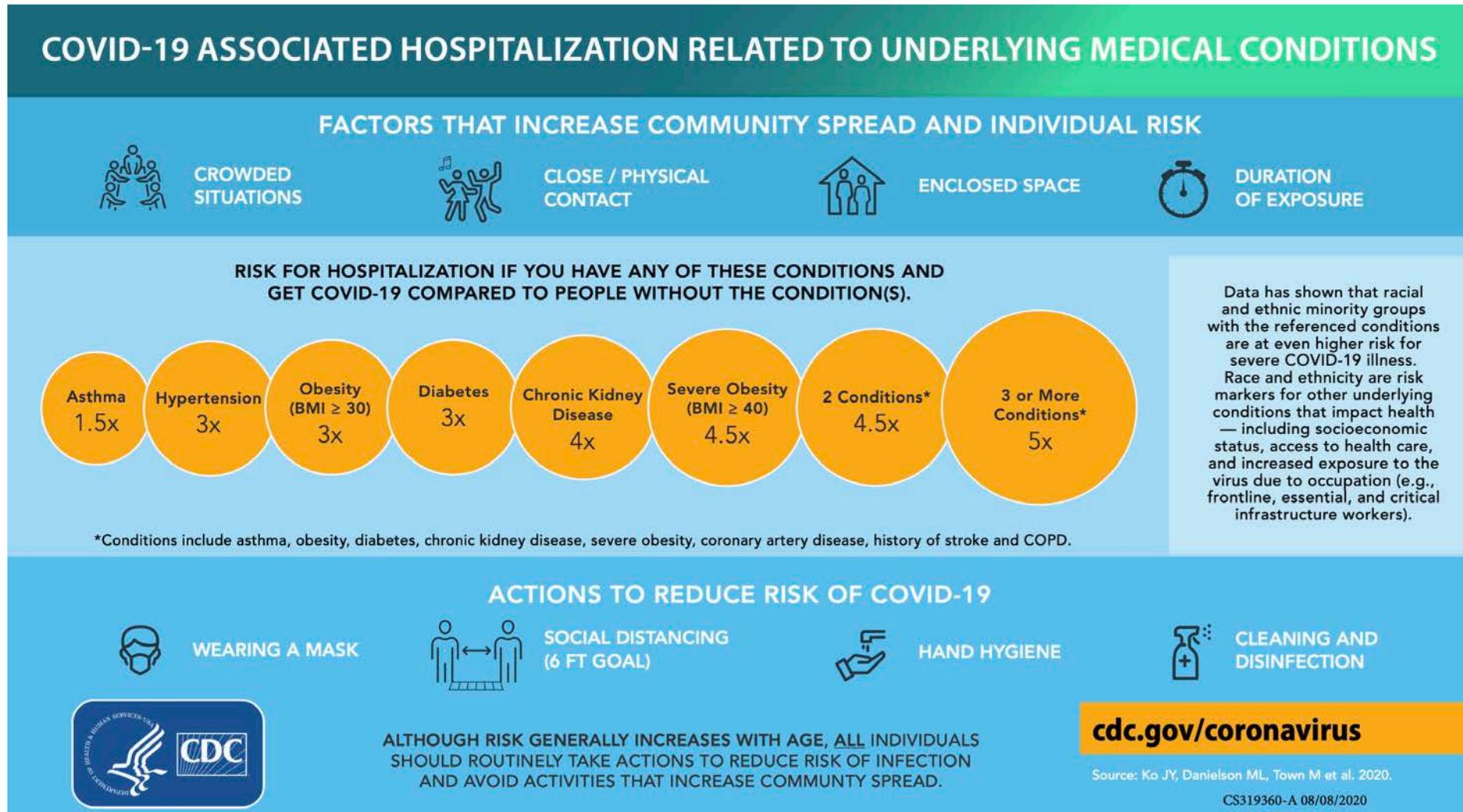
¹ Data source: COVID-NET (<https://www.cdc.gov/coronavirus/2019-ncov/covid-data/covidview/index.html>, accessed 08/06/20). Numbers are unadjusted rate ratios.

