

June 1, 2020

# COVID-19 Media Availability



# PARTICIPANTS



- Jill Hunsaker Ryan, Executive Director
- Dr. Rachel Herlihy, State Epidemiologist
- Dr. Jonathan Samet, Dean of the Colorado School of Public Health

Media questions and answers *Moderator: Mariah La Rue, CDPHE*

# COLORADO'S GOALS

- Slow down virus spread so we don't exceed hospital capacity and run out of hospital beds/ventilators.
- Get kids back to school in the fall.
- Prevent having to return to Stay at Home.

*The more the virus is circulating, the harder it will be and the longer it will take to get back to “normal”*



# AS RESTRICTIONS ARE LOOSENED

As restrictions are loosened on a state and county level:

- We still ask people to stay home as much as possible and avoid social interactions.
- We ask older adults (65+) and people at risk of severe illness from COVID-19 to stay at home except to perform necessary activities or perform outdoor recreation.
- People are still encouraged to stay within their county of residence or employment as much as possible.
- Coloradans are advised to wear non-medical cloth face coverings when in public.
- When going out, people should stay physically distanced from others by 6 ft.

# MODELING DATA INTRO

“The current state of COVID-19 in Colorado and projected course of the epidemic in the coming weeks”

Prepared by the Colorado COVID-19 Modeling Group

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University: Jude Bayham

5/29/2020



# COVID-19 MODELING GROUP



ColoradoSPH, UC SOM, UC Denver and Boulder, CSU

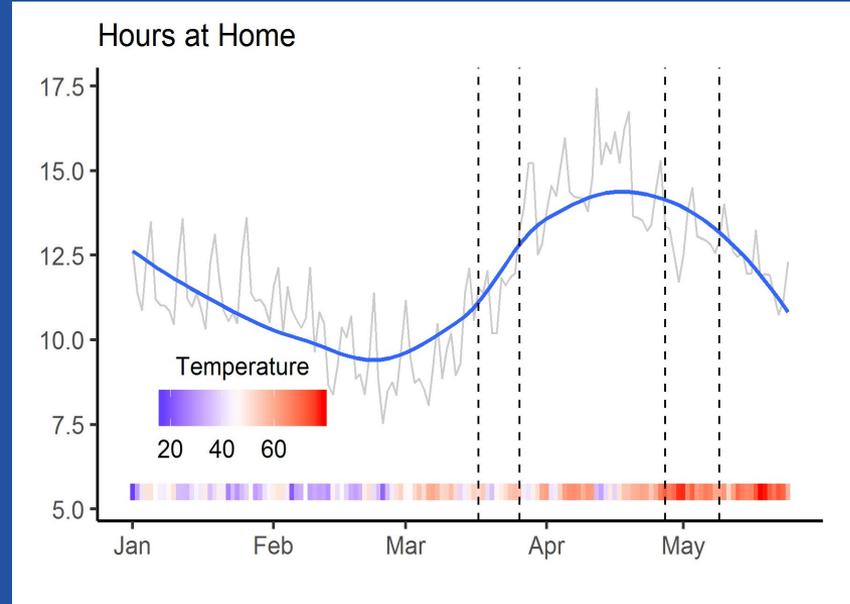
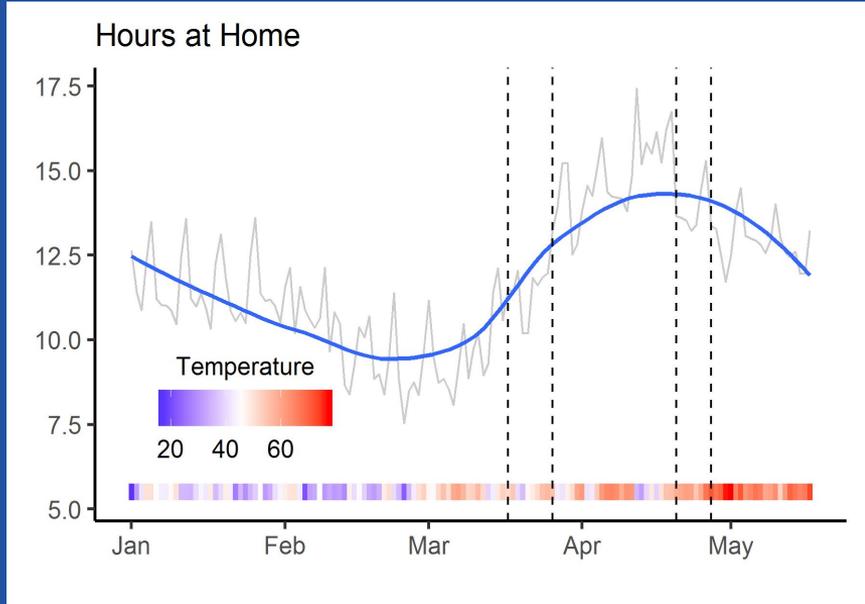


# THE CONCEPT OF SOCIAL DISTANCING

- A measure of the extent to which contacts have been reduced among individuals.
  - Consider a range from freely mixing to complete isolation.
- The model estimates the social distancing parameter, which reflects other changes that influence transmission of infection.
  - Changes in behavior.
  - Changes in hygiene.
- Mobility is one surrogate.

