



# COVID-19: KEEPING UP WITH A MOVING TARGET

## November 18, 2020 UPDATE



**Paul Auwaerter, MD, MBA, FIDSA**  
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Fisher Center for Environmental Infectious Diseases  
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Postgraduate Institute  
for Medicine



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# CME Information

**Jointly provided by Postgraduate Institute for Medicine, DKBmed, and the Institute for Johns Hopkins Nursing.**

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The faculty reported the following financial relationships or relationships they or their spouse/life partner have with commercial interests related to the content of this continuing education activity:

Name of Faculty or Presenter	Reported Financial Relationship
Paul G. Auwaerter, MD, MBA, FIDSA	Scientific Advisor: DiaSorin, Shionogi Inc. JNJ: Ownership equity

Dr. Auwaerter has indicated that he will be referencing the unlabeled or unapproved use of agents currently being investigated in on-going studies and trials, including a monoclonal antibody cocktail, dexamethasone, and several vaccine platforms.

All activity, content, and materials have been developed solely by the activity directors, planning committee members, and faculty presenters, and are free of influence from a commercial entity.





# CME Information

To attest for CME/CE/AAPA credit, please visit  
[COVID19.dkbmed.com](https://COVID19.dkbmed.com)





# Learning Objectives

- **Discuss the CDC recommendations for holiday gatherings**
- **Describe the current status of vaccine development**





# Thank You

This activity is supported by an educational grant from Pfizer, Inc. and in-kind support by DKBmed, LLC.

All activity content and materials have been developed solely by the activity directors, planning committee members, and faculty presenters.

Please see **COVID19.DKBmed.com** for additional resources and educational activities

