

COVID-19 & DENTISTRY

ADA Supports Point-Of-Care Testing
& Vaccination in Dental Offices



David Reznik, DDS

Director of the Oral Health Center of
Grady Health System's Infectious
Disease Program

Gary Severance, DDS

Executive Leader of Professional
Relations, Henry Schein Dental



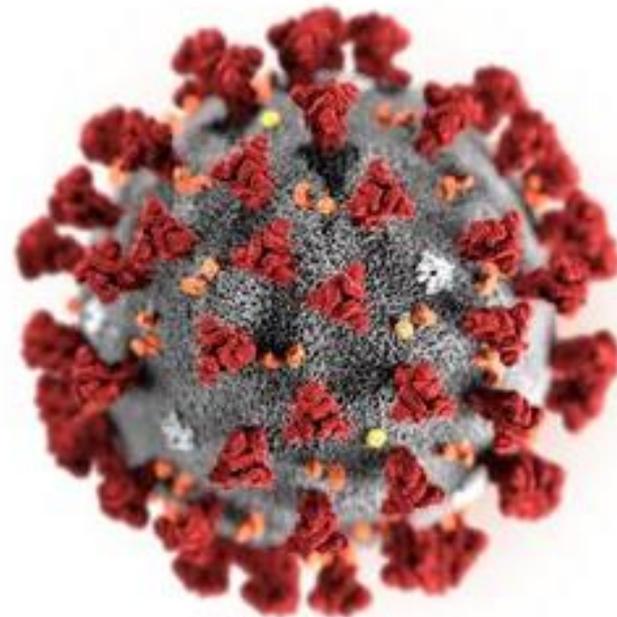
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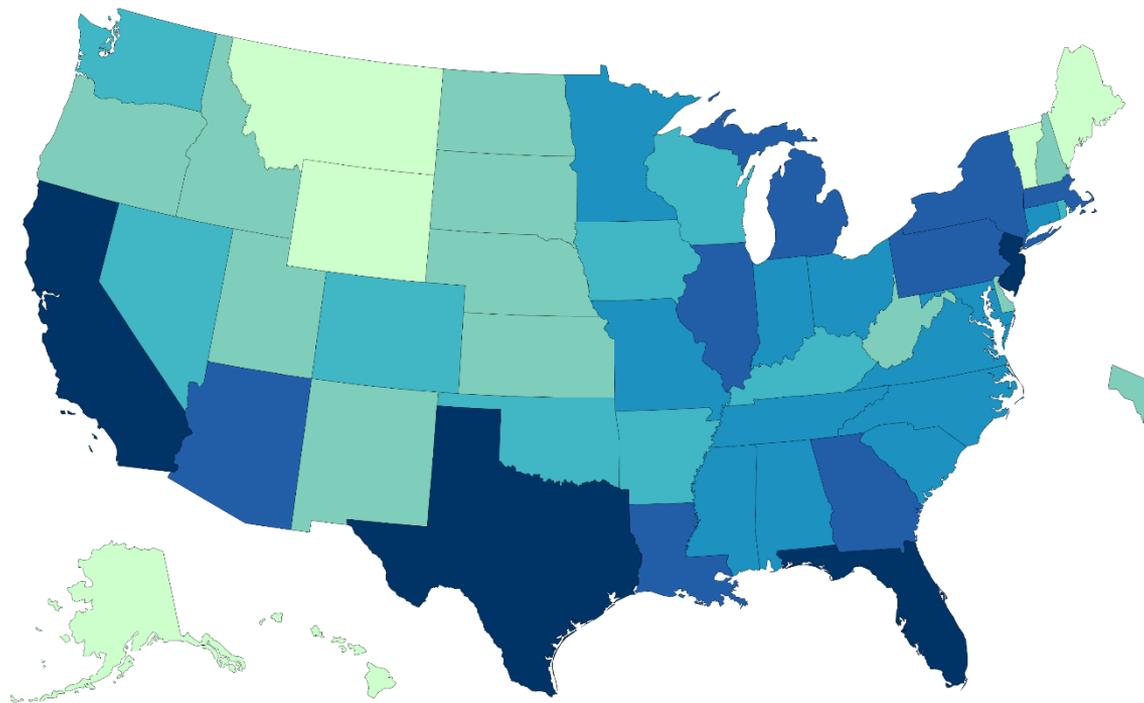
COVID-19 U.S. Tracker

- Confirmed: > 8,553,827 (+83,851 new cases)
- Deaths in Last 7 Days: 5,754
- Total Deaths: 224,221 (+828 new deaths)

