



## ***IHE ECHO #7- COVID-19***

***Where are we now ...***

***and where are we headed?***

October 29<sup>th</sup>, 2020

# Agenda

1. A remembrance
2. COVID-19 – what's new
3. The numbers
4. Testing
5. Prevention
  - Student Health Ambassadors
6. Flu and COVID – Flu Shots!
7. Questions and Answers

## If you leave home, know your 3 Ws!



The infographic is divided into three vertical panels by dotted lines. The first panel shows a line drawing of a cloth mask with the word 'WEAR' in purple, followed by the text 'a cloth mask over your nose and mouth.' The second panel shows two silhouettes of people standing apart with a horizontal line between them labeled '6 FEET', with the word 'WAIT' in purple below, followed by '6 feet apart. Avoid close contact.' The third panel shows a line drawing of hands being washed with soap bubbles, with the word 'WASH' in purple below, followed by 'your hands or use hand sanitizer.' At the bottom, a dark blue banner contains '@NCDHHS' on the left and '#StayStrongNC' on the right.

**WEAR**  
a cloth mask over  
your nose and mouth.

**WAIT**  
6 feet apart. Avoid  
close contact.

**WASH**  
your hands or  
use hand sanitizer.

@NCDHHS #StayStrongNC

# What is new related to COVID-19?

- *Respiratory droplet most important route of transmission*
- *Recent studies indicate that SARS-CoV-2 may be more contagious than previously thought*
- *Up to 40% of people with COVID-19 may have no symptoms*
- *People can spread the virus before they develop symptoms*
- *Refined definition of exposure*
- *Masks work to reduce spread*
- *Masks types have variable effectiveness*
- *Social gatherings resulting in outbreaks*

# World-Wide COVID-19 Numbers

**Globally, as of 3:58 pm CET, 28 October 2020:**

- **43,766,712 confirmed cases**
- **1,163,459 deaths**

reported to the World Health Organization

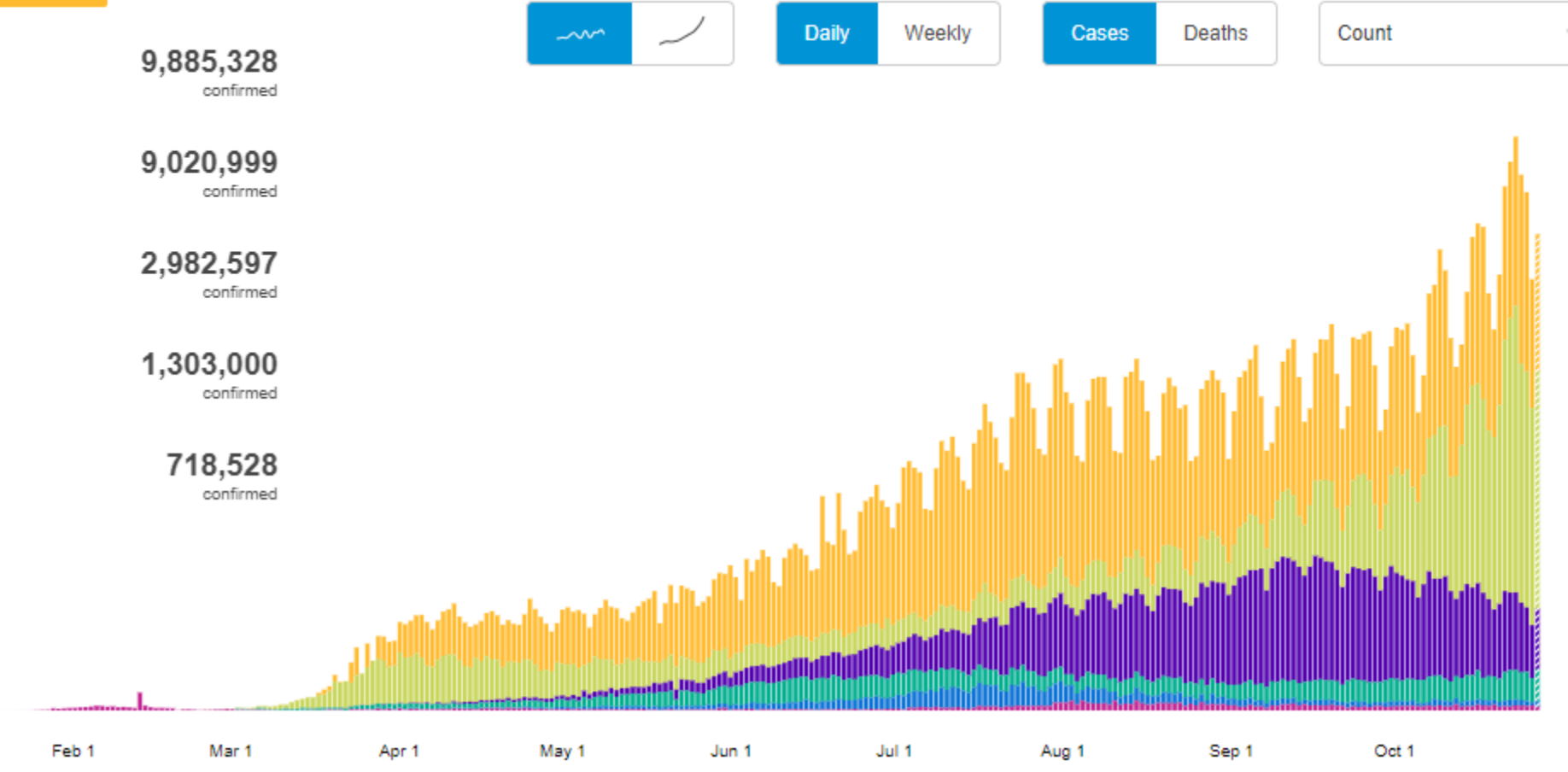
# What in the world is happening with COVID?