² Data source: NCHS Provisional Death Counts (<https://www.cdc.gov/nchs/nvss/vsrr/COVID19/index.htm>, accessed 08/06/20). Numbers are unadjusted rate ratios.

[cdc.gov/coronavirus](https://www.cdc.gov/coronavirus)

CS319360-A 08/10/2020

COVID-19 together with other medical conditions



COVID-19 disparities

COVID-19 Cases, Hospitalizations, and Deaths, by Race/Ethnicity

Rate ratios compared to White, Non-Hispanic persons	American Indian or Alaska Native, Non-Hispanic persons	Asian, Non-Hispanic persons	Black or African American, Non-Hispanic persons	Hispanic or Latino persons
Cases ¹	1.8x	0.6x	1.4x	1.7x
Hospitalization ²	4.0x	1.2x	3.7x	4.1x
Death ³	2.6x	1.1x	2.8x	2.8x

Race and ethnicity are risk markers for other underlying conditions that affect health, including socioeconomic status, access to health care, and exposure to the virus related to occupation, e.g., among frontline, essential, and critical infrastructure workers.

How to Slow the Spread of COVID-19



Wear a mask



Stay 6 feet apart



Wash your hands



References below

[cdc.gov/coronavirus](https://www.cdc.gov/coronavirus)

CS319360-A 11/30/2020

References

¹ Data source: Data reported by state and territorial jurisdictions (accessed 11/27/2020). Numbers are ratios of age-adjusted rates standardized to the 2000 US standard population. Calculations use only the 52% of reports with race/ethnicity; this can result in inaccurate estimates of the relative risk among groups.

² Data source: COVID-NET (<https://www.cdc.gov/coronavirus/2019-ncov/covid-data/covid-net/purpose-methods.html>, accessed 11/25/2020). Numbers are ratios of age-adjusted rates standardized to the 2000 US standard COVID-NET catchment population.

³ Data source: NCHS provisional death counts (<https://data.cdc.gov/NCHS/Deaths-involving-coronavirus-disease-2019-COVID-19/ks3g-spdg>, accessed 11/27/2020). Numbers are ratios of age-adjusted rates standardized to the 2000 US standard population.

COVID-19

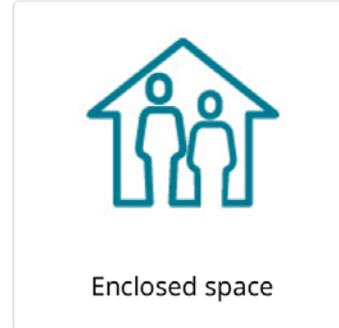
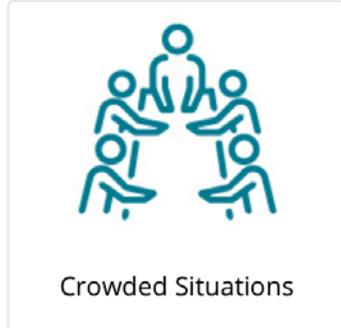
- Signs and symptoms - CDC

- Fever or chills (less than half have fever at time of presentation)
- Cough
- Shortness of breath or difficulty breathing
- Fatigue
- Muscle or body aches
- Headache
- New loss of taste or smell
- Sore throat
- Congestion or runny nose
- Nausea or vomiting
- Diarrhea