# MOBILITY DATA

Time at home decreasing since April:



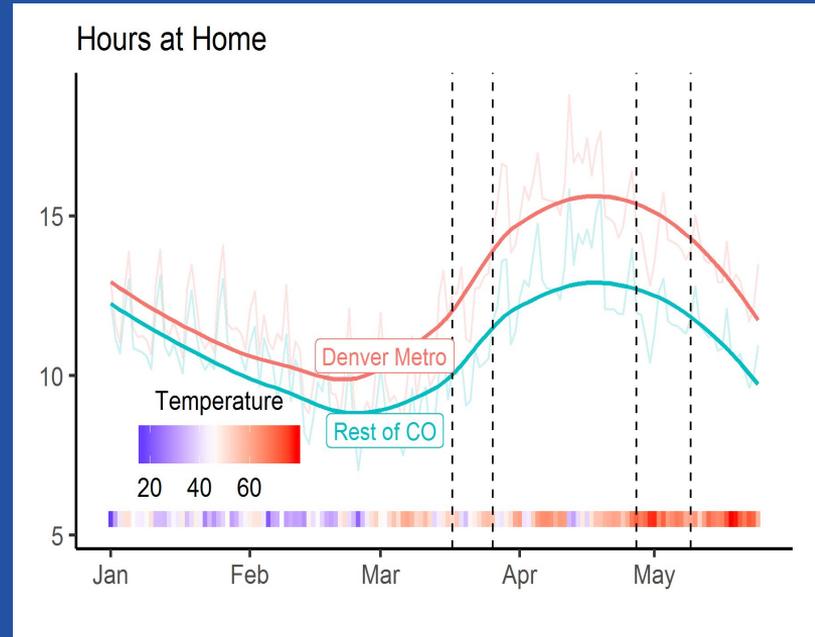
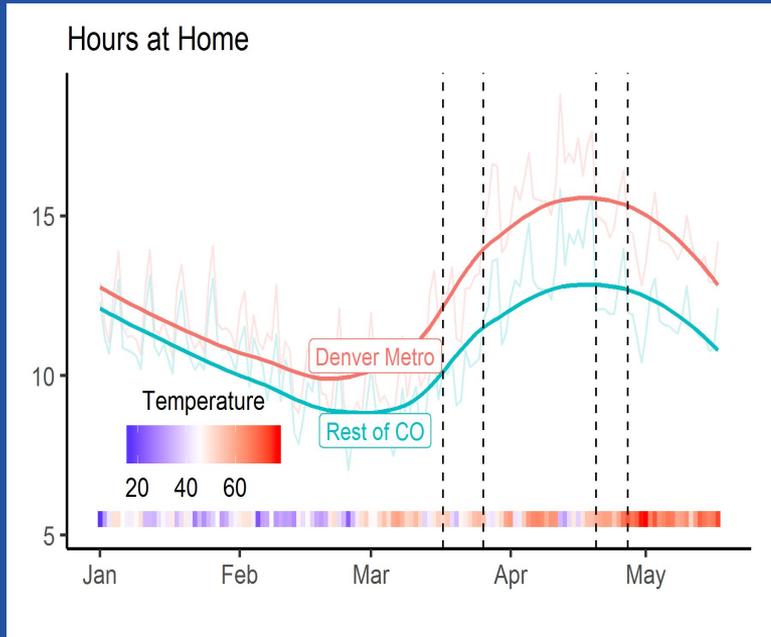
Based on data through 5/17/2020

