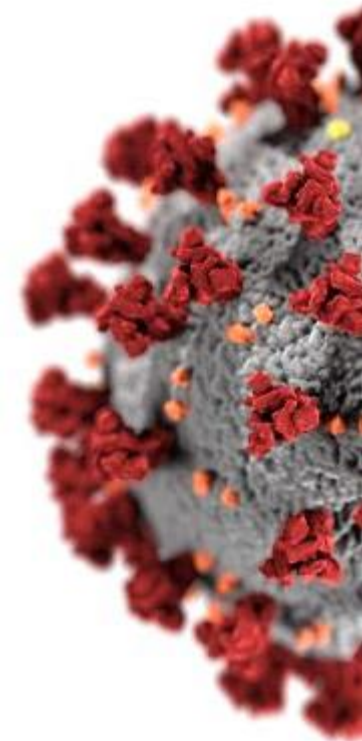


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NOVEL CORONAVIRUS (COVID-19) In Frederick County, MD

**Barbara Brookmyer, MD, MPH
Frederick County Health Officer
November 12, 2020**



Outline

- Current Situation of Virus, globally, national, in Maryland and in Frederick County
- Actions Taken Locally
- Limitations
- Requested Regulation



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Who is Susceptible to Becoming Infected?

- Novel coronavirus because it is new to humans
- Everyone who does not have immune system protection from either prior infection or from vaccination
 - *Emerging research unfortunately looks like “protection” is short at about 3 months, not years*
 - *Vaccine effectiveness (at preventing infection, not just reducing symptoms) and duration – to be determined*



Symptoms of COVID-19

People with COVID-19 have had a wide range of symptoms reported – ranging from mild symptoms to severe illness. Symptoms may appear **2-14 days after exposure to the virus**. People with these symptoms may have COVID-19:

- Fever or chills
- 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

This list does not include all possible symptoms.



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Spread

- Area of active research
- How many people on average does one case go on to infect
 - R_0 naught - *natural ability of a virus to spread*
 - $R(t)$ or R effective – *that actual spread and takes into account non-pharmaceutical interventions and vaccine*
- Impact of closing down schools
 - *One large study cited by COVIDActNow.org modeling team – school closures reduced $R(t)$ by 20% and is impacted by amount of time spent in a classroom*



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Non-Pharmaceutical Interventions (NPI)

- Avoid exposure and avoid exposing
 - *Physical distancing*
 - *Face covering*
 - *Hand washing*
 - *When ill stay home*
 - *If close and prolonged contact with someone who is suspected or confirmed stay home*
 - *Administrative controls – decrease reasons for people to crowd close*
 - *Engineering controls – place physical barriers*
 - *Screening before entry/potentially exposing*
 - *Enhanced cleaning*
- Isolation – persons who are ill or who test positive
- Contact tracing
 - *To review isolation*
 - *To identify contacts who can then be advised to quarantine to be alert for potential sign and symptoms and to reduce the potential for them to spread it IF they were infected*



Isolation

- **WHY** : keeps someone *who is infected* with the virus away from others, even in their home.
- **WHO**: People who have tested positive for COVID-19
- **Do**: Stay home except to get medical care
 - *Monitor symptoms, stay away from other household members, avoid shared things like bathrooms, towels, utensils*
- **ENDS WHEN**:
 - *At least 10 days since symptoms first appeared **AND***
 - *At least 24 hours with no fever without fever-reducing medication **AND***
 - *Other symptoms of COVID-19 are improving (Loss of taste and smell may persist for weeks or months after recovery and need not delay the end of isolation)*
 - *Consult with healthcare provider if uncertain*



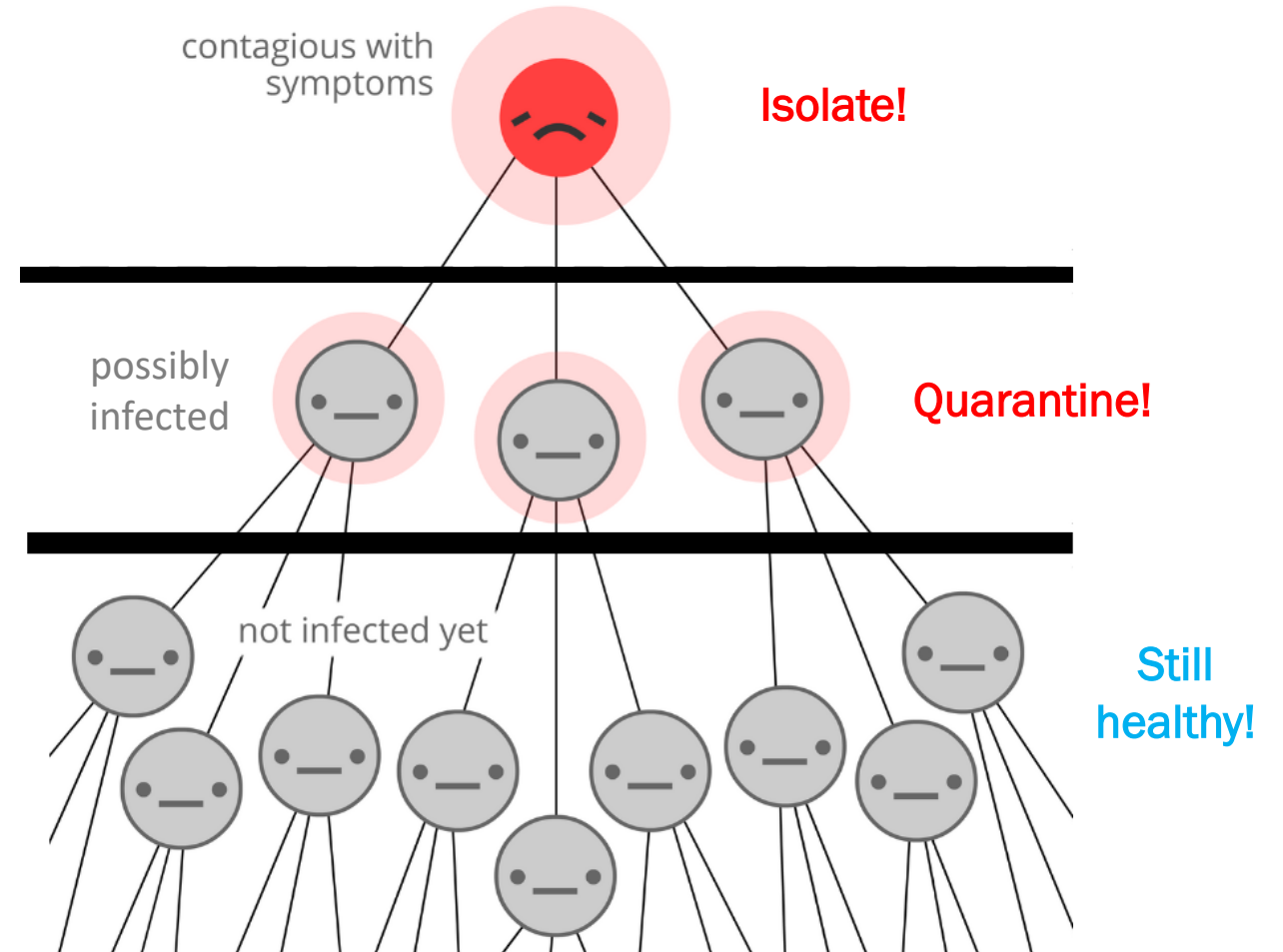
Quarantine

- **WHY:** Keep someone *who might have been exposed to COVID-19* away from others to prevent the spread of the virus.
- **WHO:** People who have been in close contact with someone who has COVID-19.
- **Do:** Stay home and monitor your health
- **ENDS WHEN:** Stay home for 14 days after your last contact with a person who has COVID-19.
 - **Getting a negative test during the 14 days does NOT end quarantine early!**



Importance of Contact Tracing

- When people who are sick can identify everyone they've had contact with, we can ask those people to QUARANTINE.
- This helps to stop the spread of the virus in our community.



