COVID-19

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March 10, 2020
Current Update as of March 10, 2020

• 114,578 cases worldwide
• 115 countries
• 4,087 deaths worldwide
• 755 cases in the US
• 26 deaths in the US (22 Washington, 2 California, 2 Florida)
COVID-19
COVID-19
Coronavirus

- Common virus
- Found in humans, many types of animals
- Common symptoms: cough, sore throat, stuffy/runny nose
- Usually mild but can be deadly
  - “SARS” in 2003: 774 deaths
  - “MERS” in 2012: 858 deaths
COVID-19 Outbreak

- First case: Dec. 12, 2019
- Jan 1, 2020: first US case
- Feb. 29, 2020: first US death
Symptoms of COVID-19

- 80% of individuals are asymptomatic or have mild cases
- Common symptoms:
  - Fever
  - Cough
  - Difficulty breathing
- Primary complications:
  - Pneumonia
  - Organ failure (particularly kidney failure)
Transmission

- Respiratory droplets from coughing and sneezing
- Unknown:
  - Stool?
  - Transplacentally?
Incubation Period and Infectivity

- Incubation period: 2-14 days
  - Average: approximately 5 days
- Duration of infectivity: unknown
- Level of infectivity is measured by “R°”
  - “Average number of people who will catch disease from 1 person”
- $R^o$ of COVID-19 = 2.3
Who Is At Risk?

- Most at risk:
  - Elderly
    - Age 70-79: Fatality rate 8%
    - Age 80 and above: Fatality rate 15%
  - Immunocompromised

- Least at risk:
  - Children and young adults
  - Only 2% of cases have been in children under 20 years of age
Treatment

- No specific treatment
  - Supportive care only
- When will there be antivirals?
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Prevention

• No current vaccine
  • When will there be a vaccine?
• Personal health hygiene measures
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Personal Hygiene Measures

• Wash hands with soap and warm water
  • If not available, use alcohol-based hand sanitizer (at least 60% alcohol)
• Keep hands/fingers away from your face, nose and mouth
• Avoid “close contact” with symptomatic individuals
• Avoid shaking hands - - do a “fist bump” instead
• Cover cough or sneeze and dispose of tissues
  • Better yet, cough or sneeze into your elbow
• If sick, stay home
• Get a flu shot!
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Masks: Do They Work?
Are We Being Overly Concerned?

- West Nile
- SARS
- MERS
- Bird Flu
- H1N1
- Hepatitis A
- Lyme Disease
- Measles
- EEE (Eastern Equine Encephalitis)
Influenza in the US

- Cases: 9,000,000 – 45,000,000 annually
- Hospitalizations: 140,000-810,000 annually
- Deaths: 12,000-61,000 annually
- Percentage of US residents receiving flu shots in 2020:
  - Adults: 45.3%
  - Children: 62.6%
# Influenza vs. COVID-19

<table>
<thead>
<tr>
<th></th>
<th>Influenza</th>
<th>COVID-19</th>
</tr>
</thead>
<tbody>
<tr>
<td>$R^\circ$</td>
<td>1.3</td>
<td>2.3</td>
</tr>
<tr>
<td>Mortality rate</td>
<td>0.1%</td>
<td>2.3-3.4%</td>
</tr>
</tbody>
</table>
COVID-19

Confirmed cases

<table>
<thead>
<tr>
<th>COVID-19</th>
<th>99,255 cases confirmed</th>
</tr>
</thead>
<tbody>
<tr>
<td>COVID-19 surpassed</td>
<td>SARS cases in 53 days</td>
</tr>
<tr>
<td>After almost 8 months</td>
<td>8,096 SARS cases confirmed</td>
</tr>
<tr>
<td>It took MERS a year to infect 203 people</td>
<td></td>
</tr>
</tbody>
</table>

Number of deaths

<table>
<thead>
<tr>
<th>COVID-19</th>
<th>3,368 deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>SARS</td>
<td>813 deaths</td>
</tr>
<tr>
<td>MERS</td>
<td>106 deaths</td>
</tr>
</tbody>
</table>
COVID-19

Working With Community Partners

• Educational Institutions
• Manufacturing
• Tulip Time, Coast Guard Festival, Ottawa County Fair
• Hospitals and Physicians
• Ottawa County Jail
• Ottawa County Residents
• 24/7 availability!
Travel Recommendations - Risk Assessment

Travel Recommendations – CDC Warning Levels

Types of Notices

- **Warning Level 3** (Red): Avoid all non-essential travel to this destination. The outbreak is of high risk to travelers and no precautions are available to protect against the identified increased risk.
  
