

# Alaska COVID-19

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**Alaska's Chief Medical Officer**

**April 2, 2020**



# Covid-19 Pandemic



Coronavirus Disease 2019, or **COVID-19**, was first identified in patients with respiratory illness in Wuhan, China in november 2019.



Covid-19 is a zoonotic, new viral respiratory illness against which we have no natural immunity.



Covid-19 is pandemic.



We continue to see cases throughout Alaska



We learn new things about this disease every day which necessitates constant response management and change.



Symptoms include fever, cough, shortness of breath

# How is it spread?

- Coughs, sneezes, surfaces, close contact.
- Maximum viral shedding early in the disease
- Asymptomatic or mildly symptomatic people may be sharing the disease





# When are people most contagious?

- The onset and duration of viral shedding and the period of infectiousness for COVID-19 are not yet known.
- It is possible that COVID-19 may be detectable in the upper or lower respiratory tract for weeks after illness onset, similar to infections with MERS-CoV and SARS-CoV.
- Detection of viral RNA does not necessarily mean that infectious virus is present.
- There are reports of asymptomatic infections (detection of virus with no development of symptoms) and pre-symptomatic infections (detection of virus prior to development of symptoms) with COVID-19, but their role in transmission is not yet known.



## What are the symptoms of covid-19?

- Prolonged incubation period with no symptoms (14 plus days)
- Onset of fever can be sudden, typically between 100.4 degrees and 103.5 degrees
- Illness often unfolds slowly over several days
- Body aches and tiredness
- Decreased appetite
- Headache
- Deep, dry cough
- Shortness of breath
- Drop in blood oxygen levels
- acute respiratory distress syndrome
- Special note: this is a “dry” illness – there is typically no congestion
- More and more reports of a loss of sense of smell or taste

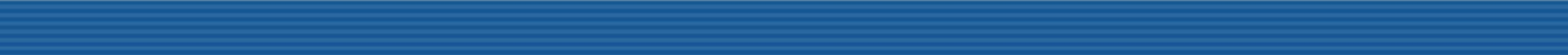


# Who can get ill?

Anyone and everyone. All people, all ages. Young can still get very sick, just less likely to die.

## Higher risk

- Over 60
- People who live in a nursing home or long-term care facility
- Underlying heart, lung conditions
- Diabetes
- Immunosuppression
- People with severe obesity (body mass index [BMI] of 40 or higher)
- People with chronic kidney disease undergoing dialysis
- People with liver disease
- Young can still get very sick, just less likely to die



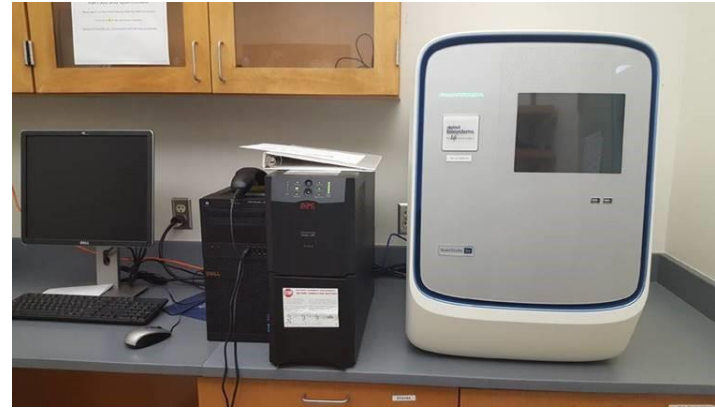
# Clinical Characteristics of the Study Patients, According to Disease Severity and the Presence or Absence of the Primary Composite End Point.\*

Characteristic	All Patients (N = 1099)	Disease Severity		Presence of Primary Composite End Point†	
		Nonsevere (N = 926)	Severe (N = 173)	Yes (N = 67)	No (N = 1032)
<b>Age</b>					
Median (IQR) — yr	47.0 (35.0–58.0)	45.0 (34.0–57.0)	52.0 (40.0–65.0)	63.0 (53.0–71.0)	46.0 (35.0–57.0)
Distribution — no./total no. (%)					
0–14 yr	9/1011 (0.9)	8/848 (0.9)	1/163 (0.6)	0	9/946 (1.0)
15–49 yr	557/1011 (55.1)	490/848 (57.8)	67/163 (41.1)	12/65 (18.5)	545/946 (57.6)
50–64 yr	292/1011 (28.9)	241/848 (28.4)	51/163 (31.3)	21/65 (32.3)	271/946 (28.6)
≥65 yr	153/1011 (15.1)	109/848 (12.9)	44/163 (27.0)	32/65 (49.2)	121/946 (12.8)
Female sex — no./total no. (%)	459/1096 (41.9)	386/923 (41.8)	73/173 (42.2)	22/67 (32.8)	437/1029 (42.5)
<b>Smoking history — no./total no. (%)</b>					
Never smoked	927/1085 (85.4)	793/913 (86.9)	134/172 (77.9)	44/66 (66.7)	883/1019 (86.7)
Former smoker	21/1085 (1.9)	12/913 (1.3)	9/172 (5.2)	5/66 (7.6)	16/1019 (1.6)
Current smoker	137/1085 (12.6)	108/913 (11.8)	29/172 (16.9)	17/66 (25.8)	120/1019 (11.8)
<b>Exposure to source of transmission within past 14 days — no./total no.</b>					
Living in Wuhan	483/1099 (43.9)	400/926 (43.2)	83/173 (48.0)	39/67 (58.2)	444/1032 (43.0)
Contact with wildlife	13/687 (1.9)	10/559 (1.8)	3/128 (2.3)	1/41 (2.4)	12/646 (1.9)
Recently visited Wuhan‡	193/616 (31.3)	166/526 (31.6)	27/90 (30.0)	10/28 (35.7)	183/588 (31.1)
Had contact with Wuhan residents‡	442/611 (72.3)	376/522 (72.0)	66/89 (74.2)	19/28 (67.9)	423/583 (72.6)
Median incubation period (IQR) — days§	4.0 (2.0–7.0)	4.0 (2.8–7.0)	4.0 (2.0–7.0)	4.0 (1.0–7.5)	4.0 (2.0–7.0)
<b>Fever on admission</b>					
Patients — no./total no. (%)	473/1081 (43.8)	391/910 (43.0)	82/171 (48.0)	24/66 (36.4)	449/1015 (44.2)
Median temperature (IQR) — °C	37.3 (36.7–38.0)	37.3 (36.7–38.0)	37.4 (36.7–38.1)	36.8 (36.3–37.8)	37.3 (36.7–38.0)
Distribution of temperature — no./total no. (%)					
<37.5°C	608/1081 (56.2)	519/910 (57.0)	89/171 (52.0)	42/66 (63.6)	566/1015 (55.8)
37.5–38.0°C	238/1081 (22.0)	201/910 (22.1)	37/171 (21.6)	10/66 (15.2)	228/1015 (22.5)
38.1–39.0°C	197/1081 (18.2)	160/910 (17.6)	37/171 (21.6)	11/66 (16.7)	186/1015 (18.3)
>39.0°C	38/1081 (3.5)	30/910 (3.3)	8/171 (4.7)	3/66 (4.5)	35/1015 (3.4)
<b>Fever during hospitalization</b>					
Patients — no./total no. (%)	975/1099 (88.7)	816/926 (88.1)	159/173 (91.9)	59/67 (88.1)	916/1032 (88.8)
Median highest temperature (IQR) — °C	38.3 (37.8–38.9)	38.3 (37.8–38.9)	38.5 (38.0–39.0)	38.5 (38.0–39.0)	38.3 (37.8–38.9)
<37.5°C	92/926 (9.9)	79/774 (10.2)	13/152 (8.6)	3/54 (5.6)	89/872 (10.2)
37.5–38.0°C	286/926 (30.9)	251/774 (32.4)	35/152 (23.0)	20/54 (37.0)	266/872 (30.5)
38.1–39.0°C	434/926 (46.9)	356/774 (46.0)	78/152 (51.3)	21/54 (38.9)	413/872 (47.4)
>39.0°C	114/926 (12.3)	88/774 (11.4)	26/152 (17.1)	10/54 (18.5)	104/872 (11.9)