## Situation by WHO Region

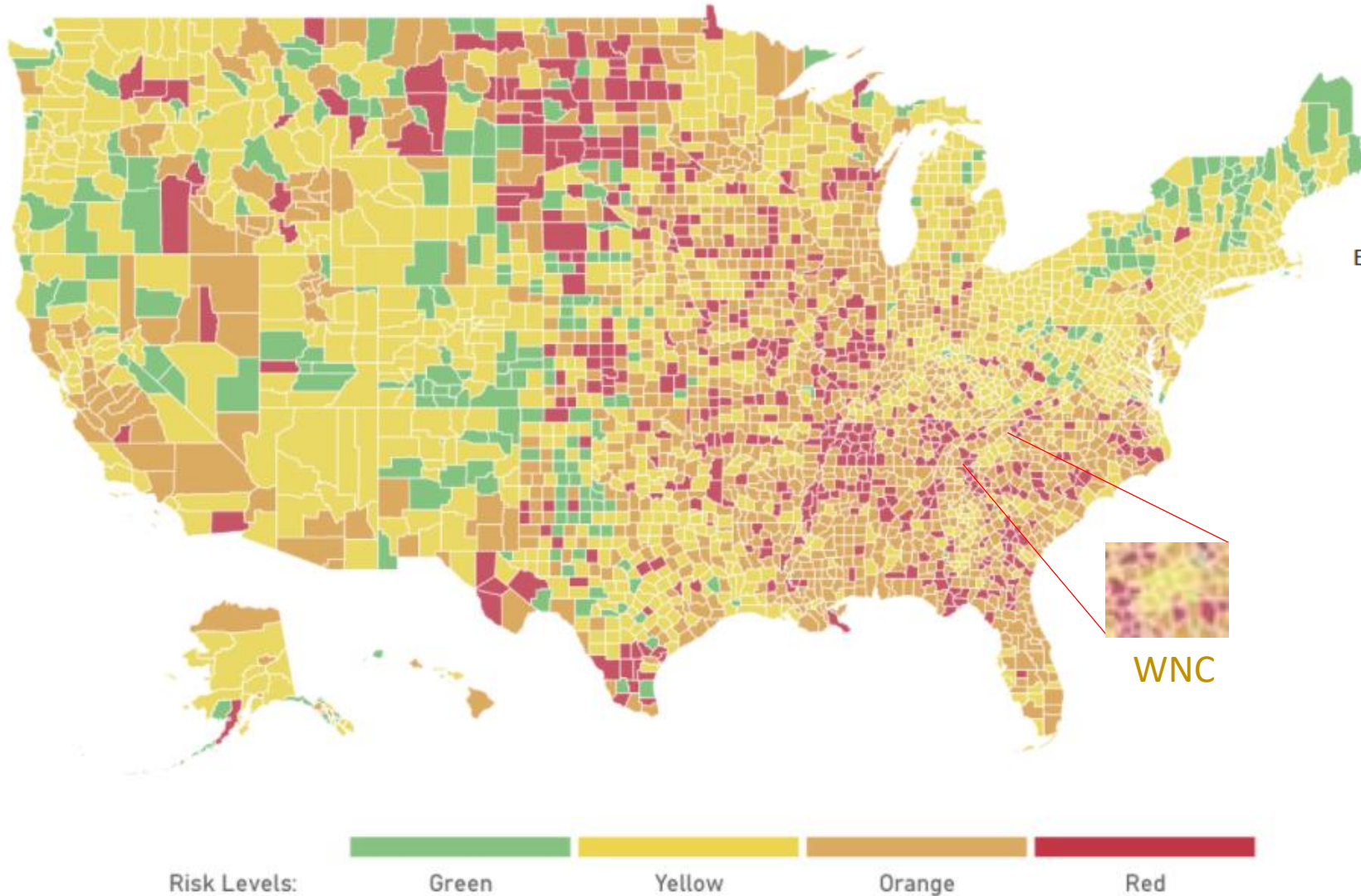
Americas	19,855,519
Europe	9,885,328
South-East Asia	9,020,999
Eastern Mediterranean	2,982,597
Africa	1,303,000
Western Pacific	718,528

Source: World Health Organization  
Data may be incomplete for the current day or week.

<https://covid19.who.int/>  
Data pulled 10/27/2020



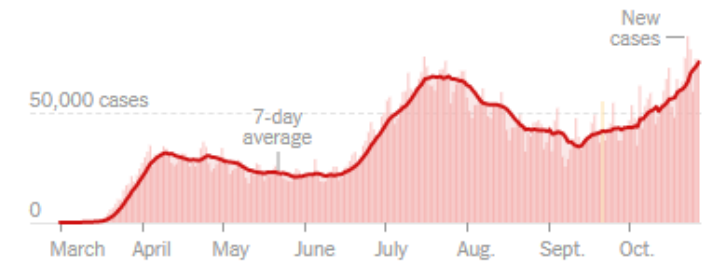
# What is happening with COVID in US?



## Covid in the U.S.

By The New York Times Updated October 28, 2020, 2:47 P.M. E.T.

[Leer en español](#)



	TOTAL REPORTED	ON OCT. 27	14-DAY CHANGE
<b>Cases</b>	8.8 million+	74,410	+39% →
<b>Deaths</b>	227,235	983	+13% →

■ Day with data reporting anomaly.  
Includes confirmed and probable cases where available. 14-day change trends use 7-day averages.

