

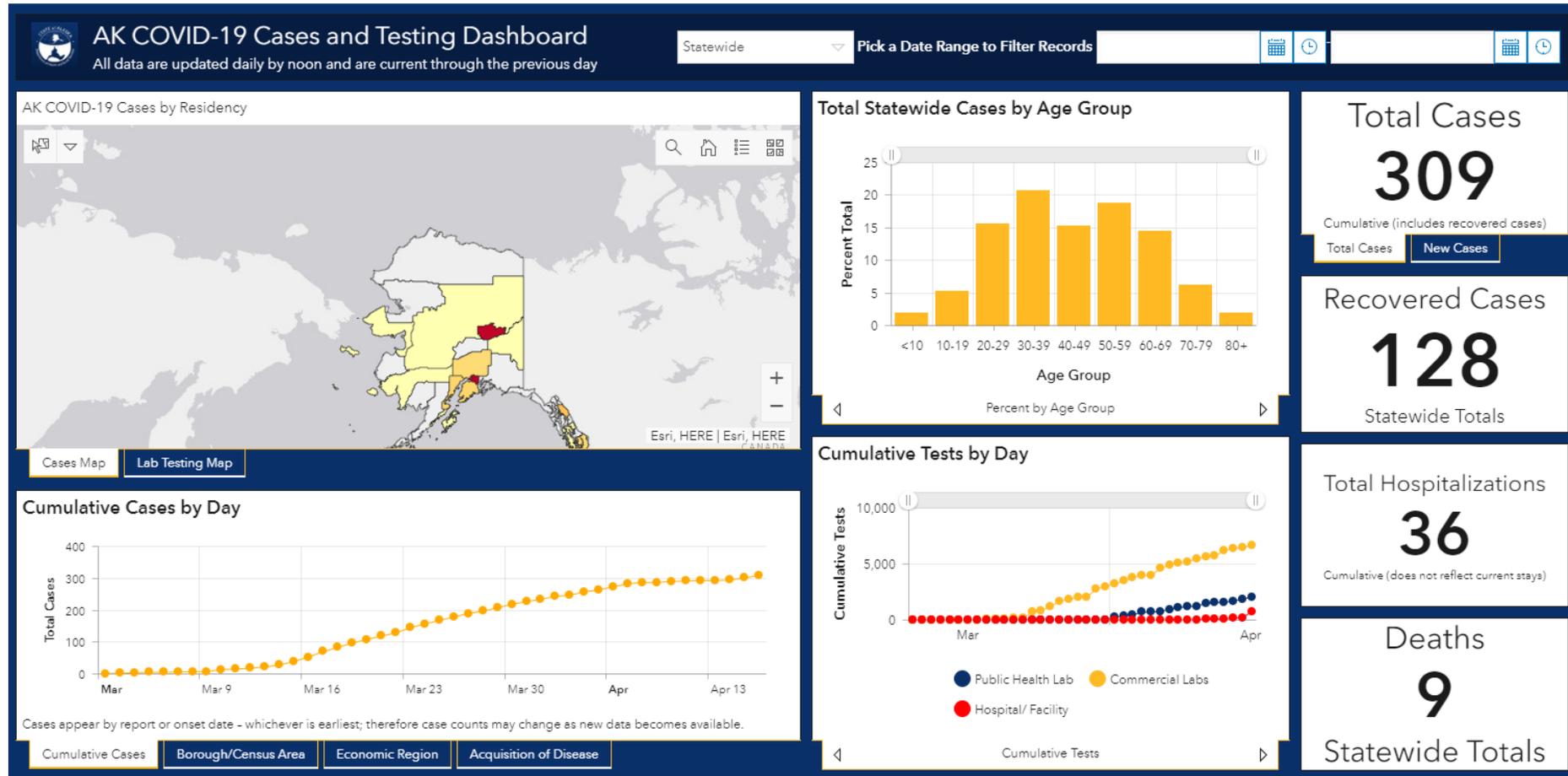
Alaska COVID-19

Dr. Anne Zink, Alaska's Chief Medical Officer
April 17, 2020



Updates on the COVID-19 Dashboard: 4/17

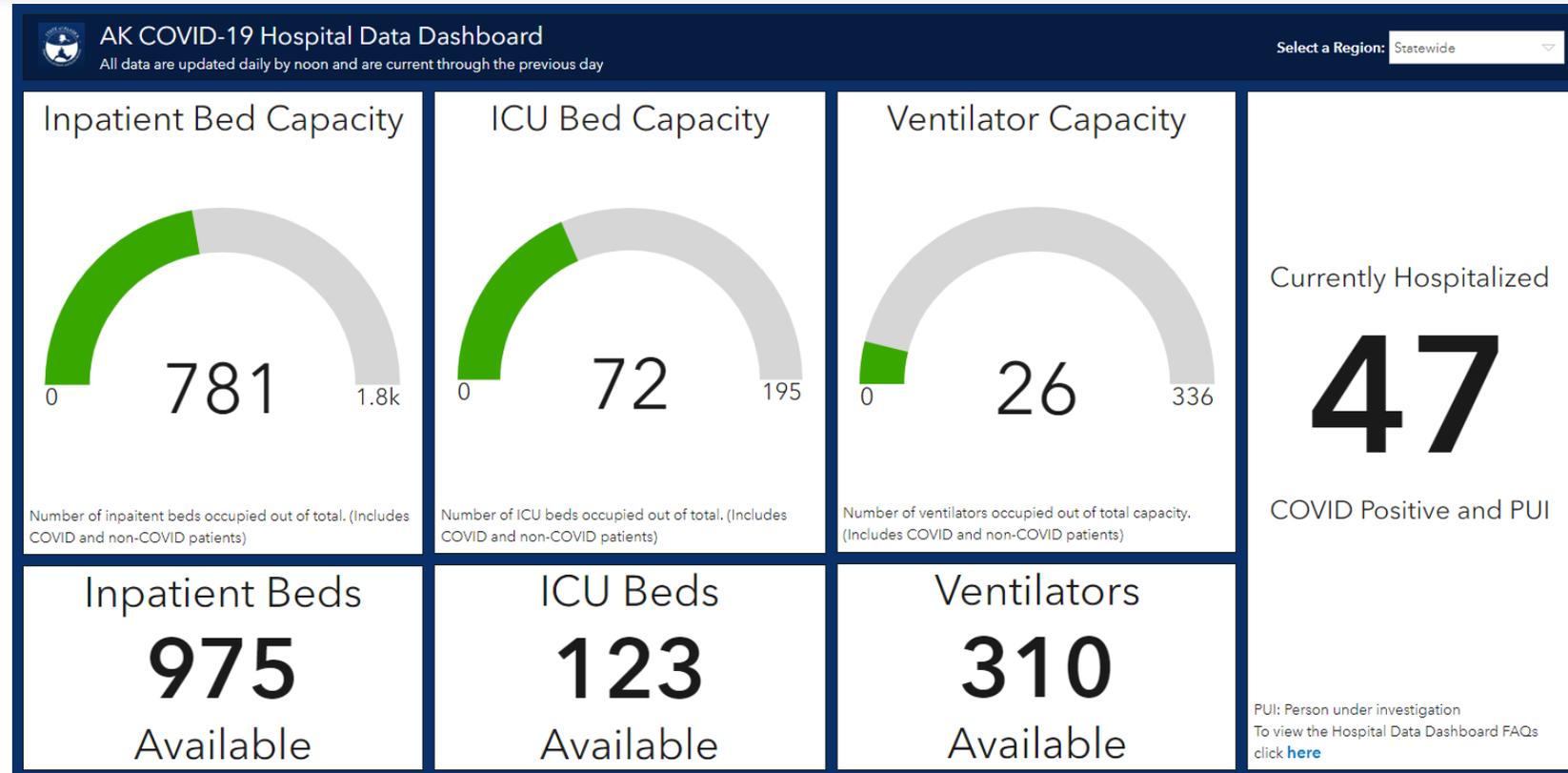
- 9 new cases reported 4/16/2020
- 18 additional recovered cases
- No new additional deaths
- 1 new hospitalization
- 9,450 cumulative tests
- 715 new tests since yesterday
- 3.3% of tests were positive



Hospital Capacity



Photo courtesy of Alaska Regional Hospital



- Inpatient bed capacity
- ICU bed capacity
- Ventilator capacity

Testing – Percent of the population tested

Testing is essential. Alaska needs to boost our testing rates. To keep deaths low while opening up sectors of Alaska's economy, testing must be more widespread. The State of Alaska is currently focusing on testing of symptomatic patients but in some cases, will do testing of asymptomatic contacts in high risk situations (i.e. long-term care facilities).

