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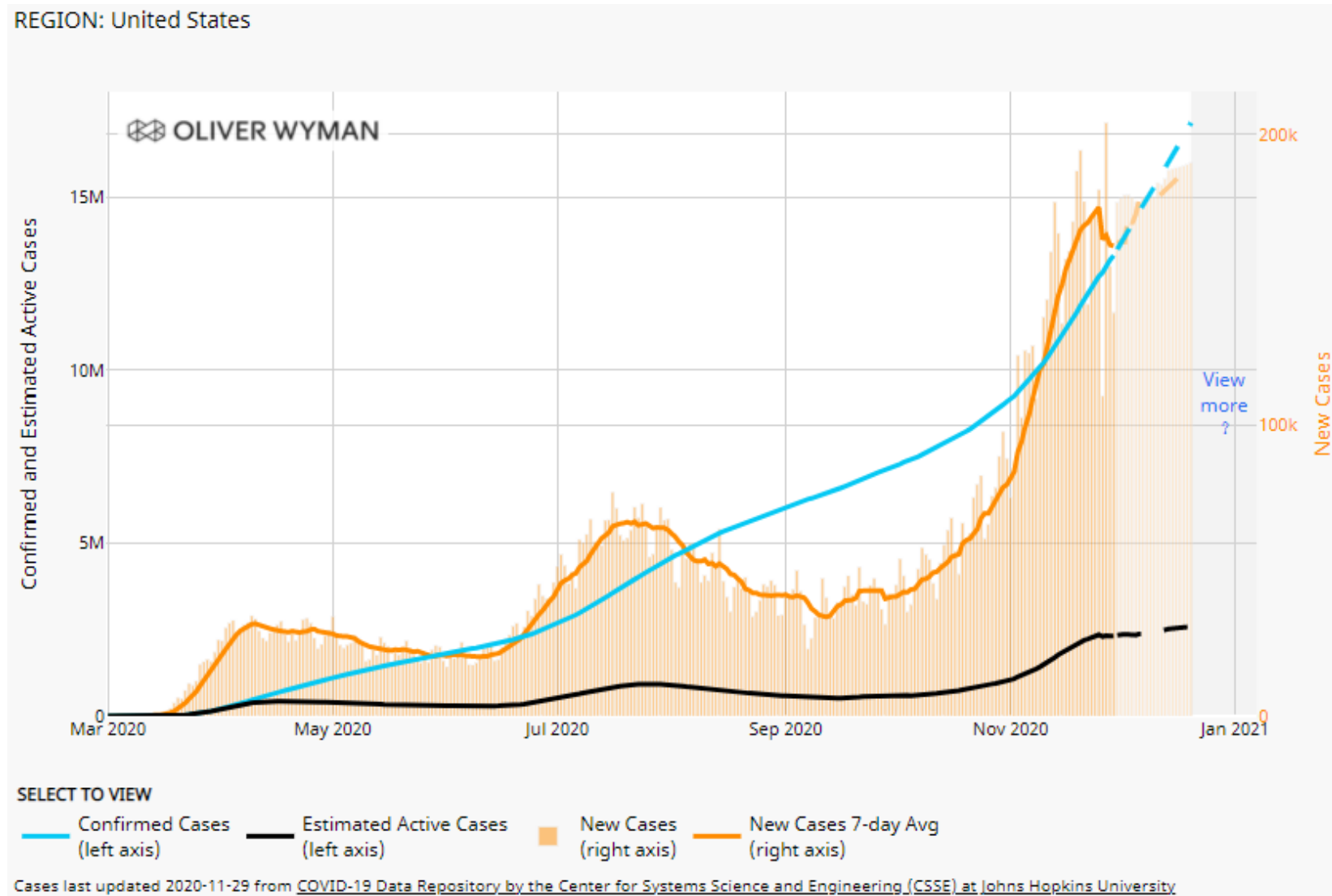
# COVID-19 Updates and Insights