<https://www.nytimes.com/interactive/2020/us/coronavirus-us-cases.html>

# What is happening with COVID in NC?

## Cases on the rise in North Carolina

### Daily Cases



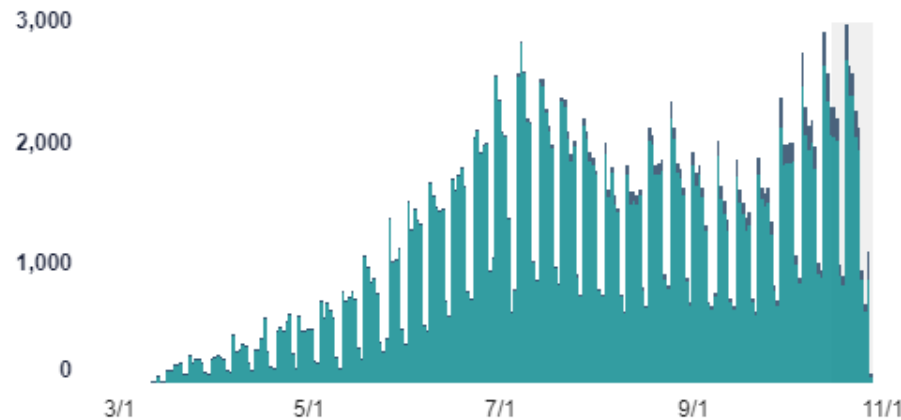
### Daily Deaths



#### Top Graph - Select By:

- CASES by Date Reported
- CASES by Date of Specimen Collection
- DEATHS by Date of Death

Is North Carolina seeing a downward trajectory over 14 days, or sustained leveling in new cases?



#### TOTAL CASES

266,136

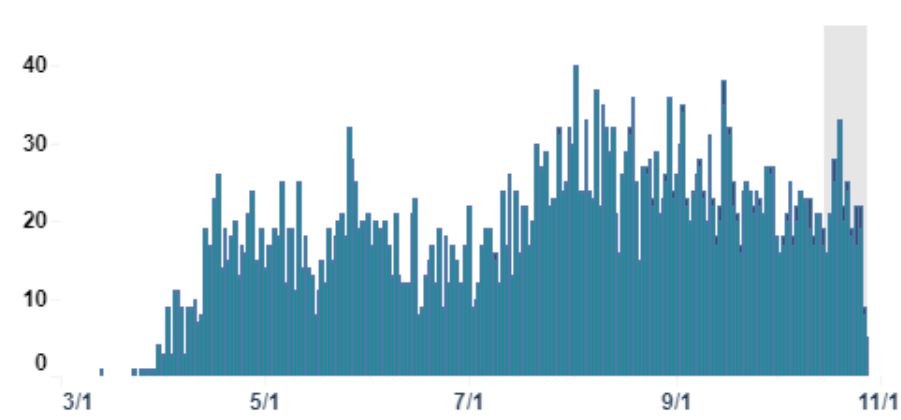
MOLECULAR (PCR)  
POSITIVE CASES  
255,693

ANTIGEN POSITIVE CASES  
10,443

Specimen collection date  
missing for 109 cases.

#### Top Graph - Select By:

- CASES by Date Reported
- CASES by Date of Specimen Collection
- DEATHS by Date of Death



#### TOTAL DEATHS

4,245

MOLECULAR (PCR)  
POSITIVE  
4,176

ANTIGEN POSITIVE  
69

Date of death  
missing for 7 deaths.

Molecular (PCR) positive cases represent confirmed cases, and antigen positive cases represent probable cases of COVID-19, in accordance with CDC case classification guidelines. The terms "confirmed" and "probable" are used nationally to standardize case classifications for public health surveillance but should not be used to interpret the utility or validity of any laboratory test type.

Molecular (PCR) positive cases represent confirmed cases, and antigen positive cases represent probable cases of COVID-19, in accordance with CDC case classification guidelines. The terms "confirmed" and "probable" are used nationally to standardize case classifications for public health surveillance but should not be used to interpret the utility or validity of any laboratory test type.