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I got tested, now what?

- ISOLATE until you get your results!
- If you tested negative, get retested if you get re-exposed to someone with COVID-19, or if you later develop symptoms

Testing is not a one time thing!



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WHO Coronavirus Disease (COVID-19) Dashboard

Data last updated: 2020/11/10, 9:26am CET

Overview

Cases

Deaths

Newly reported in ... ▼

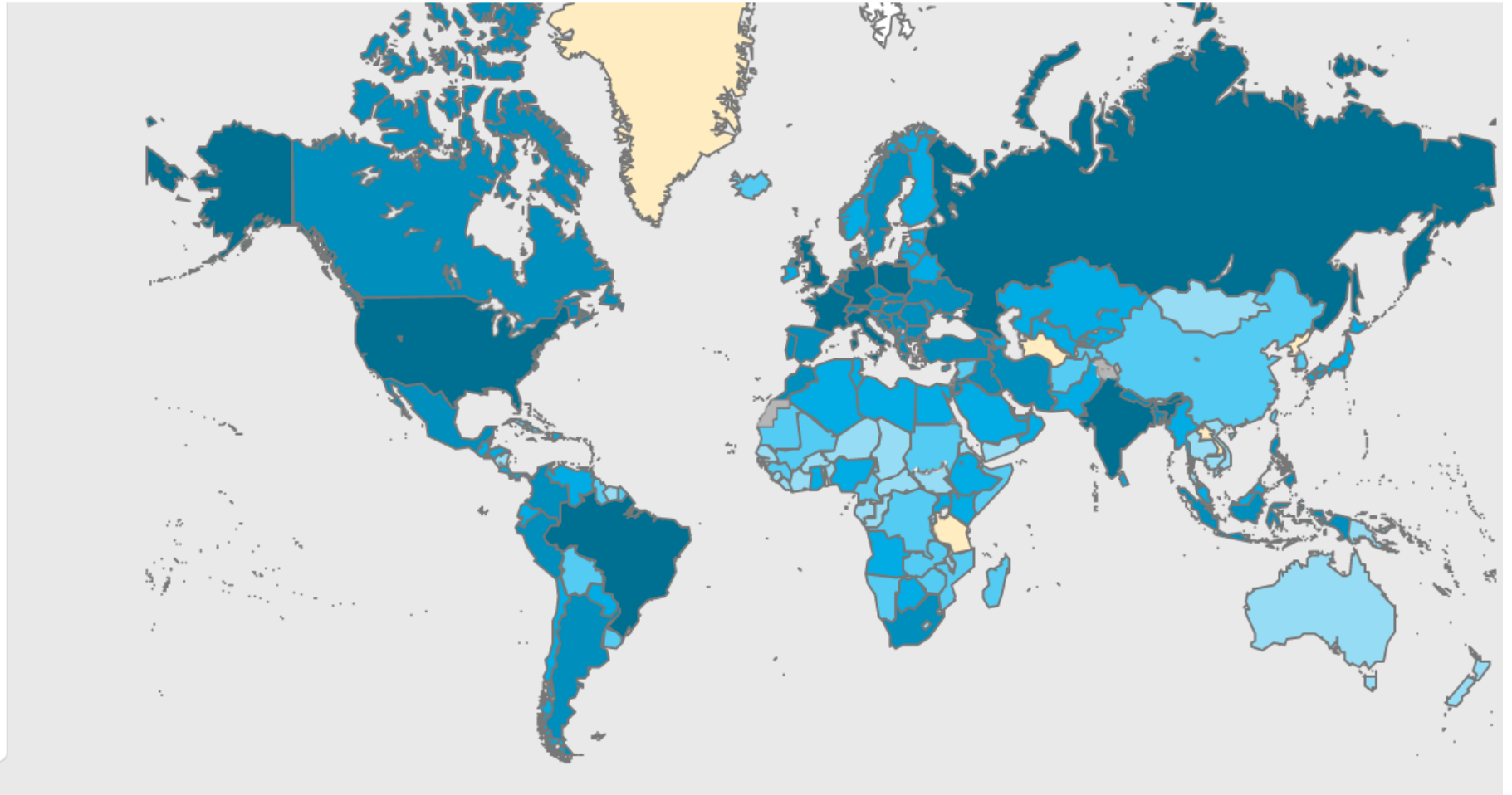
227,818
new cases



50,459,886
confirmed cases



1,257,523
deaths



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Source: <https://covid19.who.int/> , accessed November 10, 2020

United States COVID-19 Cases and Deaths by State

Reported to the CDC since January 21, 2020

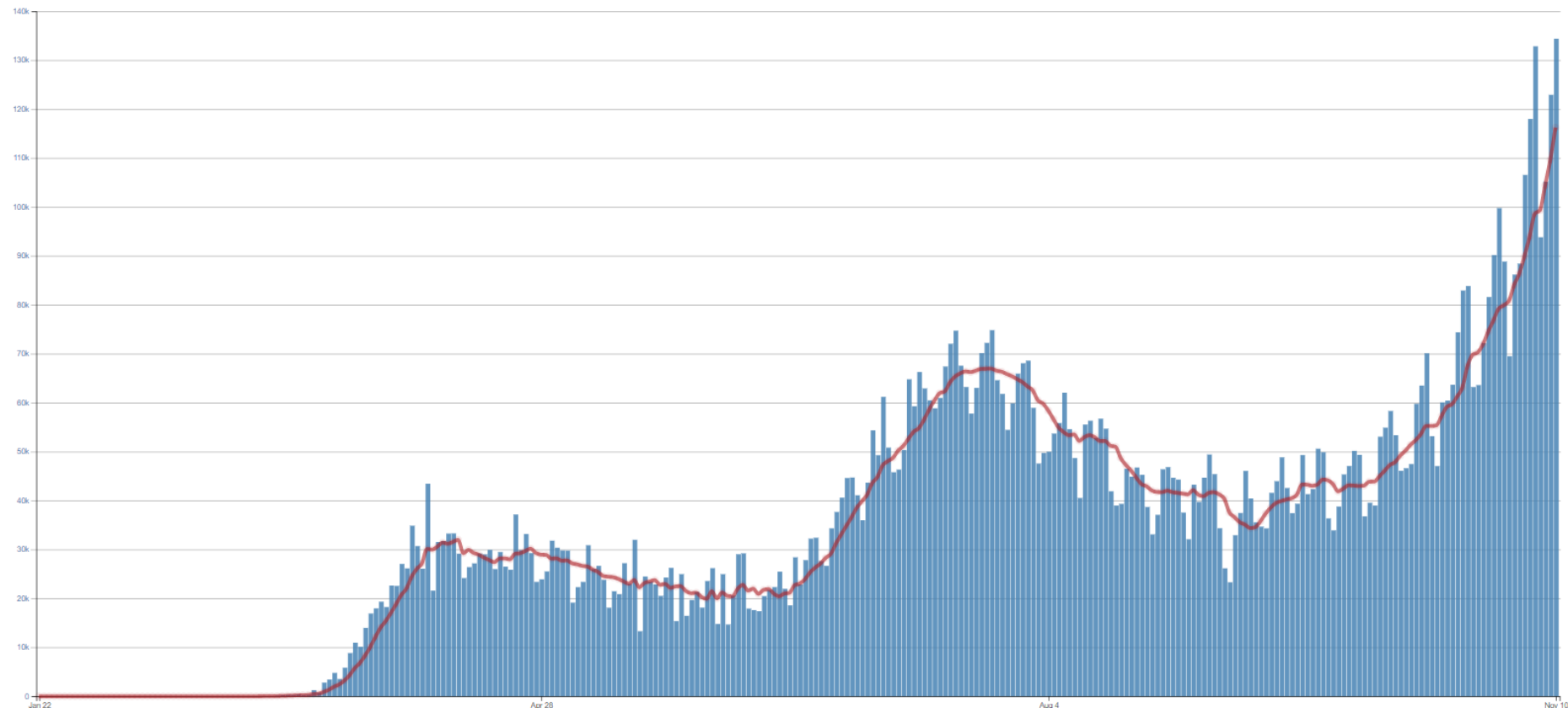
TOTAL CASES
10,170,846
+134,383 New Cases

CASES IN LAST 7 DAYS PER 100K
36.6

TOTAL DEATHS
239,590
+1,859 New Deaths

CDC | Updated: Nov 11 2020 12:17PM

Daily Trends in Number of COVID-19 Cases in the United States Reported to CDC



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Source: CDC, <https://www.cdc.gov/covid-data-tracker/index.html#trends>, accessed November 10, 2020

Coronavirus / COVID-19

	U.S	Maryland	Frederick County
First Case	Jan. 20, 2020 (WA)	March 5, 2020	March 16, 2020
First Death	Feb. 6, 2020 (CA)	March 18, 2020	March 31, 2020
Current Cases (as of 11/12/20)	10,170,846	159,900	5,373
Confirmed Deaths (as of 11/12/20)	239,590	4,112	132

Frederick County Health Department began local response on January 28, 2020.