December 3<sup>rd</sup>, 2020

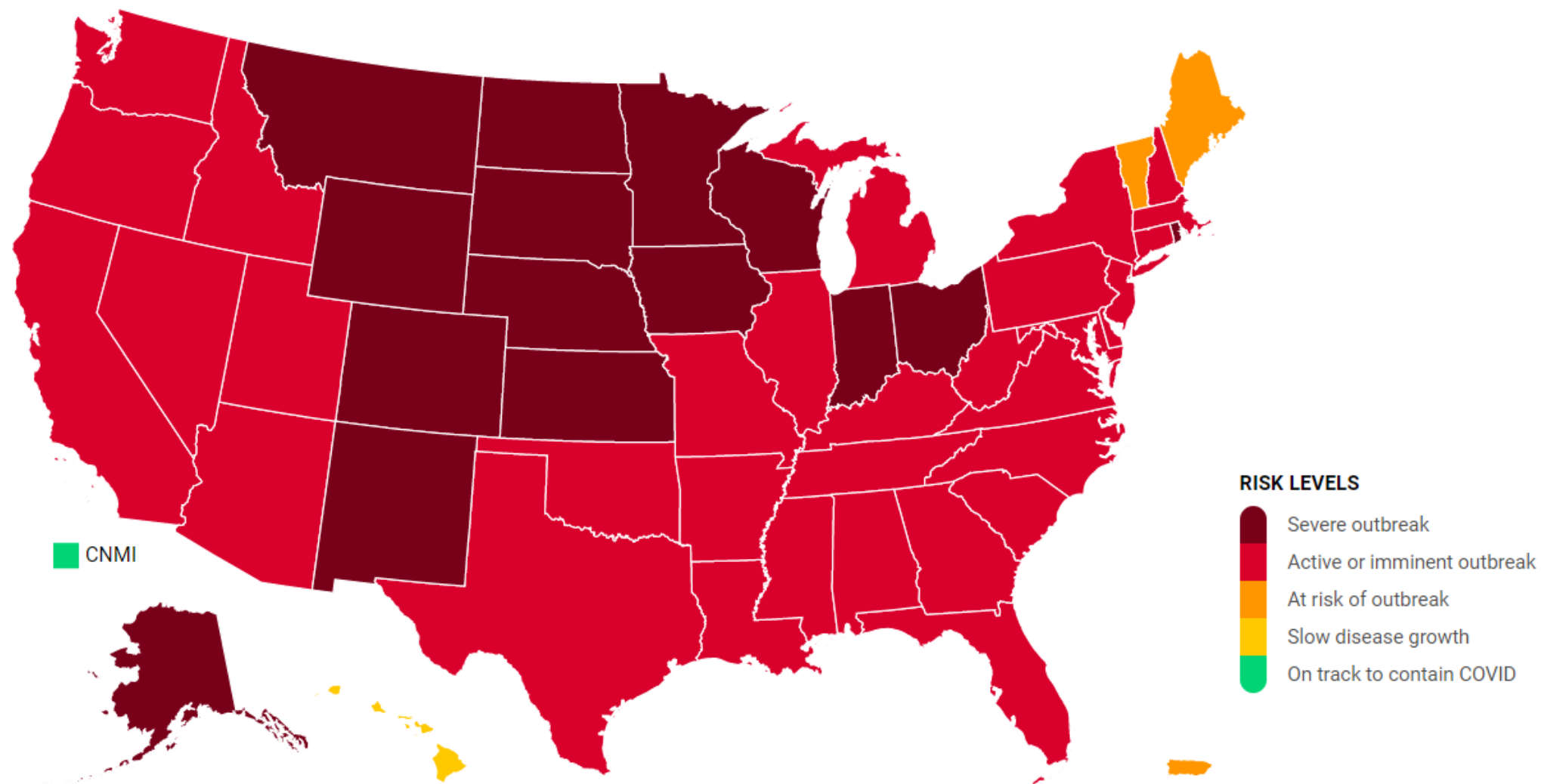
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# COVID-19 will influence our world for months to come