Percent of the Population Tested

- Juneau City and Borough 1.83%
- Fairbanks North Star Borough 1.68%
- Aleutians East Borough 1.57%
- Anchorage Municipality 1.55%
- Haines Borough 1.43%



R₀ R-naught

We can do this, Alaska! Social distancing saves lives

Keeping a safe distance from others (at least six feet) can play a critical role in controlling the spread of pandemics. Here's the math to show you why. Scientists measure the intensity of an infectious disease by its reproduction number (R_0). This modeling assumes a median incubation period of five days – meaning that if someone gets sick, it typically happens about five days after exposure.

R_0 is the average number of people a sick person will infect



For COVID-19, this has been estimated at 2.5

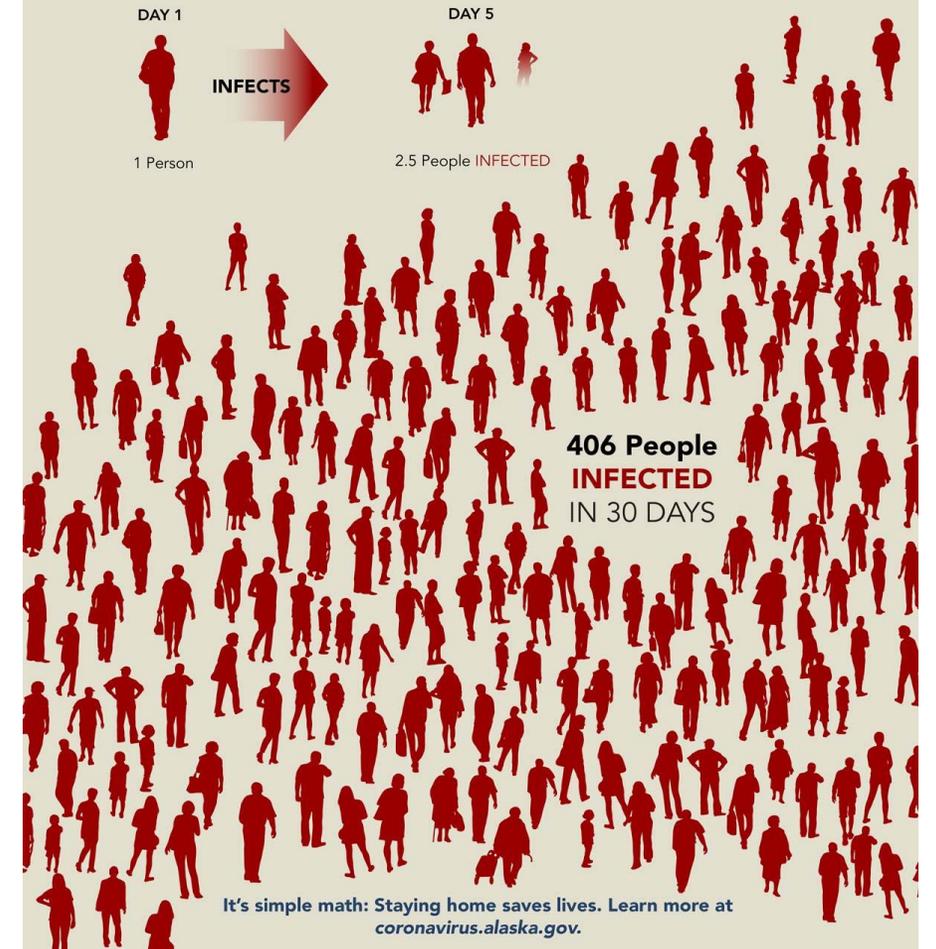
Here's what it looks like if Alaskans reduce their social exposure by 75%