# Testing

## “PCR” testing

- Need enough viral load
- Swabs needed for obtaining samples
- Medium
- Lab environment needed to do PCR test

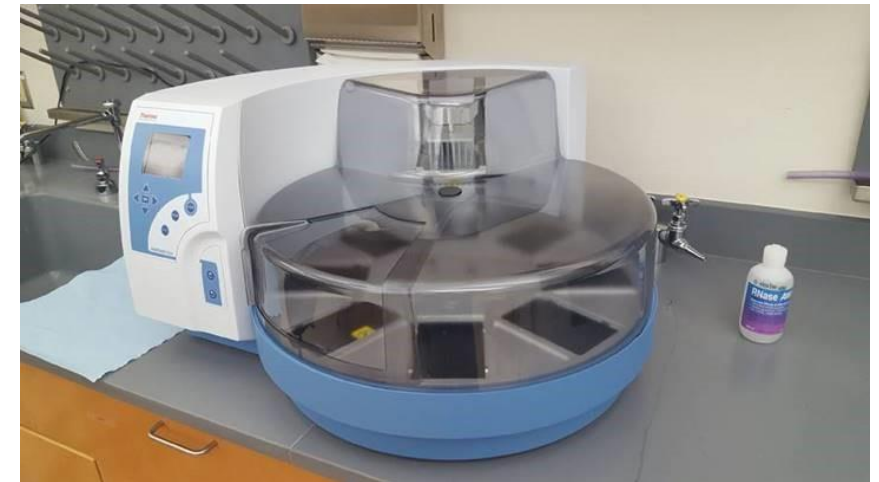


Both the Anchorage & Fairbanks lab are open 7 days/week doing testing

- ASPHL performed >2,000 tests since 1 March 2020
- VTM now available from Alaska State Virology Lab

Additional tests – 30 types of tests have been approved by FDA

- Be aware of counterfeit COVID-19 tests that claim FDA approval. As of today, the FDA says they have not approved any serological COVID test for clinical diagnostic use.





# What testing tells us

Testing is important to identify who has COVID-19 which determines:

- Treatment options
- Mitigation measures such as the need for strong social distancing mandates
- Who has recovered

**Sensitivity** of a test indicates how many sick people are correctly identified as having the disease

**Specificity** of a test indicates how many healthy people are correctly identified as not have the disease

Both of these are important to accurately identify who does and does not have COVID-19



# Types of testing

## Current test – Real-Time Reverse Transcriptase (RT)-PCR

- Can take 4-6 hours to run test after sample is received at lab
- Limitations: samples must be sent to a lab where test is run, patient must have a high enough viral load otherwise will be negative, requires large machines in a lab environment

## Rapid-test by Abbott

- Point-of-care testing at health care facilities with small machine
- Results in 15 minutes
- Limitation: Low sensitivity
- Alaska has not received any of these yet

## Serology testing

- Under development by CDC
- Will look for presence of antibodies which are made in response to infections
- Helps detect infections with few or no symptoms
- Indicator for how widespread COVID-19 is in a population

Currently there are no home tests for COVID-19



*Abbott's ID NOW™ machine Photo courtesy of Abbott*

# Testing capacity in rural areas

- Drive-through COVID-19 testing is now available in Bethel through the Yukon Kuskokwim Health Corporation in the parking lot next to the old hospital.
- YHKC has 48 villages and 58 federally recognized tribes; 138 Community Health Aides (CHA), every village has at least one CHA that has been trained in specimen collection.
- Village Health Aides were trained via the distance learning program sponsored by ANTHC.
- Testing kits were sent out to select villages with large populations, and all of our SRCs have testing kits (that is 5 of our larger villages that have PA-C or NP.)



# Alaska is in the top 10 for testing

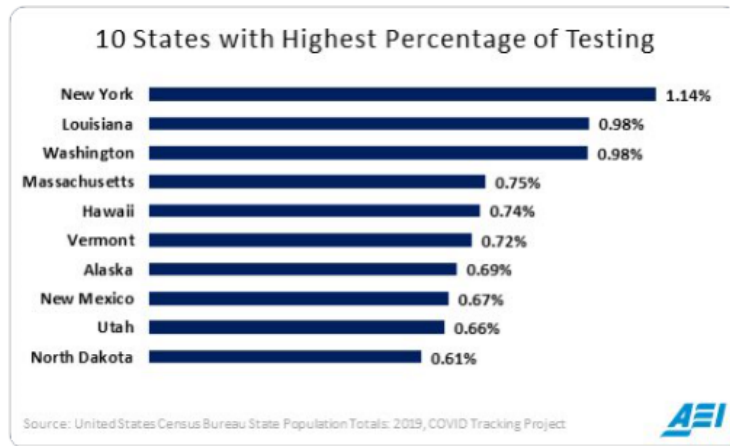


**Scott Gottlieb, MD** ✓

@ScottGottliebMD

Follow

New York leads nation at testing.