<https://covid19.ncdhhs.gov/dashboard/cases>

Data pulled 10/28/2020

# What is happening with COVID in WNC?

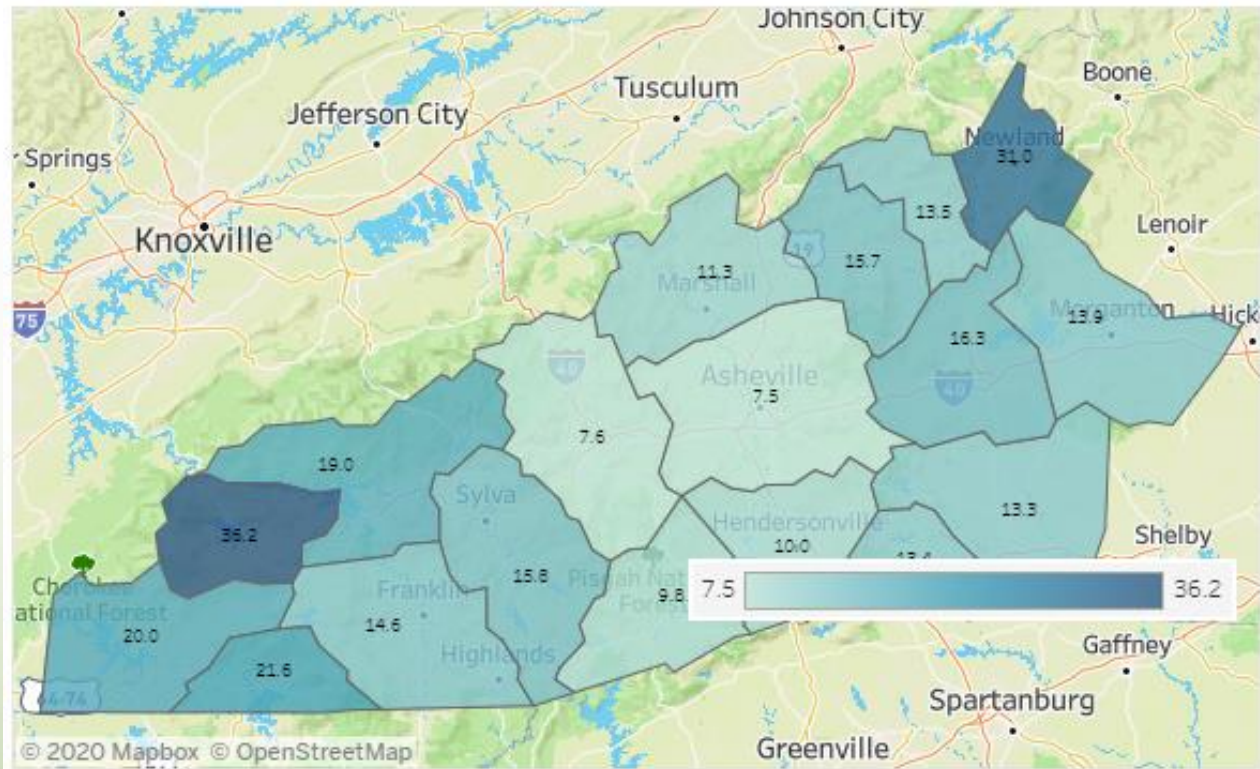
Data for 18 counties in WNC: Avery, Buncombe, Burke, Cherokee, Clay, Graham, Haywood, Henderson, Jackson, Macon, Madison, McDowell, Mitchell, Polk, Rutherford, Swain, Transylvania, Yancey