Based on data through 5/24/2020



# MOBILITY DATA

Patterns vary across the state



Based on data through 5/17/2020

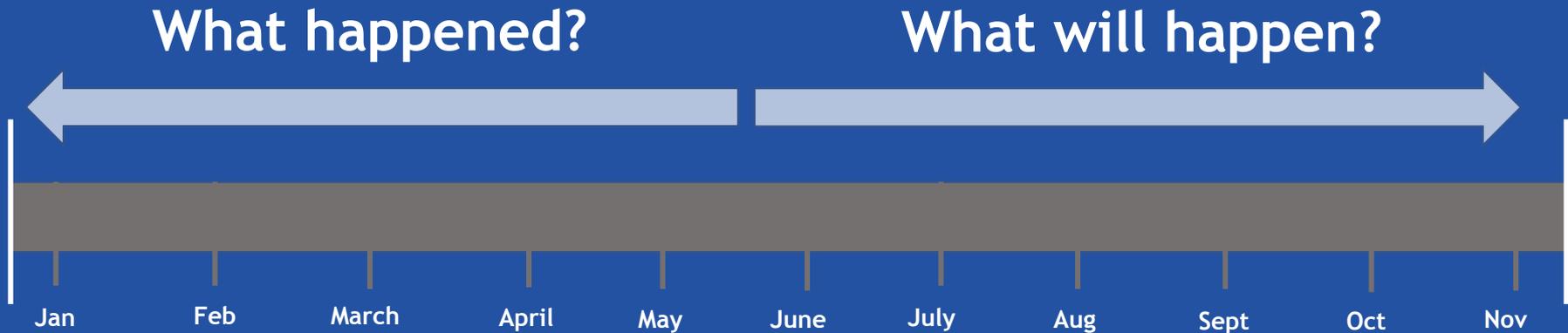
Based on data through 5/24/2020



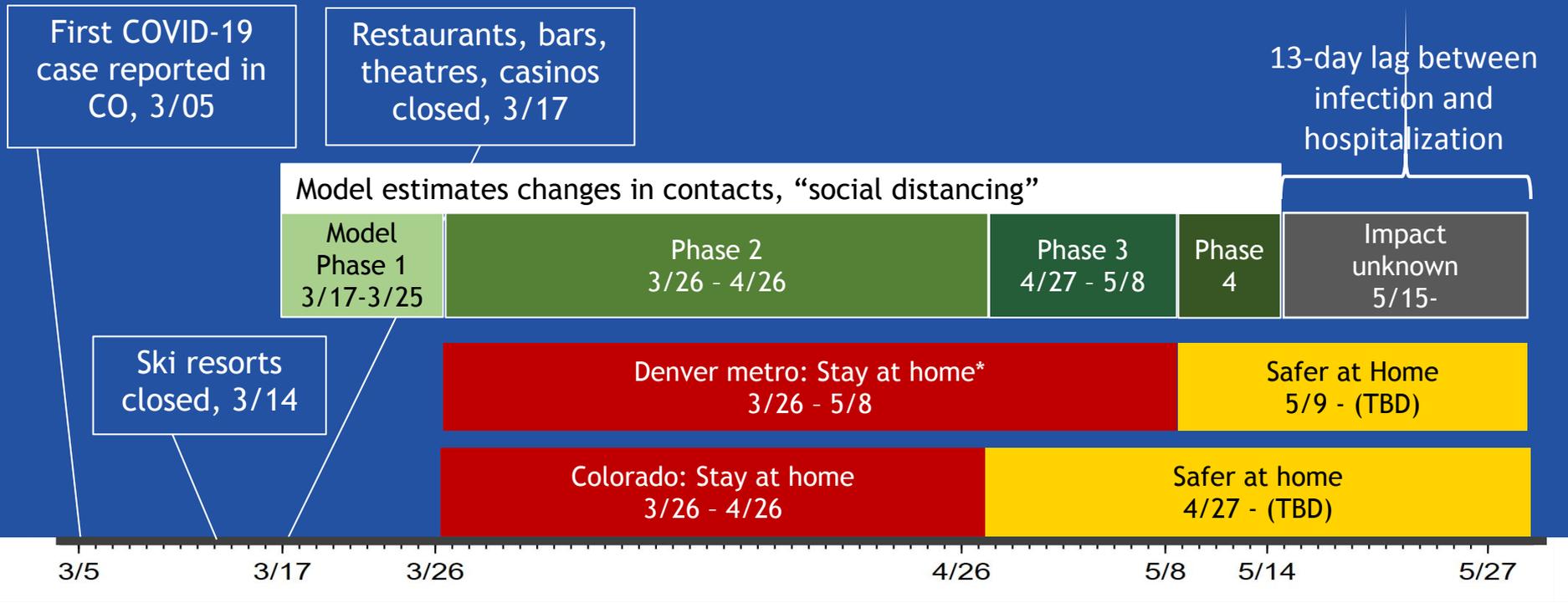
## We vary:

- Social distancing
- Behavior by age
- Use of masks
- Epidemiological control
- Adding contact tracing

# USING MODELS TO LOOK BACKWARDS AND FORWARDS



# ESTIMATING WHAT HAS HAPPENED



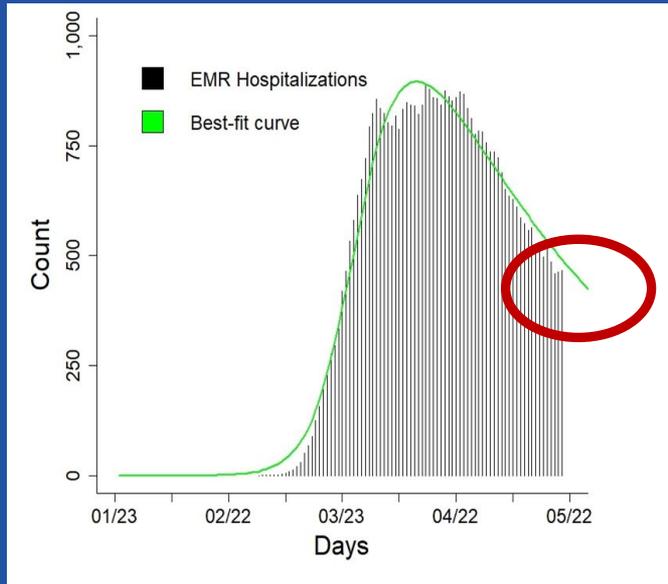
\*Approximately 50% of the CO population was included in the extended Denver-metro region Stay at Home order.

Model also includes mask wearing and some isolation of symptomatic cases.