3:21 PM - 2 Apr 2020

93 Retweets 201 Likes



27 93 201

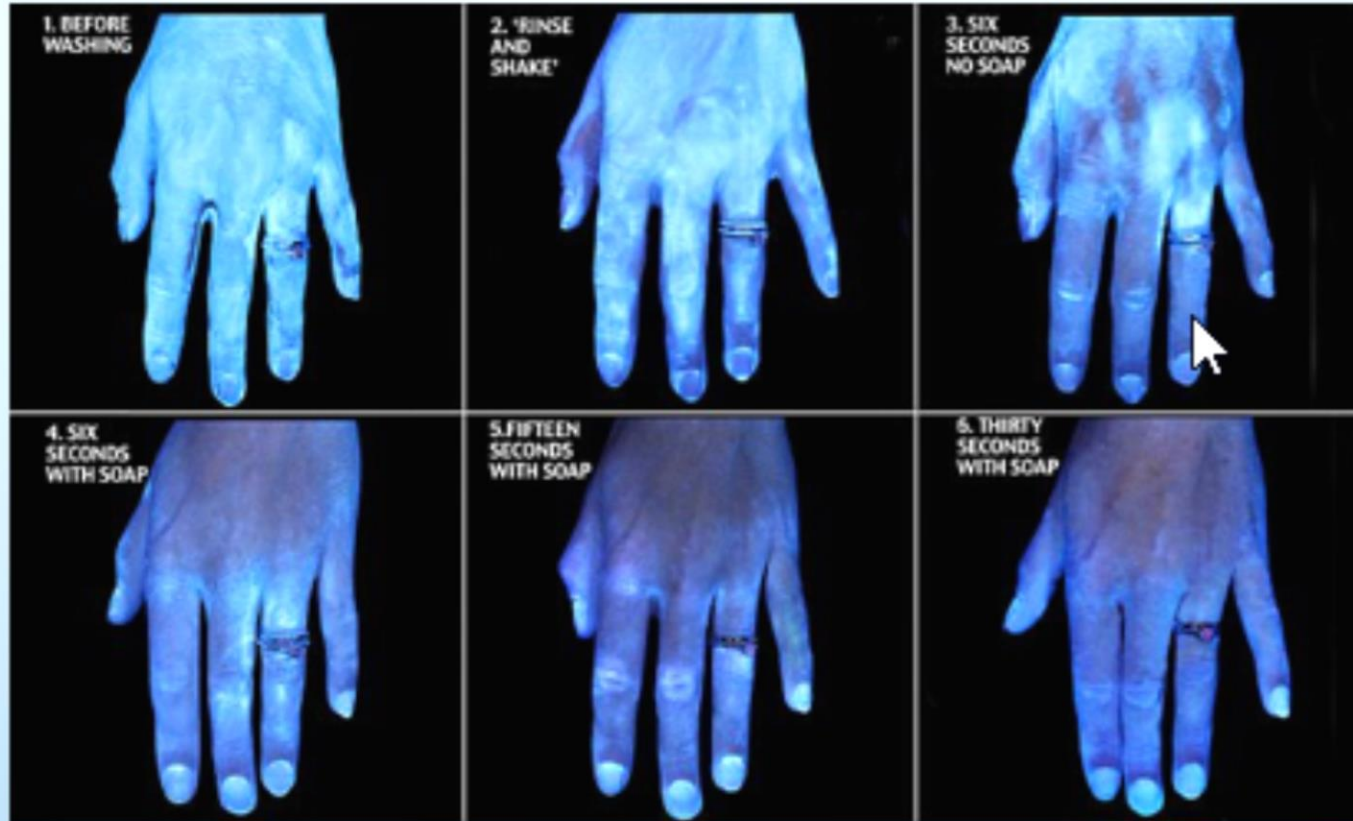


**Scott Gottlieb, MD** ✓ @ScottGottliebMD · 1h

Graphic represents tests conducted as a percent of total population.

8 6 44

# Importance of hand hygiene



- This progression of handwashing time shows how important it is to wash for at least 20 seconds to adequately remove germs
- Intensity of glow on the hands reflects the amount of germs remaining
- Remaining germs can be transferred to face and surfaces which can transmit the virus

# Hygiene for all

- Wash hands with soap and water for at least 20 seconds
- Use hand sanitizer with at least 60% alcohol when soap and water not available
  - Alaska-based businesses producing hand sanitizer to increase availability
- Households with no running water
  - Use handwashing basins with water and bleach  
See Yukon Kuskokwim Health Corporation: [www.ykhc.org/covid-19-disinfection-without-running-water/](http://www.ykhc.org/covid-19-disinfection-without-running-water/)
- Don't touch face, including eyes, nose and mouth
- Cover coughs and sneezes with a tissue or into your elbow if a tissue is unavailable; immediately dispose of tissue after use and wash hands



# Environmental Mitigation: Cleaning and Disinfecting



Important to limit the survival of the virus in our environments, including on surfaces and everyday items

**Cleaning** removes germs, dirt and other impurities; reduces number of germs but does not kill them

**Disinfecting** using chemicals on EPA-registered disinfectant list kills germs on surfaces after they have been cleaned

CDC has recommendations specific to

- Households: [www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/cleaning-disinfection.html](https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/cleaning-disinfection.html)
- Businesses and community facilities: [www.cdc.gov/coronavirus/2019-ncov/prepare/disinfecting-building-facility.html](https://www.cdc.gov/coronavirus/2019-ncov/prepare/disinfecting-building-facility.html)
- Health care facilities: [www.cdc.gov/coronavirus/2019-ncov/infection-control/control-recommendations.html](https://www.cdc.gov/coronavirus/2019-ncov/infection-control/control-recommendations.html)

Especially important at businesses that remain open, such as grocery stores, where people still need to access essential services

# Community Mitigation: Social Distancing



**Primary goal** is to slow the spread of virus within a community

Safeguards everyone, but especially important to protect:

- People at high-risk of severe illness
- Health care workforce
- Critical infrastructure workforce

Strategies are customized to each community and region's local situation

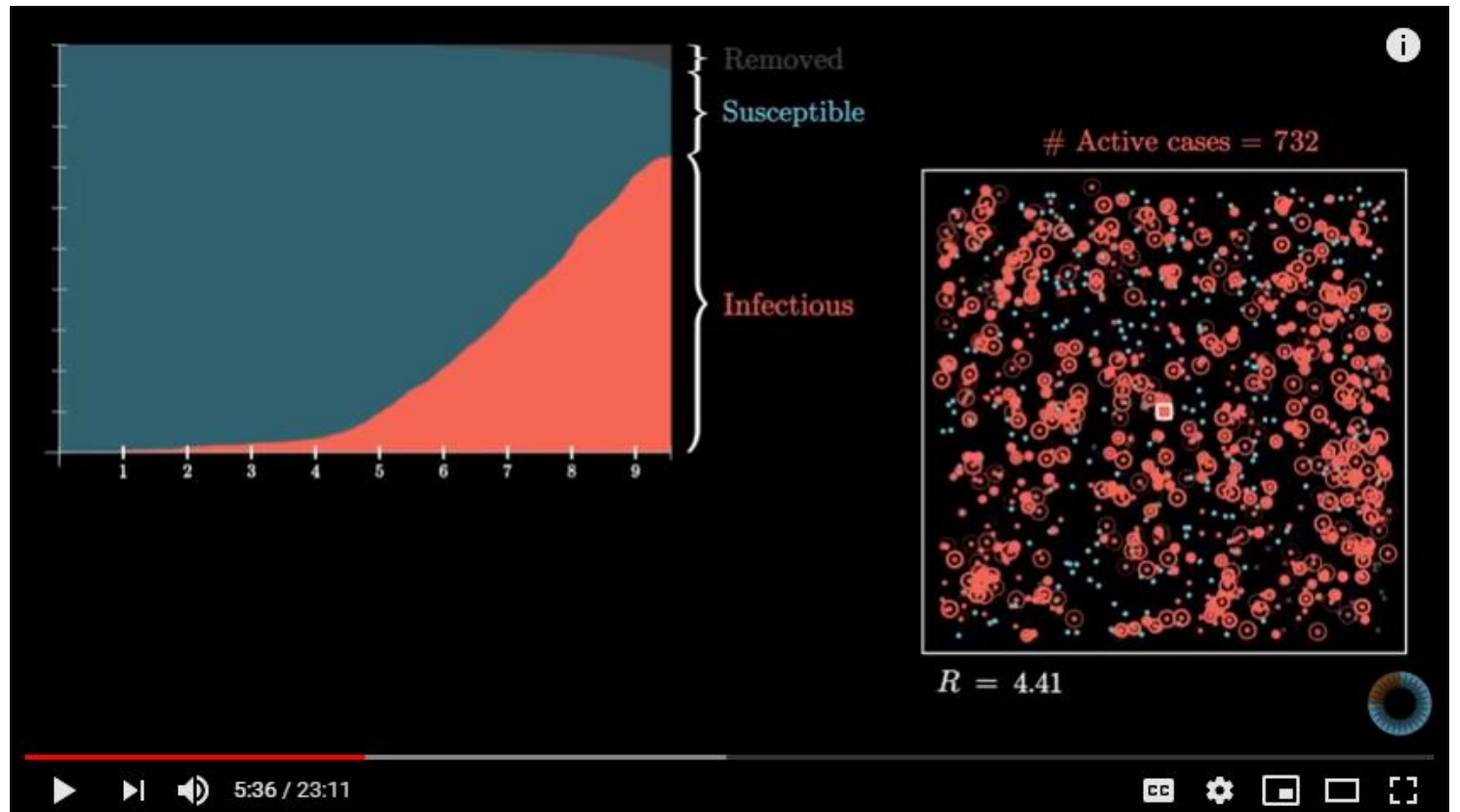
- Limit movement of people (shelter-in-place, travel restrictions)
- Practice personal protective measures (handwashing, don't touch face)
- Monitor local information (stay apprised of conditions in the area you live)



# Community Mitigation: Simulating an Epidemic

Modeling, such as the one in *Simulating an Epidemic*, can help inform community mitigation strategies

Shows how a frequently-visited central location like a grocery store plays a role in spreading the virus



[www.youtube.com/watch?v=gxAaO2rsdIs](https://www.youtube.com/watch?v=gxAaO2rsdIs)

# Building capacity – personal protective equipment

- Local Alaskans are building and donating face shields.
- Swabs are being fabricated locally
- Commercial grade face masks
- Full-body protective gear
- UAA is partnering with industry to build other needed equipment from ventilators to hand sanitizer.

