COVID-19 CLINICAL UPDATE

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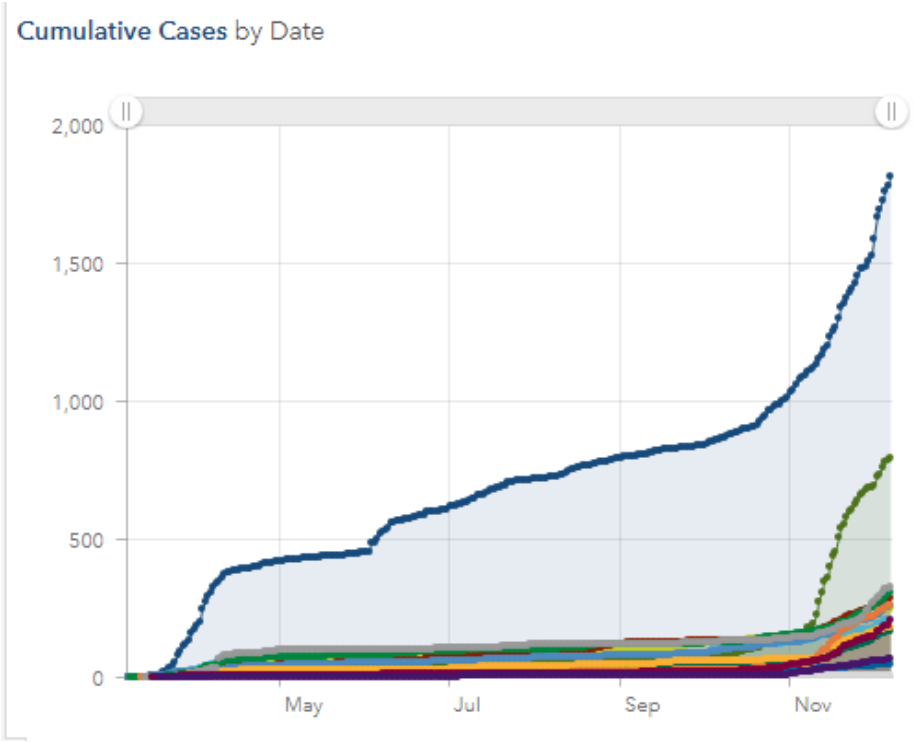
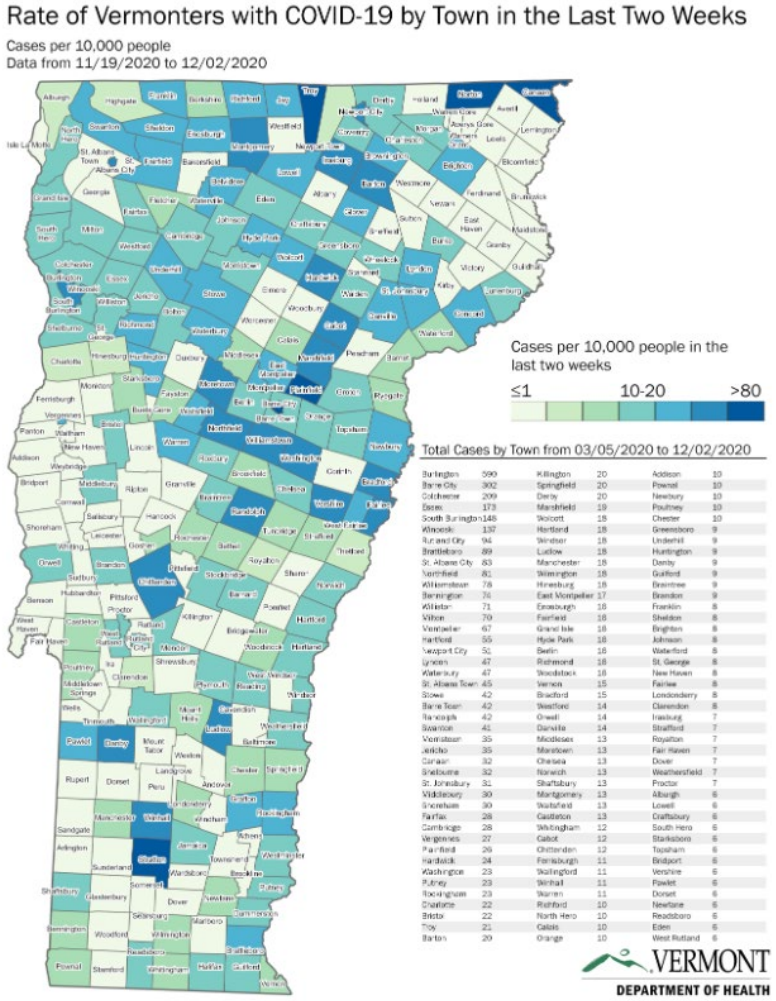
December 15, 2020