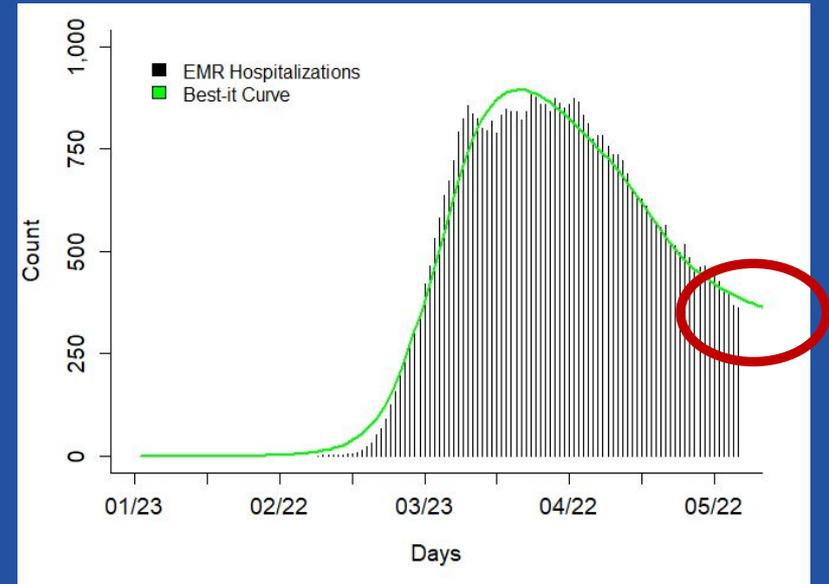


# HOSPITALIZATIONS

Hospitalizations are declining, but the rate of decline is slowing.



Model fit to EMR hospital census data through May 19



Model fit to EMR hospital census data through May 27

13 days from infection to hospitalization, on average.  
Hospitalizations through 5/27 reflect infections through approximately 5/14



# THE REPRODUCTIVE NUMBER HAS INCREASED

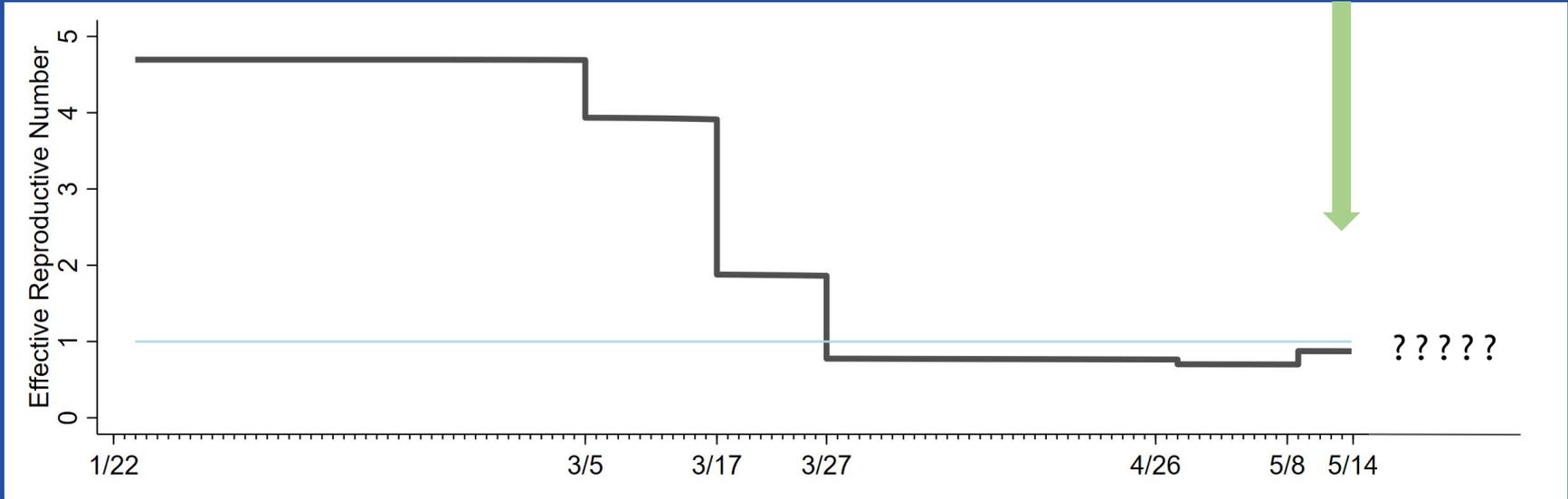
Colorado:

Stay at home

Safer at home

Denver metro:

Stay at home

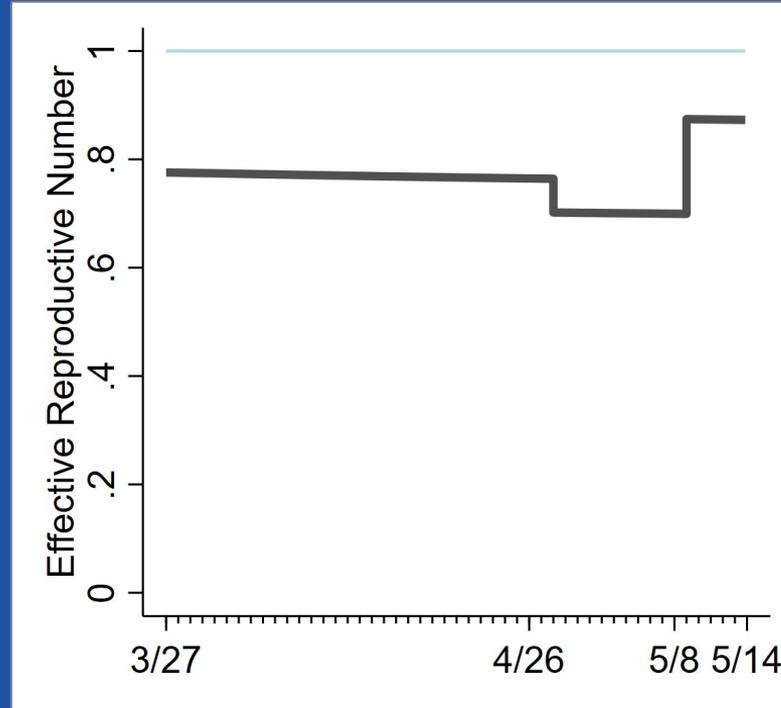


Because of the 13-day lag between infection and hospitalization, on average, we can currently estimate the reproductive number through May 14.



# REPRODUCTIVE NUMBER AND INFECTIONS

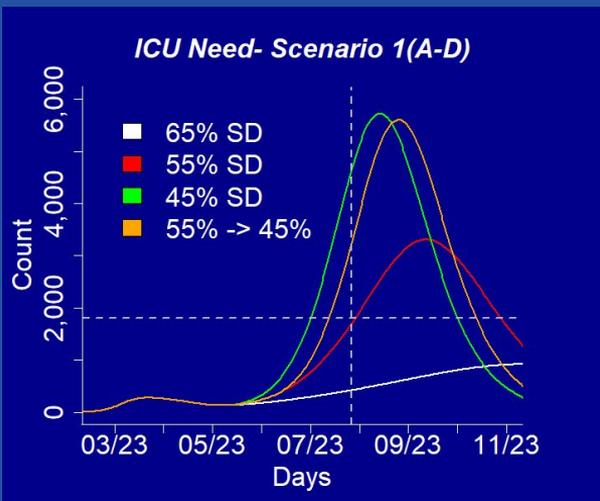
When the reproductive number exceeds 1, infections will increase.



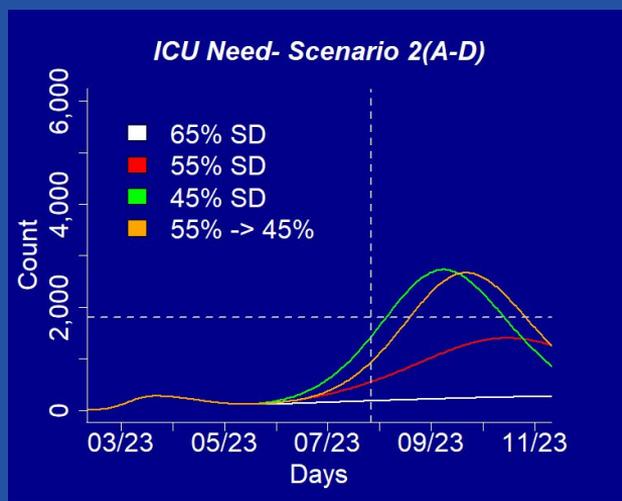
} Safe zone

# SOCIAL DISTANCING SCENARIOS

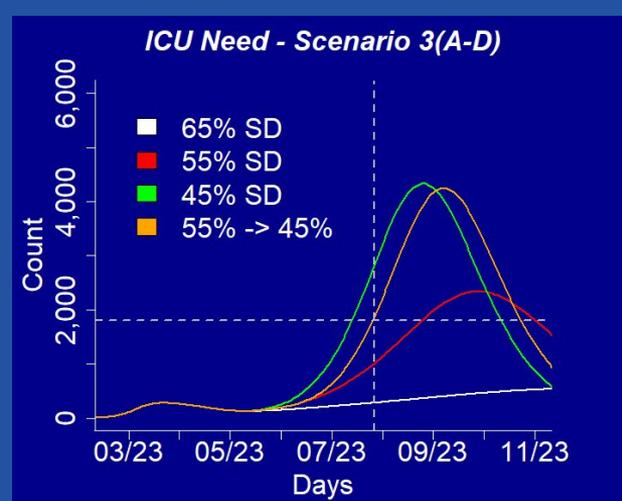
All populations at same level of social distancing



All older populations at high social distancing (80%)