Data as of 10/25/2020



U.S COVID-19 Cases Reported to the CDC – Last 7 Days

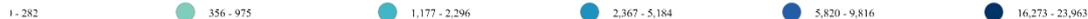


Data as of 10/25/2020

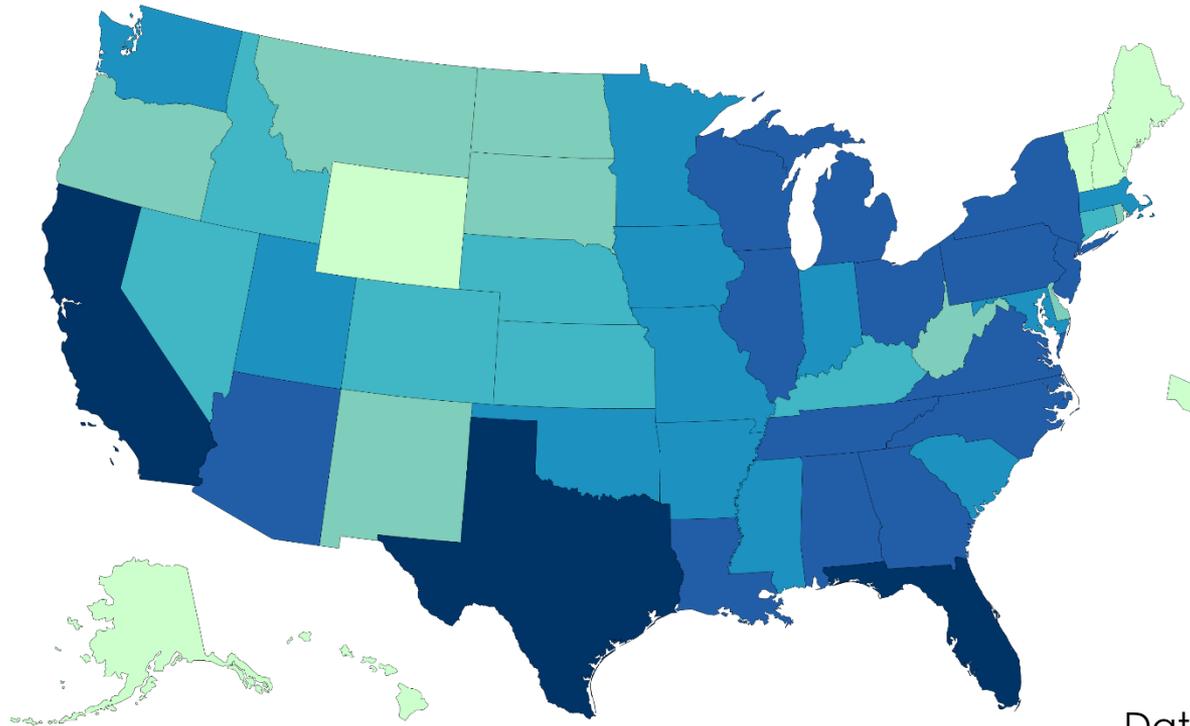
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Total Deaths



Total Number of COVID-19 Cases in the U.S., Reported to CDC



Data as of 10/25/2020
Since 1/1/2020

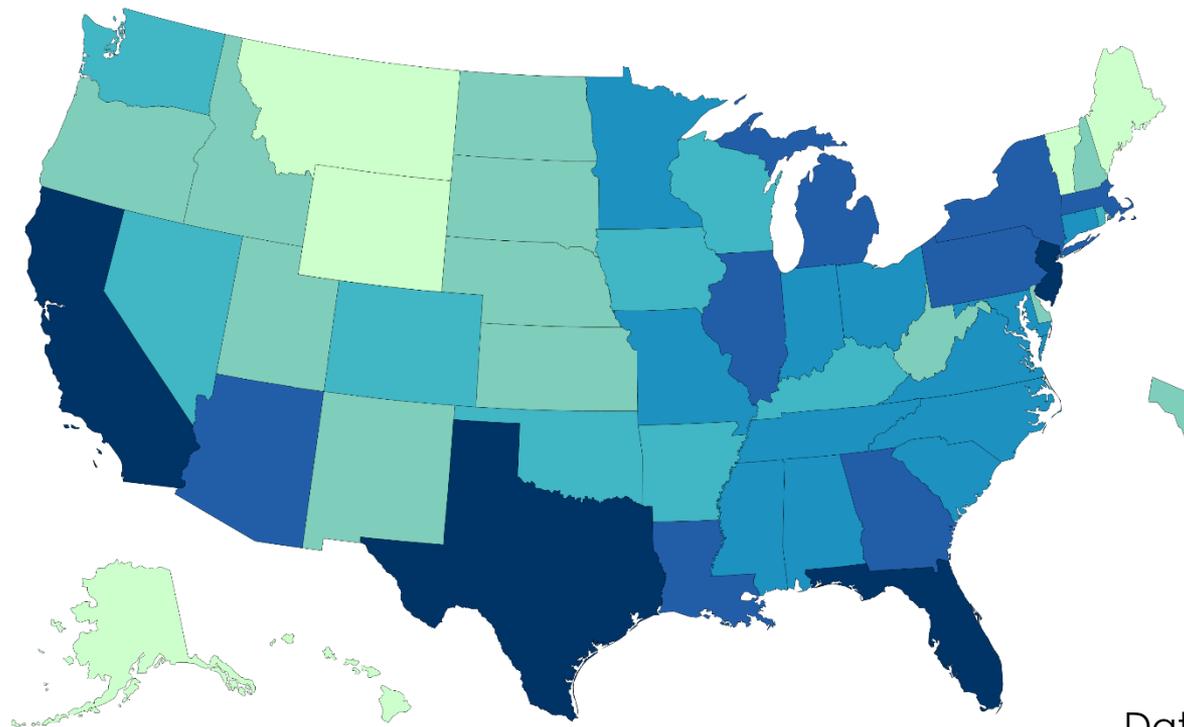
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Total Cases