Image: https://www.lukejerram.com/glass/gallery/coronavirus-covid-19

CLINICAL UPDATE CASES, OUTBREAKS, AND TRENDS

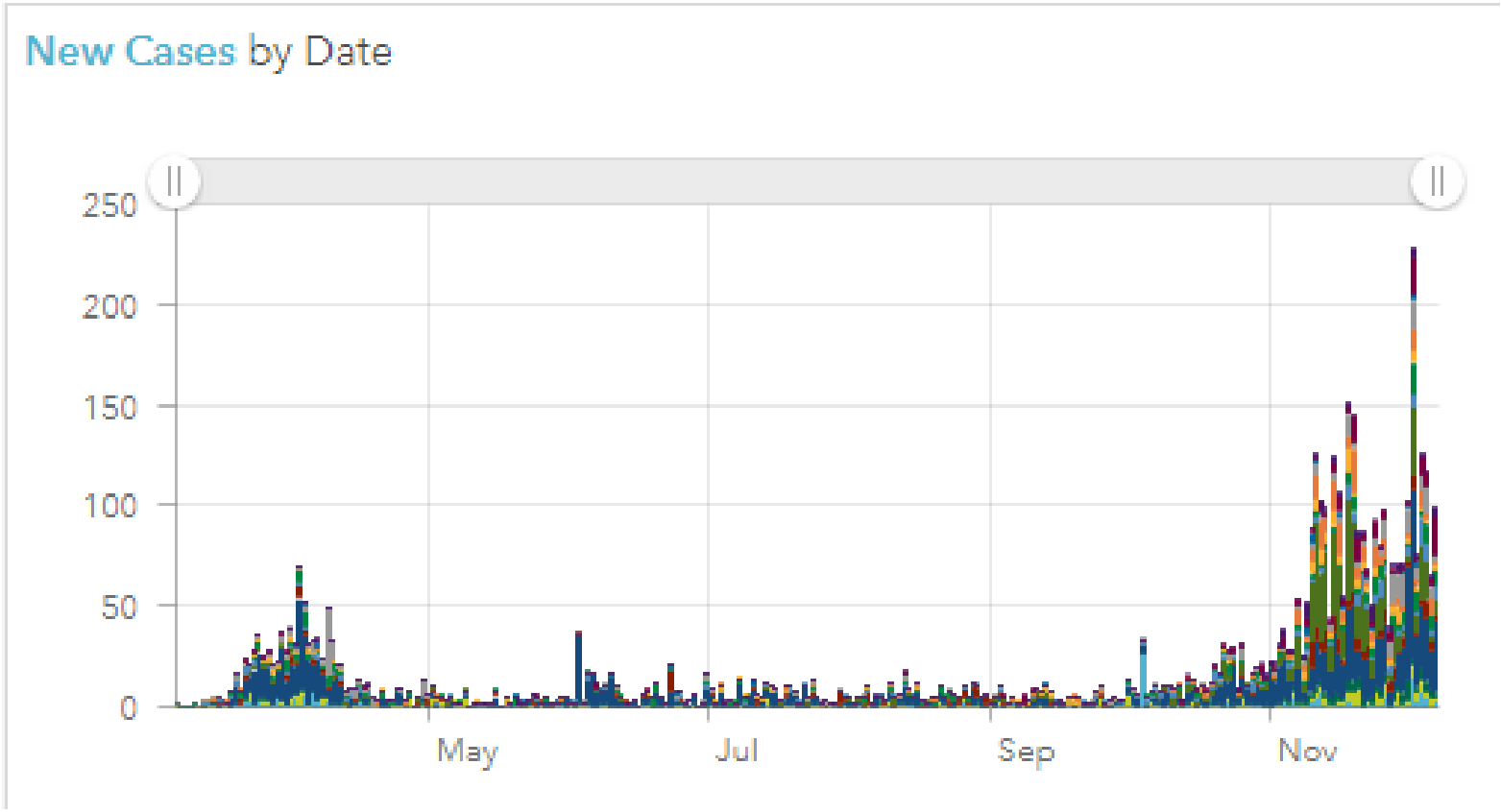




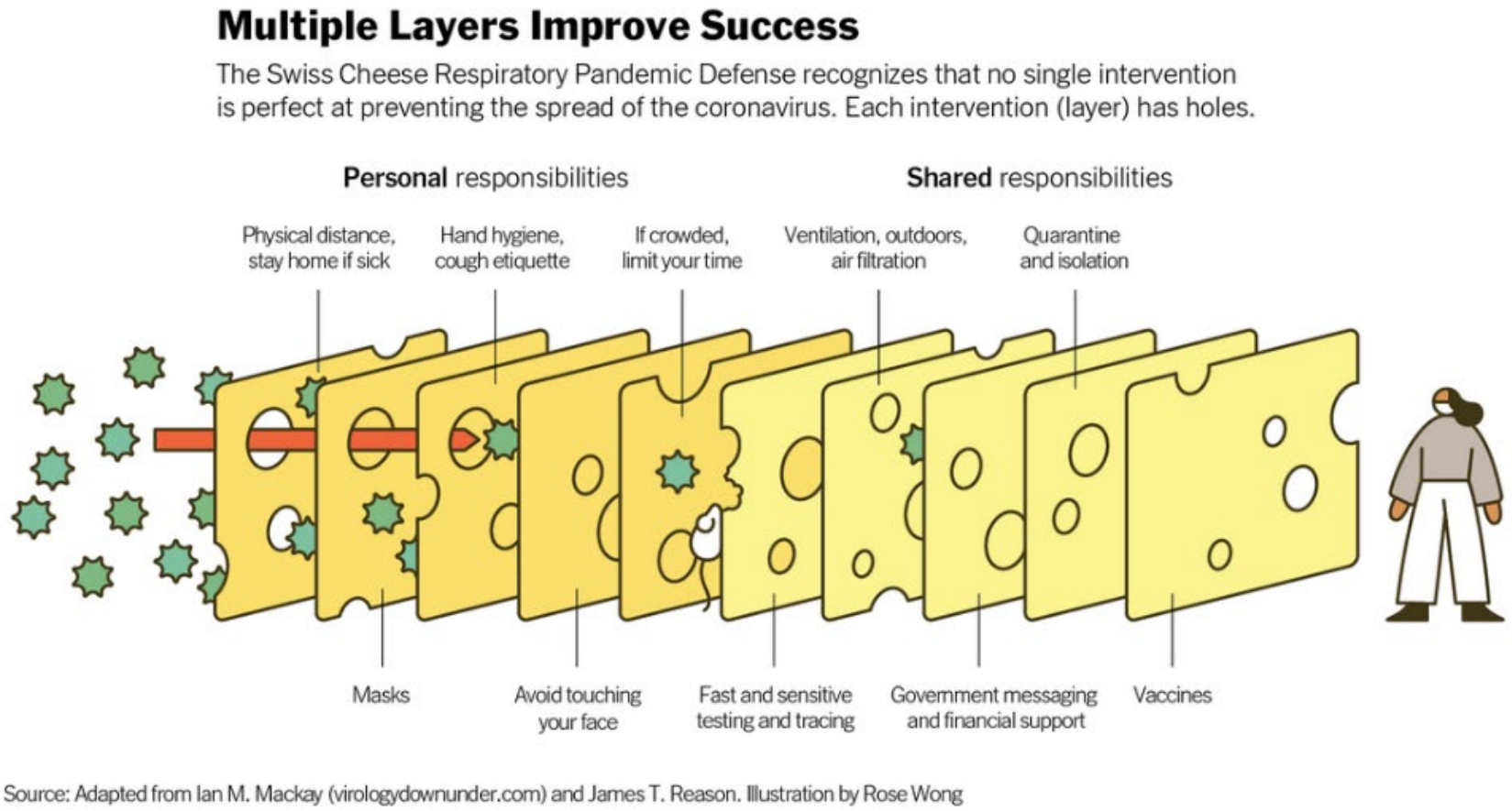
Note the change in the township map to active cases only

CLINICAL UPDATE CASES, OUTBREAKS, AND TRENDS

Daily trend of new cases



SWISS CHEESE MODEL OF COVID PROTECTION



https://www.nytimes.com/2020/12/05/health/coronavirus-swiss-cheese-infection-mackay.html

TYPES OF DIAGNOSTIC TESTS FOR ACTIVE INFECTION

- Targeted nucleic acid testing
  - Reverse transcription polymerase chain reaction (RT-PCR)
  - Rapid Molecular Tests
- Antigen-detecting diagnostic or screening tests
  - Rapid Antigen Test