Here's what it looks like if Alaskans can reduce social exposure by 50%

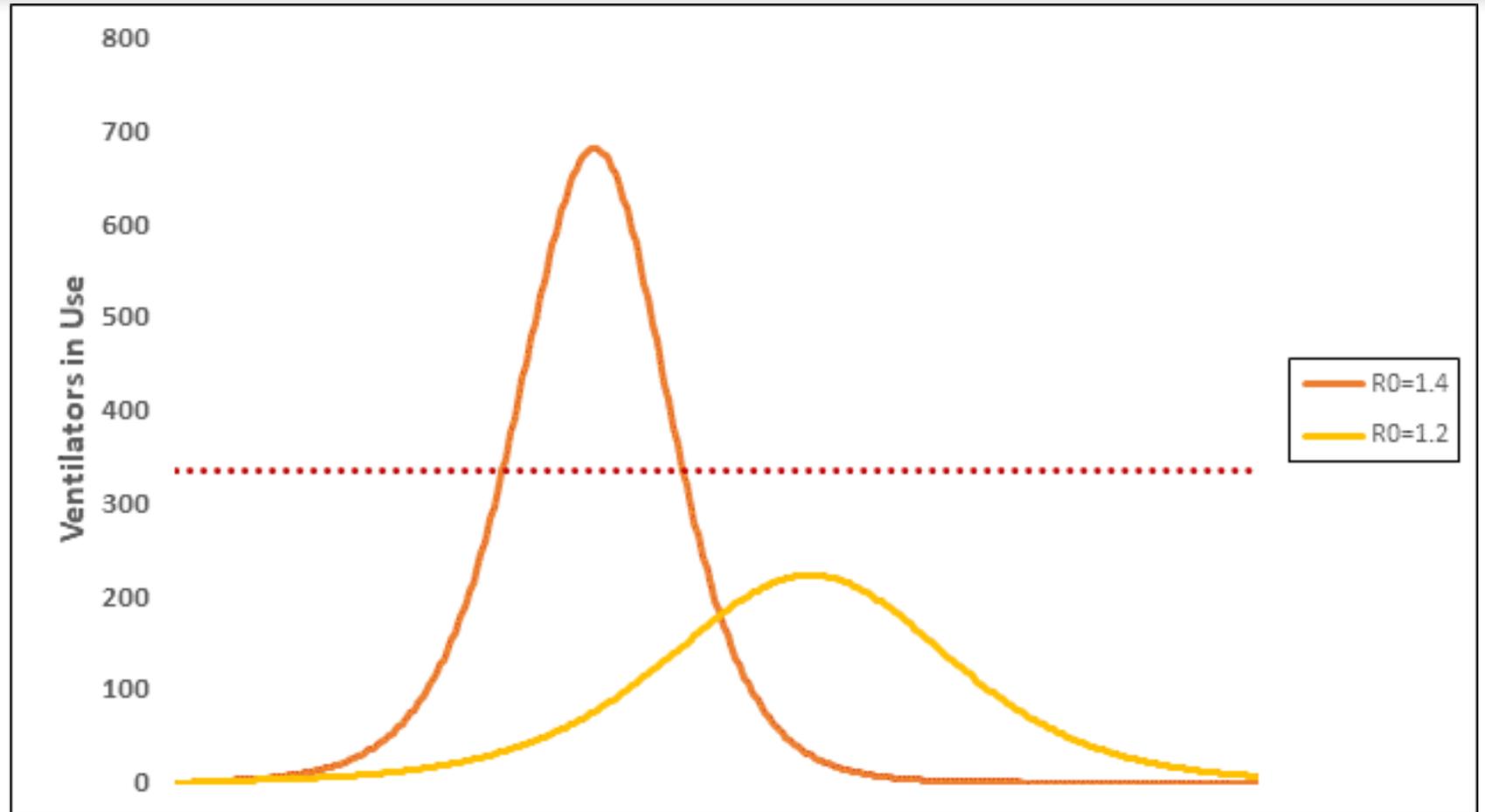


Here's what it looks like if there is no reduction in social exposure
(if no one follows Alaska's social distancing mandate).

