

# COVID-19 and One Health

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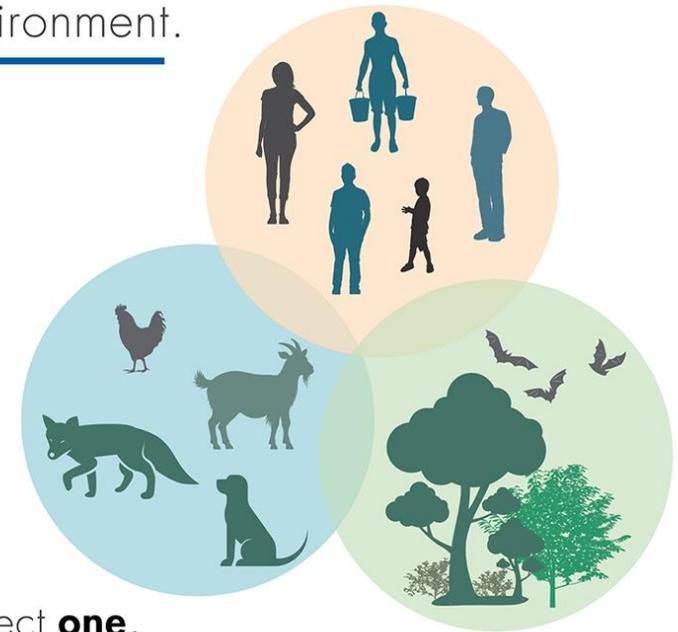
Alaska Department of Health and Social Services  
Environmental Public Health Program



# Outline

- Cleaning and disinfection
- Water safety
- Wastewater
- Solid waste
- Wildfires and air quality
- Other topics, as time allows

**One Health** is the idea that the health of people is connected to the health of animals and our shared environment.



When we protect **one**,  
we help protect **all**.

# Cleaning and Disinfection

- Poison centers have reported increased calls related to chemical exposure from cleaning/disinfecting
- Some safety tips
  - Use products that meet the [EPA's criteria](#) for use against SARS-CoV-2
  - Store products out of reach of children and pets
  - Do not mix bleach solutions with vinegar or ammonia, or add heat
  - Do not wash food products with bleach
  - Do not clean pets with products not approved for animal use
- Homes that do not have running water can use bleach to disinfect surfaces (YKHC has a great resource [here](#))



# Water safety

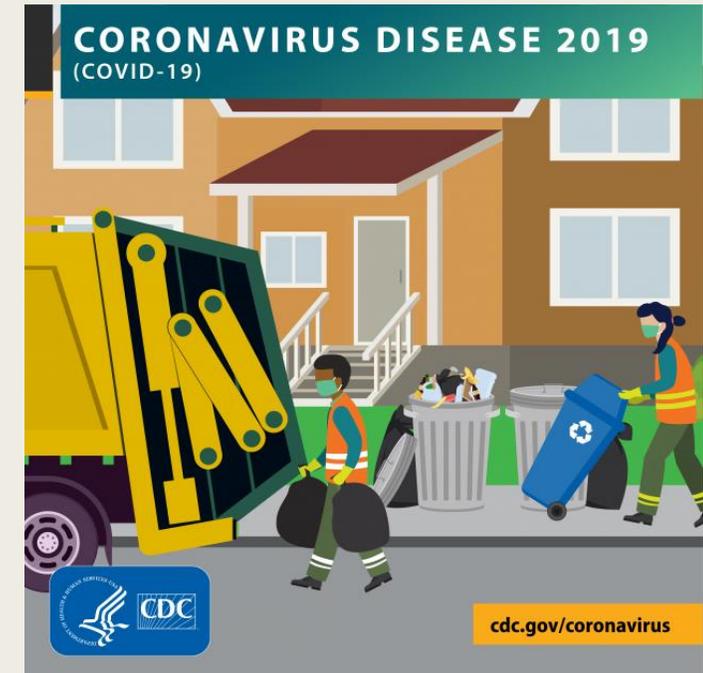
- Conventional water treatment methods should be sufficient to remove/inactivate virus
- Virus has not been detected in drinking water, but has been found in untreated wastewater
  - No indication that anyone has become sick with COVID-19 because of exposure to wastewater
  - Standard practices at wastewater treatment plants should be sufficient to protect wastewater workers from infection
- No evidence that the virus that causes COVID-19 can be spread to people from the water in pools, hot tubs, or water playgrounds
- Potential issue with reopening buildings after prolonged shutdown (*Legionella*)
- Resources from the Alaska Department of Environmental Conservation
  - [COVID-19 guidance for community water systems](#)
  - [Water system guidance after prolonged shutdown](#)

