CORONAVIRUS OUTBREAK

As of 03/18/2020

(Source: AP)
Outline

• What is a coronavirus?
  • How does it spread?
  • Symptoms
  • How contagious is it?
  • Where and how did it start?

• Current outbreak status

• How this affects the United States
  • Current Cases
  • Persons Under Investigation (PUI)

• What can we do to protect ourselves?

• PUM vs PUI

• LHD Epi plan if we have a Person-Under-Investigation (PUI)
What is a novel coronavirus?

- Virus not previously identified before
- Common in different animal species
  - (including camels, cattle, cats, and bats)
- Part of the family of viruses like MERS and SARS
  - Middle Eastern Respiratory Syndrome (MERS)
  - Severe Acute Respiratory Syndrome (SARS)
- Can evolve to become a human infection
How it Spreads

Person-to-person spread
The virus is thought to spread mainly from person-to-person.

- Between people who are in close contact with one another (within about 6 feet).
- Through respiratory droplets produced when an infected person coughs or sneezes.

These droplets can land in the mouths or noses of people who are nearby or possibly be inhaled into the lungs.

Spread from contact with infected surfaces or objects
It may be possible that a person can get COVID-19 by touching a surface or object that has the virus on it and then touching their own mouth, nose, or possibly their eyes, but this is not thought to be the main way the virus spreads.
How Contagious is it?

Current estimate for $R_0$ is between 2-3*
*This estimate is likely to change

**Interpretation:**
One person infected has the potential to infect about 2 to 3 other people

Mortality rate : 3.4%
current estimate as of 03/04/2020 by WHO
Symptoms

- For confirmed COVID-19 infections, reported illnesses have ranged from people with mild symptoms to people being severely ill and dying. Symptoms can include:

  - Fever
  - Cough
  - Shortness of breath
What can we do to protect ourselves

• There is **currently no vaccine** to prevent COVID-19 infection.

CDC recommends everyday preventive actions to help prevent the spread of respiratory viruses, including:

• Avoid close contact with people who are sick.
• Avoid touching your eyes, nose, and mouth with unwashed hands.
• Stay home when you are sick.
• Cover your cough or sneeze with a tissue, then throw the tissue in the trash.
• Clean and disinfect frequently touched objects and surfaces using a regular household cleaning spray or wipe.
• **Follow CDC’s recommendations for using facemask.**
  - CDC does not recommend that people who are well wear facemask to protect themselves from respiratory viruses, including COVID-19.
  - Facemask should be used by people who show symptoms of 2019 novel coronavirus, in order to protect others from the risk of getting infected. The use of facemasks is also crucial for health workers and people who are taking care of someone in close settings (at home or in a health care facility).
• Wash your hands often with soap and water for at least 20 seconds, especially after going to the bathroom; before eating; and after blowing your nose, coughing, or sneezing.
• If soap and water are not readily available, use an alcohol-based hand sanitizer with at least 60% alcohol. Always wash hands with soap and water if hands are visibly dirty.
Brief Summary of Initial Epi Plan:

If LHD has a PUI for testing:

• LHD will work with healthcare facility and regional DSHS to confirm status
• Communications to leadership, DSHS Austin, & other partners
• Healthcare facility will collect samples from patient and will continue to isolate and treat as clinically appropriate
• Final determination will be made and communicated for testing
• Epi’s will do contact tracing and exposure history follow-ups as needed
• LHD will coordinate between facility and PHLET lab for shipment of samples
Samples To Be Collected

1. Lower respiratory
   • Bronchoalveolar lavage, tracheal aspirate
   • Sputum

2. Upper respiratory
   • Nasopharyngeal (NP) swab *Primary*
   • Oropharyngeal swab (OP) swab
   • Nasopharyngeal wash/aspirate or nasal aspirate

3. Blood Serum
Goals of Community Mitigation

1. Delay outbreak peak
2. Decompress peak burden on hospitals / infrastructure
3. Diminish overall cases and health impacts

Figure 1.
https://projects.propublica.org/graphics/covid-hospitals
Questions

Northeast Texas Public Health District (NET Health)
315 N. Broadway, Suite 404, Tyler, TX 75702
Office:
Fax:
Website: MyNETHealth.org