Novel Coronavirus (COVID-19): Updates for Healthcare Facilities and Providers

March 6, 2020

Disclaimer

- **All numbers and guidance presented here may be out of date due to this rapidly evolving situation.**

- **SARS-CoV-2 is the virus that causes COVID-19.**

Outline

- **Overview of COVID-19**

- **Infection prevention and control**

- **Healthcare preparedness and response**

- **Questions**

COVID-19: Basics

- **Mode of transmission:**
  - Person-to-person (close contact)
  - Respiratory droplet
  - Contact with infected surfaces or objects*
  - Airborne*

- **Incubation period**:
  - 2-14 days (median: ~5 days)

- **Asymptomatic spread:**
  - Possible but extent not yet confirmed
  - Not a likely driver of epidemic

*Not believed to be predominate transmission mode

COVID-19: Clinical Features

- **Symptoms**
  - Fever
  - Cough
  - Shortness of breath/trouble breathing
- **Severity (from ~45,000 patients diagnosed in China)**
  - 81% mild
  - 14% severe
  - 5% critical
- **Case Fatality**
  - 0.3-1% worldwide
  - 8%-15% in older adults and those with comorbid conditions in Hubei Province

Areas with Confirmed COVID-19 Cases (3/6/20)
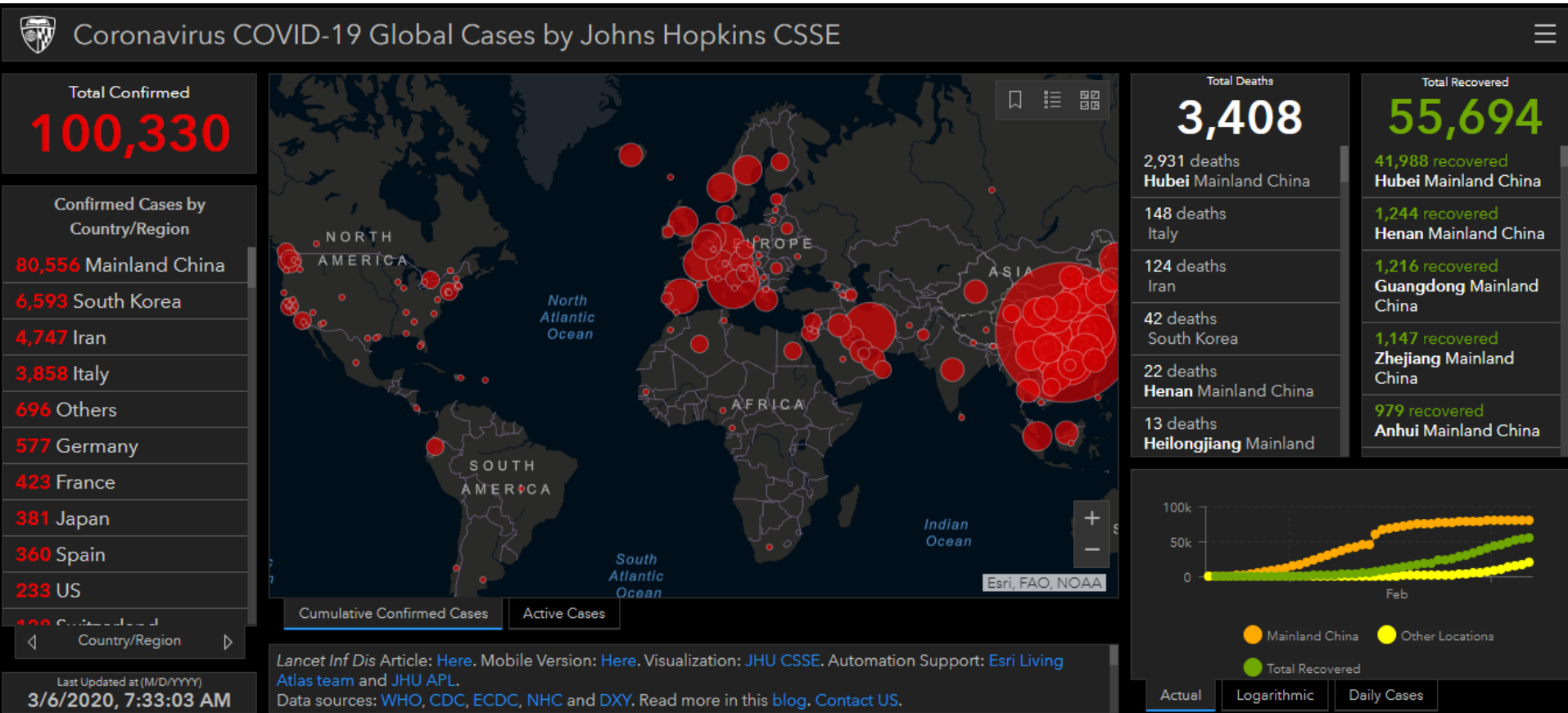
States Reporting Cases of COVID-19 (3/6/20)
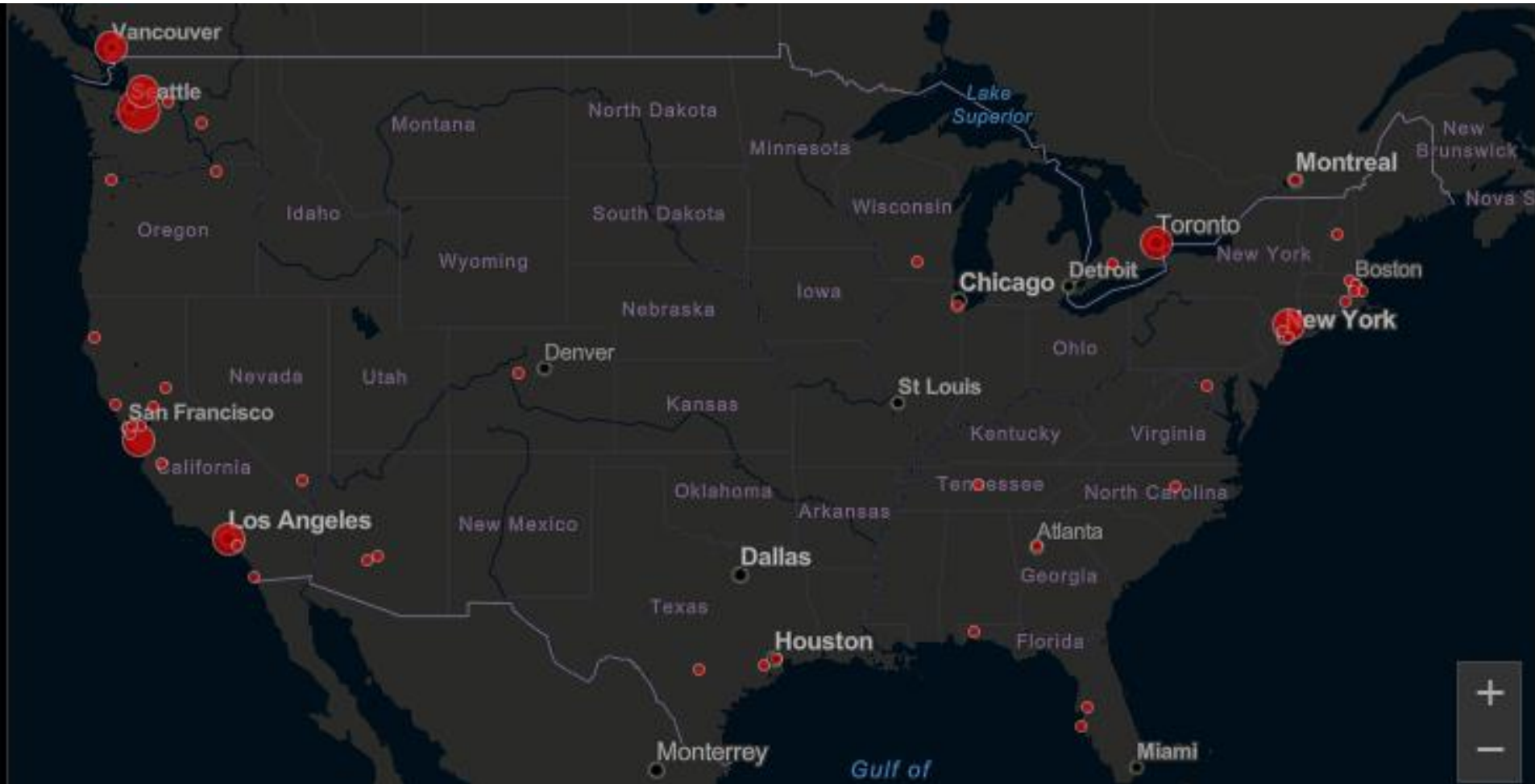
TN Department of Health Activities