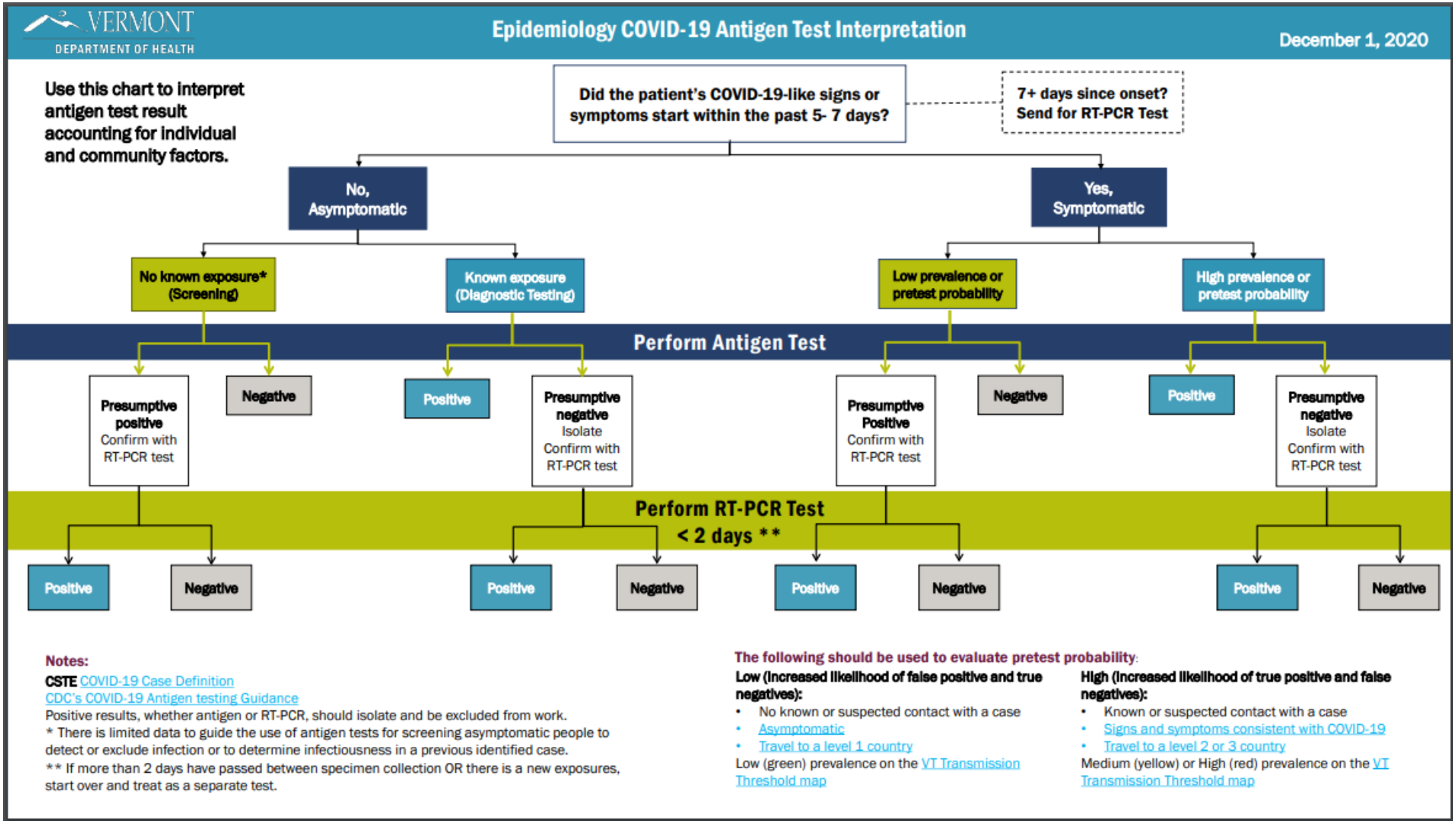
TESTING ACCURACY CHANGES DEPENDING ON THE DENSITY OF INFECTION

- If you test people who are very likely to have the disease, they are still likely to have the disease even if the test is negative (Missed Infections)
- If you test people who are very likely to not have the disease, they are still likely not to have the disease even if the test comes up positive (False Alarms)
- This makes testing in areas of low density of infection very complicated
- No test is perfect

ANTIGEN TESTING UPDATE

- PCR testing remains the recommended test of choice in all settings
- Vermont Department of Health has started antigen testing in nursing homes
- Vermont Department of Health still does not recommend antigen testing for anyone outside of nursing homes

ANTIGEN TESTING UPDATE



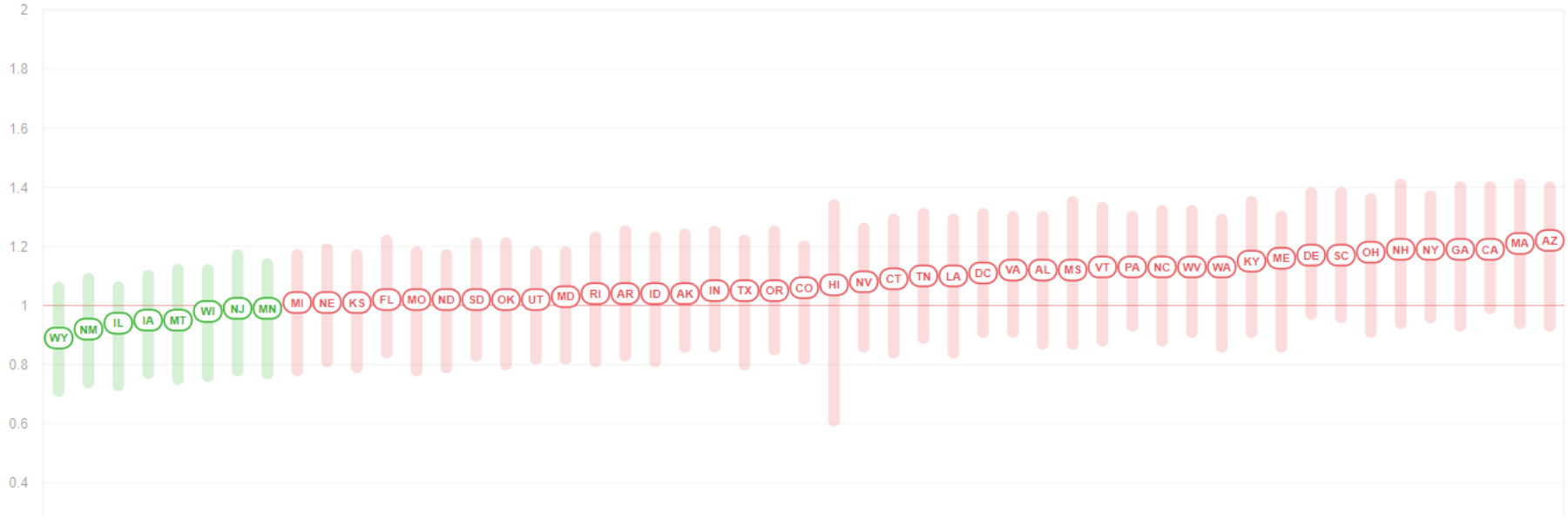
COVID-19 TRANSMISSION

R_t COVID-19

These are up-to-date values for R_t, a key measure of how fast the virus is growing. It's the average number of people who become infected by an infectious person. If R_t is above 1.0, the virus will spread quickly. When R_t is below 1.0, the virus will stop spreading. Learn More.

