COVID-19 Preparedness

Dr. Travis Gayles
Health Officer and Chief of Public Health Services

Dr. Earl Stoddard
Director, Office of Emergency Management and Homeland Security
Where we stand

<table>
<thead>
<tr>
<th></th>
<th>Confirmed</th>
<th>Presumptive positives</th>
<th>Total confirmed and presumptive positives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Travel related</td>
<td>12</td>
<td>5</td>
<td>17</td>
</tr>
<tr>
<td>Person to person</td>
<td>4</td>
<td>22</td>
<td>26</td>
</tr>
<tr>
<td>Total</td>
<td>16</td>
<td>27</td>
<td>43</td>
</tr>
</tbody>
</table>

COVID-19 Testing and Confirmed Case Counts in Maryland

Number of patients with COVID-19 testing: 6
Number of COVID-19 tests pending at CDC: 1
Number of negative COVID-19 tests: 5
Number of laboratory-confirmed COVID-19 cases: 0
I. What is COVID-19?
Henderson-Hasselbalch equation:

\[ \text{pH} = \text{pK}_a + \log \left( \frac{[\text{A}^-]}{[\text{HA}]} \right) \]

where
- \( \text{pK}_a \) - acid dissociation constant
- \([\text{HA}]\) - concentration of acid
- \([\text{A}^-]\) - concentration of conjugate base
## How Contagious is the Coronavirus?

Average number of people infected by an individual with the following:

<table>
<thead>
<tr>
<th>Disease</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measles</td>
<td>12-18</td>
</tr>
<tr>
<td>Smallpox</td>
<td>5-7</td>
</tr>
<tr>
<td>Polio</td>
<td>5-7</td>
</tr>
<tr>
<td>Mumps</td>
<td>4-7</td>
</tr>
<tr>
<td>HIV/AIDS</td>
<td>2-5</td>
</tr>
<tr>
<td>SARS-CoV</td>
<td>2-5</td>
</tr>
<tr>
<td>Influenza</td>
<td>2-3</td>
</tr>
<tr>
<td>Coronavirus (2019 nCov)</td>
<td>1.4-2.5</td>
</tr>
<tr>
<td>Ebola</td>
<td>1.5-2.5</td>
</tr>
</tbody>
</table>

*Based on current WHO estimated as of 23 Jan 2019. Source: WHO via Spiegel.de / Statista*
Clinical Symptoms

- Reported illnesses have ranged from mild symptoms to severe illness and death.
- Symptoms may appear 2-14 days after exposure*:
  - Fever
  - Cough
  - Shortness of breath
<table>
<thead>
<tr>
<th>Clinical Features</th>
<th>&amp;</th>
<th>Epidemiologic Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fever or signs/symptoms of lower respiratory illness (e.g. cough or shortness of breath)</td>
<td>AND</td>
<td>Any person, including health care workers, who has had close contact with a laboratory-confirmed COVID-19 patient within 14 days of symptom onset</td>
</tr>
<tr>
<td>Fever and signs/symptoms of a lower respiratory illness (e.g., cough or shortness of breath) requiring hospitalization</td>
<td>AND</td>
<td>A history of travel from affected geographic areas* within 14 days of symptom onset</td>
</tr>
<tr>
<td>Fever with severe acute lower respiratory illness (e.g., pneumonia, ARDS) requiring hospitalization and without alternative explanatory diagnosis (e.g., influenza)</td>
<td>AND</td>
<td>No source of exposure has been identified.</td>
</tr>
</tbody>
</table>

*Affected geographic areas with widespread or sustained community transmission are currently:

- China
- Iran
- Italy
- Japan
- South Korea
‘Underlying Medical Conditions’

The death rate for people with no other health problems is 0.9%.

However, this rises to:

- 6% in people with high blood pressure
- 6% in people with long-term lung problems such as those caused by a lifetime of smoking
- 7% in people with diabetes
- 11% in people with cardiovascular disease
Transmission Factors

Human coronaviruses usually spread from an infected person to others through:

• The air by coughing and sneezing;
• Close personal contact, such as touching or shaking hands;
• Touching an object or surface with the virus on it, then touching your mouth, nose, or eyes before washing your hands;
• Rarely, feces
Prevention Measures

• Avoid close contact with people who are sick.
• Avoid touching your eyes, nose, and mouth.
• 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 a facemask.
  – CDC does not recommend that people who are well wear a facemask to protect themselves from respiratory diseases, including COVID-19.
  – Facemasks should be used by people who show symptoms of COVID-19 to help prevent the spread of the disease to others. 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.
Testing logistics

- Immediately report to your local health department (240-777-1755) any patients who meet criteria for a PUI for COVID-19, or any patient for whom clinical presentation or exposure history is equivocal.