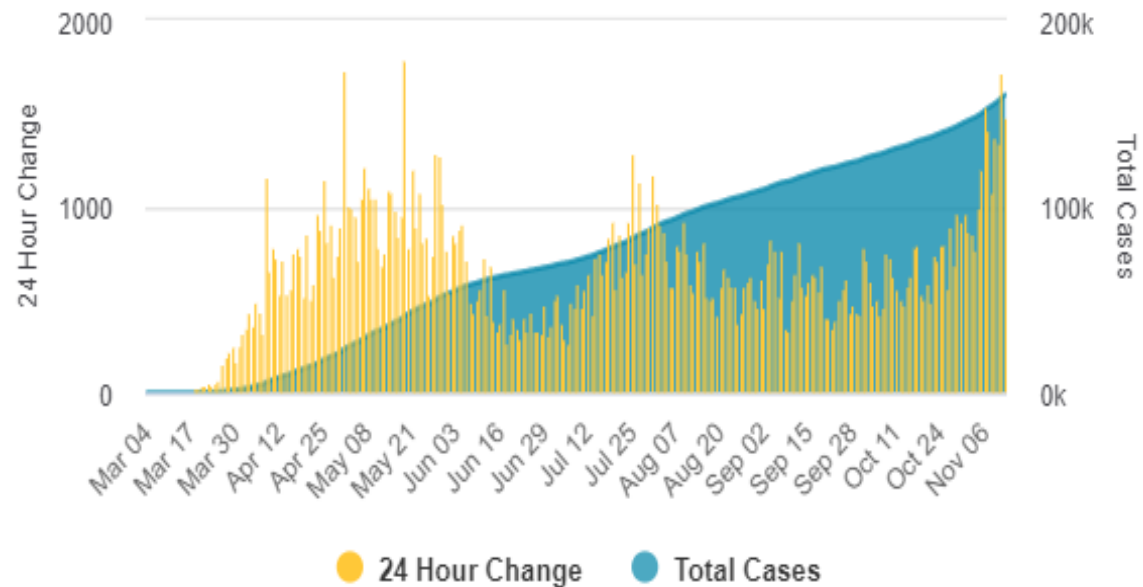
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Current Trends in Maryland

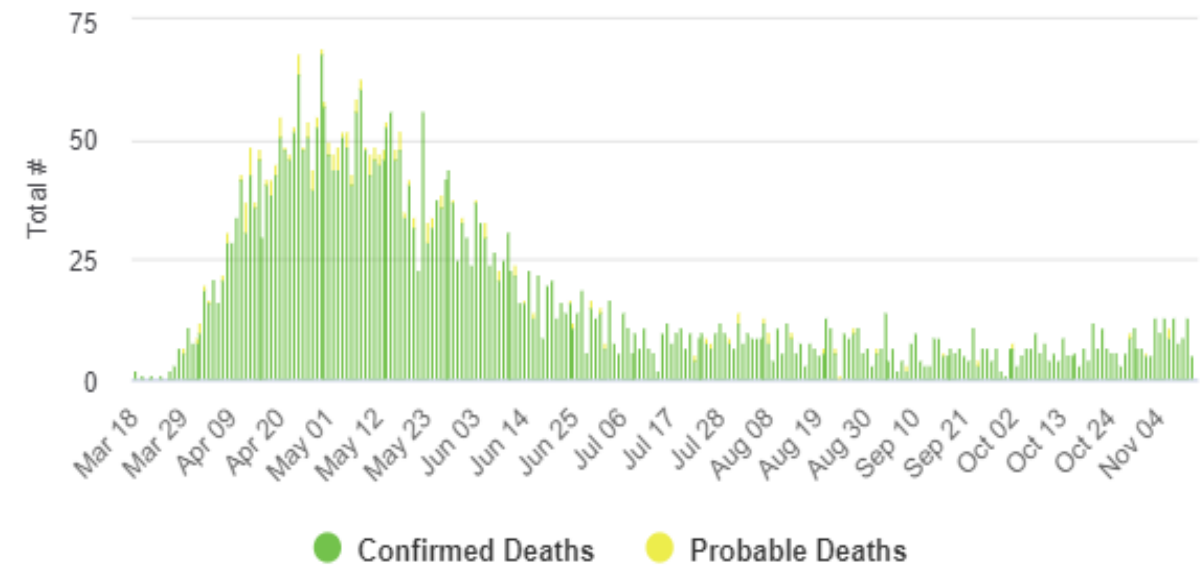
Cases in Maryland

Confirmed Cases, Total over Time



Deaths

Confirmed and Probable Deaths, Totals by Date of Death



Note: different scales on graphs.

<https://coronavirus.maryland.gov/>



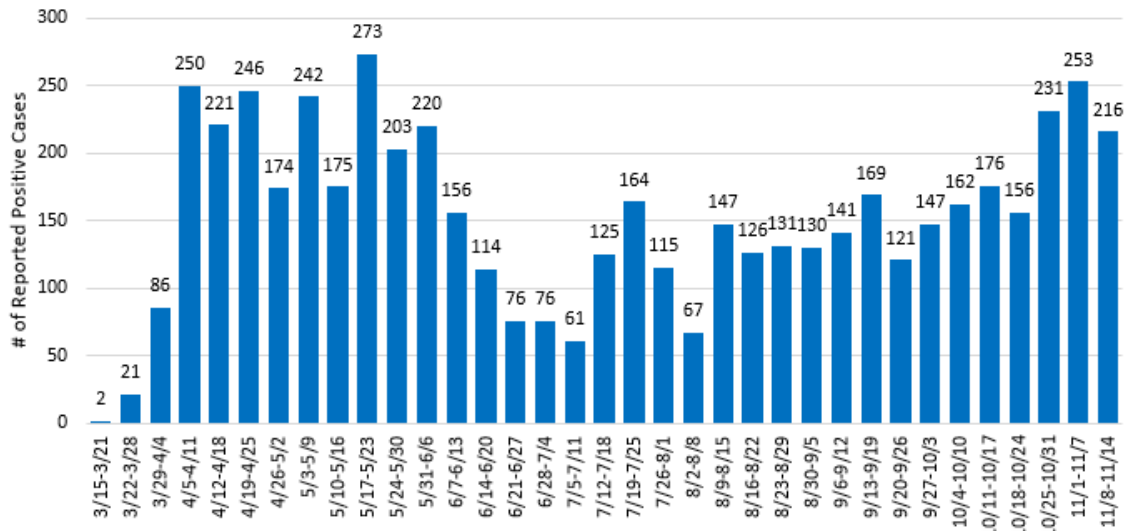
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Current Trends in Frederick County