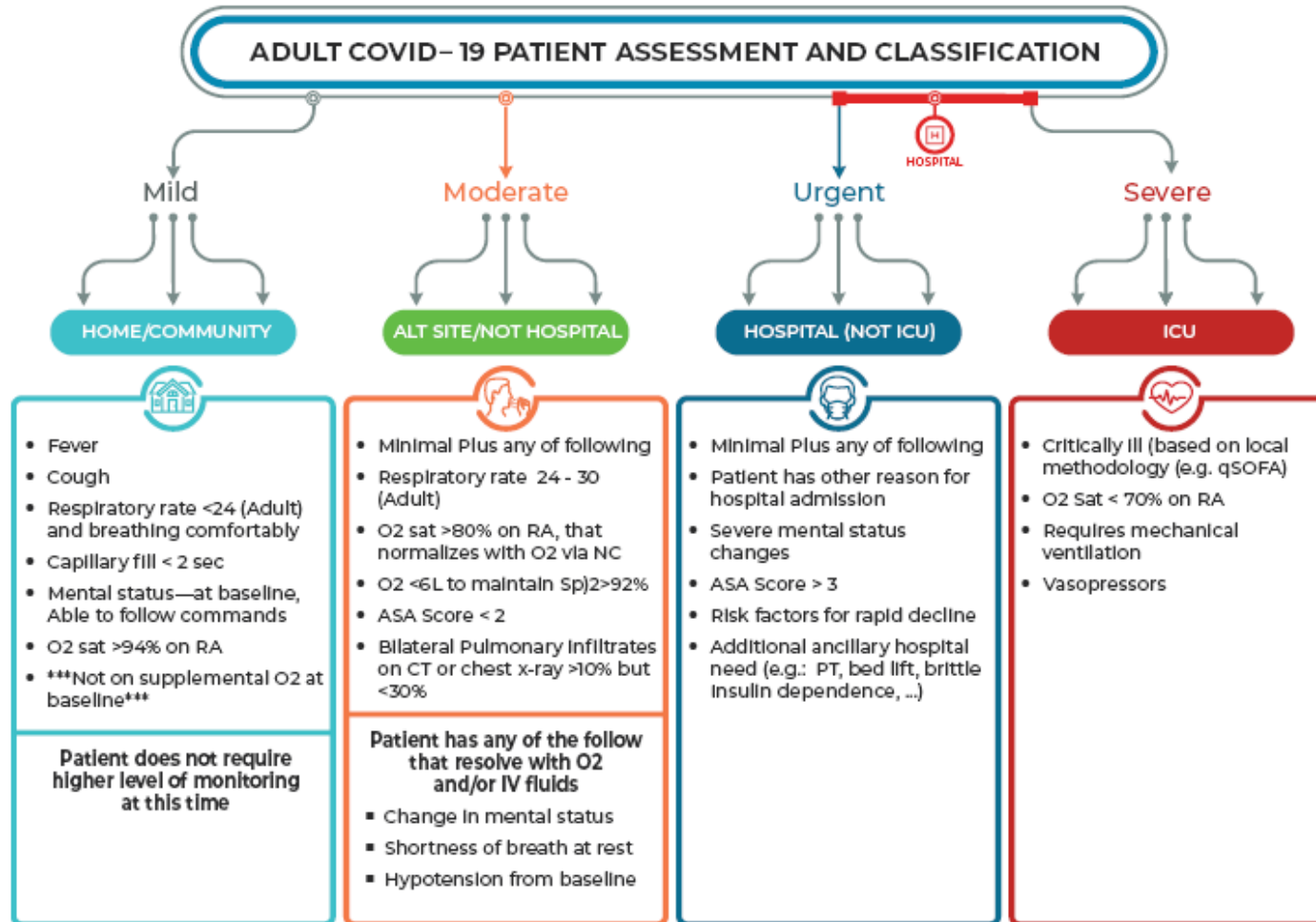


# Building health care capacity

RESOURCES SHIPPED	QUANTITIES SHIPPED	BALANCE REMAINING
FACE SHIELDS	7026	1060
GLOVES (boxes)	3701	2191
GOWNS	4682	2135
N95 MASKS	26457	10266
SURGICAL MASKS	72900	65100
VENTILATORS	0	70

To accommodate additional supplies, DHSS has doubled warehouse space from one 10,000 square foot warehouse to two warehouses, each with 10,000 square feet. Intent is to ensure sufficient space to efficiently receive and ship inventory of critical supplies.