# Wastewater and COVID-19

- SARS-CoV-2 can be detected in wastewater (via PCR detection)
  - Can be detected before the appearance of clinical cases
- Sewage data may be able to complement case- and symptom-based surveillance
  - Additional information for conflicting clinical indicator trends
  - Infection data for communities where testing is limited/not available
  - Infection information for total cases, including pre symptomatic cases
- May be able to provide
  - County (borough) and sub-county level data on total infection trends
  - Indication of potential infection increase following reopening
  - Early warning to inform re-closure or an new outbreak in a community
- Limitations include areas with high private well use, smaller wastewater systems, etc.
- According to CDC, more data needed to estimate overall daily infection prevalence
- Several entities in Alaska are working on this topic

# Solid Waste

- Generally, management of waste that is suspected or known to contain or be contaminated with COVID-19 does not require special precautions
  - PPE used to protect workers from the hazards they encounter during their routine job tasks is sufficient
  - At this time, no special precautions to protect waste workers from COVID-19 are recommended when handling municipal solid waste
- For medical waste with potential or known COVID-19 contamination, manage like any other regulated medical waste
- Advice for community waste management in rural communities
  - Zender Environmental list of resources:  
<http://www.zendergroup.org/covid.html>



# Wildfires and Air Quality



- The timing of the COVID-19 pandemic is overlapping with the typical wildfire season in Alaska
- Exposure to air pollutants in wildfire smoke can irritate the lungs, cause inflammation, alter immune function, and increase susceptibility to respiratory infections (potentially including COVID-19)
  - Studies suggest air pollutant exposure may worsen COVID-19 symptoms and outcomes
- Those with or recovering from COVID-19 may be vulnerable to wildfire smoke
  - Because of compromised heart and lung function due to COVID-19, they may be at increased risk of health effects from exposure to wildfire smoke
- Many of those most vulnerable to wildfire smoke are also vulnerable to COVID-19
- More info at [CDC Wildfire Smoke and COVID-19](#) webpage

# Wildfires and Air Quality: Communication Considerations

- Messaging challenges when symptoms are similar
  - Dry cough, sore throat, and difficulty breathing are symptoms common to both COVID-19 and wildfire smoke exposure
- Messaging challenges about masks during a fire
  - Cloth masks offer little protection for very small particles in smoke
  - N95s would be recommended if someone must go outside, but should be saved for frontline healthcare workers
  - Changing focus from masks to staying indoors, if possible
- Messaging challenges about seeking cleaner indoor air
  - Typically, we recommend that people who can't create a clean air room in their home, and/or it is too hot to remain in the home with the windows closed, go to a public location
  - Consider a [DIY box fan filter](#)
  - Follow CDC guidelines for [public shelters](#) during COVID-19 and [considerations for cleaner air shelters](#)

# Additional COVID-19 One Health Topics

- Pollen
  - Mental health
  - Congregate facilities and shelters (esp. during an emergency)
  - Food safety: see [FDA Q&A](#)
  - Pests (e.g., rodent activity in other states)
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- CDC site on COVID-19 topics for environmental health practitioners:  
<https://www.cdc.gov/coronavirus/2019-ncov/php/eh-practitioners.html>