- If you are unable to immediately reach your local health department, notify the Maryland Department of Health at 410-767-6700 during working hours or at 410-795-7365 after working hours.

- If patient does not meet the above PUI criteria, be sure to provide the patient with instructions upon discharge from your facility to minimize risk of transmitting any respiratory infection (including COVID19) to others by staying home at least until fever-free for at least 24 hours off any fever-reducing medications, and substantially resolving symptoms.
Preparedness Planning

Build a **preparedness kit** for your home in case you are sick with any respiratory virus and need to stay at home. A few examples:

- Pain relievers, fever reducers, decongestants, and cough drops
- Alcohol–based hand sanitizer
- Thermometer
- Facial tissues, paper products
- Nonperishable food
- Extended supply of prescription medications
- Diapers or pet supplies if needed
II. Response to Date
National, state, regional network

- HHS– Centers for Disease Control and Prevention
- Maryland Department of Health
- Metropolitan Washington Council of Governments
- Inter-jurisdictional Communications
- Inter-agency Communications
Timeline of Activities

• January 28/February 5: Letter sent to HHS employees, county employees
• January 31: Inter-agency discussion, formation of County coronavirus website
• January 2020: Inter-jurisdictional response coordination (weekly)
• January 2020: State led planning calls (weekly)
• February 5: Local engagement with Asian American community, including site visit to CCACC Center.
III. Future directions, operational considerations
COMAR Regulations

Section 10.06.01.06

A. Necessary Action. The Secretary or health officer shall:

(1) Take any action or measure necessary to prevent the spread of communicable disease or to control a reportable disease and condition; and

(2) Issue, when necessary, special instructions for control of a disease or condition.

B. Epidemiologic Investigations.

(1) A health officer shall respond to each reported outbreak or suspected outbreak of disease within the health officer's jurisdiction in order to collect data to assist in establishing adequate control measures.

(2) A health officer shall investigate a reported case or suspect case of a condition as requested by the Secretary.

(3) The Secretary may, in conjunction with the health officers, conduct the epidemiologic investigation for each reported case or suspected case in an outbreak involving two or more jurisdictions or states.

(4) An individual, a business, a facility, or an agency, including a health care provider, school or child care facility personnel, a master of a vessel or aircraft, or a medical laboratory director, shall make available to the Secretary or the health officer all records and information necessary to the epidemiologic response or investigation.

C. The health officer or Secretary shall order cessation of operation of a business or facility determined or suspected to be a threat to public health until the public health threat is determined by the health officer to have ceased.
Structure of the County Response

- The Department of Health and Human Services (DHHS) is the lead agency for Public Health and Medical Services as delineated in Emergency Support Function – 8 (ESF-8) of the County Emergency Operations Plan (EOP – 2017).
- OEMHS and many members of Emergency Management Group (EMG) are defined as Supporting Agencies within the EOP and are preparing to support DHHS in the COVID-19 response.
- OEMHS also plays a role in supporting Continuity of Operations (COOP) and Continuity of Government (COG) programs, including participating in the process to determine whether government operations are altered during emergencies.
Key Supporting Activities from the EMG

• Public Warning – Alert Montgomery Public Health Alerts
• Resource Acquisition and Tracking
• Staffing support for core public health activities, including points of dispensing, isolation/quarantine activities, or other potential response actions.
• Dissemination of public information
• Activation of the EOC or other similar coordination operations
• Enforcement of public health orders, if necessary
County Readiness Activities

• Monthly drills serve to keep our County COOP plans updated.
• Tabletop exercise focused on impacts of excessive absenteeism on COOP on January 9.
• COG Chief Administrative Officer (CAO) Biological Exercise with Emergency Managers and Public Health Emergency Planners (PHEPs) on November 6.
• COG Emergency Preparedness Council (EPC) Biological Exercise on December 16, 2019.
• First EMG message on COVID19 distributed on January 27
• WebEOC event created for DHHS on February 3
• Guidance distributed to Managers and Supervisors on February 18