Total Number of COVID-19 Deaths in U.S., Reported to CDC



Data as of 10/25/2020

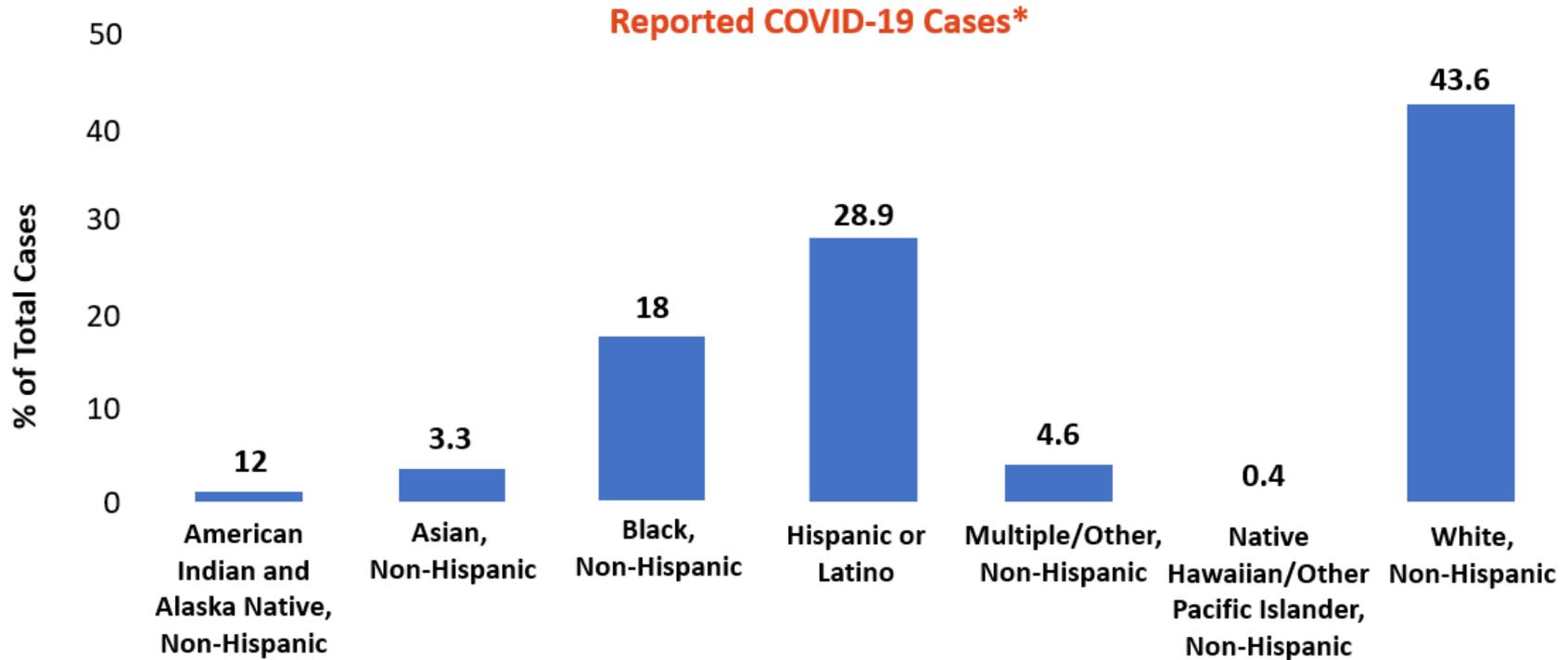
Territories



Total Deaths



CDC COVID-19 Data Tracker: Reported Cases by Race/Ethnicity



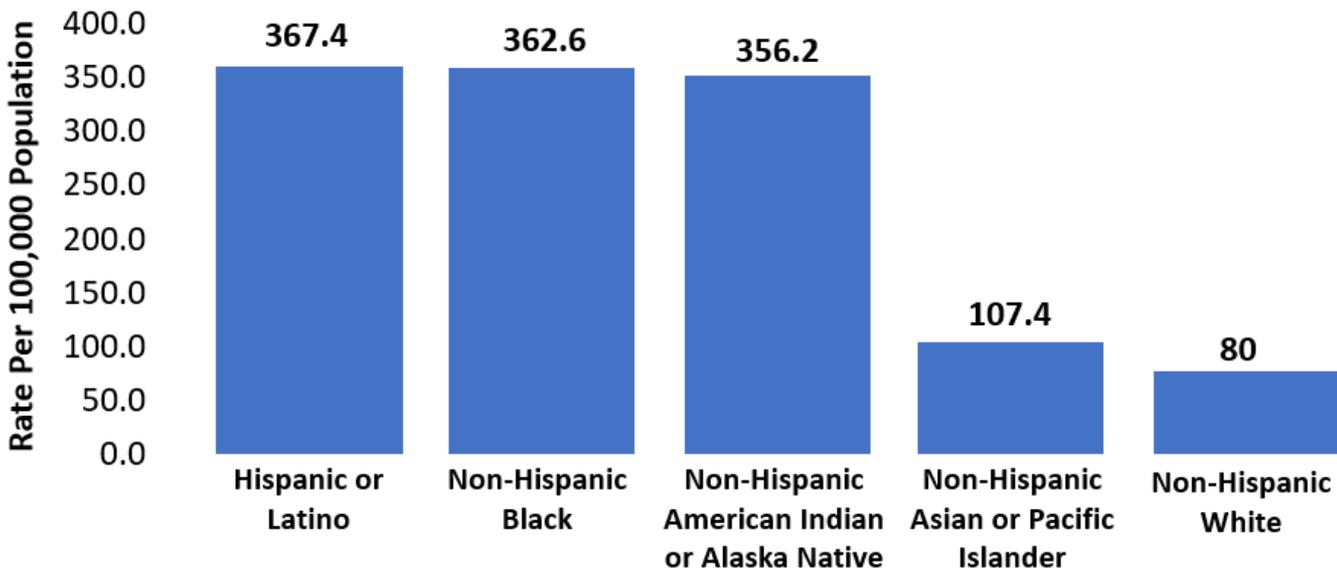
*Last updated October 4, 2020, 12:17 PM EDT. Includes race/ethnicity data available for 2,867,604 cases.