Data Last Updated: 12/11 at 11:18AM

Latest | 2 Weeks Ago | 1 Month Ago | 2 Months Ago | 3 Months Ago | Filter



WHAT IS THE RT

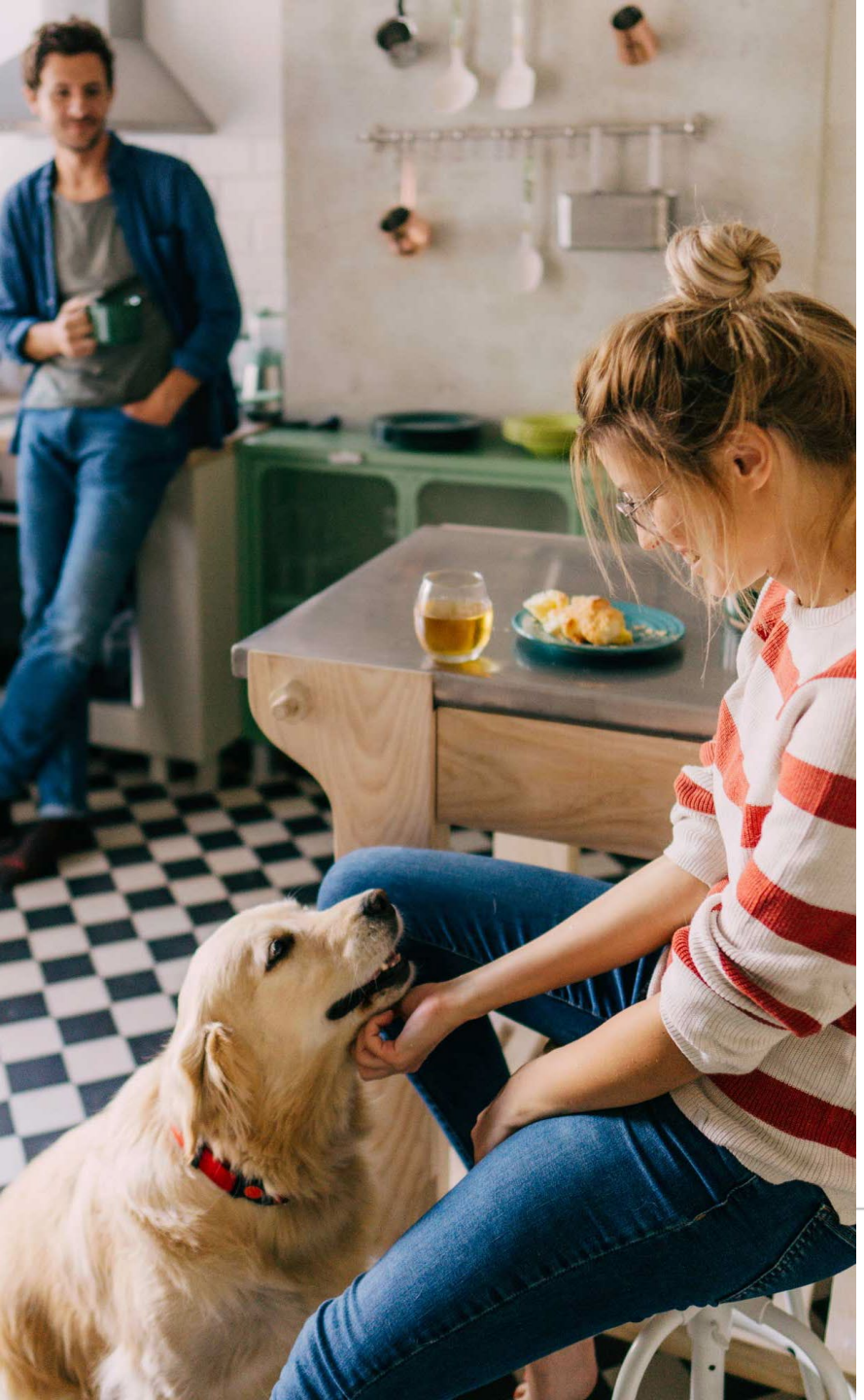
- Rt is the transmissibility of the virus.
- An Rt of 1 means that every person infected with the virus infects, on average 1 person
- An Rt greater than 1 means that the virus will increase in the community
- An Rt less than 1 means that the virus will decrease in the community

WHO IS REQUIRED TO QUARANTINE FOR 14 DAYS?

- Anyone exposed to COVID-19
- Anyone who has travelled out state for non-essential purposes
  - includes ALL holiday travel
- Any college student returning for break
- Any parent who picked up a college student for break
- Anyone coming to visit you from out of state

WHAT IS QUARANTINE?

Quarantine means staying at a home or dwelling for 14 days since the day they were potentially exposed to COVID-19



WHAT IS QUARANTINE?

Quarantine means

- No grocery shopping
- No getting together with friends or family
- No leaving the house to go to work
- No activities outside of the house
- People in individual quarantine should separate themselves from others in the house and check themselves for symptoms.

