

May 18, 2020 "It's NOT OVER 'til we RECOVER"

2:00 PM

Big Horn County

COVID-19 Update/Response

### For Immediate Release

COVID-19 update: as of May 16<sup>th</sup> at 1:46p, Wyoming has another death related to COVID-19. That brings the total to **8**. 566 – laboratory-confirmed cases, 188 – probable cases and 498 recovered.

An internationally known physician classmate of mine, Andrew Lee, MD, has summarized what is necessary from a disease testing and tracking process before we can return to "normal."

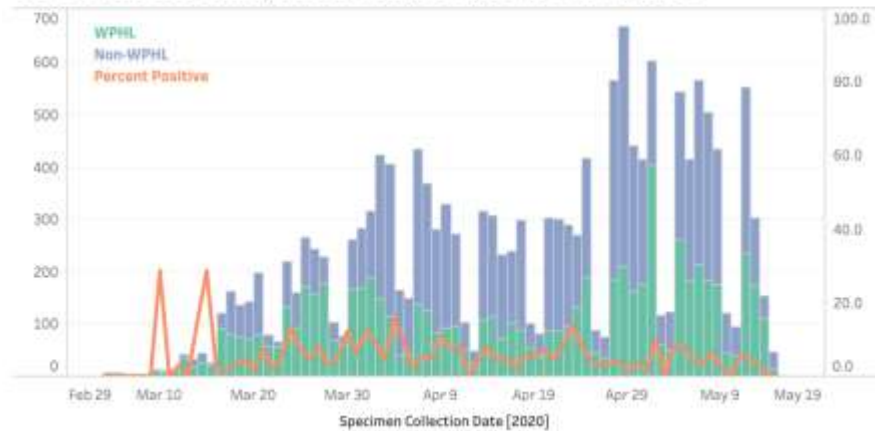
### COVID-19 Resulted Tests at Wyoming State Public Health Laboratory and Commercial Laboratories

PLEASE NOTE: The following data is based on number of resulted tests. Some cases may have multiple positive results so testing numbers will not match case counts. Commercial labs are required to report positive test results to WDH; negative results are not reported consistently.

### COVID-19 Resulted Tests

Non-WPHL	9,106
WPHL	7,113
Grand Total	16,219

### COVID-19 Resulted Tests by Collection Date; Lab Type and Percent Positive



*A rationale COVID-19 strategy to ease confinement restrictions and re-open economic activities requires discipline and compliance.*

*First, once the number of infected (and dead) people has successfully been brought below the ICU/hospital capacity threshold (i.e., "flattening the curve,") as we have done in Wyoming. Now we need quick, targeted suppression of new waves of resurgent viral infections that will occur upon reopening.*

*We need two types of tests:*

***First**, molecular diagnostic testing, reverse transcriptase polymerase chain reaction (you can just call it "RT-PCR" or "PCR" for short). Point of care PCR identifies patients who are infected at the time of the test. After we test, then we can then track infected people and finally trace their contacts. You can call this phase, "test, track, trace" or "TTT" for short. If we can do this, then the effective viral reproduction number ( $R_0$ ) will drop to one or less than one.*