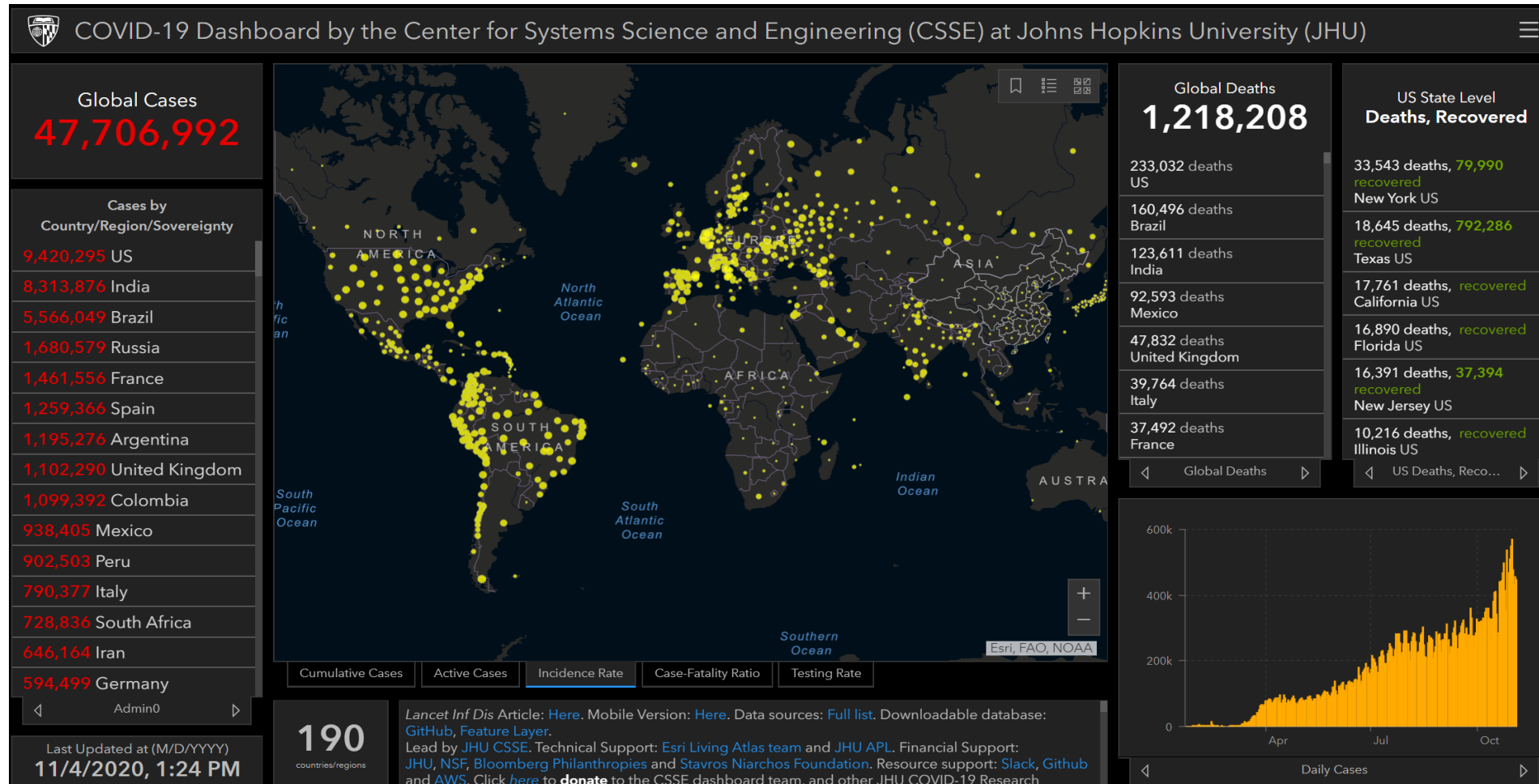




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# Global COVID Cases (11/16/2020)