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Source: covidactnow.org

# Review of COVID-19 testing types

|                                 | RT-PCR  | Rapid Molecular                                | Rapid Antigen  | Antibody  |
|---------------------------------|---|--|--|---|
| <b>Purpose</b>                  | <b>Identifies virus presence - diagnostic</b> Detects fragments of SARS-CoV-2 in the nose, throat, or other areas in the respiratory tract. |  | <b>Identifies virus presence - diagnostic</b> Detects proteins that make up part of the SARS CoV-2 virus | <b>Identifies past infection with the virus</b> , indicating some level of immunity |
| <b>Sensitivity/ Specificity</b> | High  | High/Moderate                                  | Moderate   | Moderate (highly variable esp around PPV)   |
| <b>Turnaround Time</b>          | 24-72 hours but can be 7+ days  | <24 hours (commonly 15 – 60 minutes)           | <24 hours (commonly 15 – 60 minutes)   | Serologic (blood tests) commonly go to the lab                                      |
| <b>Examples – FDA EUA</b>       | Quest, LabCorp<br>BioReference, Biomeme,<br>Roche   | Abbott ID-Now,<br>Cepheid Xpert Xpress,<br>Cue | Becton, Quidel, Abbott<br>Binax-NOW, Roche   | Many EUA approved   |

# Quarantine vs isolation

## What's the difference?

1

**Quarantine:** Someone who has been exposed but is not sick and has not tested positive, stays away from others for the duration of the incubation period of the SARS-CoV-2 virus, which is 14 days, and monitors their health for signs and symptoms of COVID-19

2

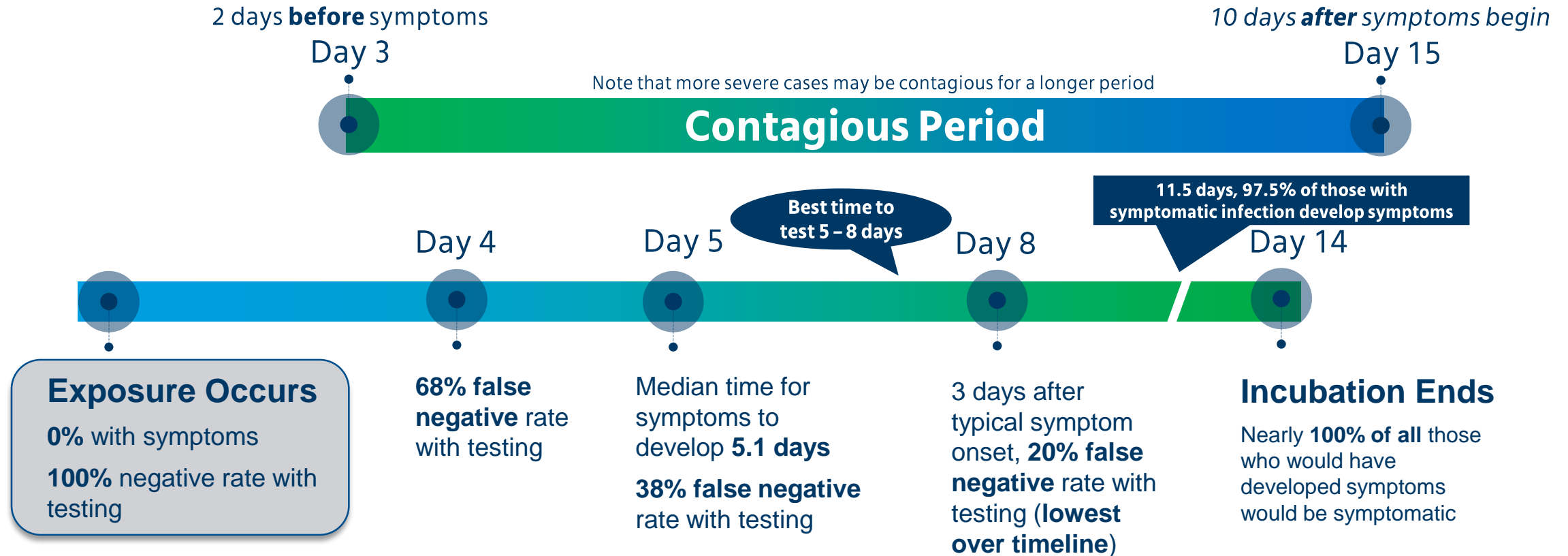
**Isolation:** Someone who is known or suspected to have SARS-CoV-2 infection (symptoms or positive test) isolates themselves from others, including those in their own home, to prevent spreading the virus. Duration is 10 days from positive test for people without symptoms and for those with symptoms, it's at least 10 days from onset of symptoms, 24 hours fever free and symptoms improving





# COVID-19 Estimated Incubation Timeline, Testing Accuracy and Contagiousness

Note that this is for informational purposes only, is not considered medical advice (Mercer is not a medical advisor), and is based on small, published studies as referenced below as well as assumptions. It should be considered only as a general guidance.