## County Map by Case

Total Cases Per 10,000

03/16 10/25

Click to highlight map, unclick to revert map

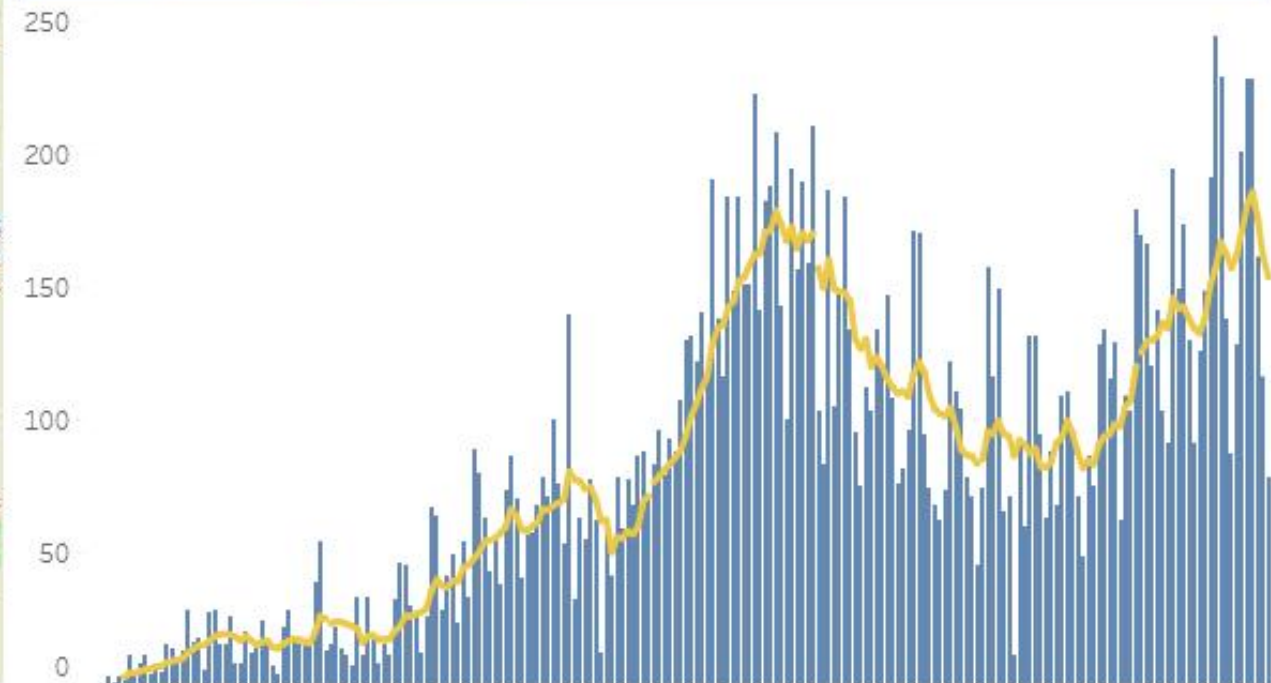


## Lab-Confirmed Cases

Graphs show data for counties selected in map

- Cases by date reported
- Cases by date of specimen collection

## Cases by date reported In WNC



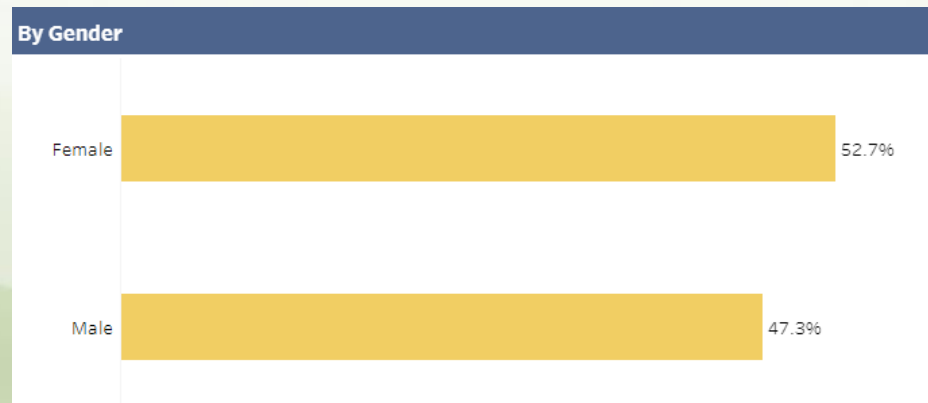
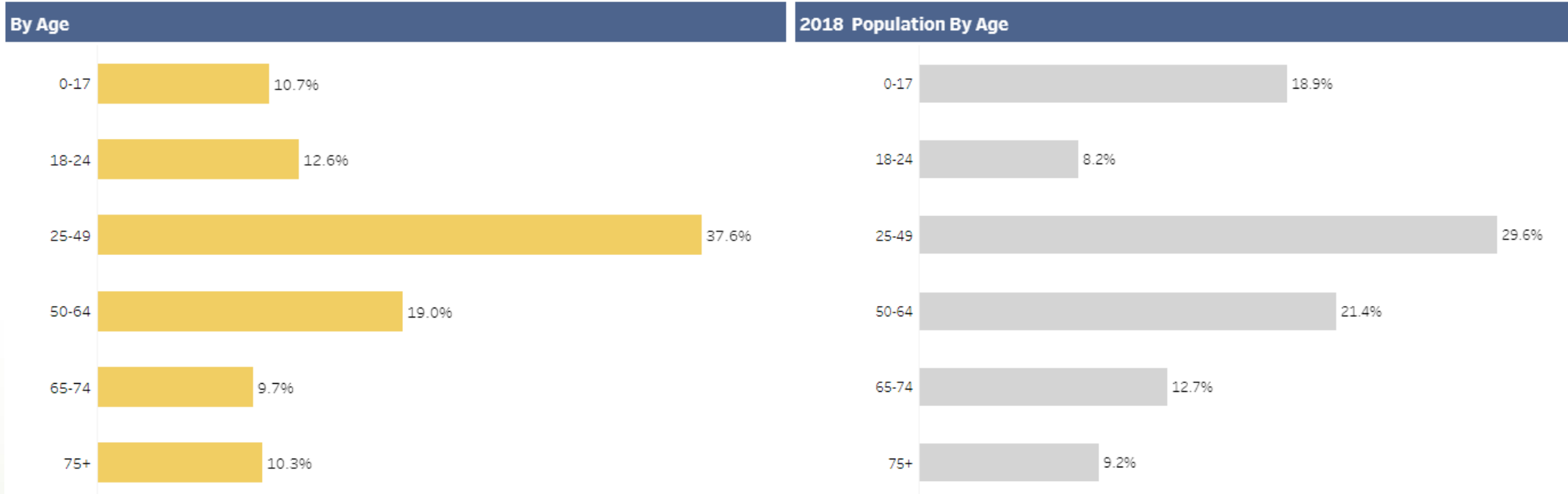
Data pulled 10/26/2020