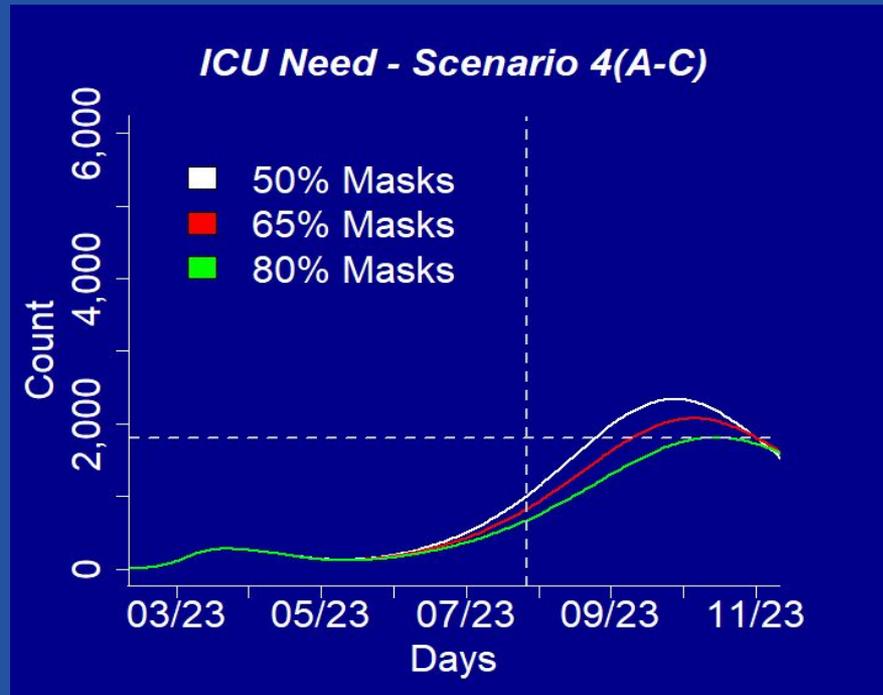
Half of older populations at high social distancing (80%)



# SOCIAL DISTANCING SCENARIOS

- High levels of social distancing (60-65%) will be needed, along with mask wearing and increases in case detection and isolation, in order to avoid exceeding hospital capacity.
- Older adults maintaining high levels of social distancing is critical.
- At low levels of social distancing (45%) we risk exceeding hospital capacity by this summer, even if older adults maintain high levels of social distancing.
- Around mid-August, the date at which schools generally open, the epidemic curves under all scenarios are rising.
- In most scenarios, we expect the next peak to be larger than the April peak.

# PROJECTED BENEFITS OF MASK WEARING



Projected total hospitalizations (left) and ICU needs (right) if mask wearing is held at 50% (white line), increased to 65% on 5/27 (red line), or 80% on 5/27 (green line). These projections assume 55% social distancing of individuals under 60 starting 5/27, half of individuals over 60 maintaining high (80%) social distancing, and case detection and isolation is increased 5% per week up to 80% of symptomatic cases isolating.



# ESTIMATED TOTAL INFECTIONS TO DATE

- We estimate that approximately 171,000 people in Colorado have been infected with SARS-CoV-2 through 5/15, or approximately 2.9% of the Colorado population.
- We estimate that the proportion of symptomatic infections reported to CDPHE in the past two weeks is 52%.

# CONCLUSIONS- part 1

- Mobility data show a continued decline in time spent at home, likely reflecting the change from Safe at Home to Safer at Home.
- The updated model findings, which cover the period through 5/14, indicate that **COVID-19 continues to decline in Colorado, but the declines have begun to slow.**
- **The reproductive number remains below 1, indicating the number of new cases per day is declining.**
- However, the extent of social distancing dropped to 75% across 5/9 through 5/14 as the entire state moved to Safer at Home and the reproductive number has increased.

# CONCLUSIONS- part 2

- Modeling projections that extend into the summer and through November 2020 continue **to indicate a need for social distancing of at least 65%** unless most people 60 years and older maintain high levels of social distancing as seen during the Stay at Home period (80%).
- Relaxation of social distancing to lower levels (45%) is predicted to lead to a surge in sick people in excess of hospital capacity by mid-summer, **even if implemented with mask wearing, increased case detection and isolation, and higher levels of social distancing by all older adults.**
- In most scenarios, we predict the next peak to be larger than the April peak.

# CONCLUSIONS- part 3

- Model findings indicate that **increased mask wearing would be beneficial** for controlling the COVID-19 epidemic. We lack needed data on the extent of mask use by Coloradans.
- We estimate approximately 171,000 Coloradans have been infected with SARS-CoV-2, approximately 2.9% of the population. The proportion of symptomatic infections detected and reported to state surveillance systems appears to be increasing.

# KEY MESSAGES AS MAY ENDS

- We are still at a very uncertain and critical moment, but have done well.
- Social distancing has dropped but R is still below 1 as of May 14.
- Greater distancing among older people is critical.
- Enhanced mask wearing should be encouraged.