<https://www.cdc.gov/covid-data-tracker/index.html#demographics>

Slide credit: clinicaloptions.com

COVID-NET: COVID-19 – Associated Hospitalization by Race/Ethnicity

Adjusted Rates of COVID-19–Associated Hospitalization*



*Data from March 2020 – September 26, 2020 covers ~ 10% of US population: 99 counties in 14 states (CA, CO, CT, GA, IA, MD, MI, MN, NM, NY, OH, OR, TN, UT). Adjusted to account for differences in age distribution within race and ethnicity groups.

<https://www.cdc.gov/coronavirus/2019-ncov/covid-data/covidview/index.html>

Slide credit: clinicaloptions.com

Excess Deaths Associated with COVID-19 by Age/Race/Ethnicity

United States, January 26, 2020 – October 3, 2020

- What is already known about this topic?
 - ❖ As of October 15, 216,025 deaths from COVID-19 have been reported in the United States; however, this might underestimate the total impact of the pandemic on mortality
- What is added by this report?
 - ❖ Overall, an estimated 299,028 excess deaths occurred from 1/26 – 10/3, with 198,081 (66%) excess deaths attributed to COVID-19
 - ❖ The largest percentage increases were seen among adults aged 25 – 44 years and among Hispanic or Latino persons

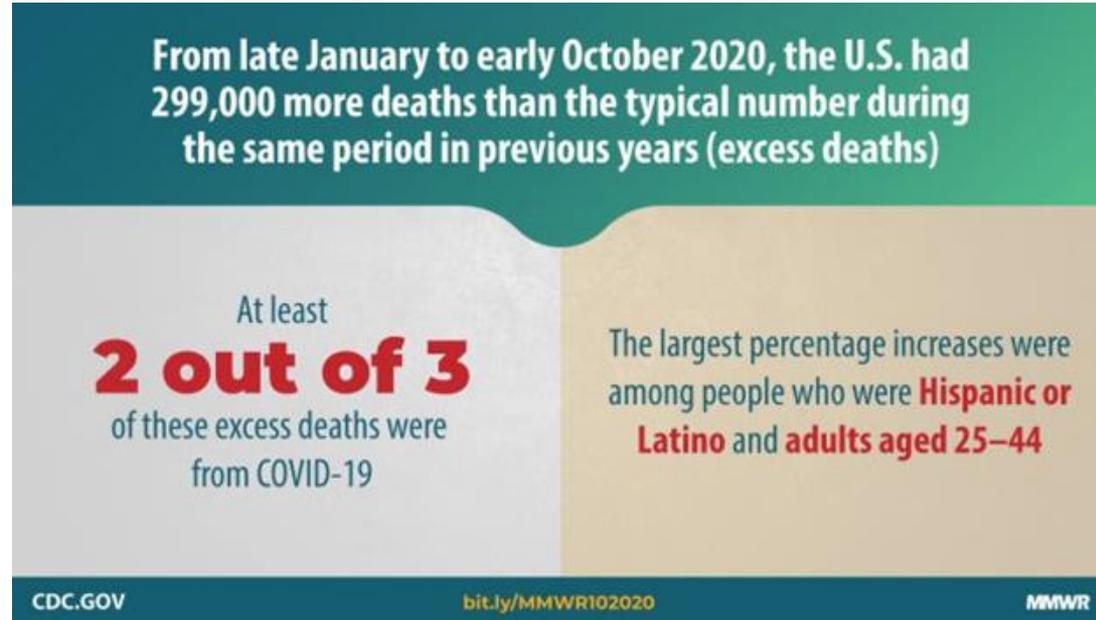
MMWR Weekly / October 23, 2020 / 69(42);1522–1527;