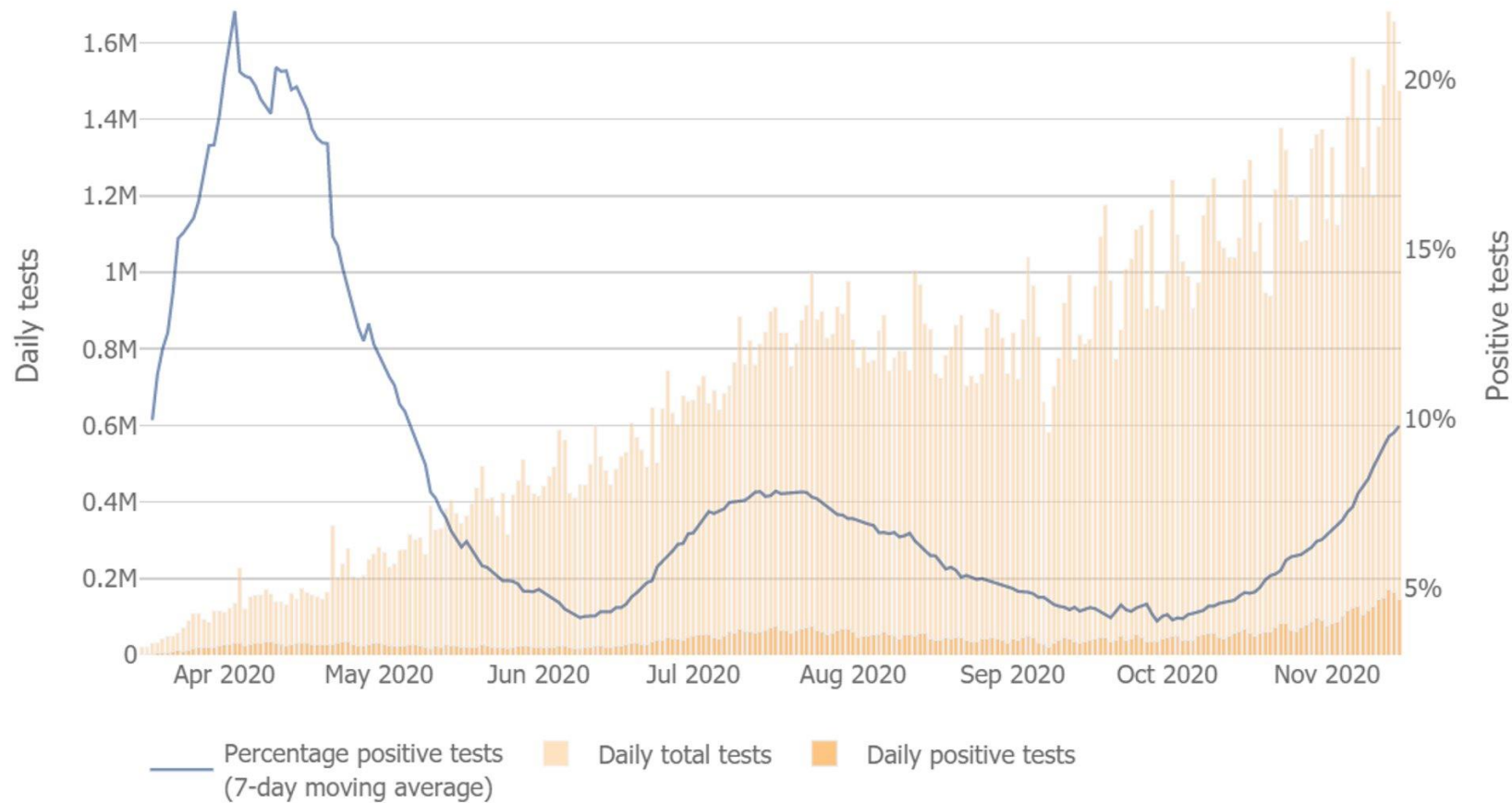


<https://gisanddata.maps.arcgis.com/apps/opsdashboard/index.html#/bda7594740fd40299423467b48e9ecf6>





# A very successful Virus-- Takes Advantage of Need for Human Bonding



<https://coronavirus.jhu.edu/testing/individual-states>







# A Very Successful Virus-- Takes Advantage of Need for Human Bonding

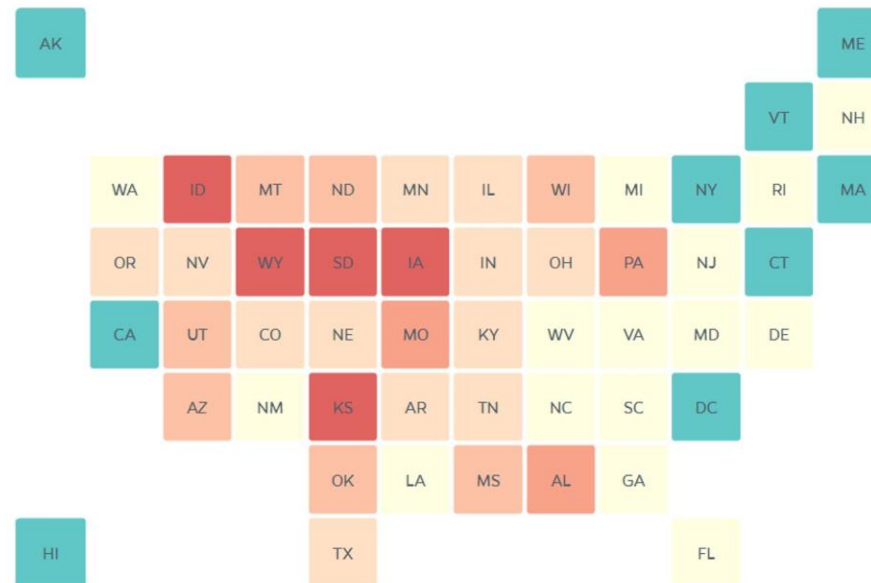
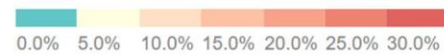
## Percent of new tests that are positive