# Types of patients

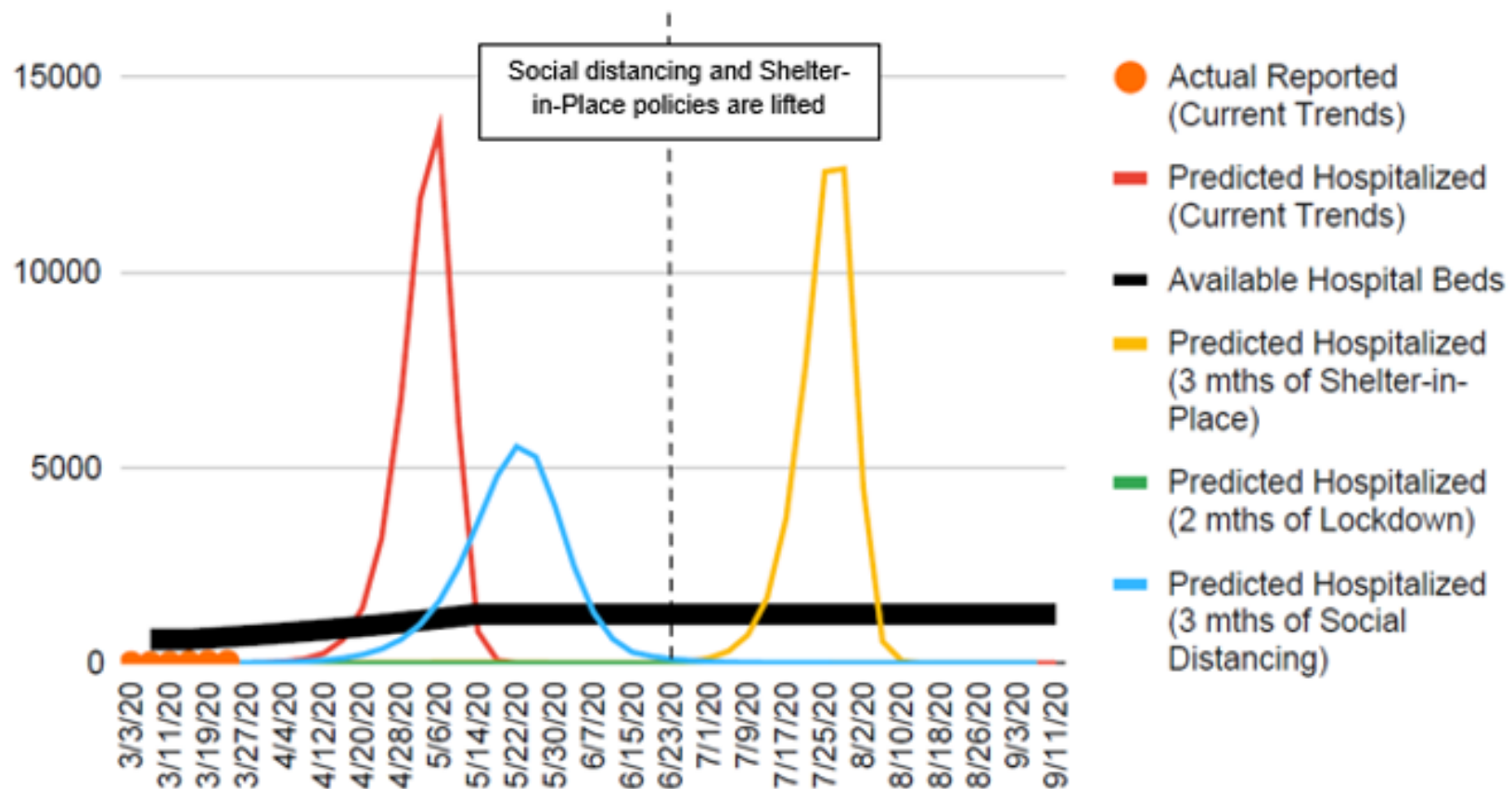


\*\*\*For Pediatrics refer to Jump Start Triage\*\*\*

# Alternate Care Sites



**Figure 3. Model of hospitalizations over time in Alaska based on the COVID ACT NOW modeling framework through March 23, 2020**



# COVID ACT NOW Modeling Framework

# Conclusion from ACTNOW Model

- If No Action was taken, the model predicts
  - Hospital bed capacity would be reached within weeks
  - Up to 11,000 deaths from COVID-19
  - At the peak, 3700 persons would need hospitalizations in one day
- Because of Actions taken, we are not on that track
- The Shelter-in-Place scenario predicts we do not exceed hospital capacity
- Lifting social distancing measures will likely cause a spike in cases
  - approximately 1 month after
  - number needing hospitalization may be as high as No Action scenario

# University of Washington - IMHE

## COVID-19 projections assuming full social distancing through May 2020

Last daily update on April 1, 2020.

[FAQ](#) | [Update Notes](#) | [Article](#)

Alaska

### Government-mandated social distancing ⓘ



March 28, 2020

Stay at home order



March 16, 2020

Educational facilities closed



March 28, 2020

Non-essential services closed



March 28, 2020

Travel severely limited

### Hospital resource use ⓘ

13 days until peak resource use on  
**April 15, 2020**

#### Resources needed for COVID-19 patients on peak date

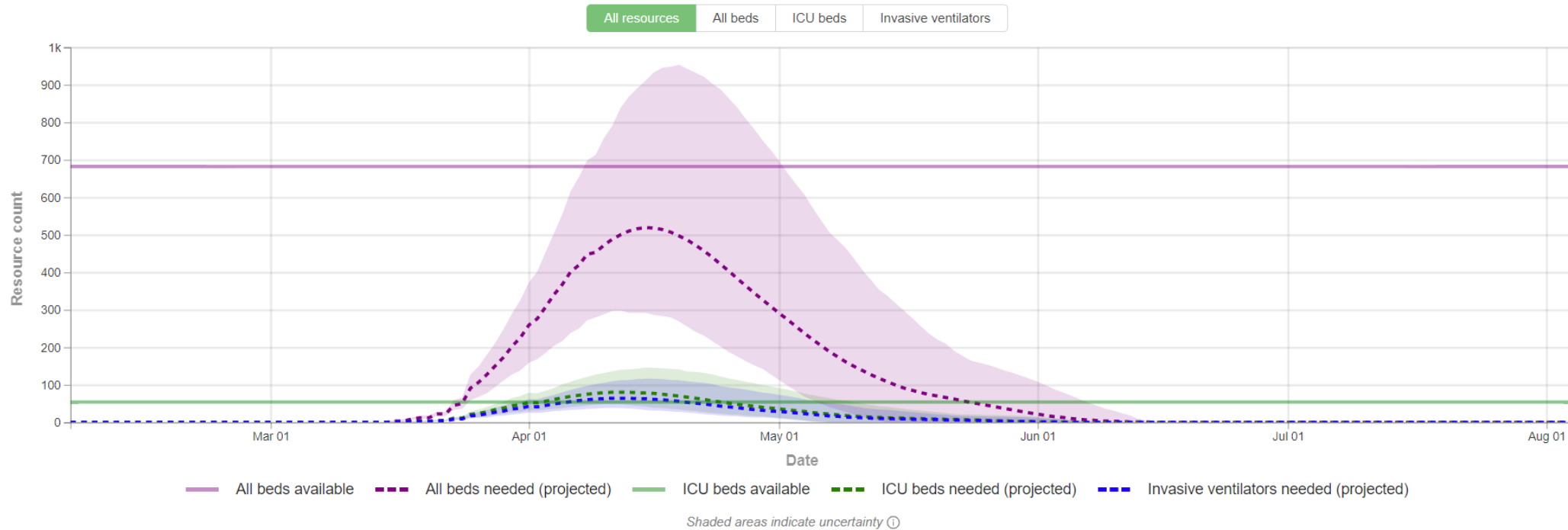
All beds needed <b>519 beds</b>	→	All beds available <b>682 beds</b>	→	Bed shortage <b>0 beds</b>
ICU beds needed <b>78 beds</b>	→	ICU beds available <b>54 beds</b>	→	ICU bed shortage <b>24 beds</b>
Invasive ventilators needed <b>63 ventilators</b>				

The Institute for Health Metrics and Evaluation (IHME) is an independent global health research center at the University of Washington.

<https://covid19.healthdata.org/projections>



# University of Washington - IMHE



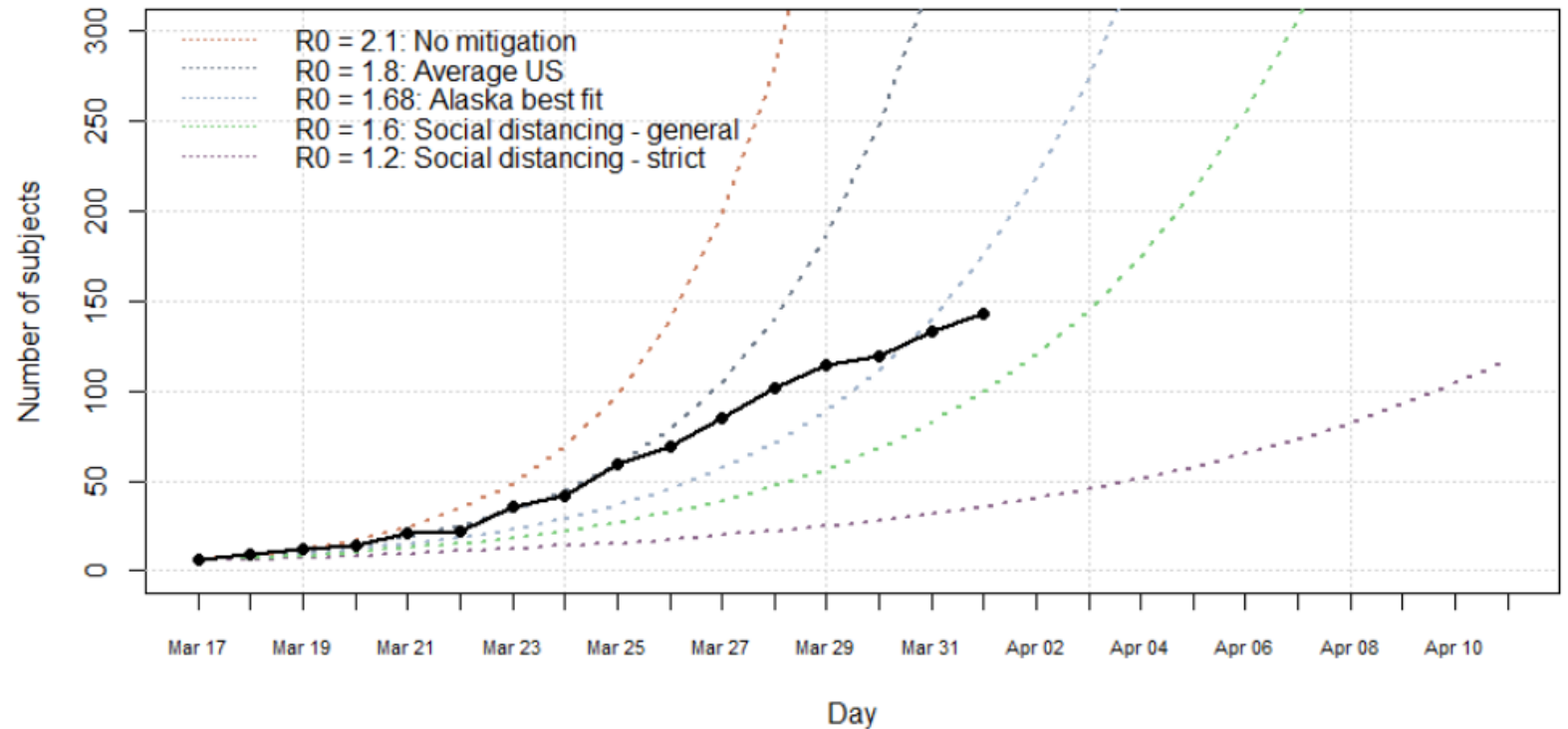
<https://covid19.healthdata.org/projectionsjections>