- **Alert Level 2** (Yellow): Practice enhanced precautions for this destination. The Travel Health Notice describes additional precautions added, or defines a specific at-risk population.

- **Watch Level 1** (Green): Practice usual precautions for this destination, as described in the Travel Health Notice and/or on the destination page. This includes being up-to-date on all recommended vaccines and practicing appropriate mosquito avoidance.

<table>
<thead>
<tr>
<th>Country</th>
<th>CDC Warning Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>3</td>
</tr>
<tr>
<td>Iran</td>
<td>3</td>
</tr>
<tr>
<td>South Korea</td>
<td>3</td>
</tr>
<tr>
<td>Italy</td>
<td>3</td>
</tr>
<tr>
<td>Japan</td>
<td>2</td>
</tr>
</tbody>
</table>

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COVID-19 and Cruise Ship Travel

Key Points

- CDC recommends travelers, particularly those with underlying health issues, defer all cruise ship travel worldwide.
- Sustained community spread of respiratory illness caused by COVID-19 has been reported in many countries.
- Cruise ship passengers are at increased risk of person-to-person spread of infectious diseases, including COVID-19.
- Older adults and travelers with underlying health issues should avoid situations that put them at increased risk for more severe disease. This entails avoiding crowded places, avoiding non-essential travel such as long plane trips, and especially avoiding embarking on cruise ships.

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https://wwwnc.cdc.gov/travel/notices#travel-notice-definitions
### Traveler/Contact Risk Levels

<table>
<thead>
<tr>
<th>Risk Level</th>
<th>Actions for people without symptoms consistent with COVID-19</th>
<th>Actions for people with symptoms consistent with COVID-19</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>High Risk</strong></td>
<td>Remain under quarantine authority; no public activities; daily active monitoring; controlled travel</td>
<td>Immediate isolation; medical evaluation guided by PUI definition; pre-notify healthcare services; controlled travel</td>
</tr>
<tr>
<td><strong>Medium Risk</strong></td>
<td>Stay home; active monitoring or self-monitoring with public health supervision; recommend to not travel</td>
<td>Immediate isolation; medical evaluation guided by PUI definition; pre-notify healthcare services; controlled travel</td>
</tr>
<tr>
<td><strong>Low Risk</strong></td>
<td>Self observation</td>
<td>Stay home from work or school, avoid contact with others, don’t travel. Seek health advice</td>
</tr>
<tr>
<td><strong>No identifiable risk</strong></td>
<td>None</td>
<td>None; routine medical care</td>
</tr>
</tbody>
</table>

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## Traveler/Contact Risk Levels - High

<table>
<thead>
<tr>
<th>Risk Level</th>
<th>Geographic (Travel-associated) Exposures*</th>
<th>Exposures Identified through Contact Investigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>Travel from Hubei Province, China</td>
<td>Living in the same household as, being an intimate partner of, or providing care in a nonhealthcare setting (such as a home) for a person with symptomatic laboratory-confirmed COVID-19 infection <em>without using</em> recommended precautions for home care and home isolation</td>
</tr>
</tbody>
</table>

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### Traveler/Contact Risk Levels - Medium

<table>
<thead>
<tr>
<th>Risk Level</th>
<th>Geographic (Travel-associated) Exposures*</th>
<th>Exposures Identified through Contact Investigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medium</td>
<td>• Travel from mainland China outside Hubei Province or Iran&lt;br&gt;• Travel from a country with widespread sustained transmission, other than China or Iran&lt;br&gt;• Travel from a country with sustained community transmission</td>
<td>• Close contact with a person with symptomatic laboratory-confirmed COVID-19&lt;br&gt;• On an aircraft, being seated within 6 feet (two meters) of a traveler with symptomatic laboratory-confirmed COVID-19 infection; this distance correlates approximately with 2 seats in each direction&lt;br&gt;• Living in the same household as, an intimate partner of, or caring for a person in a nonhealthcare setting (such as a home) to a person with symptomatic laboratory-confirmed COVID-19 infection while consistently using recommended precautions for home care and home isolation</td>
</tr>
</tbody>
</table>