Display a different dataset

Percent positive

Map View

Overview



<https://coronavirus.jhu.edu/testing/tracker/map/percent-positive>





# COVID CASES/100,000 – 7d Average

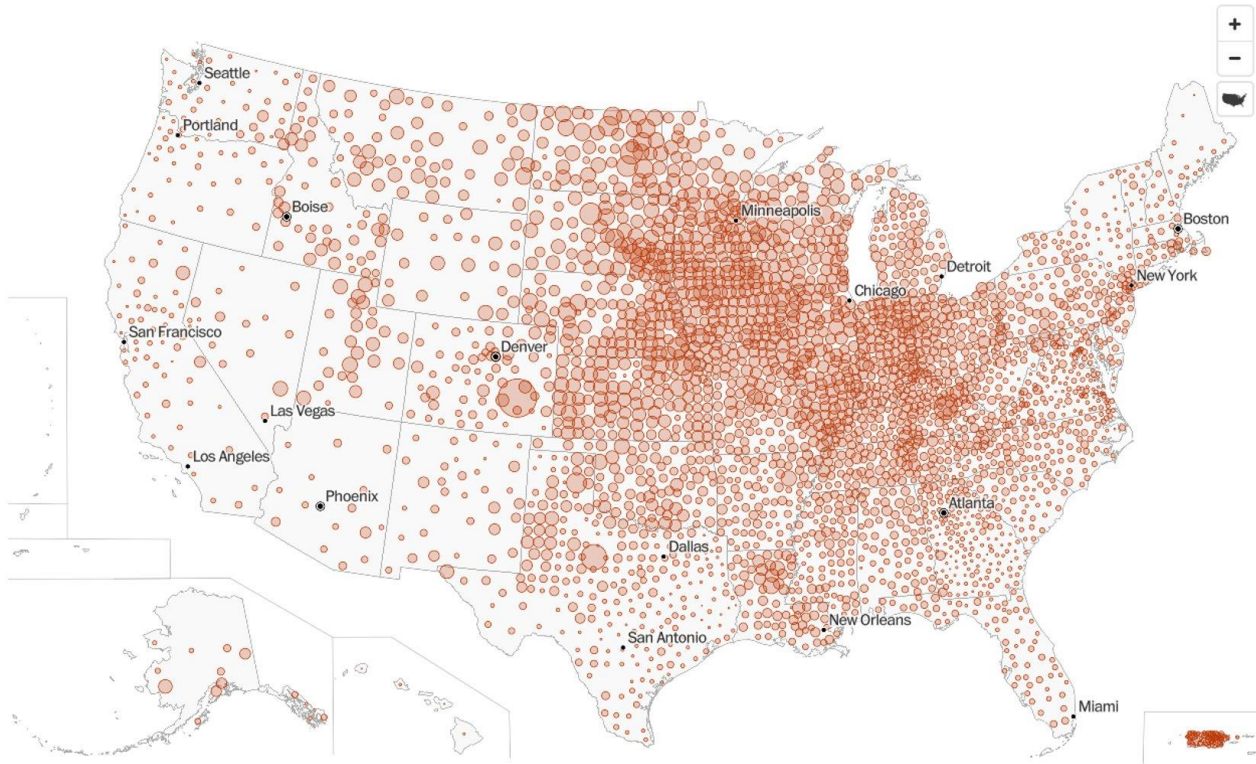
Reported cases per 100,000 residents by county  
since last week

Click on a state to explore county details

- Deaths
- Cases
- Adj. for population
- Totals
- Since last week
- Cumulative

Zoom to a county:  
Select...