# DHSS modeling: 10-day trajectory of confirmed cases

- Indicated in black, that Alaska observed cumulative case counts:
  - Diverted below the “worst-case-scenario” on March 20<sup>th</sup>
  - Diverted below the US average on March 26<sup>th</sup>
  - Since March 25<sup>th</sup> as been tracking towards the general social distancing projection

\*Caution\* used of confirmed cases has a lag from the implemented mitigation strategies

SIR Model 10-day trajectories, Alaska 3/17/20 - 4/1/20



# Funding for Small Hospitals

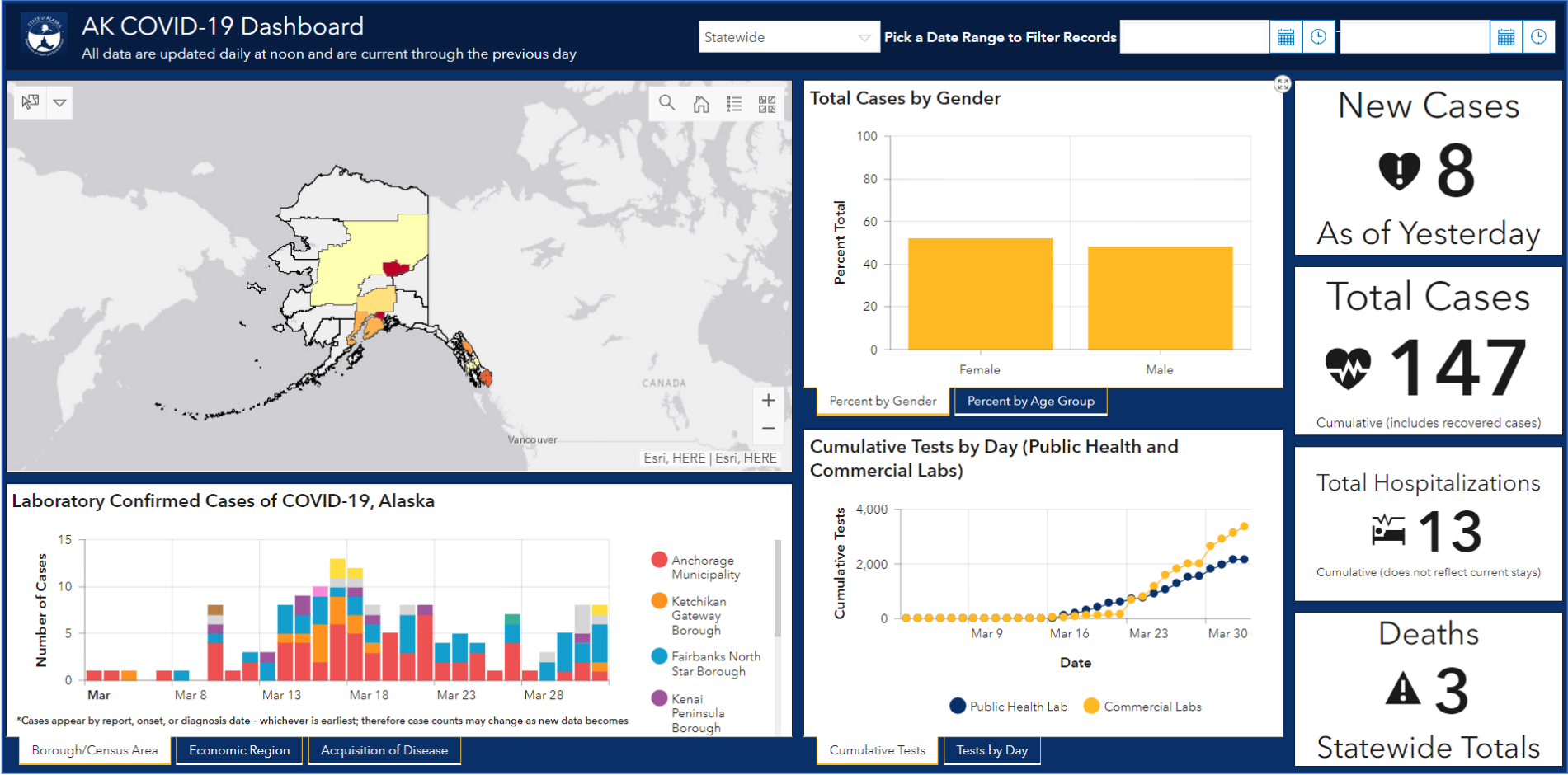
	CMS #	Hospital Name	Estimated Funding Amount
1	21307	Cordova Community Medical Center	90,000
2	20008	Bartlett Regional Hospital	90,000
3	21312	Samuel Simmonds Memorial Hospital	90,000
4	21309	Kanakanak Hospital (Bristol Bay Area Health Corporation)	90,000
5	21304	Petersburg Medical Center	90,000
6	21313	South Peninsula Hospital	90,000
7	21306	Providence Kodiak Island Medical Center	90,000
8	21302	Providence Seward Medical and Care Center	90,000
9	21301	Providence Valdez Medical Center	90,000
10	21305	SEARHC Wrangell Medical Center	90,000
11	20018	Yukon-Kuskokwim Health Corporation	90,000
12	21314	SEARHC Mt. Edgecumbe	90,000
13	21308	Norton Sound Regional Hospital	90,000
14	21311	PeaceHealth Ketchikan	90,000
15	21310	Maniilaq Health Center	90,000
			\$1,350,000

- Federal CARES Act Funding for small rural hospitals from Health Resources and Service Administration (HRSA)
- Awarded to states by late April and provided to hospitals through Small Hospital Improvement Program.
- Intent: broad and covers COVID related activities; if the hospital can link purchases and activities to COVID related needs then its allowable.
- Fifteen eligible Alaska rural hospitals with 49 bed or less qualify for approximately \$90,000 each; total funding \$1,350,000 for Alaska.