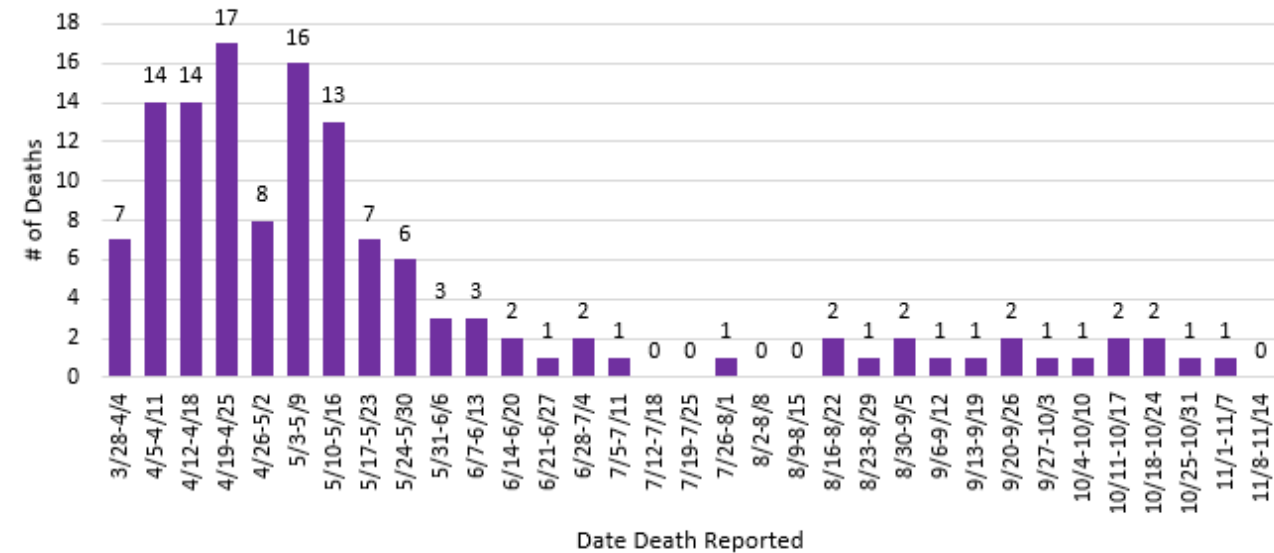
Cases

Frederick County, MD COVID-19 Cases by Week
(Date Received)



Deaths

Frederick County COVID-19 Deaths by Week



Note: different scales on graphs.



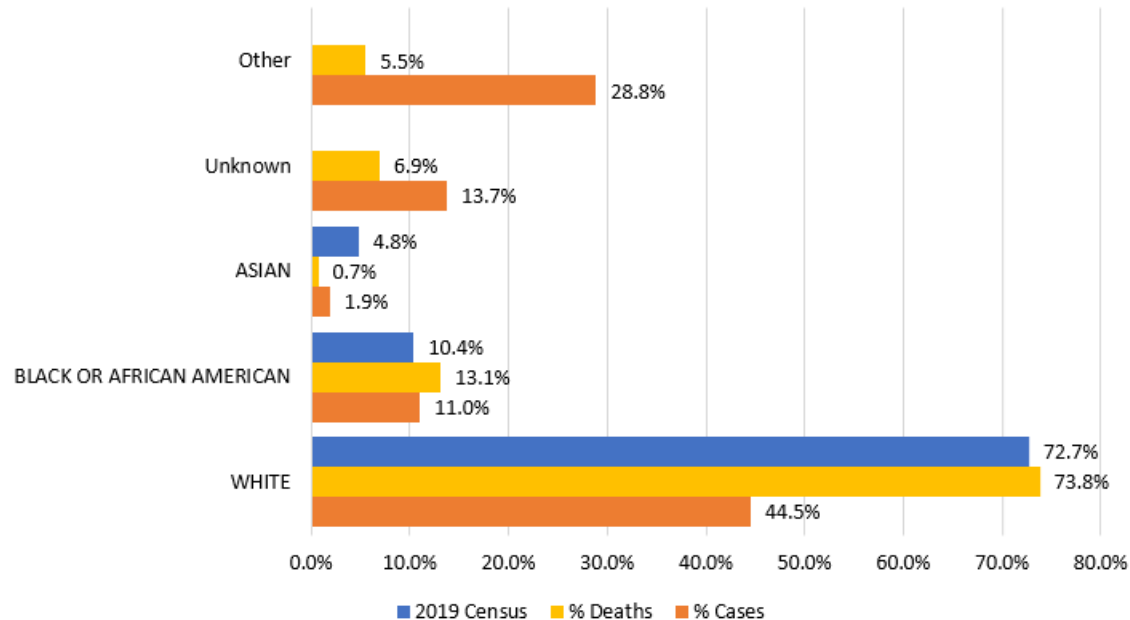
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COVID-19 in Frederick County