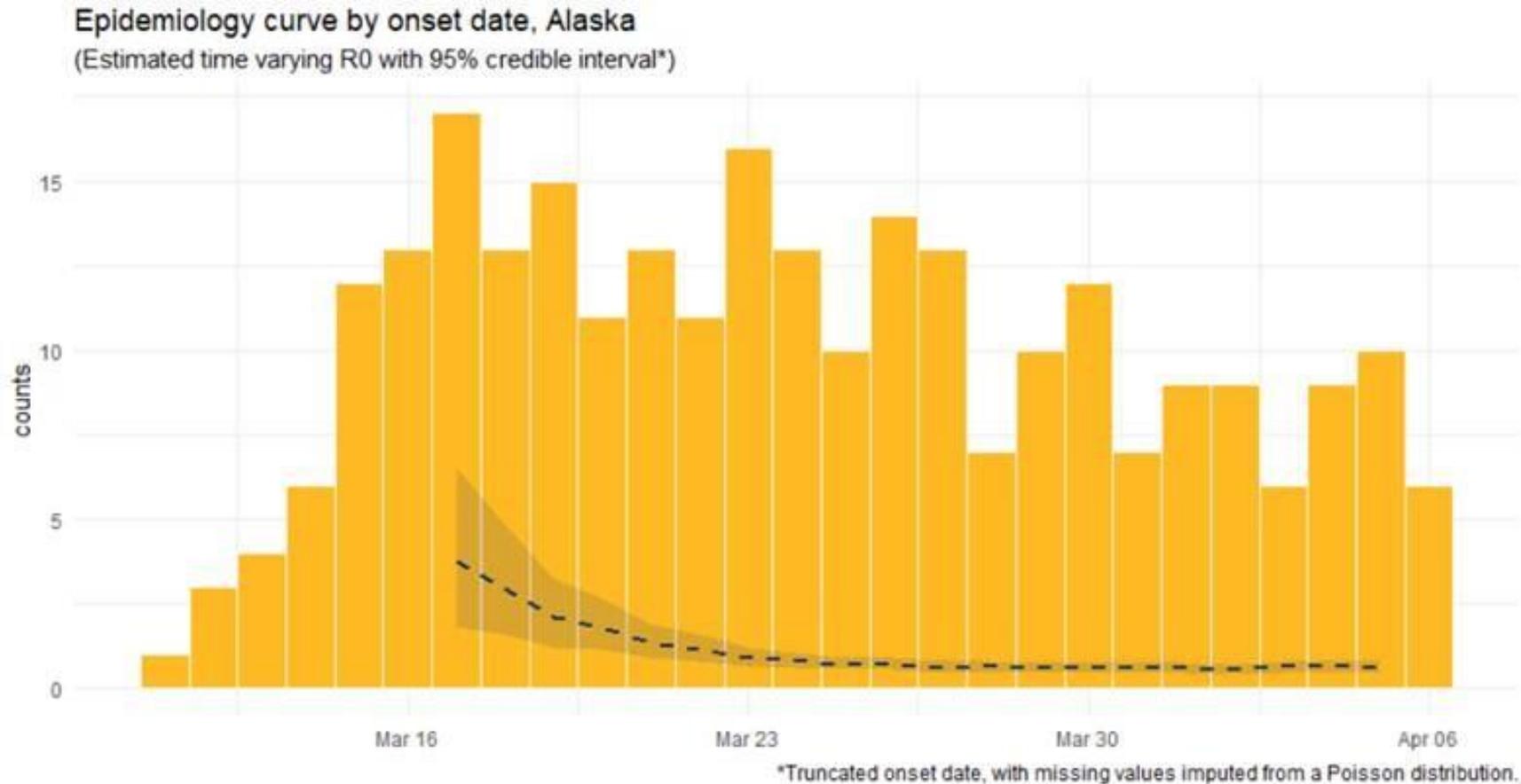


R_0 R-naught

Small changes make a big difference: If each infected person infects just 1.2 people, on average, then at the peak we might only need about 220 ventilators. That gives us more than 100 to spare. But if each infected person infects just 1.4 people, on average, then at the peak we might need 680 ventilators, which is more than double what we have.



Epidemiology curve with R_0



date	Mean(R_0)
2020-03-17	3.7298654
2020-03-18	2.9462119
2020-03-19	2.0964145
2020-03-20	1.7877670
2020-03-21	1.3688034
2020-03-22	1.1724401
2020-03-23	0.9245062
2020-03-24	0.8003634
2020-03-25	0.7122335
2020-03-26	0.7078725
2020-03-27	0.6175194
2020-03-28	0.6488629
2020-03-29	0.6195965
2020-03-30	0.6284273
2020-03-31	0.6008899
2020-04-01	0.6047285
2020-04-02	0.5728685
2020-04-03	0.6451721
2020-04-04	0.6684081
2020-04-05	0.6209480

Thank you, Alaska. Everyone is essential.

- Questions regarding DHSS COVID response, including mandates and alerts, can be sent to: covidquestions@alaska.gov.
- Questions regarding DHSS data can be sent to: data.coronavirus@alaska.gov
- For general questions, contact 2-1-1 or 1-800-478-2221. Extended call center hours: 7 a.m. – 8 p.m., 7 days a week.