# Senior and Disabilities Services

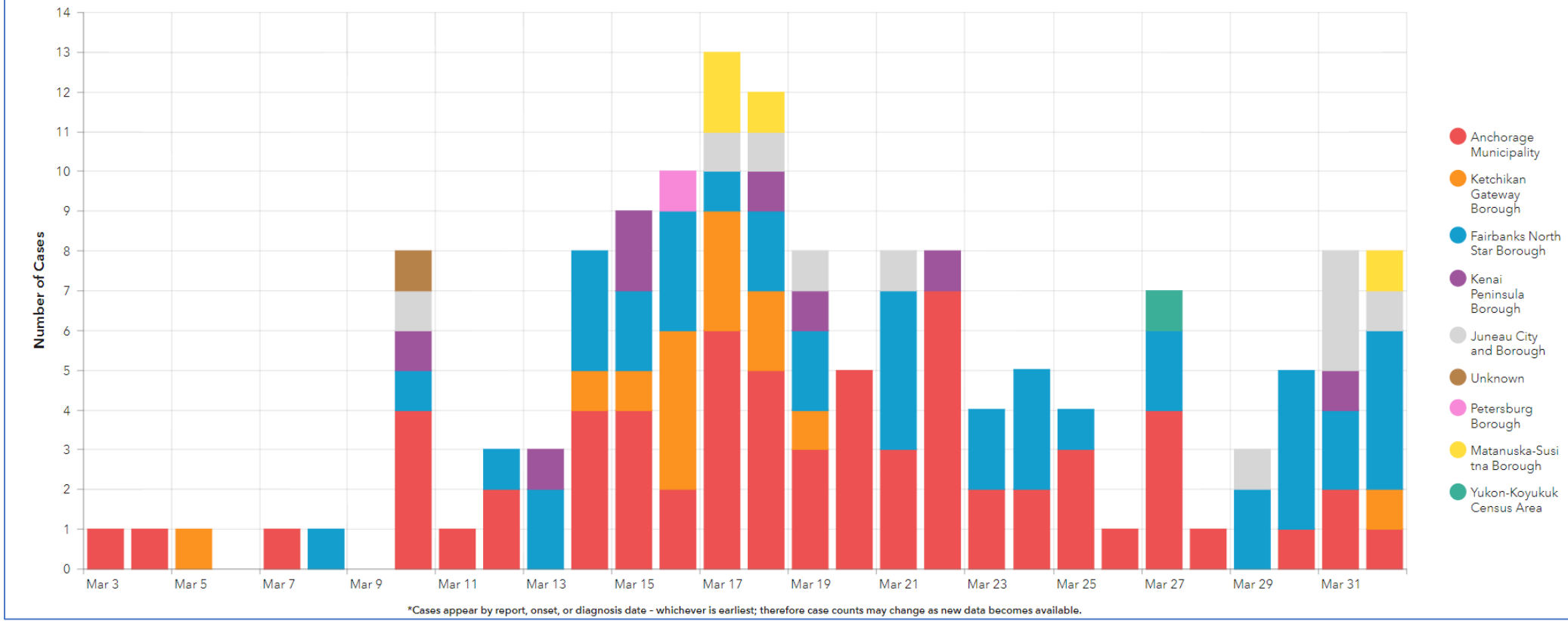
- Hosting webinars with provider organizations to give COVID -19 and service updates.
- Using the e-alert list-serve to update providers state mandates and other program news.
- Re-purposing the Electronic Visit Verification email for provider suggestions/comments about changes to services or to request flexibilities in waivers or state plan services.
- Implementing CMS-approved flexibilities for Medicaid waivers through Appendix K.
- Requesting flexibilities for State Plan services from CMS through 1135 Amendment.
- Requesting all certified home and community-based service providers report ill individuals to Epidemiology *and* through Central Intake to offer providers technical assistance.
- Working with provider groups on best practices across our service array.
- Working to provide additional grant funding for senior meals and allowing flexible use of grant funds to support staff and recipients.