IF YOU HAVE SOMEONE QUARANTINING IN YOUR HOUSE AS AN INDIVIDUAL

- Do not mingle or allow that person in the rest of the house
- They need to stay in their room or in their part of the house
- They need their own bedroom and bathroom if possible
- Wear masks in the house
- Prepare their food for them
- Eat separately
- This is not fun, but it is critically important

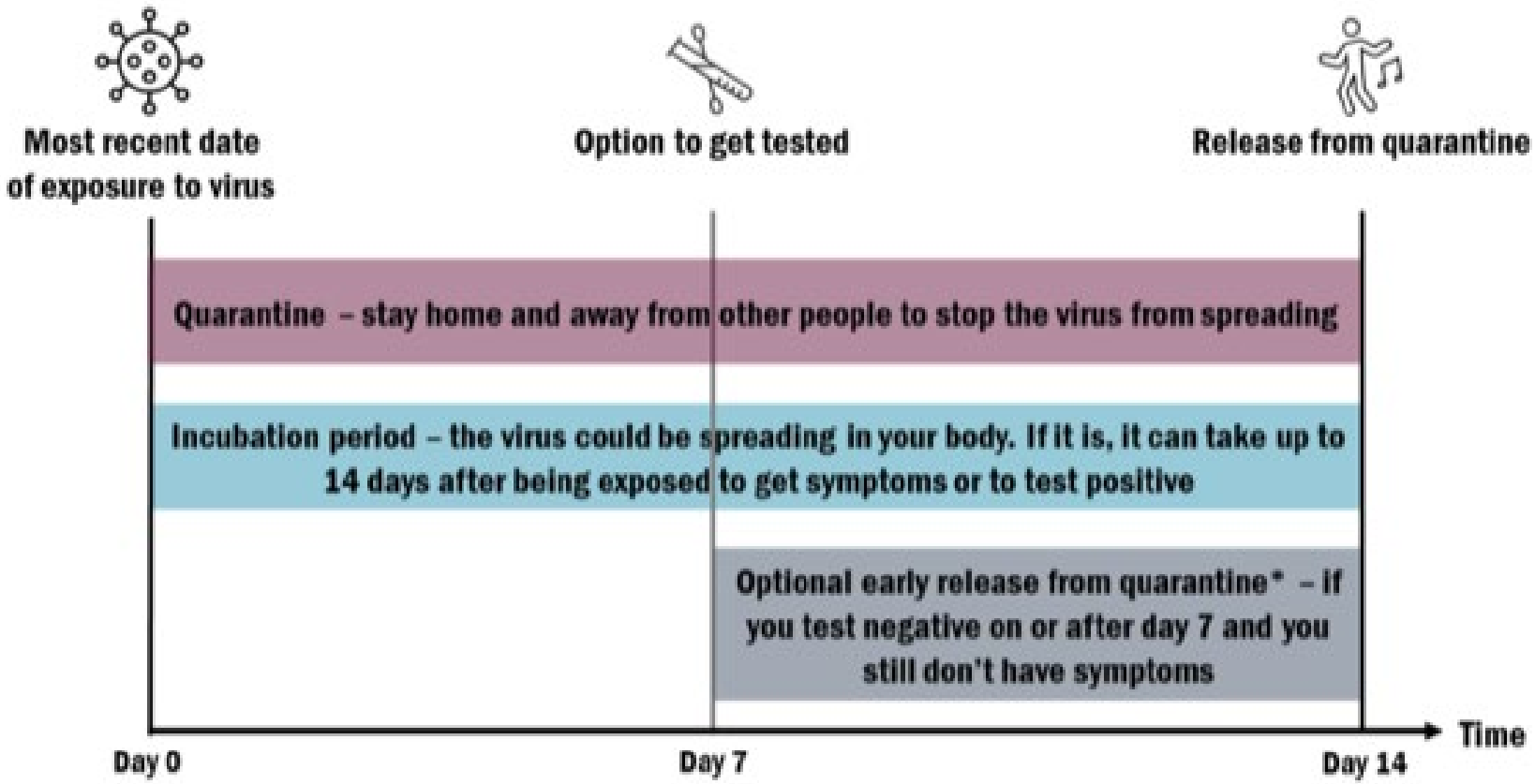
IF YOU ARE QUARANTINING IN YOUR HOUSE AS THE WHOLE HOUSEHOLD

- If you cannot follow these guidelines, then the whole household must quarantine
  - Cannot go out to work outside the house
  - No grocery shopping
  - No going into town

IF YOU ARE QUARANTINING IN YOUR HOUSE AS THE WHOLE HOUSEHOLD

- If you have family coming from out of state, you must complete 14 days of quarantine after they have left, unless they did a 14-day strict quarantine at home before coming and then drove straight up without stopping. (And it's too late to start that now)
- Do not rely on testing to feel "safe" for the holiday

Timeline for Close Contacts of People with COVID-19



*Some people are not eligible for this option, such as staff and residents in certain group living settings.