1. **Surveillance**
   - Clinical consultations (>~350)
   - Diagnostic capacity at State Public Health Laboratory as of Feb 20

2. **Information dissemination / communication**
   - TDH COVID-19 website
   - General inquiries (>250)
   - Public Information Line with TPCC as of Mar 5
   - Stakeholder communication

3. **Monitoring of healthy returning travelers (China)**

4. **Containment activities for confirmed COVID-19 case**
   - Contact tracing
   - Daily active public health monitoring
   - Stratification of HCW risk

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Steps to Prepare Your Facility

- **Stay informed about local COVID-19 situation**

  Weekly update calls with THA

  TDH COVID-19 website
  (https://www.tn.gov/health/cedep/ncov.html)

  Call TDH directly with clinical questions:
  615-741-7247

  Join email listserv for weekly updates
  (Email Valerie.nagoshiner@tn.gov to be added)

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Steps to Prepare Your Facility

- Stay informed about local COVID-19 situation

- **Complete CDC's Hospital Preparedness Checklist**

Coronavirus Disease 2019 (COVID-19) Hospital Preparedness Assessment Tool

Elements to be assessed

1. Infection prevention and control policies and training for healthcare personnel (HCP):

- Facility leadership including the Chief Medical Officer, quality officers, hospital epidemiologist, and heads of services (e.g., infection control, emergency department, environmental services, pediatrics, critical care) has reviewed the Centers for Disease Control and Prevention's COVID-19 guidance. https://www.cdc.gov/coronavirus/2019-nCoV/guidance-hcp.html