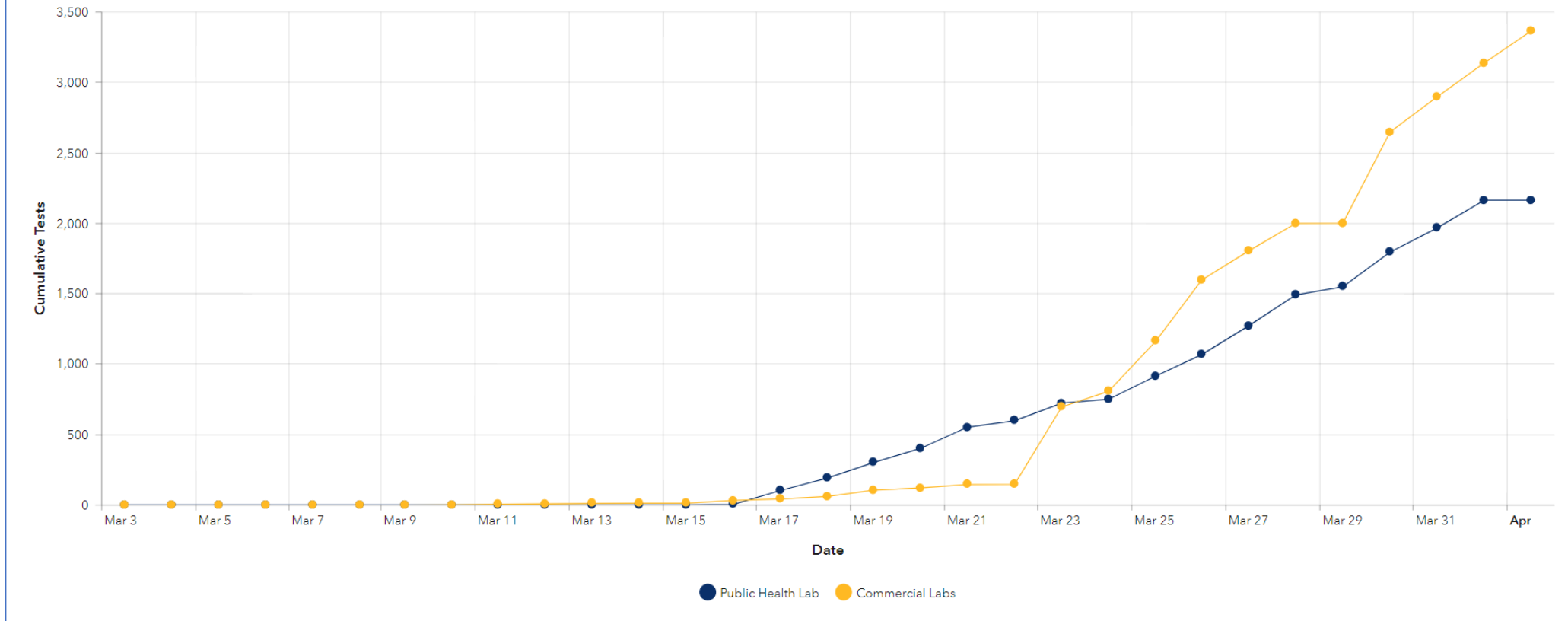
# Dashboard

Laboratory Confirmed Cases of COVID-19, Alaska



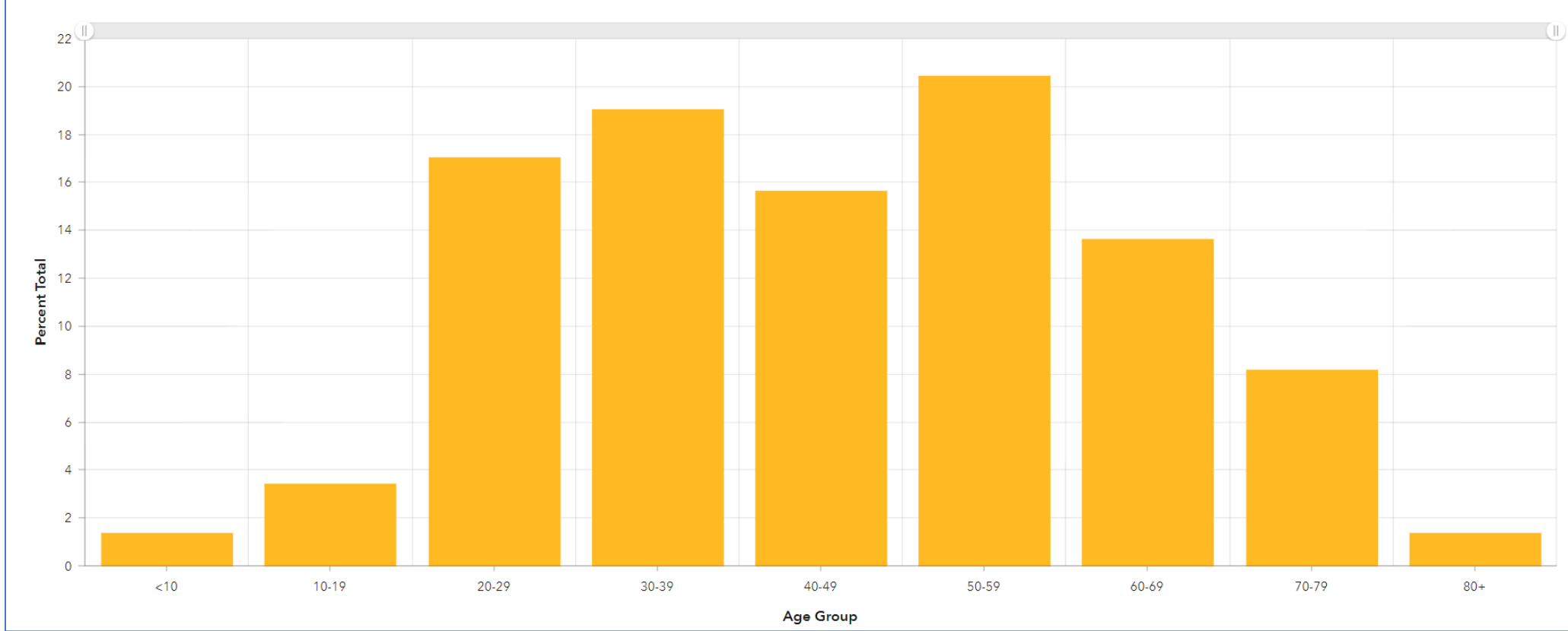
# By Date and Location

Cumulative Tests by Day (Public Health and Commercial Labs)



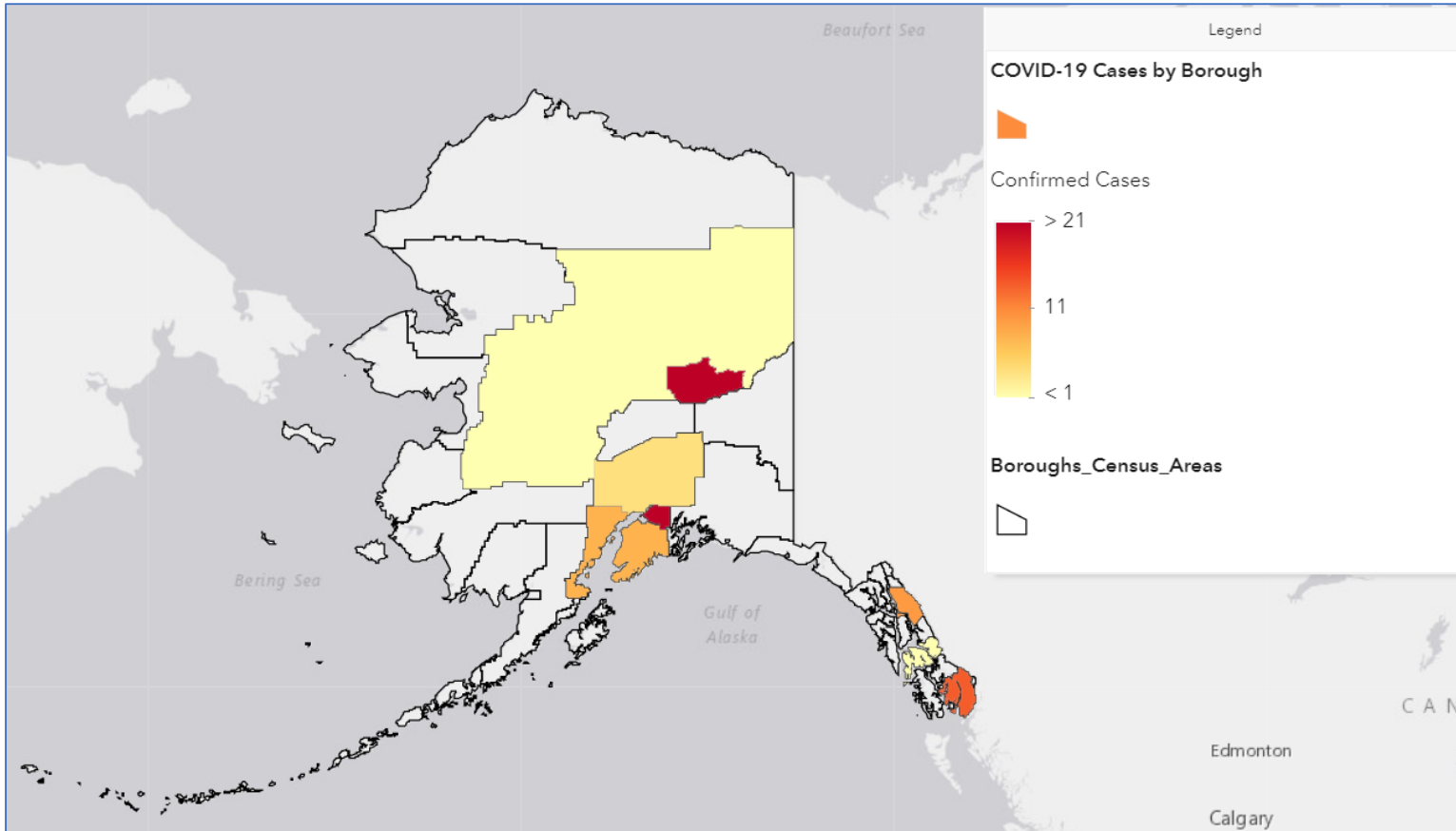
# Cumulative Testing

Total Cases by Age Group



## Cases by Age Group





## State COVID Cases

# What you can do - Stores

- Limit your shopping trips
- Go during off-hours to minimize interaction with crowds
- Use pickup or delivery services if possible
- Wipe down the handles on the shopping card or basket
- Wash your hands after shopping (and all the time!)
- Reach out to elders or others to see if you can pick groceries up for them
- Support local restaurants by ordering take-out if possible



*Graphic courtesy of Anchorage Health Department*

# What you can do - Masks

- Wear a thickly woven homemade mask when you must go in public to minimize the asymptomatic spread
- Save the N95 masks for medical professionals who need them
- Find easy instructions on the internet for constructing masks



# What you can do – Social Distancing

- Stay at least six feet away from others
- Minimize interactions when entering stores
- Avoid all gatherings
- *Physical* distance is what's important
- Keep in touch with loved ones by phone, text, email and Skype or Zoom calls
- We're doing this for *all Alaskans* to flatten the curve



# What you can do – Take care of each other

- Take care of each other: We can do this, Alaska
- Stick to the basics
- Wash your hands for at least 20 seconds
- Clean all high touch surfaces regularly
- Minimize touching anything else
- Never touch your eyes, mouth or nose
- Take care of your physical and mental health
- Take care of those who are more vulnerable in your community
- Reach out if you need help
- We're stronger together, we'll get through this