<https://www.cdc.gov/mmwr/volumes/69/wr/mm6942e2.html>

Excess Deaths Associated with COVID-19 by Age/Race/Ethnicity

United States, January 26, 2020 – October 3, 2020

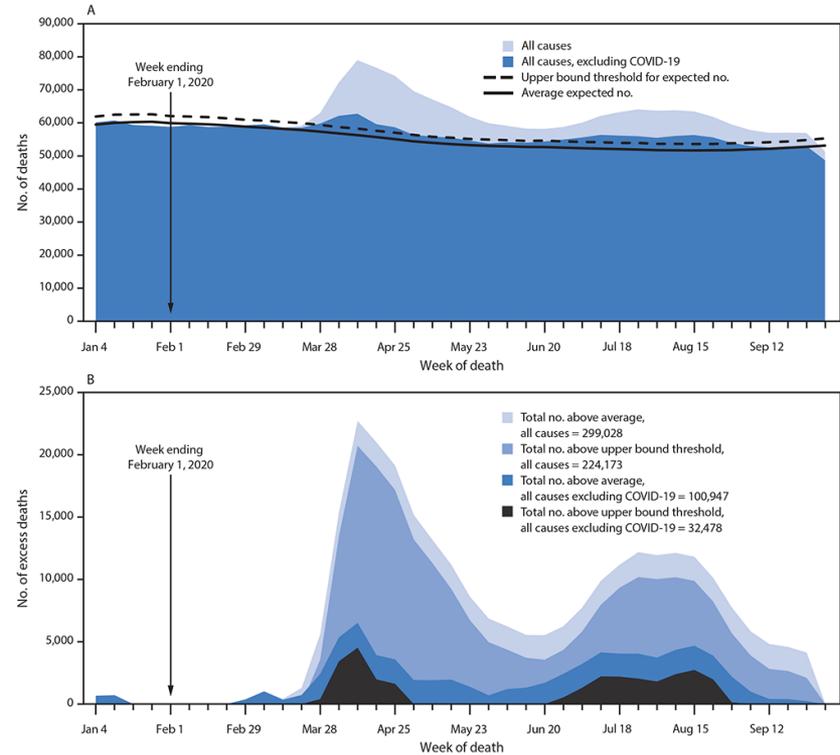
- From January 26, 2020, through October 3, 2020, an estimated 299,028 more persons than expected have died in the United States
- Two thirds of excess deaths during the analysis period (66.2%; 198,081) were attributed to COVID-19 and the remaining third to other causes



Excess Deaths Associated with COVID-19 by Age/Race/Ethnicity

United States, January 26, 2020 – October 3, 2020

Excess deaths reached their highest points to date during the weeks ending April 11 (40.4% excess) and August 8, 2020 (23.5% excess)



Excess Deaths Associated with COVID-19 by Age/Race/Ethnicity

United States, January 26, 2020 – October 3, 2020

- The total number of excess deaths (deaths above average levels) from 1/26 – 10/3 ranged from a low of approximately 841 in the youngest age group (<25 years) to a high of 94,646 among adults aged 75 – 84 years
- The average percentage change in deaths over this period compared with previous years was largest for adults aged 25 – 44 years (26.5%)
- Although more excess deaths have occurred among older age groups, relative to past years, adults aged 25 – 44 years have experienced the largest average percentage increase in the number of deaths from all causes from late January through October 3, 2020

Excess Deaths Associated with COVID-19 by Age/Race/Ethnicity

United States, January 26, 2020 – October 3, 2020

- The age distribution of COVID-19 deaths shifted toward younger age groups from May – August (9); however, these disproportionate increases might also be related to underlying trends in other causes of death
- Among racial and ethnic groups:
 - ❖ The smallest average percentage increase in numbers of deaths compared with previous years occurred among White persons (11.9%)
 - ❖ The largest for Hispanic persons (53.6%), with intermediate increases (28.9%–36.6%) among AI/AN, Black, and Asian persons
- These disproportionate increases among certain racial and ethnic groups are consistent with noted disparities in COVID-19 mortality

Studies Point to Big Drop in COVID-19 Death Rates

Two new peer-reviewed studies are showing a sharp drop in mortality among hospitalized COVID-19 patients. The drop is seen in all groups, including older patients and those with underlying conditions, suggesting that physicians are getting better at helping patients survive their illness.

<https://www.npr.org/sections/health-shots/2020/10/20/925441975/studies-point-to-big-drop-in-covid-19-death-rates>

Studies Point to Big Drop in COVID-19 Death Rates

“We find that the death rate has gone down substantially,” says Leora Horwitz, a doctor who studies population health at New York University's Grossman School of Medicine and an author on one of the studies, which looked at thousands of patients from March to August.

The study, which was of a single health system, finds that mortality has dropped among hospitalized patients by 18 percentage points since the pandemic began. Patients in the study had a 25.6% chance of dying at the start of the pandemic; they now have a 7.6% chance.

<https://www.npr.org/sections/health-shots/2020/10/20/925441975/studies-point-to-big-drop-in-covid-19-death-rates>

Studies Point to Big Drop in COVID-19 Death Rates

- That's a big improvement, but 7.6% is still a high risk compared with other diseases, and Horwitz and other researchers caution that COVID-19 remains dangerous

The death rate “is still higher than many infectious diseases, including the flu,” Horwitz says. And those who recover can suffer complications for months or even longer. “It still has the potential to be very harmful in terms of long-term consequences for many people.”

<https://www.npr.org/sections/health-shots/2020/10/20/925441975/studies-point-to-big-drop-in-covid-19-death-rates>

Studies Point to Big Drop in COVID-19 Death Rates

- “The people who are getting hospitalized now:
 - ❖ tend to be much younger
 - ❖ tend to have fewer other diseases
 - ❖ tend to be less frail
- than people who were hospitalized in the early days of the epidemic,” Horwitz says
- To find out, Horwitz and colleagues looked at more than 5,000 hospitalizations in the NYU Langone Health system between March and August
- They adjusted for factors including age and other diseases, such as diabetes, to rule out the possibility that the numbers had dropped only because younger, healthier people were getting diagnosed
- They found that death rates dropped for all groups, even older patients by 18 percentage points on average

Journal of Hospital Medicine. 11/2020

<https://www.npr.org/sections/health-shots/2020/10/20/925441975/studies-point-to-big-drop-in-covid-19-death-rates>

Studies Point to Big Drop in COVID-19 Death Rates

- Bilal Mateen, a data science fellow at the Alan Turing Institute in the United Kingdom, conducted research of 21,000 hospitalized cases in England, which also found a similarly sharp drop in the death rate
- The work, which will soon appear in the journal *Critical Care Medicine* and was released earlier in preprint, shows an unadjusted drop in death rates among hospitalized patients of around 20 percentage points since the worst days of the pandemic