- Facility provides education and job-specific training to HCP regarding COVID-19 including:
  - Signs and symptoms of infection
  - How to safely collect a specimen
  - Correct infection control practices and personal protective equipment (PPE) use
  - Triage procedures including patient placement
  - HCP sick leave policies and recommended actions for unprotected exposures (e.g., not using recommended PPE, an unrecognized infectious patient contact)
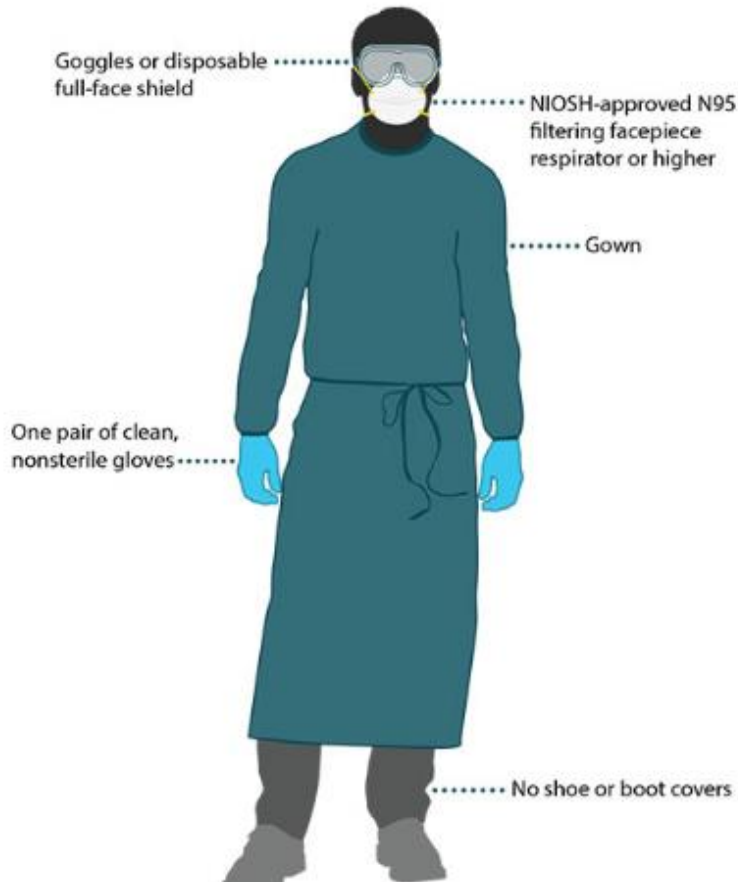 - How and to whom COVID-19 cases should be reported

2. Process for rapidly identifying and isolating patients with confirmed or suspected COVID-19:

- Signs are posted at entrances with instructions to individuals with symptoms of respiratory infection to: immediately put on a mask and keep it on during their assessment, cover their mouth/nose when coughing or sneezing, use and dispose of tissues, and perform hand hygiene after contact with respiratory secretions.

- Facemasks are provided to coughing patients and other symptomatic individuals upon entry to the facility.

- Signs are posted in triage areas (e.g. ED entrances) advising patients with fever or symptoms of respiratory infection to immediately notify triage personnel so appropriate precautions can be put in place.

Steps to Prepare Your Facility

- **Stay informed about local COVID-19 situation**

- **Complete CDC's Hospital Preparedness Checklist**

- **Conduct an inventory of available personal protective equipment (PPE) and your facility's ability to care provide Standard, Contact, Droplet and Airborne Precautions**

Conserving and Optimizing PPE

Goggles or disposable full-face shield

NIOSH-approved N95 filtering facepiece respirator or higher

Gown

One pair of clean, nonsterile gloves

No shoe or boot covers

Current CDC Recommended PPE

DO

– Ensure all healthcare workers are trained in donning/doffing recommended PPE

– Judiciously confirm N95 fit testing if your facility has this capability (qualitative methods preferred)

DON'T

– Take PPE for personal use

– Attempt N95 use if your facility does not have appropriate training for this

– Wear masks or other PPE in non-healthcare settings

Conserving and Optimizing PPE

- **Current PPE recommendations from CDC are conservative**
  - Airborne transmission is not thought to be dominant mode of transmission
  - Changes to CDC infection control guidance anticipated
- **Initial triage, assessment, and clinical specimen collection for patients with respiratory illness can safely be completed in any clinical setting using appropriate precautions:**
  - PPE: standard, contact, droplet + eye protection
  - Patient placement: private room with door closed
  - If possible: avoid rooms where air exhaust is recirculated to other rooms; leave room vacant for as long as possible after patient leaves

Prevent Introduction of COVID-19 INTO Facility

- **Instruct visitors not to visit if having <u>any</u> symptoms of illness**

- **Allow sick employees to stay home without penalty**

- **Assess all incoming patients for respiratory symptoms and implement infection control practices accordingly**

- Access guidance at: https://www.tn.gov/content/dam/tn/health/documents/cedep/novel-coronavirus/COVID-19-Facility-Visitor-Guidance.pdf