KEY:  
8,188 reported cases  
per 100k



JHUWash Post 11/16/20

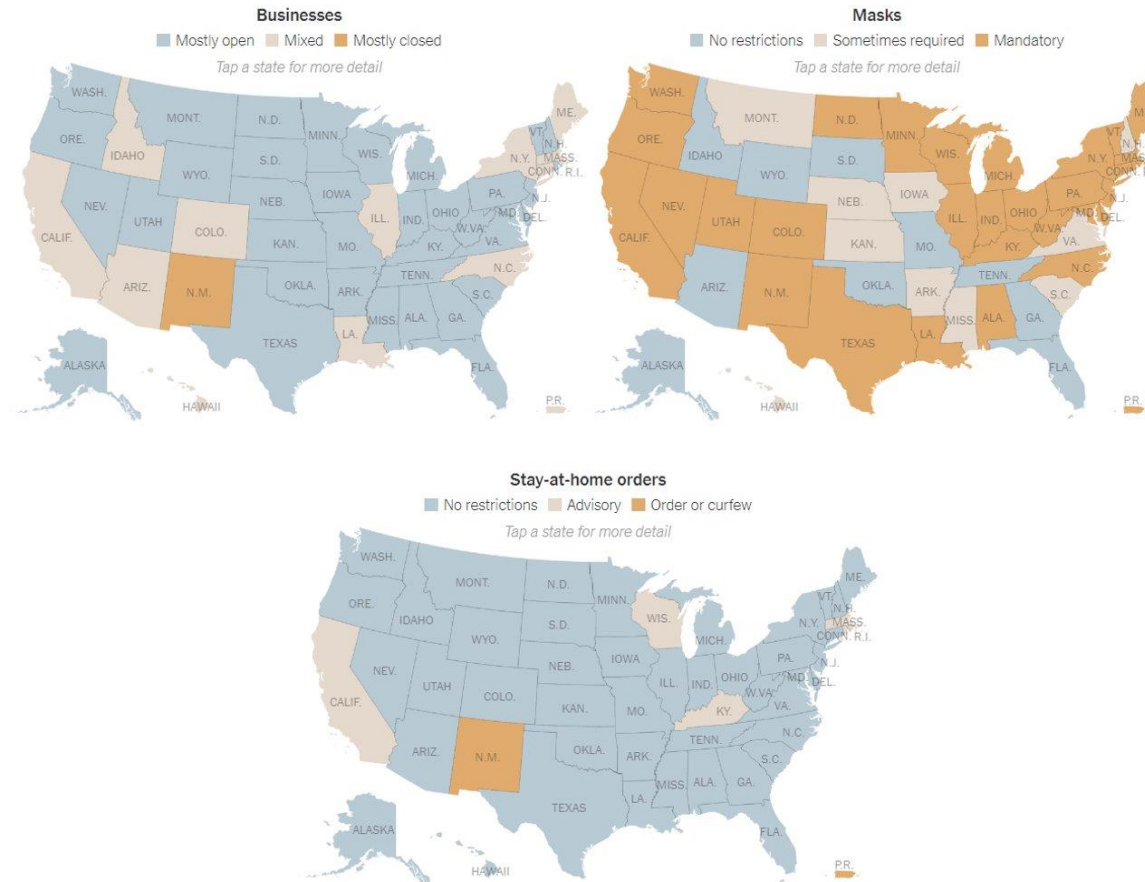




# Don't Go - If You Do, Look Into Details

The New York Times

By The New York Times  
Updated Nov. 16, 2020

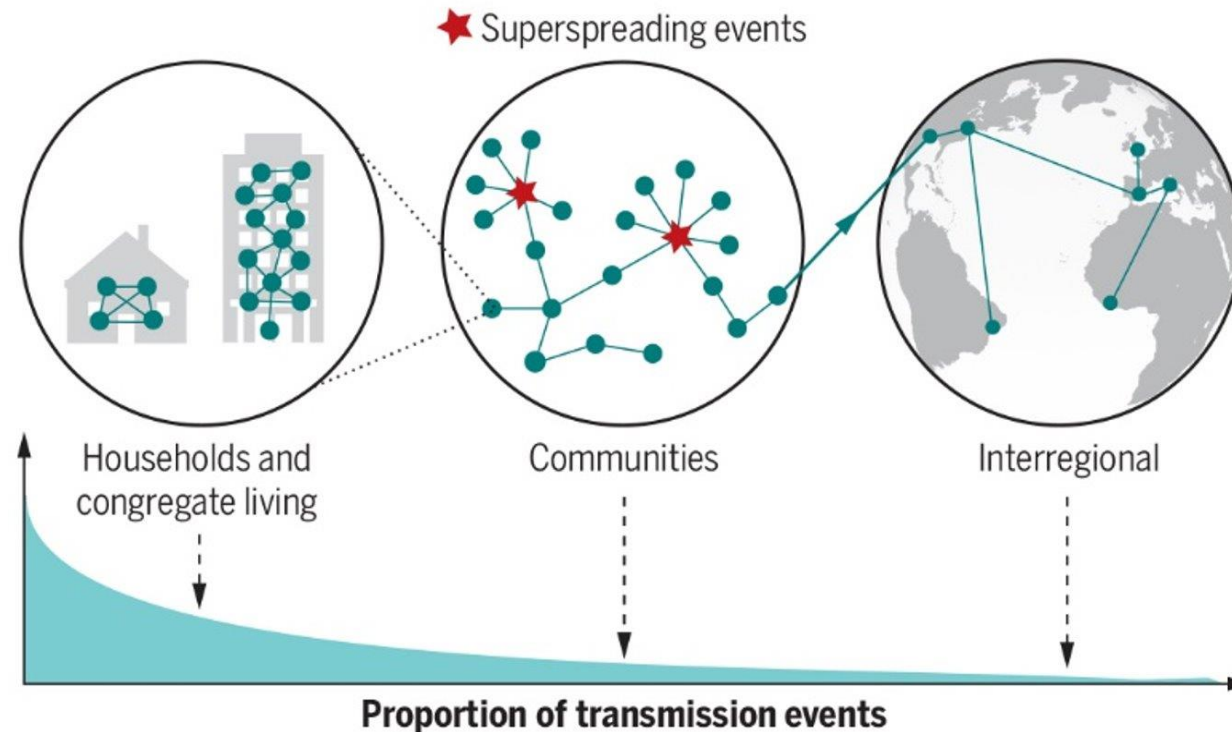


November 16, 2020

# Where Are Most Infections Acquired?

## SARS-CoV-2 spread across spatial scales

Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is mostly transmitted within households and household-like settings. A decreasing proportion of transmission events take place at increasing spatial scales, but these events become more critical for sustaining the pandemic.