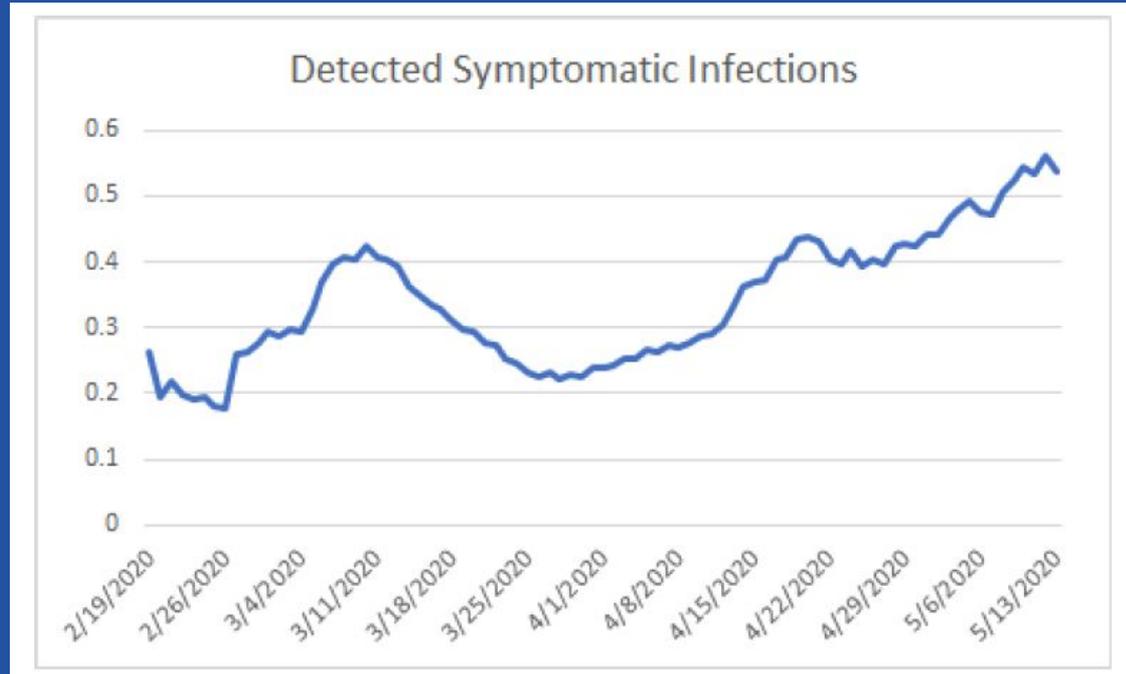
# TRANSLATING MODEL RESULT TO ACTION

The modeling work identifies 3 key actions for Coloradans:

1. Get tested.
2. Wear a mask or cloth face covering.
3. Practice social distancing, especially older adults and other people who are at risk of severe illness due to COVID-19.

# TESTING

- Currently ~52% of symptomatic infections are detected.
- Investigation and contact tracing efforts only reach half of symptomatic cases.
- Goal is 80%+.
- With more testing, more isolation and quarantine.



# WHO SHOULD BE TESTED?

- Symptomatic individuals:
  - Fever or chills
  - Cough
  - Shortness of breath or difficulty breathing
  - Fatigue
  - Muscle or body aches
  - New loss of taste or smell
  - Sore throat, congestion, or runny nose
  - Nausea, vomiting, or diarrhea
- Asymptomatic contacts to cases- 7 days after exposure.
- Certain asymptomatic high-risk workers with employer guidance.

**Masks can decrease transmission,  
hospitalizations, ICU admissions.**



# WEAR MASKS/CLOTH FACE COVERINGS

- Slow spread of the virus.
- Important role in preventing spread by those without symptoms.
- For use in public where other social distancing measures may be difficult to maintain.



Your cloth face covering may protect them. Their cloth face covering may protect you.



# WEAR MASKS CORRECTLY

- Wash hands before and after putting a face covering in place.
- Do not touch the face covering again until you remove it.
- Masks should be positioned so there is no need to adjust or otherwise touch the face frequently.
- If your mask becomes soiled or hard to breathe through, remove and launder.
- Remove your mask to eat and drink; if it is still in good repair, you may continue to use it.
- Instructions for making masks can be found at the Colorado Mask Project.



**Continued social distancing at 65%  
will prevent our health care  
system from being overwhelmed.**



**It is especially important for  
older adults to practice  
social distancing.**



# AGE AS A FACTOR FOR COVID-19 RISK

Older adults and people with serious underlying medical conditions are at greatest risk of severe disease and death due to COVID-19.

source: CDC - [cdc.gov/coronavirus](https://www.cdc.gov/coronavirus)

Cases of COVID-19 Reported in Colorado by Age Group, Hospitalization and Outcome



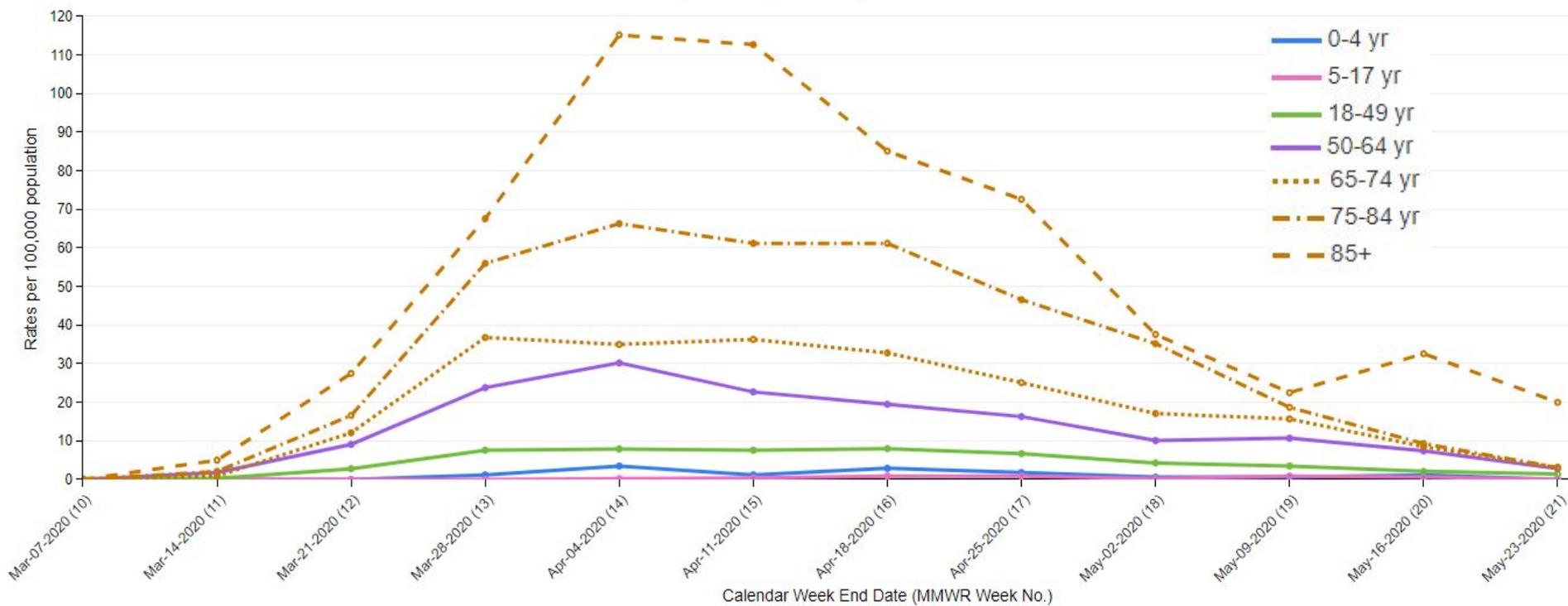
# Older Coloradans have the highest risk of COVID-19 hospitalization.