<https://www.wnchn.org/covid-dashboard/>



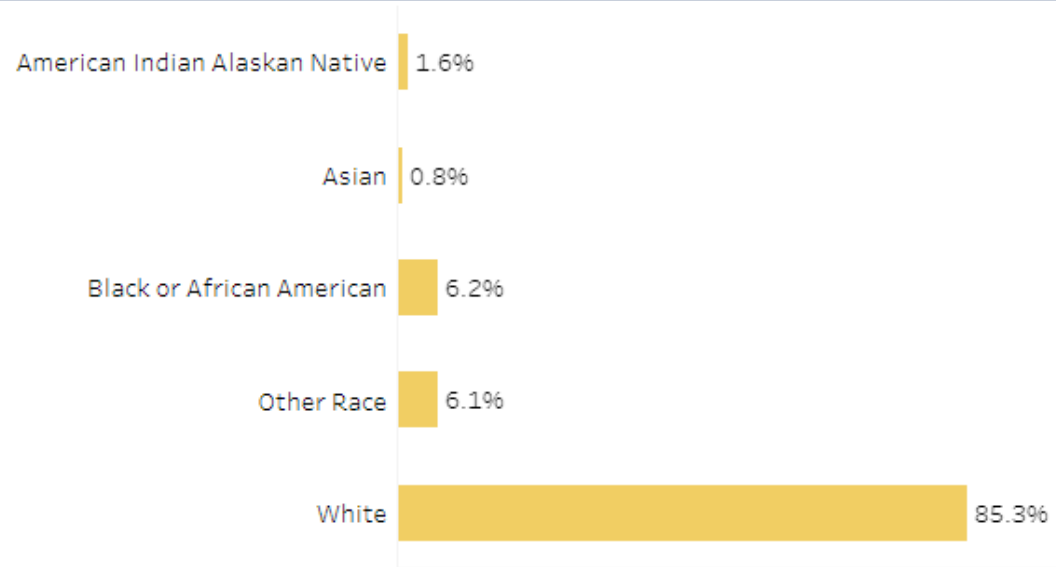


# Who is getting COVID in WNC by age and gender?

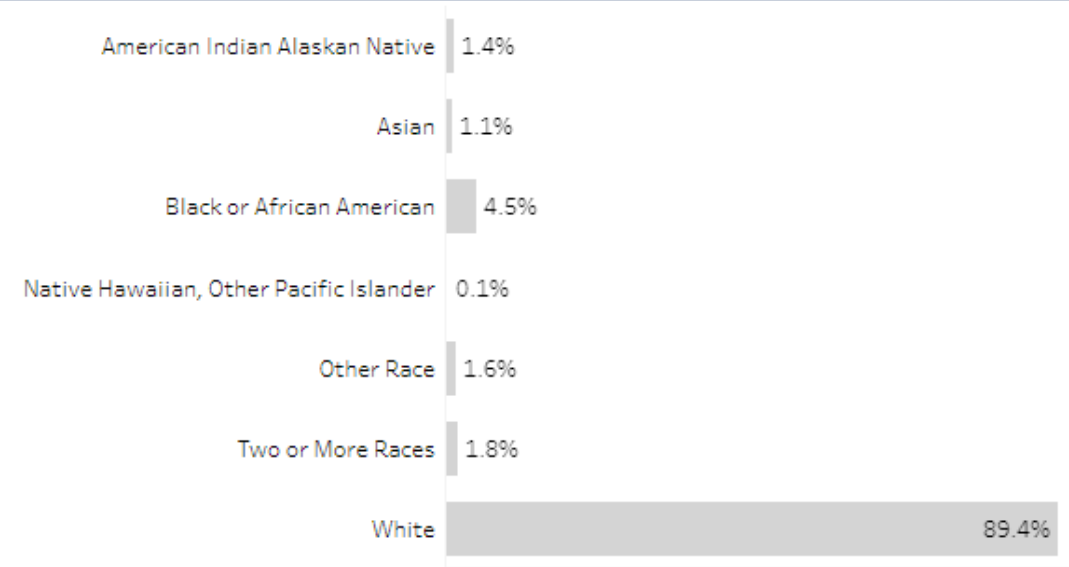


# Who is getting COVID in WNC by race and ethnicity?

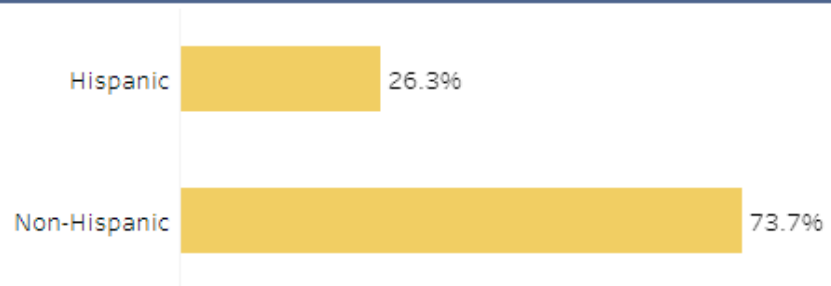
## By Race



## 2018 Population By Race



## By Ethnicity



## 2018 Population By Ethnicity



- *Some populations including communities of color are disproportionately impacted by COVID illness and complications*
- *Public Health is focused on resourcing COVID education, testing and support in these communities*

# How is COVID-19 spread?



<http://mrsjonesroom.com/pix/sneeze.jpg>

- *Mainly person-to-person (more common)*



- *Between people in close contact (within about 6 feet)*
- *Through **respiratory droplets** produced when an infected person coughs, sneezes or talks*
  - *May land in another person's mouth, nose, etc. directly*
- *Through **airborne transmission** in certain circumstances*
  - *Patients receiving medical procedures that cause virus to aerosolize*
  - *In enclosed spaces with inadequate ventilation*
- *Through contact with contaminated surfaces (less common)*
  - *May land on an inanimate object subsequently touched by another who then touches their mouth, nose, etc.*
- *COVID-19 may be spread by people who **are not** showing symptoms*

<https://covid19.ncdhhs.gov/about-covid-19/north-carolinas-strategy-combat-covid-19>

<https://www.cdc.gov/coronavirus/2019-ncov/downloads/2019-ncov-factsheet.pdf>

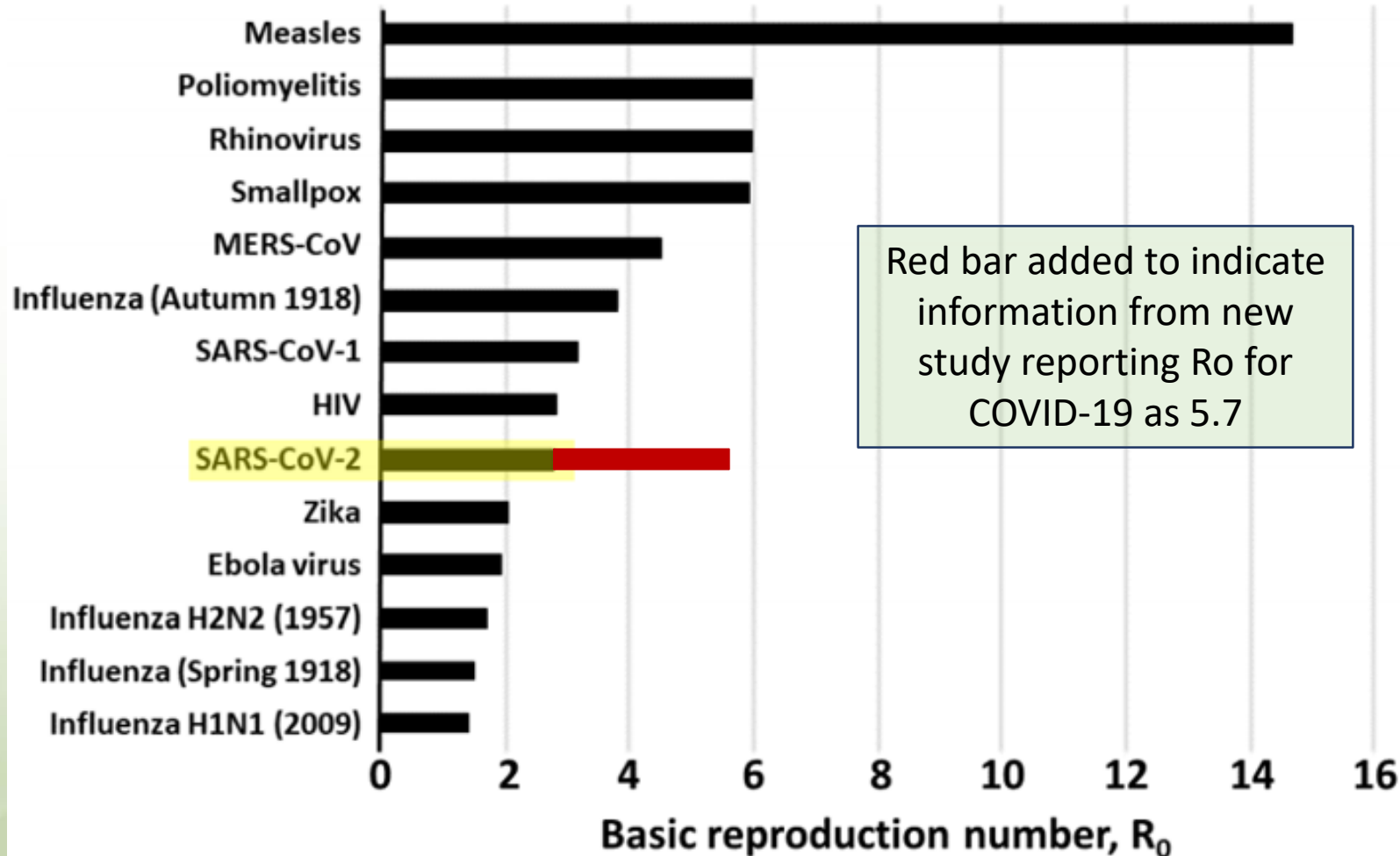
# How contagious is COVID-19?