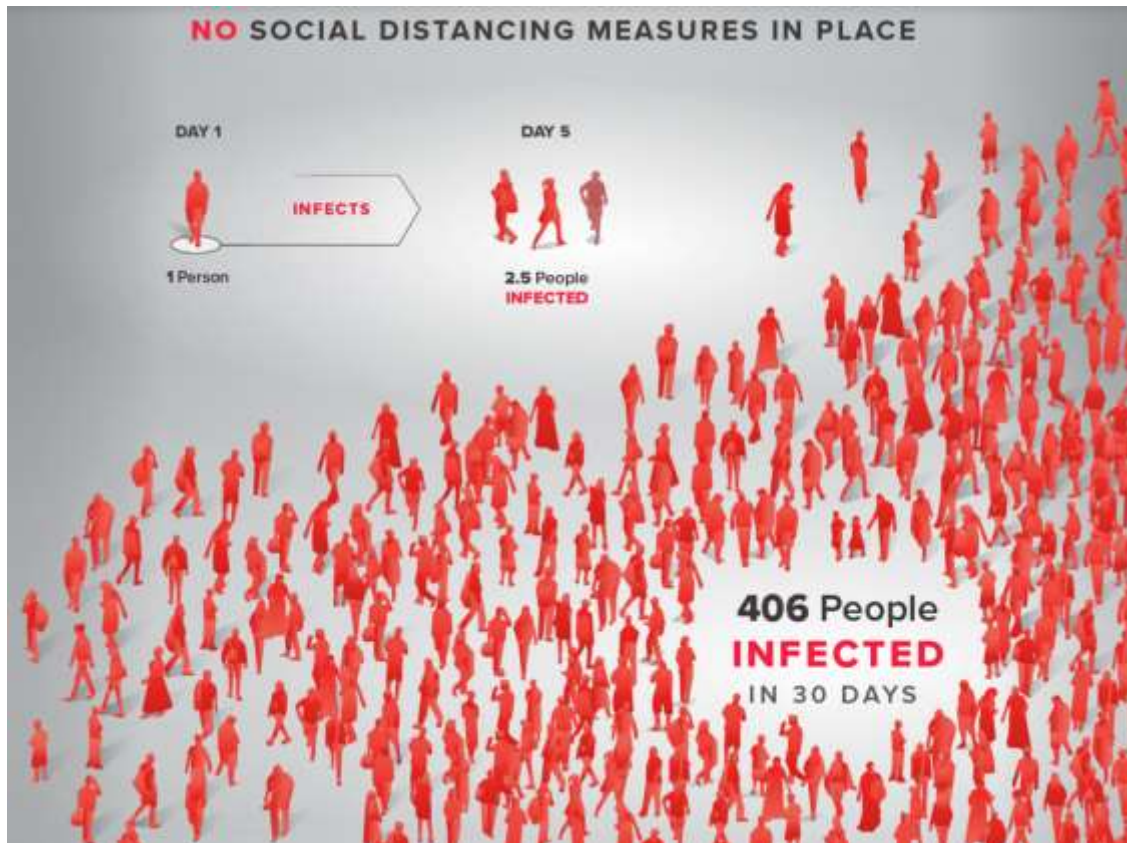
*The  $R_0$  is the number of people one infected person will go on to infect (with COVID-19 ~ 2.3 to 2.6.) The problem is a very large number of asymptomatic COVID-19 cases are running around. In order for the TTT strategy to work, we need high numbers of PCR testing, then national TTT. This would require increasing our current testing capacity enormously. There remains significant scalability, logistical, operational, and capacity constraints on testing (e.g., trained personnel to take accurate specimen, laboratory analysis, even reagents.)*

*In addition to PCR and TTT, a **second** type of test is needed, a **serologic test** is necessary (you can call this test, "ST".) The ST detects people who have had a prior infection and have developed antibodies and hopefully have acquired immunity to return to work and play safely.*

Thus, *BEFORE* you go out without a mask, without social distancing, *YOU* should know that the following metrics are necessary for us to return to “normal” (the letters to know are **TTT**, **PCR**, and **ST**).

We will need:

- 1) Verified clinical performance of testing both rapid PCR and ST
- 2) Procurement and logistics for a nationwide scaled up production and national deployment of the tests
- 3) Adequate safeguards to protect civil rights and privacy of populations while deploying app enabled (TTT) tracking strategies.



Until we have PCR, TTT, and ST, we will still be in a limited phase of monitoring symptomatic individuals and tracking county by county. We hope if we are careful about our social distancing that we will not see a resurgence. But if we disregard face coverings, social distancing and limited gathering recommendations, we could see severe negative impacts. The above diagram shows what happened in many of our major cities that are still affected.

One of my colleagues has a daughter that is an ER nurse in Chicago. Her hospital is a COVID treatment center and they have 3 floors of ICUs filled with critical COVID patients. There is a new article out in the journal *Nature* <https://www.nature.com/articles/d41586-020-01403-8> that discusses the processes of increased blood clotting and inflammation that is making this disease so difficult to treat. “*Studies from the Netherlands and France suggest that clots arise in 20–30% of critically ill COVID-19 patients.*”

As discussed in a previous briefing, we are now implementing universal testing in all skilled nursing facilities in our county and throughout Wyoming.



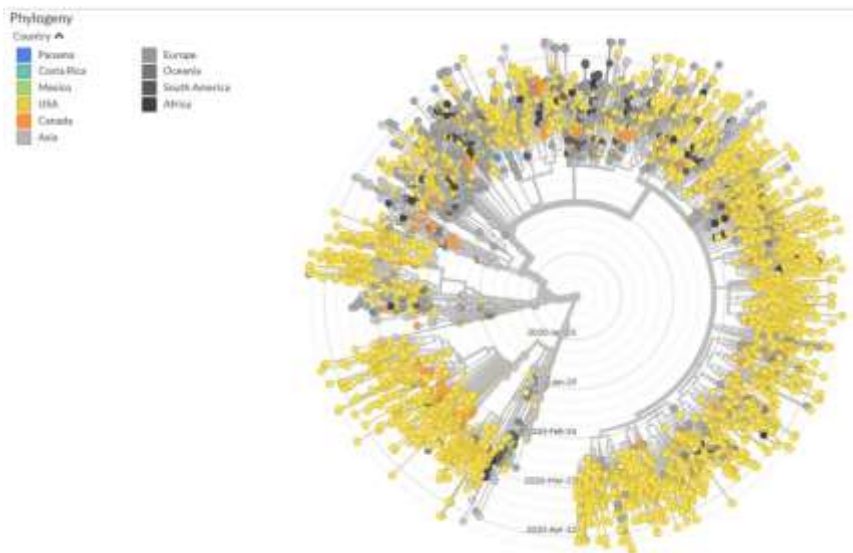
As Park County's Health Officer, Aaron Billin, MD, has recently pointed out, epidemiologists have identified a new mutation in the COVID-19 virus in North America, which is likely to be MORE CONTAGIOUS. This may likely change the  $R_0$  of COVID-19 and all of the above diagrams.