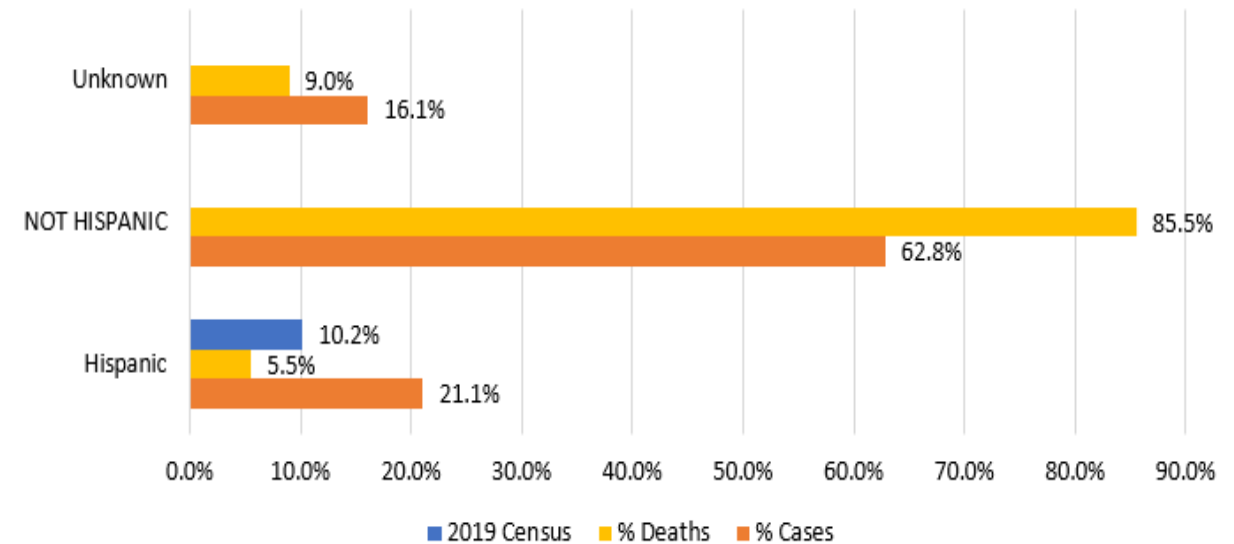
Race

Frederick County, MD COVID-19 Cases and Deaths by Race



Ethnicity

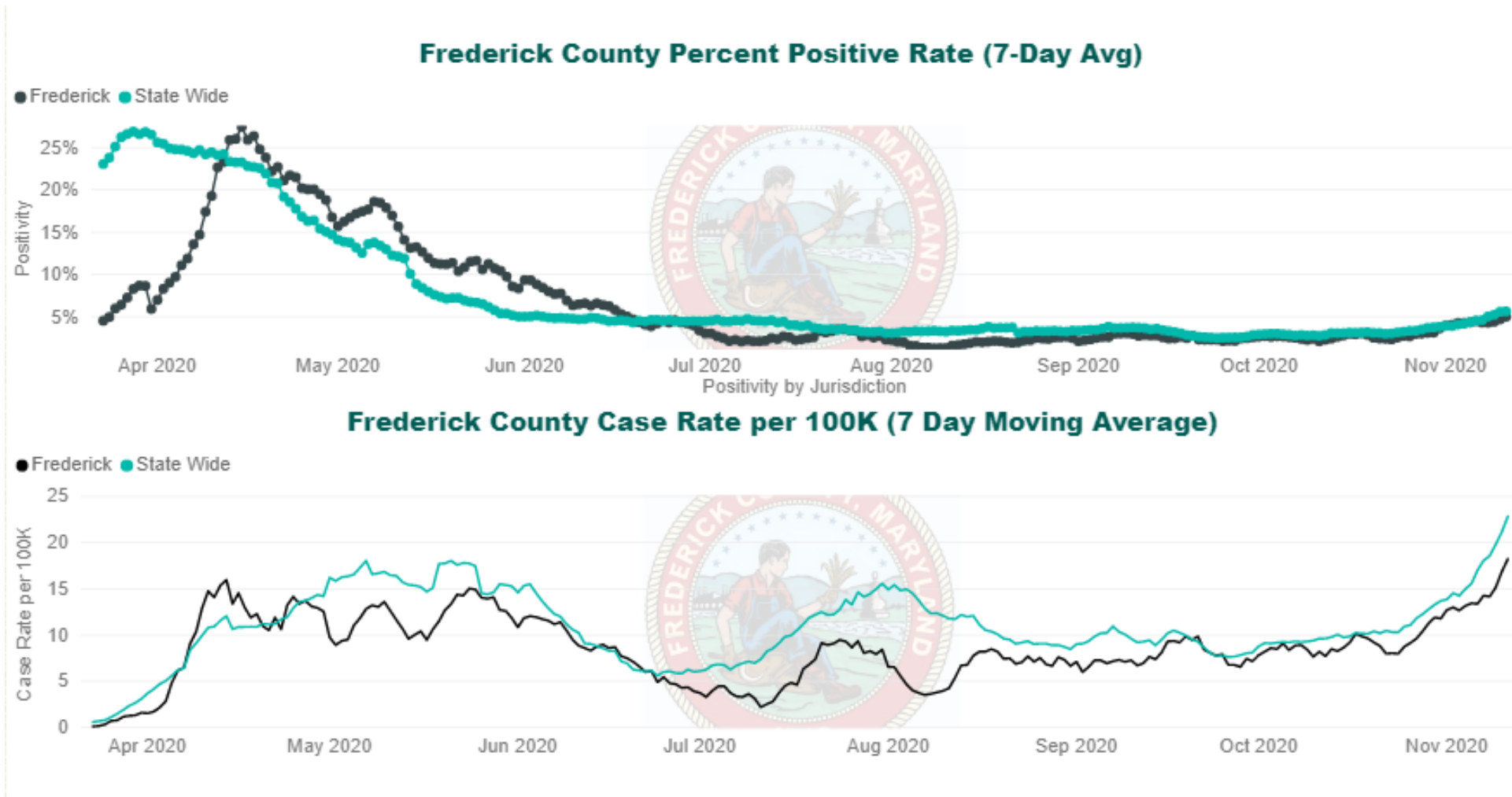
Frederick County, MD COVID-19 Cases and Deaths by Ethnicity



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Positivity Rate and Case Rate



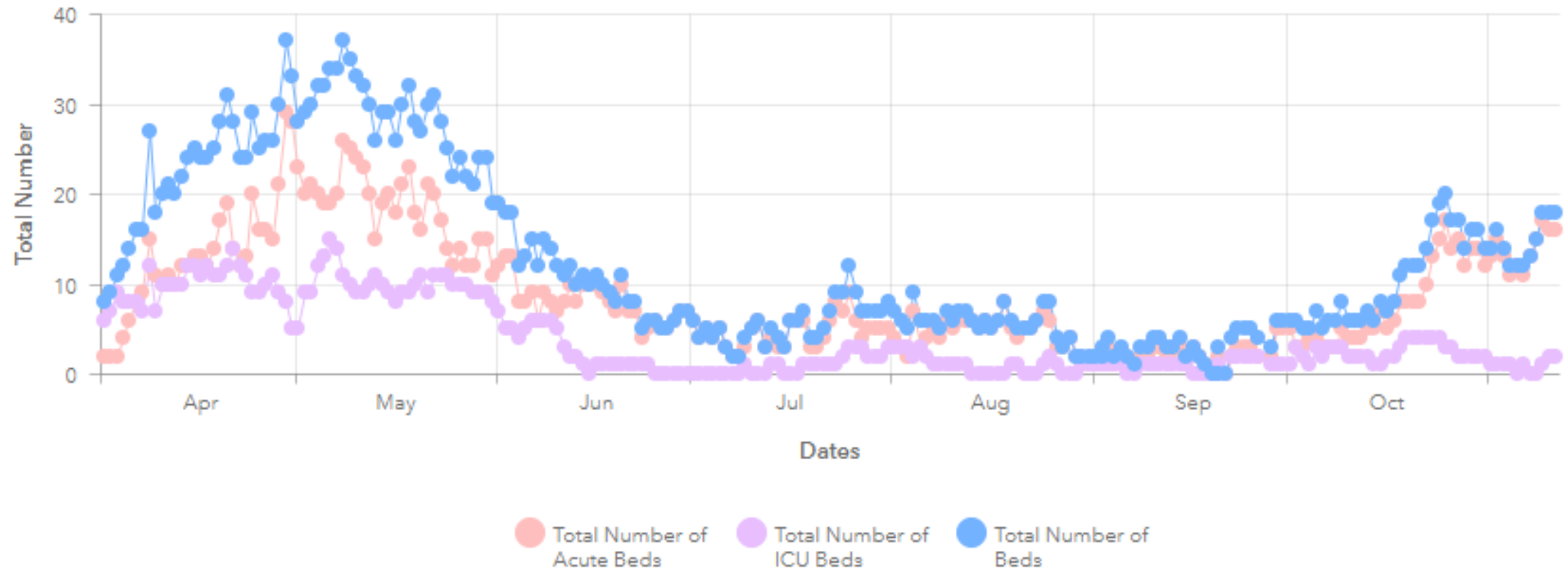
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<https://www.frederickcountymd.gov/8094/COVID-19-in-Frederick-County>

Hospitalizations

Frederick County Covid-19 Related Hospitalizations



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Current Trends in Frederick County

Cases by Age:

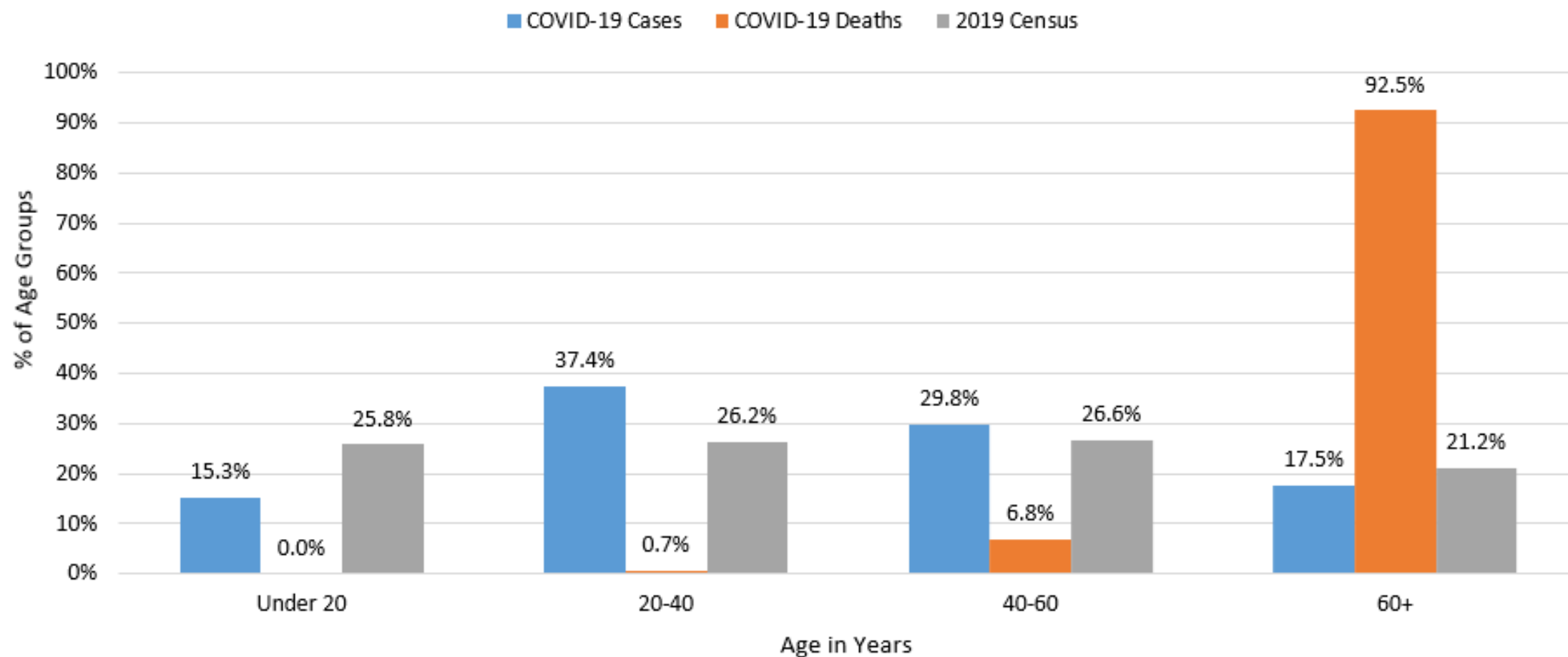
- Our cases started out older, got younger over the summer, now moving into older population again
 - *in March & April 50+% of cases were age 50 years and older*
 - *June, July & August – ~50% of cases were 20-40 years*
 - *Recent weeks – increases in cases in their 50's and 60's*

Deaths by Age

- Of the Frederick County cases who have died:
 - *92% of deaths have been in people 60+ years old*
 - *77% were in a long term care facility*
 - *23% were in the hospital*



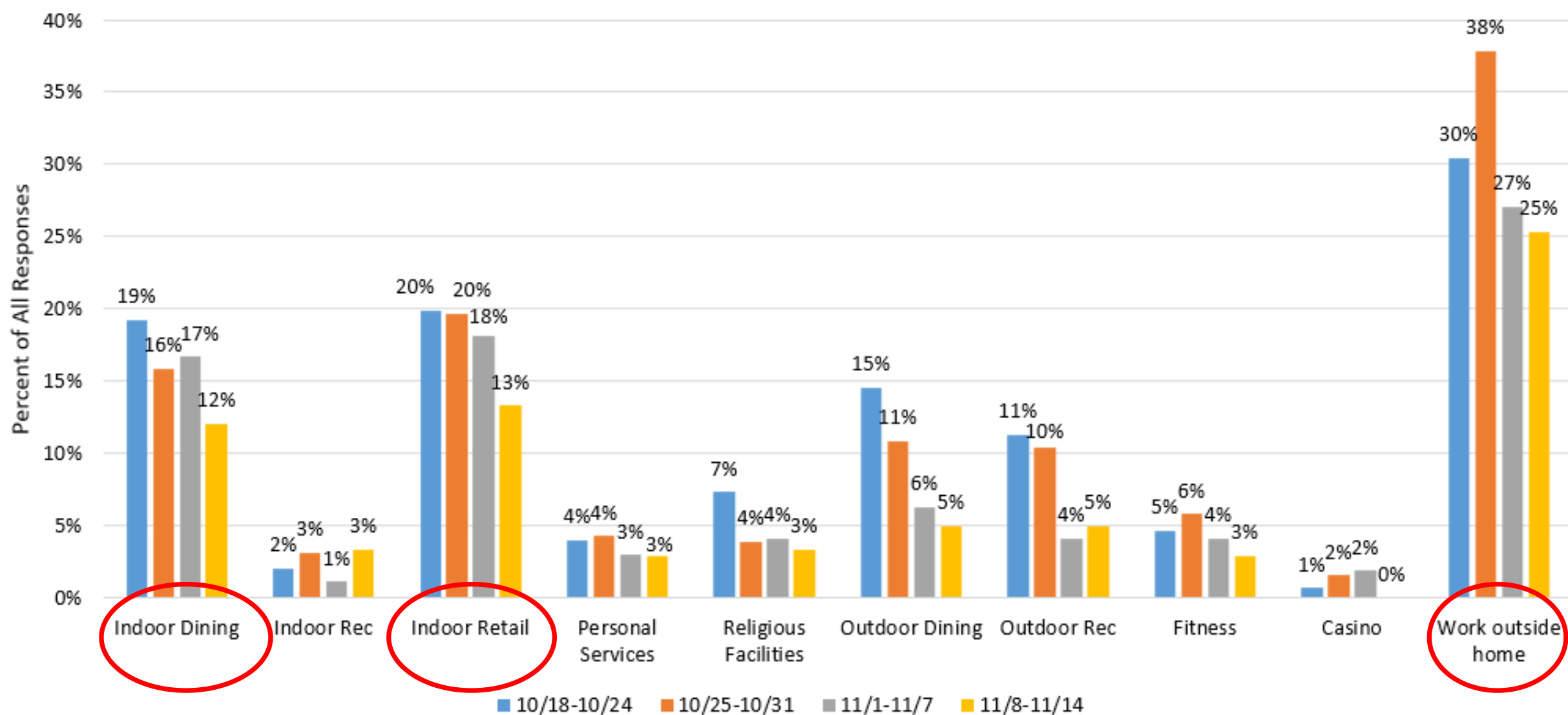
Frederick County COVID-19 Cases and Deaths by Age, Compared to 2019 Population



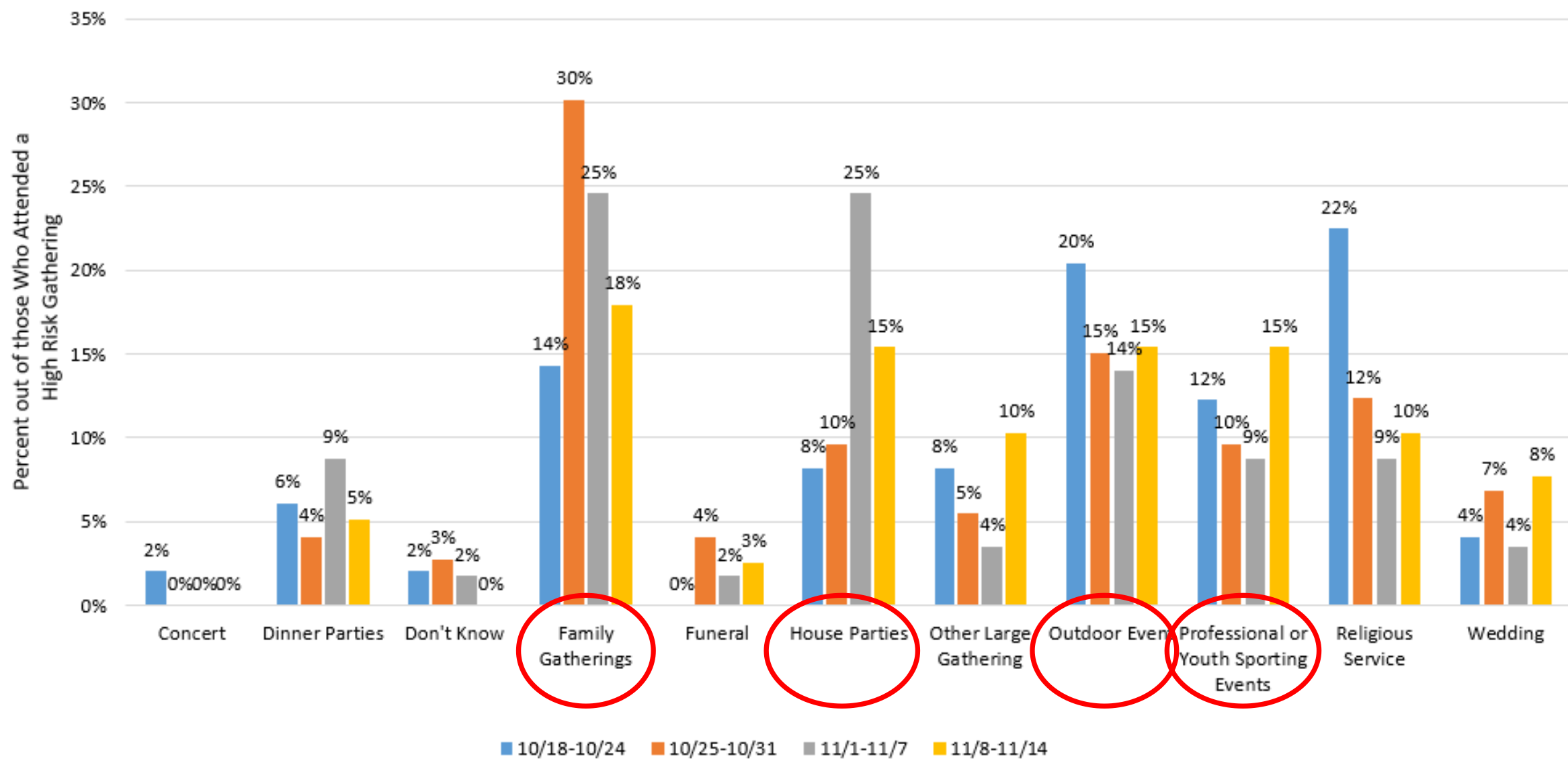
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Frederick County COVID Cases - High Risk Locations by Week