Lee et al, *Science* 23 Oct 2020:  
Vol. 370, Issue 6515, pp. 406-407

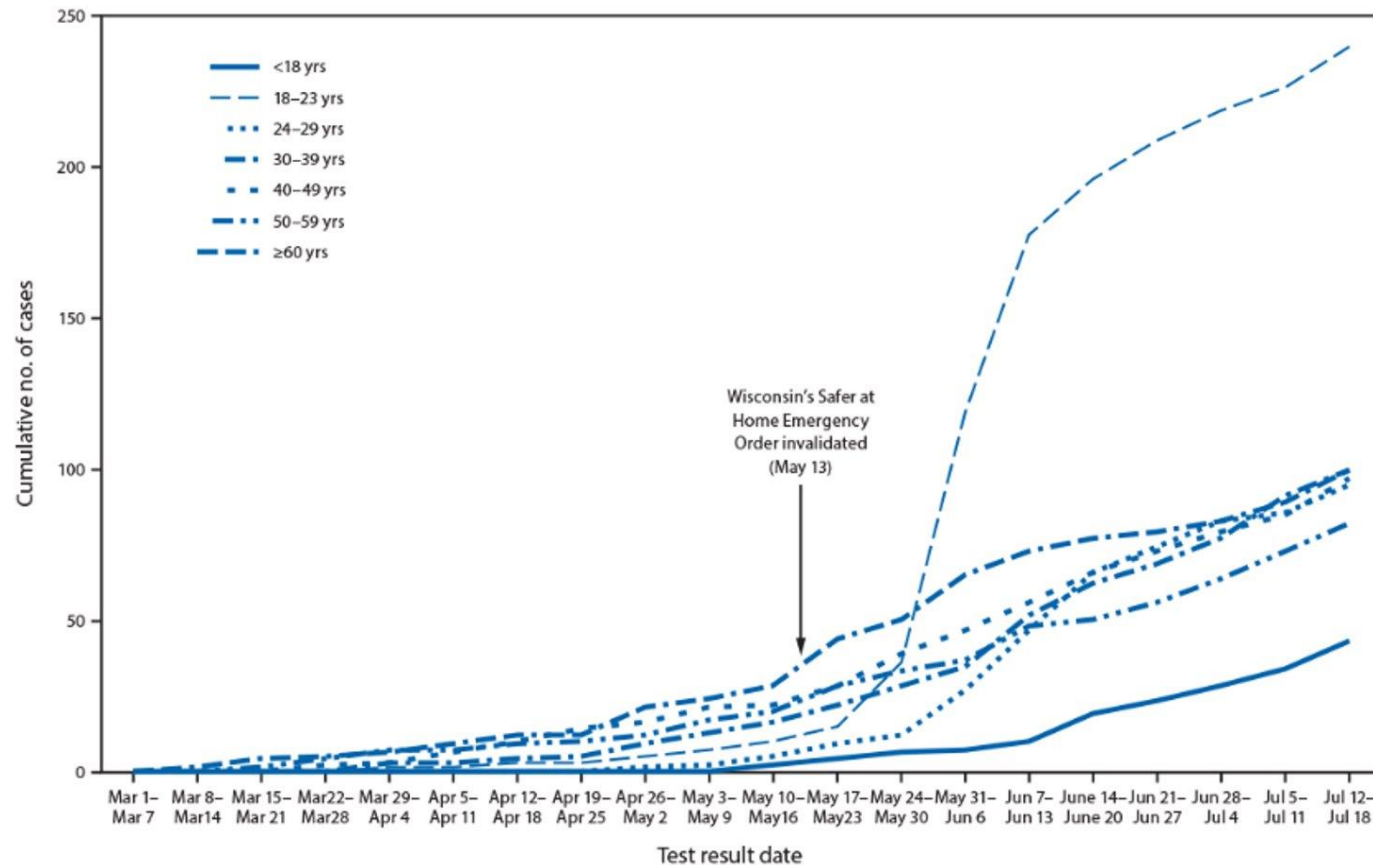




# Youth Is Wasted on the Young (?)

## --George Bernard Shaw

FIGURE. Cumulative number of confirmed COVID-19 cases, by age group (N = 757) — Winnebago County, Wisconsin, March 1–July 18, 2020



Wilson, *MMWR Weekly* / October 16, 2020 / 69(41);1497–1502





# Home for the Holidays - Grandparents Beware

- Voluntary testing
- Some but not all schools
- Will lower but not avoid all risk

Education

## Before Thanksgiving, colleges plan to ramp up testing for coronavirus



A University of Wisconsin at Madison student exits an on-campus coronavirus testing site on Oct. 15. The school is among colleges that plan to expand testing before students leave campus for Thanksgiving. (Jing Guan/Reuters)

By Nick Anderson

November 2, 2020 at 10:00 a.m. EST

+ Add to list

Washington Post





# CDC Recommendations: Holidays

- Limit numbers or keep to your bubble (keep local)
- If community rates increasing - more danger
  - Where are your guests coming from?
- Location: outside preferred
- Duration: short
- Mitigation: wear masks (even indoors), social distance (including when eating)
  - Loud talking, singing as increasing risks

<https://www.cdc.gov/coronavirus/2019-ncov/daily-life-coping/holidays.html>





# Many Public Health Officials Say CDC Recommendations Too Lenient

- Canada—
  - Justin Trudeau canceling any in-person gatherings
- “Thanksgiving will be a Superspreader event”
  - Dr. William Schaffner, Professor of Vanderbilt University.
    - “In fact, I’m convinced, just looking at the way our general population is currently behaving.”







# No Go Recommendations

People who should not attend in-person holiday celebrations

## People with or exposed to COVID-19

Do not host or participate in any in-person festivities if you or anyone in your household

- Has been diagnosed with COVID-19 and has [not met the criteria for when it is safe to be around others](#)