Let's be careful out there, especially with graduation celebrations. Let's respect social distancing and gathering restrictions.

"It's NOT OVER, 'til we RECOVER."

#### Genomic epidemiology of novel coronavirus - North America-focused subsampling

Maintained by the Nextstrain team. Enabled by data from [GISAID](#)  
 Showing 5364 of 5364 genomes sampled between Dec 2019 and May 2020.

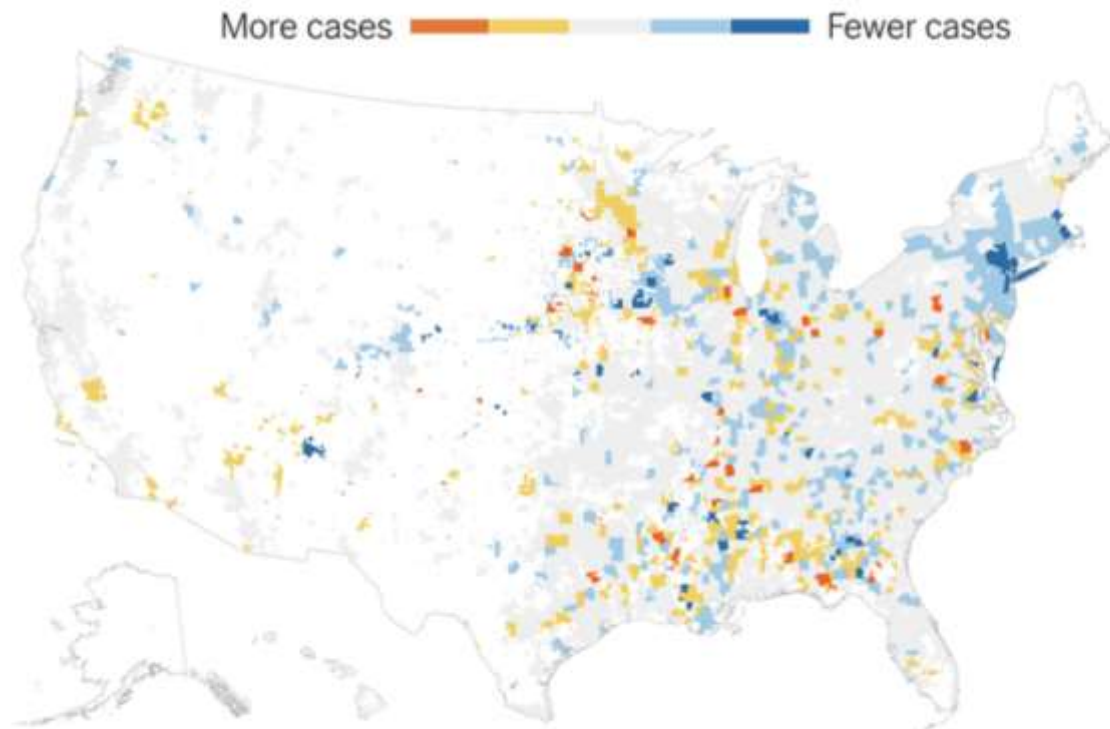


Respectfully,  
David Weston, Fairbanks, MD, FAAFP  
Big Horn County Health Officer  
and the entire  
Big Horn County Incident Management Team



For Sources of Information on COVID-19:

1. Big Horn County Public Health Website:  
<https://www.bighorncountyywy.gov>  
<https://www.bighorncountyywy.gov/departments/public-health>
2. Big Horn County COVID-19 INFORMATION LINE 307-568-4031  
Or Email us @ [covid-19@bighorncountyywy.gov](mailto:covid-19@bighorncountyywy.gov)
3. Park County Public Health Coronavirus Information Line: 754-1870 or 527-1870  
(Updated regularly). Big Horn County may use this.
4. Up to date announcements from Wyoming Department of Health as they are released Wyoming Department of Health  
Website: <https://health.wyo.gov/publichealth/infectious-disease-epidemiology-unit/disease/novel-coronavirus>.
5. CDC Website: <https://www.cdc.gov/coronavirus/2019-ncov/community/index.html>
6. Wyoming Department of Health State Orders:  
<https://health.wyo.gov/publichealth/infectious-disease-epidemiology-unit/disease/novel-coronavirus/covid-19-orders-and-guidance/>



The New York Times