Learn more at healthvermont.gov/contact-tracing

VERMONT
DEPARTMENT OF HEALTH

August 2020

LEAVING QUARANTINE AFTER 7 DAYS

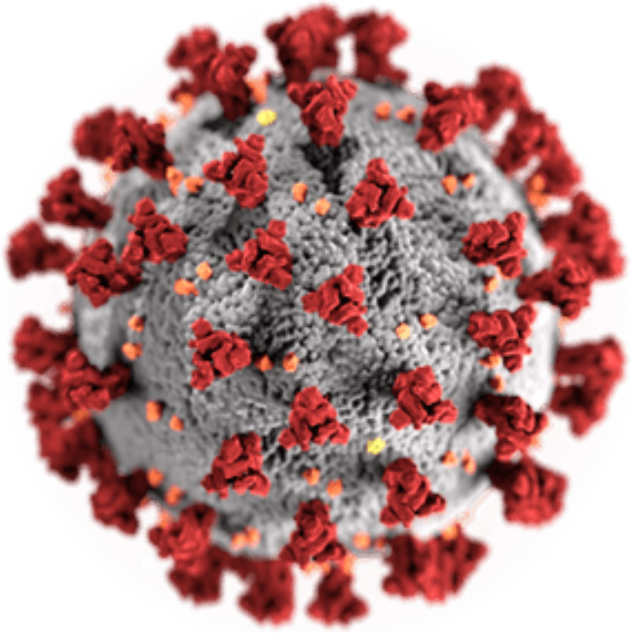
- Anyone currently under quarantine who has had no symptoms during the first seven days of quarantine has the option to be tested.
- The test must be a PCR test.
- You must have absolutely no symptoms to leave quarantine
- Be aware that this is not foolproof
- We have multiple examples of COVID appearing after 7 days and a negative test

WHAT IS THE INFECTIOUS PERIOD IF SOMEONE HAS COVID-19?

- The infectious period is the time when someone with COVID-19 has a high chance of spreading the virus to others.
- The infectious period starts two days before any symptoms began – or for people with COVID-19 who don't have symptoms, two days before they got tested – and continues until they have recovered.

WHAT DOES RECOVERY MEAN IF I HAVE COVID-19?

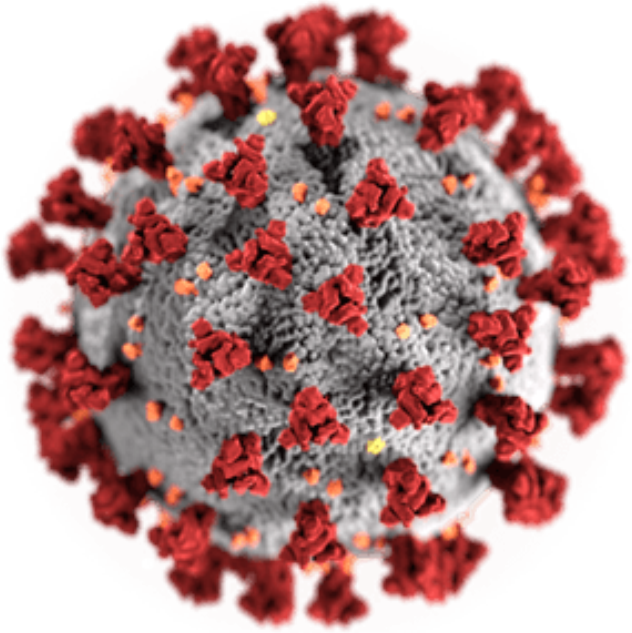
- If you had symptoms, you can leave home and be with others after three things have happened :
  - no fever for at least 24 hours without the use of medicine that reduces fevers **AND**
  - other symptoms have improved (for example, when your cough or shortness of breath have improved) **AND**
  - at least 10 days have passed since your symptoms first appeared



(Unless otherwise instructed by your health care provider.)

WHAT DOES RECOVERY MEAN IF I HAVE COVID-19, CONT'D?

If you did not have any symptoms, you can leave home and be with others after 10 days have passed since the date you had your positive test (unless otherwise instructed by your health care provider).