## Notes:

- Testing = diagnostic PCR for virus
- Proportion of “false negatives” is relative to all of those who will become infected
- [CDC recommends](#) remaining in quarantine for 14 days for all exposed people regardless of testing negative and some state and local public health guidance may provide varying recommendations
- Information is considered up to date as of 09/16/2020 and is expected to change over time

## Sources:

1. Kucirka LM, Lauer SA, Laeyendecker O, Boon D, Lessler J. Variation in False-Negative Rate of Reverse Transcriptase Polymerase Chain Reaction-Based SARS-CoV-2 Tests by Time Since Exposure. Ann Intern Med. 2020
2. Lauer SA, Grantz KH, Bi Q, Jones FK, Zheng Q, Meredith HR, et al. The incubation period of coronavirus disease 2019 (COVID-19) from publicly reported confirmed cases: estimation and application. Ann Intern Med. 2020

# Good News on vaccine development

**mRNA Vaccines Lead the Pack in Bringing Good News to the Fight Against COVID-19**



Both vaccines require 2 doses spread 21-28 days apart for most of the vaccine candidates

## Efficacy

Pfizer - 95%

Moderna - 94.1%

**mRNA vaccines are a new, groundbreaking discovery**

Requires cold storage to keep the vaccine stable

Moderna - shipped on dry ice, fridge for 1 month

Pfizer - shipped at - 80° C, fridge for 5 days

## Mid-2021

When we'll likely see vaccine available to the general public

# What you should know about the CDC's distribution plans

## State Public Health Will Lead Distribution Strategy

The CDC required each state public health department to come up with a plan for distribution. These plans were submitted October 16<sup>th</sup> in draft form and executive summaries published on the CDC website:

<https://www.cdc.gov/vaccines/covid-19/covid19-vaccination-guidance.html>

There are different strategies described in these plans, and priority groups (critical populations) are defined uniquely by each of them.

## Later Phases of Distribution Might Look Different

HHS announced recently that they will partner with pharmacies across the country, including Walgreens, CVS, Rite Aid, grocers etc.

Details have not yet been shared, but expect to see vaccines available in these locations (60% of pharmacies) in the later phases of vaccine distribution, once priority groups have been immunized.

Wellness, onsite/near-site and other vendors will likely be sources of vaccine administration too.

### Sources:

CDC Interim Playbook for Jurisdiction Operations Oct 29<sup>th</sup>, 2020 [https://www.cdc.gov/vaccines/imz-managers/downloads/COVID-19-Vaccination-Program-Interim\\_Playbook.pdf](https://www.cdc.gov/vaccines/imz-managers/downloads/COVID-19-Vaccination-Program-Interim_Playbook.pdf)

HHS - <https://www.hhs.gov/about/news/2020/11/12/trump-administration-partners-chain-independent-community-pharmacies-increase-access-future-covid-19-vaccines.html>



# It's going to take some time, so don't forget the basics

## Reviewing the factors that influence risk of transmission

### Behavior

▶ Activity (exercising, singing, yelling), wearing masks, following other recommendations

### Airflow

▶ Amount of air exchange in the environment, outdoors is best

### Number

▶ Total number of people interacting and number of cohorts/mixing of different groups

### Distance

▶ Physical spread between other people

### Time

▶ Cumulative time



# Questions?

Disclaimer: The information in this slide deck is not medical or legal advice. Mercer is not a medical or legal advisor. Rather, this guidance is largely assimilated from the information available from the CDC and other public resources as noted below as of December 3, 2020.

<https://www.cdc.gov/coronavirus/2019-nCoV/index.html>

<https://www.who.int/emergencies/diseases/novel-coronavirus-2019>