- Has [symptoms of COVID-19](#)
- Is waiting for COVID-19 [viral test](#) results
- May have been [exposed to someone with COVID-19 in the last 14 days](#)
- Is at increased risk of severe illness from COVID-19

## People at increased risk for severe illness

If you are at [increased risk of severe illness](#) from COVID-19, or live or work with someone at increased risk of severe illness, you should

- Avoid in-person gatherings with people who do not live in your household.
- Avoid larger gatherings and consider attending activities that pose lower risk (as described throughout this page) if you decide to attend an in-person gathering with people who do not live in your household.

<https://www.cdc.gov/coronavirus/2019-ncov/daily-life-coping/holidays.html>





# Considering Risk

## Lower risk activities

- Having a small [dinner](#) with only people who live in your household
- Preparing traditional family recipes for family and neighbors, especially those at higher risk of severe illness from COVID-19, and delivering them in a way that doesn't involve contact with others
- Having a virtual dinner and sharing recipes with friends and family
- Shopping online rather than in person on the day after Thanksgiving or the next Monday
- Watching sports events, parades, and movies from home

## Moderate risk activities

- Having a small outdoor [dinner](#) with family and friends who live in your community
  - Lower your risk by following CDC's recommendations on [hosting gatherings or cook-outs](#).
- Visiting pumpkin patches or orchards where people use hand sanitizer before touching pumpkins or picking apples, wearing masks is encouraged or enforced, and people are able to maintain social distancing
- Attending a small outdoor sports events with safety precautions in place

## Higher risk activities

Avoid these higher risk activities to help prevent the spread of the virus that causes COVID-19:

- Going shopping in crowded stores just before, on, or after Thanksgiving
- Participating or being a spectator at a crowded race
- Attending crowded parades
- Using [alcohol or drugs](#), which can cloud judgement and increase risky behaviors
- Attending large indoor gatherings with people from outside of your household

<https://www.cdc.gov/coronavirus/2019-ncov/daily-life-coping/holidays.html>





Vaccines and monoclonal antibodies—Some good news

# PREVENTION



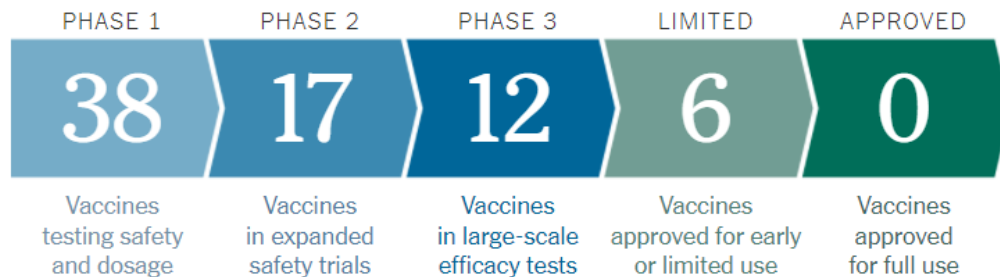


# The COVID-19 Vaccine Race

- 300 candidate vaccines
- 61 in human trials

## Coronavirus Vaccine Tracker

By Jonathan Corum, Sui-Lee Wee and Carl Zimmer Updated November 16, 2020



All two injections except:  
JNJ & CanSinoBio (single injections)

## Vaccines in Phase 3 trials

- Moderna (mRNA)
- BioNTech/Pfizer (mRNA)
- CanSinoBio\* (Ad5)
- Gamaleya\* (Ad5/Ad26)
- Oxford/AstraZeneca (ChAdOx1)
- Sinovac\* (inactivated)
- Wuhan Inst/Sinopharm (inactivated)
- Sinopharm\* (inactivated)
- Murdoch (BCG vaccine)
- JNJ (Ad26)
- Bharat (inactivated)

\* Approved for early use in some countries

NYT 11/16/2020





# Bamlanivimab FDA EUA (11/10/20)

THE NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

## SARS-CoV-2 Neutralizing Antibody LY-CoV555 in Outpatients with Covid-19

Peter Chen, M.D., Ajay Nirula, M.D., Ph.D., Barry Heller, M.D.,  
Robert L. Gottlieb, M.D., Ph.D., Joseph Boscia, M.D., Jason Morris, M.D.,  
Gregory Huhn, M.D., M.P.H.T.M., Jose Cardona, M.D., Bharat Mocherla, M.D.,  
Valentina Stosor, M.D., Imad Shawa, M.D., Andrew C. Adams, Ph.D.,  
Jacob Van Naarden, B.S., Kenneth L. Custer, Ph.D., Lei Shen, Ph.D.,  
Michael Durante, M.S., Gerard Oakley, M.D., Andrew E. Schade, M.D., Ph.D.,  
Janelle Sabo, Pharm.D., Dipak R. Patel, M.D., Ph.D., Paul Klekotka, M.D., Ph.D.,  
and Daniel M. Skovronsky, M.D., Ph.D., for the BLAZE-1 Investigators\*

- BLAZE-1 RCT, interim analysis
- Mild/moderate COVID-19
- Single dose, 456 non-hospitalized patients
- 1° endpoint, change viral load d11 NOT met
- Approval based on 2° endpoint:
- Hospitalization or ED visit at d28
- 3% vs. 10% placebo
- --Unclear how many ED vs. hospital

Role: (+) SARS-CoV-2, age  $\geq 12$ , high risk for severe COVID-19

NEJM October 28, 2020





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- Complete the evaluation on at [COVID19.DKBmed.com](https://COVID19.DKBmed.com)
- Upon registering and successfully completing the activity evaluation, you will have immediate access to your certificate.

### **To access more resources related to COVID-19:**

- Access our resource hub at [COVID19.DKBmed.com](https://COVID19.DKBmed.com)

**To ask your own question, email:** [QA@dkbmed.com](mailto:QA@dkbmed.com)