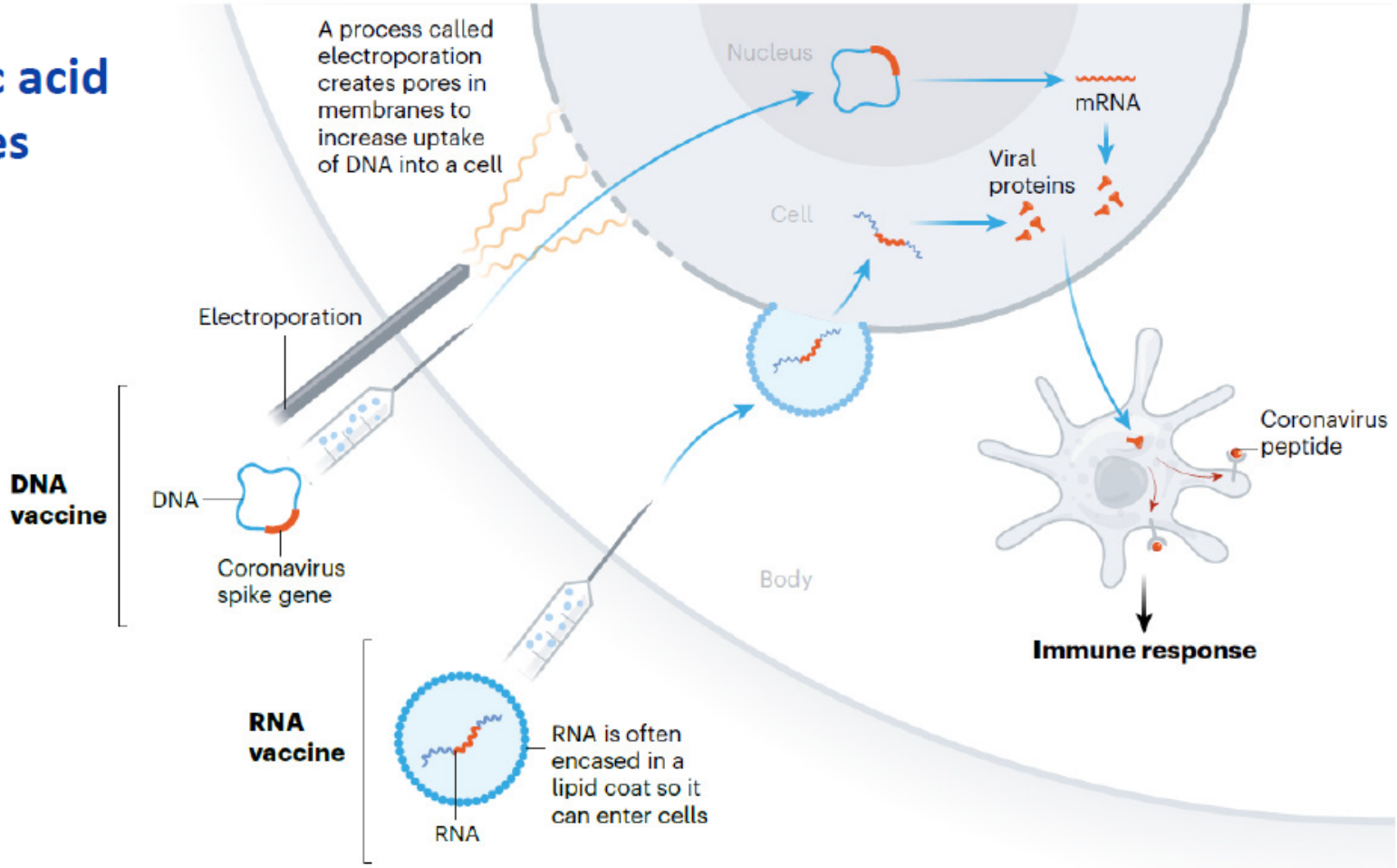


MRNA VACCINES

- mRNA vaccines take advantage of the process that the body already uses to fight off viruses
- The mRNA technology is new, but not unknown and has been studied for more than a decade
- mRNA vaccines do not contain a live virus
- You cannot catch COVID-19 from an mRNA vaccine
- The mRNA from the vaccine never enters the nucleus of the cell and does not affect or interact with a person's DNA

VACCINE MECHANISM FROM CDC

Nucleic acid vaccines



Nature. Vol 580. April 30, 2020. https://media.nature.com/original/magazine-assets/d41586-020-01221-y/d41586-020-01221-y.pdf

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VACCINE ADMINISTRATION ROLL-OUT

- First doses should arrive in this week
- Amounts will be very limited
- Vermont getting about 3900 doses for the first round
- Moderna vaccine will be coming soon
- Multiple other vaccines in the pipeline
- Vaccination the general population will take time
- Patience will be required

COVID VACCINE DISTRIBUTION

- Phase 1
  - Phase 1a “Jumpstart Phase”
    - High-risk health workers
    - First responders
  - Phase 1b
    - People of all ages with comorbid and underlying conditions that put them at significantly higher risk
    - Older adults living in congregate or overcrowded settings

PHASE 1A POPULATION FROM THE VERMONT COVID-19 IMPLEMENTATION ADVISORY COMMITTEE

Long-term Care Workers	**13,636**
Licensed healthcare workers	3,174
Direct care, non-licensed healthcare workers	3,353
Other staff	1,765
Residents	5,344
Hospital Workers	**19,555**
Healthcare and Support Staff primarily located in the ED, ICU, or providing care to COVID patients	4,916
Support Staff not in ED, ICU, or COVID Care	5,512
Healthcare Workers not in ED, ICU, and COVID Care	9,127
Other Healthcare Providers	**26,519**
EMS Workers	2,630
Home Health Workers	10,934
Other Healthcare Workers	12,955
Grand Total	**59,710**

PROPOSED PHASE 1A POPULATION FROM THE VERMONT COVID-19 IMPLEMENTATION ADVISORY COMMITTEE

- **Phase 1A: Health care workers (HCW) likely to be exposed/treat COVID-19 patients**
  - Long-term care facility residents and staff who have patient contact
  - Clinical and support staff who have patient contact– priority should be given to the following groups:
    - **HCW (all classes including support personnel) primarily located in the ED and ICU, providing care to COVID patients**
    - **EMS with patient contact**
  - Home health care clinical staff and caregivers who have contact with multiple patients/vulnerable people
  - Other health care providers/staff who have patient contact

COVID VACCINE DISTRIBUTION

- Phase 2
  - K-12 teachers and school staff and childcare workers
  - Critical workers in high-risk settings
  - People of all ages with comorbid and underlying conditions that put them at moderately higher risk
  - People in homeless shelters or group homes for individuals with disabilities and staff who work in such settings
  - Staff, workers and occupants in prisons, jails, detention centers, and similar facilities
  - All older adults not included in Phase 1

COVID VACCINE DISTRIBUTION

- Phase 3
  - Young adults
  - Children
  - Workers in industries and occupations important to the functioning of society and at increased risk of exposure not included in Phase 1 or 2
- Phase 4
  - Everyone residing in the United States who did not have access to the vaccine in previous phases

QUESTIONS?