Adults age 60+ account for approximately 50% of hospitalizations in Colorado to date, but only 21% of the Colorado population.

Risk is even higher for those age 70+.



# COVID-19 HOSPITALIZATION RATES BY AGE GROUP, COLORADO\*



\*From CDC COVID-NET, 5 County Denver Metro Area

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



**9 out of 10 COVID-19 deaths in Colorado have occurred in adults 60 years old and older.**

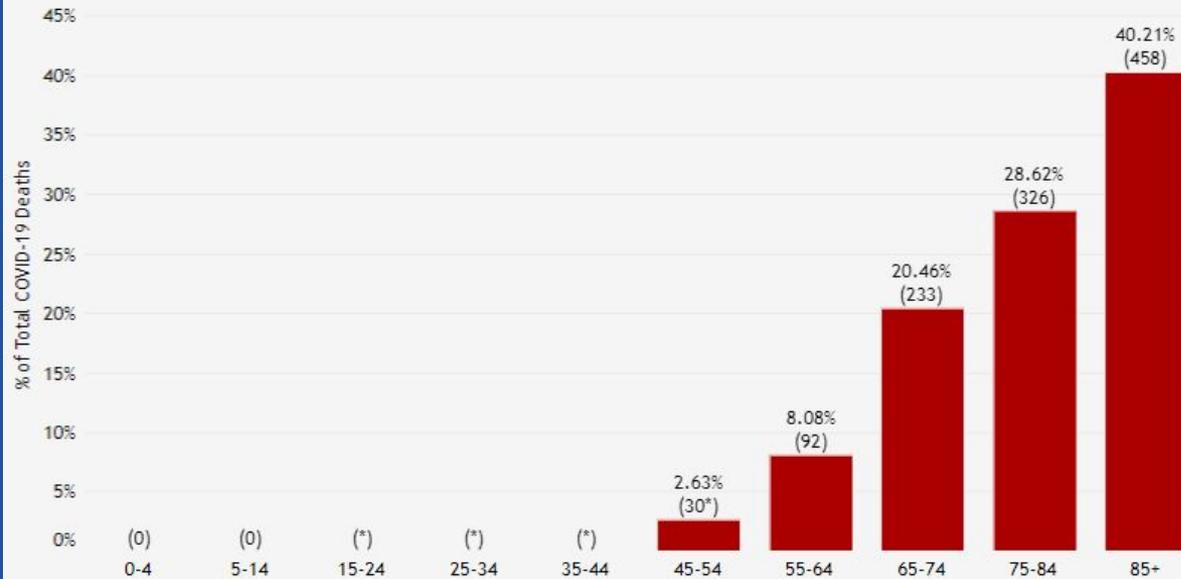


# DEATHS DUE TO COVID-19

## Colorado Deaths Due to COVID-19 by Age Group

Data up to Week Ending 5/23/2020, Updated by CDC on 5/28/2020

N = 1,139



\* Includes Suppressed Values

# TO MAINTAIN ONGOING SOCIAL DISTANCING

Older adults need support from family, friends, community, and health care providers.



# SUMMARY

- To protect older Coloradans and save lives, we all need to do our part.
- 3 key actions for Coloradans are:
  - Get tested.
  - Wear masks.
  - Practice social distancing.
- While older adults are most at-risk, severe illness is also occurring in younger people.
  - 50% of hospitalizations are among those less than 60
  - New impacts of the virus are being discovered, such as Multisystem Inflammatory Syndrome in children (MIS-C).

# Q & A



- **Jill Hunsaker Ryan, Executive Director**
- **Dr. Rachel Herlihy, State Epidemiologist**
- **Dr. Jonathan Samet, Dean of the Colorado School of Public Health**

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