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Traveler/Contact Risk Levels – Low/No Identifiable Risk

<table>
<thead>
<tr>
<th>Risk Level</th>
<th>Geographic (Travel-associated) Exposures*</th>
<th>Exposures Identified through Contact Investigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low (assumes no</td>
<td>Travel from any other country</td>
<td>Being in the same indoor environment (e.g., a classroom, a hospital waiting room) as a person with symptomatic laboratory-confirmed COVID-19 for a prolonged period of time but not meeting the definition of close contact</td>
</tr>
<tr>
<td>exposures in the</td>
<td></td>
<td></td>
</tr>
<tr>
<td>high-risk category)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No identifiable risk</td>
<td>Not applicable</td>
<td>Interactions with a person with symptomatic laboratory-confirmed COVID-19 infection that do not meet any of the high-, medium- or low-risk conditions above, such as walking by the person or being briefly in the same room.</td>
</tr>
</tbody>
</table>

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Criteria for Individual Testing

• Provider discretion – consideration of symptomology and epidemiologic factors

• Currently only Michigan Department of Health and Human Services Lab is testing in Michigan

• Current process involves local health

• Clinical laboratories will be able to test for COVID-19 using tests authorized by the FDA under an Emergency Use Authorization (EIA)
Traveler Monitoring

- OCDPH is notified of new travelers arriving from China and Iran via the Michigan Health Alert Network (MIHAN). Notifications are updated daily @ 2 pm seven days/week.
- Travelers are contacted via phone or email by the CD team who will provide education on quarantine, surgical masks and thermometers if needed.
- Travelers self quarantine for 14 days.
- Twice daily temperatures and symptom checks are collected by the CD team and entered into Michigan’s Outbreak Management System (OMS)
- Travelers who develop symptoms of COVID-19 may be directed to seek medical care and testing for coronavirus depending on the severity of their illness.
Incoming calls

• Callers with general questions – message taken and sent to a group inbox including CD nurses, epidemiologist, PIO and Emergency Preparedness Coordinator. Call backs within 24 hours, usually within business day.

• Callers with symptoms or provider calls with symptomatic patients – warm transfer to CD nurse or Medical Director.

• After hours - providers can call non-emergency central dispatch line and request a call back. RAVE system alerts, Health Officer, Medical Director, CD Supervisor, EH Manager and Public Health Preparedness Coordinator

• Weekend traveler alerts – CD nurse covering calls contacts traveler for monitoring.
Communications - Importance

- Coordinated and consistent messaging
- Be first – Be right – Be credible
- Right message at the right time by the right people saves lives
- Combat misinformation – Accurate information is vital for response
- Prompt action (preparedness and prevention)
- Address concerns – community-based interventions
- Find information from reputable sources: CDC, MDHHS and OCDPH
Communication Activities

• Daily vetted CDC talking points
  (National Public Health Information Coalition)

• Weekly CDC media calls
  (Press briefings with national media outlets)

• Weekly MDHHS calls

• Daily miPIO Network sharing
  (News releases and best practices)

• Daily media monitoring
  (National, local and social media)
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Public Communications

• Direct contact/presentations to specific groups
  (Healthcare professionals, K-12 schools/childcare, Higher Ed, law/first responders, long-term care facilities, restaurants, travelers, businesses, events, faith-based and more)

• COVID-19 information on website
  (miOttawa and miOttawa/miHealth)

• COVID-19 news release
  (Feb 28, 2020 – COVID-19 – What you need to know)

• Media interviews
  (Radio and television stations, newspapers)

• Potential future news conference(s)

• 2019 Annual Report articles
  (Public Health Communications, Public Health Response)
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Questions