- $R_0$  is a measurement of ease of spread
- $R_0$  of 1 means each infected person passes the virus to one additional person

New report that the number of other people infected by each infected person may be higher than previously thought

Sanche S, Lin Y, Xu C, Romero-Severson E, Hengartner N, Ke R. High Contagiousness and Rapid Spread of Severe Acute Respiratory Syndrome Coronavirus 2. *Emerg Infect Dis.* 2020;26(7):1470-1477. <https://dx.doi.org/10.3201/eid2607.200282>

[https://wwwnc.cdc.gov/eid/article/26/7/20-0282\\_article](https://wwwnc.cdc.gov/eid/article/26/7/20-0282_article)



# COVID-19 and Gatherings

- *80% of cases may emanate from 10-20% of the people*
- *Up to 40% of cases may be transmitted before people are symptomatic*
  - *Testing may be of limited value in preventing spread unless widely available*
  - *A supplement to, not a substitute for the 3W's*
- *Likelihood of event –in part dependent on the individual and also on environmental factors*
  - *Remembering 6 feet distance in any group situation is essential!*
- *Evidence that Super Spreaders may beget Super Spreaders*
  - *Prevention efforts: 3W's and contact tracing/isolation are CRITICAL!*

# Who has been exposure to COVID-19?

Factors that increase community spread and individual risk



## CDC revised definition of a **Close Contact** 10/21/2020

“Someone who was within 6 feet of an infected person for a **cumulative total of 15 minutes or more over a 24-hour period**\* starting from 2 days before illness onset (or, for asymptomatic patients, 2 days prior to test specimen collection) until the time the patient is isolated.”

\*Factors to consider when defining close contact:

1. **Proximity** - closer distance likely increases exposure risk
2. **Duration** - longer exposure time likely increases risk
3. If infected individual has **symptoms** - period around onset of symptoms is associated with the highest levels of viral shedding
4. If infected person was likely to generate **respiratory aerosols** (e.g., was coughing, singing, shouting)
5. Other **environmental factors** - crowding, adequacy of ventilation, whether exposure was indoors or outdoors

# COVID-19 Return to Community

- Ending Isolation
  - Most people with COVID-19 illness can discontinue isolation **10 days after symptom onset** and no fever for at least 24 hours (without use of fever-reducing medications) and with improvement of other symptoms
  - For people who never develop symptoms, isolation and other precautions can be discontinued 10 days *after the date of their first positive RT-PCR test*
- Ending Quarantine
  - Ends for COVID-19 after longest possible incubation time = **14 days**

<https://mahec.libguides.com/COVID-19>



### If you were exposed to COVID-19...



- Stay home.
- Watch for symptoms.
  - Fever
  - Cough
  - Shortness of breath
  - Chills
  - Muscle pain
  - Headache
  - Sore throat
  - Loss of taste or smell



Symptoms appear **2 to 14 days** after exposure.



### If you have COVID-19 or COVID-19 symptoms...



- Stay home.



- Don't go to work or visit with others outside your home.



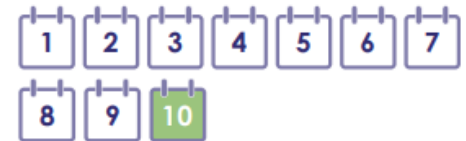
- Call your doctor if you have symptoms, especially if you are over 65, have other health conditions, or are pregnant.

#### Stay in isolation until...

- 24 hours** after your fever is gone without using medicine. 
- AND** **2. Your other symptoms have improved** (for example, cough or shortness of breath).

**AND**

- Ten days** after your symptoms started.