Frederick County COVID Cases - High Risk Gatherings by Week



Frederick County Schools

	Frederick County Public Schools		Frederick County Non-Public Schools	
	# Students	# Staff	# Students	# Staff
Attendance as of 11/6	2041	539	1465	305
# COVID-like illnesses reported	36	16	56	-
# of COVID-19 Cases	27	13	47	7



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Contact Tracing

- **Contact tracing** is the process of identifying people who may have come into contact with an individual with an infectious disease. The process involves identifying infected people, determining who they have been in close contact with while infectious and asking people who are potentially infected to stay home until it is clear they are not sick.



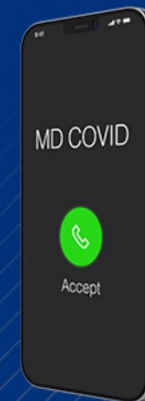
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Contact Tracing in Frederick County

- Frederick County is currently using the Maryland covidLINK system
- Maryland Department of Health has a bank of contact tracers calling cases and contacts – about 1/3 of the cases since June in Frederick County
- Frederick County Health Department also has contact tracers making calls, transitioned from school health staff in the summer to mostly new hires handling 2/3 of the calls since June
- On average each case has about 2.4 contacts (close and prolonged)

covidLINK
Respond. Connect. Recover.



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Many Unknowns

- Transmission

- *When people don't have symptoms*
- *Winter and indoor conditions*

- Affected

- *Why some people are affected more than others*
- *Who long will they have “protection” from reinfection*

- Long term health impacts

- *those who had symptoms*
- *those who did not have symptoms*



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Risk Reduction – Virus Spread

- Risk reduction or risk mitigation strategies
 - *Stay home when sick (~40% of persons who test positive report no prior symptoms)*
 - *Wear a face covering to reduce dispersion of particles when exhale (~40% of persons who test positive report no prior symptoms and people can also spread 1-2 days before symptoms begin)*
 - *Reduce # people you have close contact with, especially indoors*



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Feasibility of Eliminating Risk

- It is not possible to completely eliminate risk of virus spread AND have our lives return to normal
- It is not possible to completely eliminate the risk of negative impact on social determinants of health AND live in prolonged lockdown.
- The middle ground does have implementation challenges



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National data can give us a perspective on what's happening in our community.



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COVID-19 SPREADS EASILY IN GROUP GATHERINGS

PRIMARY CASES



2 symptomatic people
attended church events
March 6-8, later tested
positive for COVID-19

CDC.GOV

CHURCH CASES



At least 35 of 92
attendees acquired
COVID-19, 3 deaths

bit.ly/MMWR051920

COMMUNITY



From contact with
church cases, at least
26 additional cases
were confirmed,
1 death

MMWR



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After choir practice with one symptomatic person, 87% of group developed COVID-19



● index case

● 32 confirmed and 20 probable cases

● unaffected person

COVID-19 spreads easily

- Avoid groups
- Stay at least 6 feet apart
- Wear face coverings



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bit.ly/MMWR51220

MMWR

At a Wisconsin overnight summer school retreat, students were tested before arrival*

Students didn't stay 6 feet apart or wear masks at the retreat



1 student tested negative 1 week before retreat but developed symptoms and tested positive shortly after arrival



76% of students/staff were diagnosed with COVID-19 during retreat†

Exposed students were quarantined at the retreat to protect their families and communities

*Tested negative 7 days before retreat or had evidence of SARS-CoV-2 antibodies

†116 cases out of 152 students/staff; 78 confirmed, 38 probable



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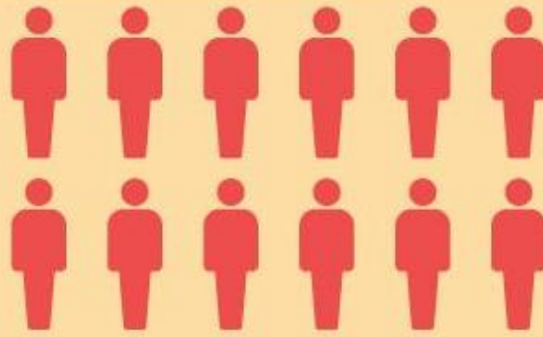
bit.ly/MMWR102920

MMWR

Children who likely got COVID-19 at two Utah child care centers spread it to household members



12 kids likely got COVID-19 in 2 child care centers; 3 didn't have symptoms



12 people who had contact with the children outside the child care centers got infected* including some parents and siblings



1 parent required hospitalization

SLOW THE SPREAD OF COVID-19 IN CHILD CARE CENTERS

*confirmed or probable

- ✓ Test contacts of patients with COVID-19
- ✓ Wash hands frequently
- ✓ Stay home when sick
- ✓ Encourage adults and children 2 years and older to wear masks
- ✓ Clean and disinfect frequently



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bit.ly/MMWR91120

MMWR

Close contact and intense physical activity can contribute to spread of COVID-19 during an indoor sporting event



● index patient ● case ● no symptoms

14 of 22 players developed COVID-19 after an indoor recreational ice hockey game*

*14 had symptoms. Only players with symptoms were tested. All 12 who were tested were positive.