Journal Critical Care Medicine . 11/2020

<https://www.npr.org/sections/health-shots/2020/10/20/925441975/studies-point-to-big-drop-in-covid-19-death-rates>

FDA Approves Remdesivir, First Treatment for COVID-19

October 22, 2020

- The U.S. Food and Drug Administration (FDA) approved Remdesivir (*Veklury*) as a treatment for hospitalized COVID-19 patients age 12 and up, making it the first and only approved treatment for the disease
- The FDA's initial Emergency Use Authorization (EUA) of the antiviral, issued May 2020, allowed the drug to be used only for patients with severe COVID-19 — specifically, COVID-19 patients with low blood oxygen levels or those who need oxygen therapy or mechanical ventilation
- The approval was based on three randomized controlled trials

Remdesivir for the Treatment of COVID-19

Final Report – NEJM, 10/8/2020

- **Background:** Although several therapeutic agents have been evaluated for the treatment of Coronavirus disease 2019 (COVID-19), no antiviral agents have yet been shown to be efficacious
- **Methods:** They conducted a double-blind, randomized, placebo-controlled trial of intravenous Remdesivir in adults who were hospitalized with COVID-19 and had evidence of lower respiratory tract infection
- Patients were randomly assigned to receive either Remdesivir (200 mg loading dose on day 1, followed by 100 mg daily for up to 9 additional days) or placebo for up to 10 days
- The primary outcome was the time to recovery, defined by either discharge from the hospital or hospitalization for infection-control purposes only

Remdesivir for the Treatment of COVID-19

Final Report – NEJM, 10/8/2020

- **Results:** A total of 1,062 patients underwent randomization (with 541 assigned to Remdesivir and 521 to placebo)
- Those who received Remdesivir had a median recovery time of **10 days** (95% confidence interval [CI], 9 to 11), as compared with **15 days** (95% CI, 13 to 18) among those who received placebo (rate ratio for recovery, 1.29; 95% CI, 1.12 to 1.49; $P < 0.001$, by a log-rank test)

Remdesivir for the Treatment of COVID-19

Final Report – NEJM, 10/8/2020

- **Conclusions:** Their data show that Remdesivir was superior to placebo in shortening the time to recovery in adults who were hospitalized with COVID-19 and had evidence of lower respiratory tract infection
- However, there was not a statistically significant difference in mortality between the treatment and placebo groups

(Funded by the National Institute of Allergy and Infectious Diseases and others; ACTT-1 ClinicalTrials.gov number, NCT04280705.)

Key Considerations on Modes of SARS-CoV-2 Transmission

- Person-to-person considered predominant mode of transmission, likely via respiratory droplets from **coughing, sneezing, or talking**^[1,2]
 - ❖ High-level viral shedding evident in upper respiratory tract^[3,4]
 - ❖ Airborne transmission suggested by multiple studies, but frequency unclear in absence of aerosol-generating procedures in healthcare settings^[2]
- Virus rarely cultured in respiratory samples > 9 days after symptom onset, especially in patients with mild disease^[5]
- Multiple studies describe a correlation between reduced infectivity with decreases in viral loads and rises in neutralizing antibodies^[5]
- ACOG: “Data indicate that vertical transmission appears to be uncommon”^[6]

1. <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/how-covid-spreads.html>

2. WHO. Scientific Brief. July 9, 2020.

3. Wölfel. Nature. 2020;581:465.

4. Zou. NEJM. 2020;382:1177.

5. WHO. Scientific Brief. June 17, 2020.

6. ACOG. COVID-19 FAQs for Obstetrician-Gynecologists, Obstetrics.

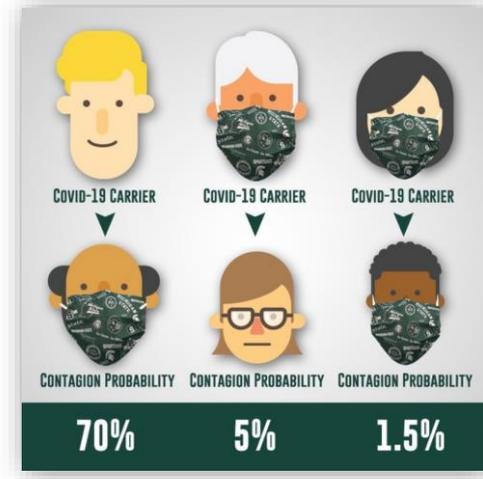
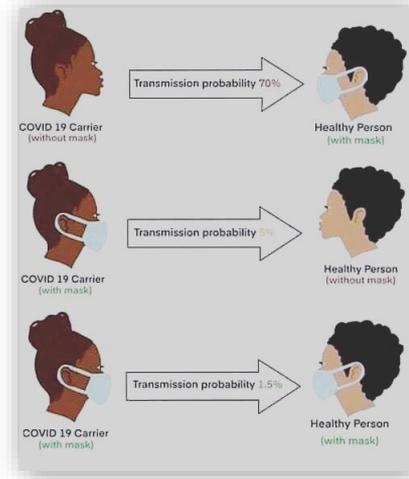
Efficacy of Face Coverings in Prevention of SARS-CoV-2 Transmission