#### How long do I have to stay home? (Fill in the blanks)

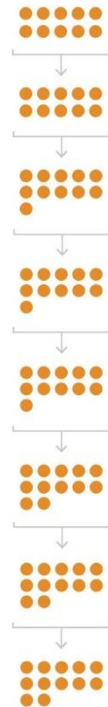
Date I first felt sick:	Date 10 days later:	My fever was gone on:	Date 24 hours later:	My other symptoms got better on:	Circle the latest date. Stay home until:
EXAMPLE April 10	April 20	EXAMPLE April 15	April 16	EXAMPLE April 21	EXAMPLE April 21



# Masks/Face Coverings

If 95% of people wear cloth masks when they're out and about interacting with other people, it reduces transmission by at least 30%

No Masks •



Masks



Whether cloth or medical-grade, masks can **reduce the risk** of respiratory illnesses like COVID-19 by

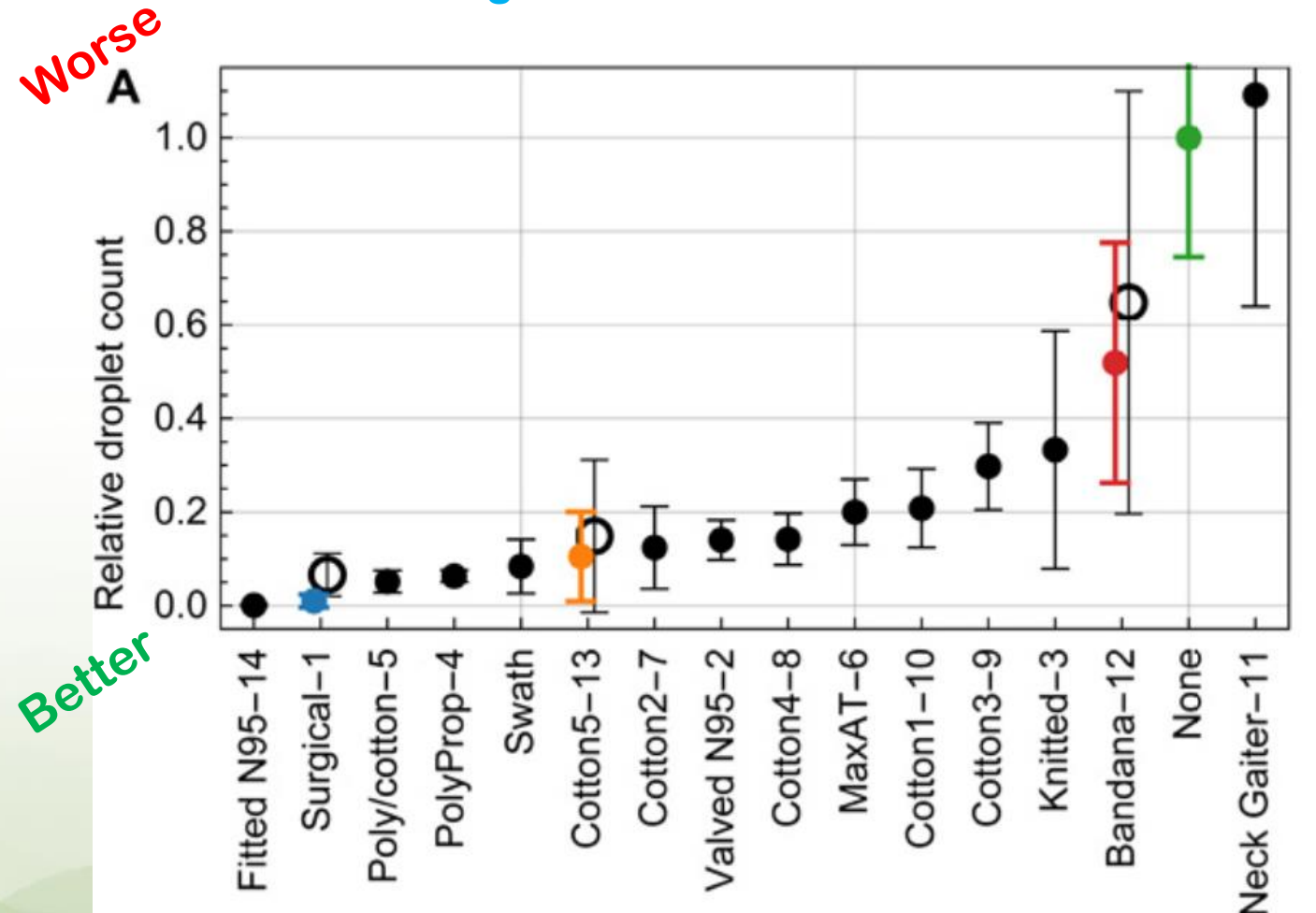
**1/3 or more**



# Effectiveness of Masks by Type

- New study examined droplet spread through various masks
- 2 ply or thicker material masks with close weave work better
- Do not use masks with exhalation valves or vents that allow respiratory droplets to be expelled through the mask
- Bandanas only slightly better than no mask
- Neck gaiters made of fleece (polyester and spandex) not effective
- Take-away:
  - Tight weave & multiple layers
  - Check if light proof
  - Tight fit around edges
  - Consistent use important

“The premise of protection from infected persons wearing a mask is simple: **Wearing a face mask will reduce the spread of respiratory droplets containing viruses.**”



E. P. Fischer, M. C. Fischer, D. Grass, I. Henrion, W. S. Warren, E. Westman, Low-cost measurement of face mask efficacy for filtering expelled droplets during speech. *Sci. Adv.* 6, eabd3083 (2020)

# #MyReasonWNC



I WEAR A MASK TO

keep my community and loved ones safe!

—Susan Mims, MD, MPH



MAHEC

#MyReasonWNC

I WEAR A MASK TO

protect my family and the residents at the nursing home where my mom works.

—Lorin Hogsted



#MyReasonWNC



 **WEAR**    **WAIT**    **WASH**

#MyReasonWNC

# Questions - Discussion