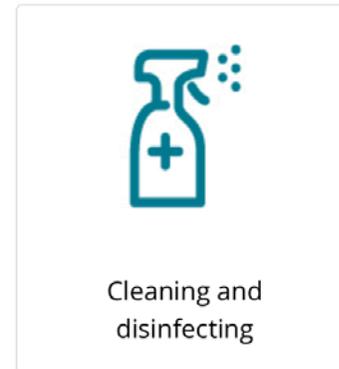
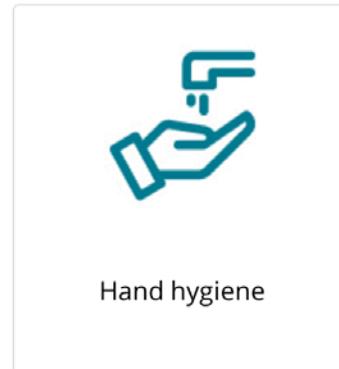
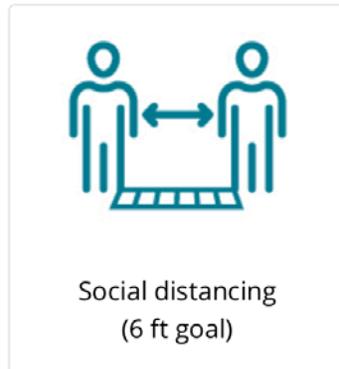
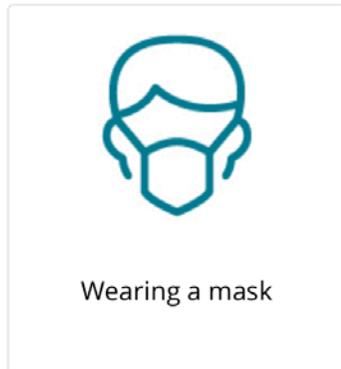
YOU CAN HAVE NO SYMPTOMS AND STILL MAKE OTHERS SICK IF YOU ARE INFECTED

COVID-19 – Preventing infection

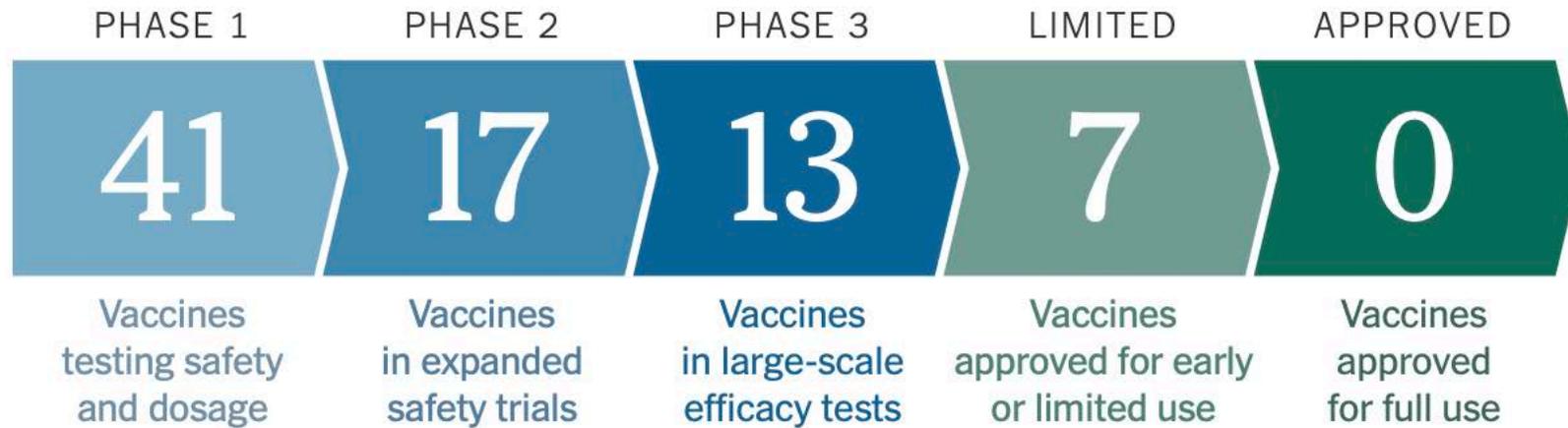
Factors that increase community spread and individual risk



Actions to reduce risk of COVID–19



COVID-19 - Vaccine



Graphic/NYT