- Systematic review and meta-analysis of data from 172 studies investigating the spread of SARS-CoV-2, SARS, and MERS (n = 2647)^[1]
 - ❖ Face mask use (surgical, N95, or cotton mask) resulted **in large reduction in infection (OR: 0.15; 95% CI: 0.07-0.34)**
 - ❖ Association was stronger for N95 or respirators vs disposable or 12-16-layer cotton masks (P = 0.090)
- Study of human coronaviruses in exhaled breath of children and adults with acute respiratory illnesses wearing surgical face masks vs no mask (N = 246)^[2]
 - ❖ Virus detected in **respiratory droplets** in 3 of 10 samples collected without face masks vs **0 of 11 samples with a mask (P = .07)**
 - ❖ Virus detected in **aerosols** in 4 of 10 samples collected without face masks vs **0 of 11 samples with a mask (P = .02)**

1. Chu. Lancet. 2020;395:1973.

2. Leung. Nature Medicine. 2020;26:676.

Probability of Transmission*



*Percentages are estimates based upon the following studies:

Howard, J.; Huang, A.; Li, Z.; Tufekci, Z.; Zdimal, V.; van der Westhuizen, H.; von Delft, A.; Price, A.; Fridman, L.; Tang, L.; Tang, V.; Watson, G.L.; Bax, C.E.; Shaikh, R.; Questier, F.; Hernandez, D.; Chu, L.F.; Ramirez, C.M.; Rimoin, A.W. Face Masks Against COVID-19: An Evidence Review. Preprints 2020, 2020040203 (doi: 10.20944/preprints202004.0203.v1).

Steffen E. Eikenberry**, Marina Mancuso*, Enahoro Iboi*, Tin Phan*, Keenan Eikenberry*, Yang Kuang*, Eric Kostelich*, and Abba B. Gumel* To mask or not to mask: Modeling the potential for face mask use by the general public to curtail the COVID-19 pandemic

New CDC Guidance on “15 Minutes” of “Close Contact”

- The Centers for Disease Control (CDC) and Prevention has new guidance clarifying what exactly “close contact” means when it comes to transmission of SARS-CoV-2, the virus that causes COVID-19
- The previous guidance suggested that a close contact occurred when a person was within six feet of an infectious individual for 15 consecutive minutes
- Now, the CDC is acknowledging that even brief contact can lead to transmission; specifically, the new guidance suggests that those spending a total of 15 minutes of contact with an infectious person over the course of a 24-hour period should be considered in close contact

IDSA: SARS-CoV-2 Infection Prevention

Healthcare personnel caring for patients with suspected or known COVID-19

Use appropriate PPE* with proper donning/doffing (gowns, gloves, eye protection)

Conventional Settings

Routine Patient Care

N95 (N99/PAPR)

*Aerosol-
Generating
Procedures*

Surgical mask
or
N95 (N99/PAPR)

Contingency or Crisis Settings

Routine Patient Care

*Aerosol-Generating
Procedures*

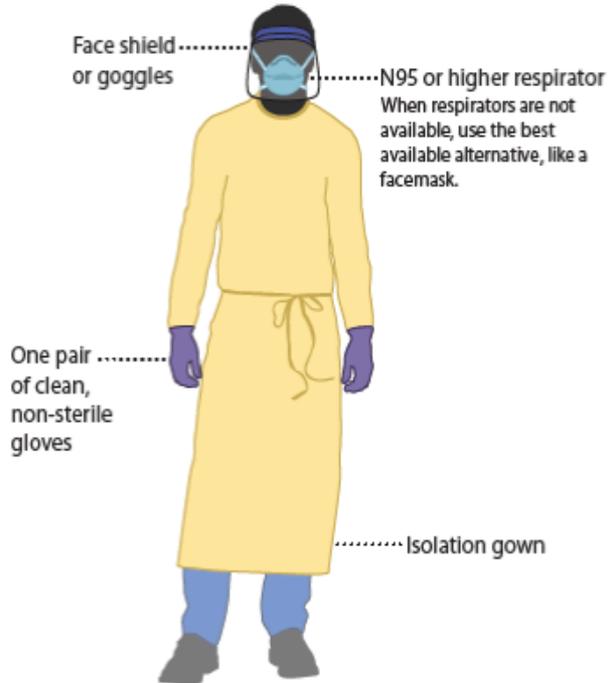
Surgical mask
or
N95 (N99/PAPR)

Face shield or surgical mask covering
N95 to allow extended use/reuse
Or Reprocessed N95

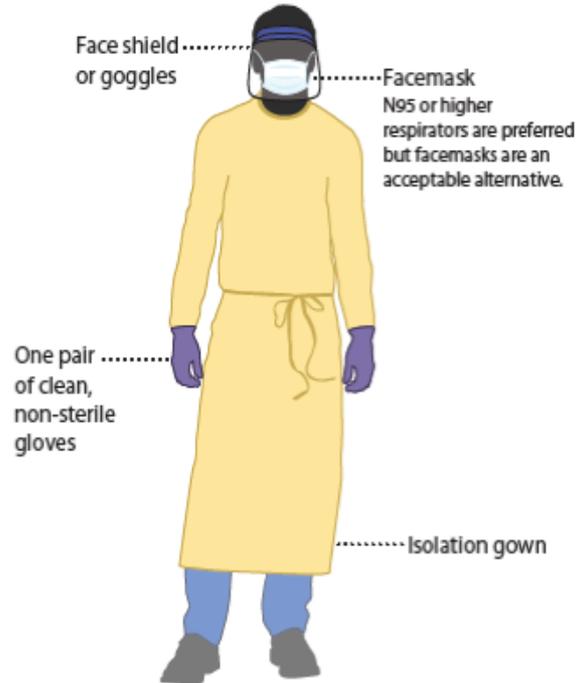
*IDSA makes no recommendation regarding double vs single glove or shoe cover vs no shoe cover use.