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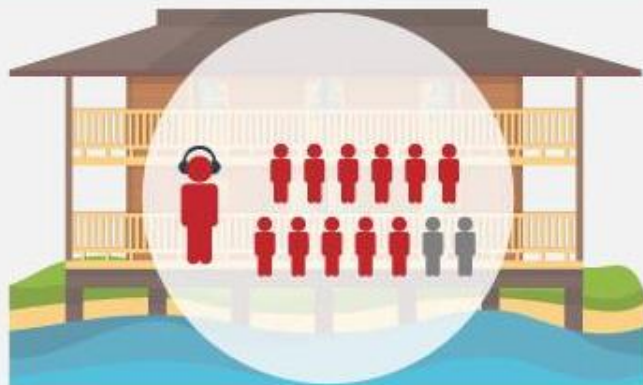
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bit.ly/MMWR101520

MMWR

20 relatives attended a family gathering, including a teen exposed to COVID-19 before the trip



14 relatives shared a house

Didn't stay 6 feet apart

Didn't wear masks

11 relatives of teen developed COVID-19



6 relatives visited but didn't stay in the house

Stayed 6 feet apart

Visited outside

4 were tested; all tested negative

None developed symptoms

Prevent spread of COVID-19 while visiting family and friends

- ✓ Stay 6 feet from others
- ✓ Wear masks
- ✓ Stay outside
- ✓ Avoid gatherings where it's not possible to stay 6 feet apart



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[CDC.GOV](https://www.cdc.gov)

bit.ly/MMWR10520

MMWR

Two hair stylists with **COVID-19**
spent at least 15 minutes with 139 clients

EVERYONE WORE FACE COVERINGS  **NO CLIENTS ARE KNOWN TO BE INFECTED***



WEAR CLOTH FACE COVERINGS CONSISTENTLY AND CORRECTLY TO SLOW THE SPREAD OF COVID-19

*No clients reported symptoms; all 67 customers tested had negative tests



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bit.ly/MMWR71420

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As of July 11, over 5,300 Minnesota health care workers have had close, prolonged contact with someone with COVID-19 while not wearing appropriate personal protective equipment*

1 in 3 of these exposures occurred outside of patient care

Slow the spread of COVID-19 in health care settings and in the community



Health care workers should receive

- ✓ Flexible sick leave
- ✓ Access to testing
- ✓ Personal protective equipment



Everyone should

- ✓ Wear masks
- ✓ Stay at least 6 feet from others
- ✓ Wash hands often

*Exposures involving direct prolonged close contact with someone with COVID-19 while not wearing appropriate personal protective equipment or close, prolonged contact with cases in the household or community. During March 6–July 11, 2020, the Minnesota Department of Health and 1,217 participating health care facilities assessed 17,330 health care personnel for 21,406 exposures to a confirmed COVID-19 case.



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bit.ly/MMWR102920b

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A correctional employee developed COVID-19 after several brief exposures to infected incarcerated people

During an 8-hour shift, the employee was exposed to six incarcerated people multiple times for 1 minute or less before they knew they were infected

22 encounters = about 17 non-consecutive minutes



Frequent brief exposures to people with COVID-19 might lead to spread



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bit.ly/MMWR102120

MMWR

NOT EVERYONE WITH COVID-19 FEELS SICK

New report: 238 young adult U.S. service members on a naval aircraft carrier tested positive for a current or previous infection of COVID-19

1 out of 5 reported no symptoms



Practice social distancing and wear face coverings to **slow** the spread



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bit.ly/MMWR6920

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Recovery from COVID-19 can take a long time, even in young adults with no chronic conditions



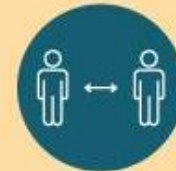
1 in 5 previously healthy young adults* weren't back to usual health 14-21 days after testing positive

*ages 18-34
Random sample of adult outpatients with COVID-19 from 14 U.S. academic health care systems

CDC.GOV

bit.ly/MMWR72420

To stay well and protect others...



Stay 6 feet away from others not living in your household



Wash hands often



Wear face coverings consistently and correctly in public



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Hospitalized pregnant women with COVID-19 can have severe illness

About half of hospitalized pregnant women with COVID-19 had symptoms



Some hospitalized pregnant women who had symptoms had severe outcomes, including

ICU admission

Mechanical ventilation

Death

Slow the spread and protect yourself from COVID-19 during pregnancy



Wear a mask when out in public



Stay 6 feet apart



Wash hands often



Continue receiving prenatal care

COVID-19-Associated Hospitalization Surveillance Network (COVID-NET) among 13 states
Vaccine Safety Datalink (VSD) surveillance of COVID-19 hospitalizations among eight healthcare centers

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Compared with patients hospitalized with flu*, hospitalized COVID-19 patients had a higher risk for 17 complications† and death

5x

higher risk of dying
in the hospital

Black or African American patients and Hispanic or Latino patients developed some severe complications more frequently than White patients

Prevent COVID-19 and flu to save lives
Wear masks, stay at least 6 feet from others, wash hands often, and get a flu vaccine

* Veterans Health Administration hospitalized patients (3,948 with COVID-19 and 5,453 with influenza); data adjusted for age, sex, race/ethnicity, and underlying medical conditions

† Some complications included heart inflammation, blood clots, and liver failure



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bit.ly/MMWR102020b

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Actions Taken In Maryland

- Governor closed non-essential businesses March – early May
- Mask order April 15
- More businesses reopened June - September



Where are face coverings required in Maryland?

Under Governor Larry Hogan's Executive Order, **face coverings are required outside when physical distancing cannot be maintained**, and **inside** at the following locales:

- Religious facilities
- Retail establishments
- Food service establishments (when not eating or drinking)
- Fitness centers
- Gaming facilities
- Indoor recreational establishments
- Personal service establishments, such as barbershops and beauty salons
- Indoor theaters
- In or on public transportation



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Actions Taken in Frederick County

- Liaisons assigned to:
 - *Private schools*
 - *Long term care facilities*
 - *Behavioral health residential treatment and housing programs*
 - *Daycare facilities*
- Regular calls with:
 - *County Partners (FHH, EMS, etc)*
 - *Healthcare providers*
 - *Schools*
 - *Long term care facilities*
 - *Behavioral health*
- Joint Information Center Updates
 - *5 days a week from April – June*
 - *2 days a week from July – present*
- Compliance activities with Liquor Board, Fire Marshal, law enforcement, Food Control Program



Compliance

- # of complaints – 900+
 - *Half food service facilities (includes restaurants, grocery stores, convenience stores)*
- Most common type of complaint – 1. not wearing mask, 2. distancing
- Most common type of business – 1. restaurant, 2. business



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Our Concerns

- Virus is widespread in our community
- Some workers cannot telework and have ongoing interaction with public
- Younger people may have milder illness, but may also pass it to older family/friends/teachers.
- Hospital capacity may be impacted, and affect anyone needing treatment
- Complaints and compliance checks show inconsistent following of our best tactics (face coverings, distancing)
- Funding for ongoing public health efforts and to supplement the economic needs of the county



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Requested Regulation

1. Face coverings:

- A. *Face coverings need to be worn in addition to (not instead of) physical distancing*
- B. *Face coverings should be worn except when eating or drinking food or beverages.*
 - i. This does not apply to using tobacco products, smoking and vaping paraphernalia.



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Requested Regulation

2. Limitation on Gathering Size: Events and places where people gather need to be limited
 - A. *25% of max. occupancy or 25 people, whichever is less in:*
 - A. Bars
 - B. Nightclubs
 - C. Breweries
 - D. Distilleries
 - E. Wine tasting rooms
 - F. Event venues (including but not limited to, civic service clubs, private clubs, indoor agro-tourism enterprise activities, fairgrounds, farm alcoholic beverage tasting rooms, farm brewery tasting rooms, rodeos, auction houses, and wedding venues)



Requested Regulation

2. Limitation on Gathering Size: Events and places where people gather need to be limited

B. Religious facilities – reduce total number of people at any one time not to exceed 50% of maximum capacity

C. Fitness centers

- i. Require face coverings of all persons with limited exceptions
- ii. # of people at any one time not to exceed 25% of maximum capacity

D. All other gatherings (parties, receptions, fundraisers, etc) limit to 25 people.



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Requested Regulation

3. Future possible actions.

A. If 7-day rolling average case rate per 100,000 population reaches or exceeds 20, the following actions are possible:

- i. Limit all gatherings to less than 10 people
- ii. Reduce retail occupancy
- iii. Restrict athletic activities



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Requested Regulation

4. Enforcement of regulation

A. *Citations for violation will be a fine*

- i. \$250 for a first offense
- ii. \$375 for a second offense
- iii. \$500 for a third or subsequent offense



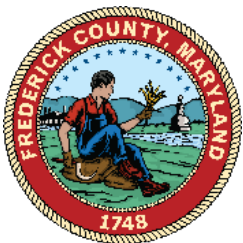
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