COVID-19: Personal Protective Equipment (PPE)

Preferred PPE – Use N95 or Higher Respirator



Acceptable Alternative PPE – Use Facemask



CS15438-C 06/25/2020

[cdc.gov/COVID19](https://www.cdc.gov/COVID19)

COVID-19: What is the R Number?

- R refers to the “effective reproduction number” and, basically put, it’s a way of measuring an infectious disease’s capacity to spread; the R number signifies the average number of people that one infected person will pass the virus to
- The R number isn’t fixed, but can be affected by a range of factors, including not just how infectious a disease is but how it develops over time, how a population behaves, and any immunity already possessed thanks to infection or vaccination
- Location is also important: a densely populated city is likely to have a higher R than a sparsely populated rural area

COVID-19: What is the R Number?

- Because Sars-CoV-2 is a new pathogen, scientists at the start of the outbreak were scrambling to calculate its R_0 , or “R nought”: the virus’s transmission among a population that has no immunity
- Studies on early cases in China indicated it was between 2 and 2.5; more recent estimates have placed it as high as 6.6
- To put these figures in context, the R_0 is worse than seasonal flu, which has an R_0 of 1.3, but significantly better than measles, whose R_0 is between 12 and 18
- However, we have a vaccine for measles and so the effective reproduction number – the R – is way below 1

What Does the R Number Signify?

R of less than 1 means that the virus will eventually peter out – the lower the R, the more quickly this will happen.

An R of 0.5 means that 100 people would infect only 50, who would infect 25, who would infect 13.

As the number of cases drops and ill people either die or recover, the virus will be brought under control – if the R can be kept low.

ADA Backs Point-Of-Care Screening Tests in Dental Practices

“Dentists can play a larger role in the early identification of possible medical conditions – including COVID-19 – in patients by utilizing point-of-care screening tests when conducting patient evaluations,” according to a resolution passed by the ADA House of Delegates on Oct. 19.

Resolution 22H-2020 “provides dentists another mechanism to assess the relative risks or benefits of providing dental care when patients with medical co-morbidities or even clinical evidence that indicates a possible underlying undiagnosed illness,” said Dr. Duc M. Ho, chair of the ADA Council on Dental Practice.

ADA Backs Point-Of-Care Screening Tests in Dental Practices

The American Dental Association, in consultation with its Advisory Task Force on Dental Practice Recovery, released in October the COVID-19 & Lab Testing Requirements Toolkit to help guide dentists interested in offering their patients rapid response, point-of-care COVID-19 testing within their practices.

ADA Backs Point-Of-Care Screening Tests in Dental Practices

Henry Schein is excited to offer you a comprehensive suite of rapid, point-of-care diagnostic testing solutions to help your practice operate with confidence and security.

99% Sensitivity

High accuracy.
Very low occurrence of false negatives.
Average was 98.7% across 4 clinical studies.

98% Specificity

Low occurrence of false positives.
Average was 97.6% across 4 clinical studies.

Exclusively distributed through Henry Schein, **Cue Health's COVID-19 molecular rapid test** enables you to **test your patients and staff.**



This test has not been FDA cleared or approved; this test has been authorized by FDA under an Emergency Use Authorization (EUA) for use by Authorized Laboratories; this test has been authorized only for detection of nucleic acid from SARS-CoV-2, not for any other viruses or pathogens; and this test is only authorized for the duration of the declaration that circumstances exist justifying the authorization of emergency use of in vitro diagnostics for detection and/or diagnosis of COVID-19 under Section 564(b)(1) of the Food, Drug and Cosmetic Act, 21 U.S.C. 360bbb-3(b)(1), unless the authorization is terminated or revoked sooner.

Take the next steps to find out more about how to get started on becoming more engaged in your patient's total health and wellness.
You can Rely on us to help you throughout this process.

Email
DentalDX@henryschein.com
to learn more.

ADA Supports Efforts to Allow Dentists to Administer Vaccines

The ADA House of Delegates passed a resolution on Oct. 19 that expresses the ADA's support for "dentists who are seeking to administer vaccines, including – when it becomes available – a safe and effective vaccine for COVID-19."

Resolution 91H-2020 "states that dentists have the requisite knowledge and skills to administer critical vaccines that prevent life- or health-threatening conditions and protect the life and health of patients and staff at the point of care."

Dr. Duc M. Ho, chair of the ADA Council on Dental Practice, said, "The pandemic has highlighted the potential benefits of an expanded role for dentists in preventive health care, including access to and the administration of vaccinations."

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November 13-20, 2020



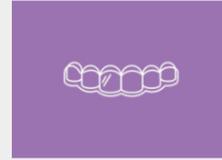
Special Markets and Topics



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*CE is not available for this content



COVID-19 Webinar Series with *Eve Cuny* and *Kathy Eklund*

- Respiratory Protection Program (November 6, 2020)
- PPE Optimization (November 20, 2020)
- COVID-19 Guidance for Dental Assistants (December 11, 2020)
- Airborne Precautions and Ventilation (January 8, 2021)



Thank You!

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Next Session: Friday, November 13, 2 PM ET