Evaluating the Patient in Front of You
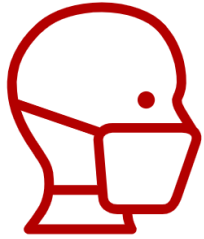
All patients with fever or respiratory symptoms should receive a mask and be isolated upon entry to a healthcare facility

- **Consider ways to evaluate with minimal contact to other patients**
- **Wear appropriate PPE**
- **Assess exposure history in 14 days before symptom onset**
  - **Travel to high-risk geographic region?**
  - **Close contact with anyone diagnosed with COVID-19?**
  - **Healthcare worker or other high-risk profession?**
  - **Severe pneumonia/ARDS without other known cause?**

Environmental Cleaning

- **Use EPA-registered cleaning products intended for healthcare facilities to clean all high-touch surfaces multiple times/day**
    - Doorknobs
    - Light switches
    - Bed rails
    - Counter tops at nursing stations
    - Bathrooms

- **See if your cleaners/disinfectants are approved for COVID-19:**

    https://www.epa.gov/sites/production/files/2020-03/documents/sars-cov-2-list_03-03-2020.pdf

- **Risk for transmission and need for exclusion depends upon type of exposure, PPE worn by the provider, and whether of not patient was wearing a mask**

https://www.cdc.gov/coronavirus/2019-ncov/hcp/guidance-risk-assesment-hcp.html

HCP Risk Assessment: Examples

Epidemiologic risk factors	Exposure category	Recommended Monitoring for COVID-19 (until 14 days after last potential exposure)	Work Restrictions for Asymptomatic HCP
Prolonged close contact with a COVID-19 patient who was wearing a facemask (i.e., source control)			
HCP PPE: None	Medium	Active	Exclude from work for 14 days after last exposure
HCP PPE: Not wearing a facemask or respirator	Medium	Active	Exclude from work for 14 days after last exposure
HCP PPE: Not wearing eye protection	Low	Self with delegated supervision	None
HCP PPE: Not wearing gown or gloves[a]	Low	Self with delegated supervision	None
HCP PPE: Wearing all recommended PPE (except wearing a facemask instead of a respirator)	Low	Self with delegated supervision	None

https://www.cdc.gov/coronavirus/2019-ncov/hcp/guidance-risk-assesment-hcp.html

Helpful Resources

- **Interim Infection Prevention and Control Recommendations (full):**

https://www.cdc.gov/coronavirus/2019-ncov/infection-control/control-recommendations.html

- **EPA's Registered Products for Use Against COVID-19**:

https://www.epa.gov/sites/production/files/2020-03/documents/sars-cov-2-list_03-03-2020.pdf

- **Interim Guidance for Emergency Medical Services**:

https://www.cdc.gov/coronavirus/2019-ncov/hcp/guidance-for-ems.html

- **COVID-19 Hospital Preparedness Assessment Tool:**

https://www.cdc.gov/coronavirus/2019-ncov/hcp/hcp-hospital-checklist.html

- **Strategies for Optimizing the Supply of N95 Respirators:**

https://www.cdc.gov/coronavirus/2019-ncov/hcp/respirators-strategy/index.html

Prevent Spread BETWEEN Facilities

- **Notify public health (either local, regional, or state) of any patients or staff members suspected of having COVID-19.**

- **Notify other facilities that a patient has suspected or confirmed COVID-19 before transfers.**

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Overall objectives:

- Minimize morbidity and mortality from outbreak
- Preserve social function and minimize social disruption

Response objectives:

- Surveillance
- Uniform infection and exposure control measures
- Healthcare guidance
- Public information
- Hospital surge support
- Fatality management

Purpose

To provide an opportunity to evaluate current response concepts, plans and capabilities in response to an outbreak of a novel viral disease.

COVID-19
CORONAVIRUS DISEASE 2019
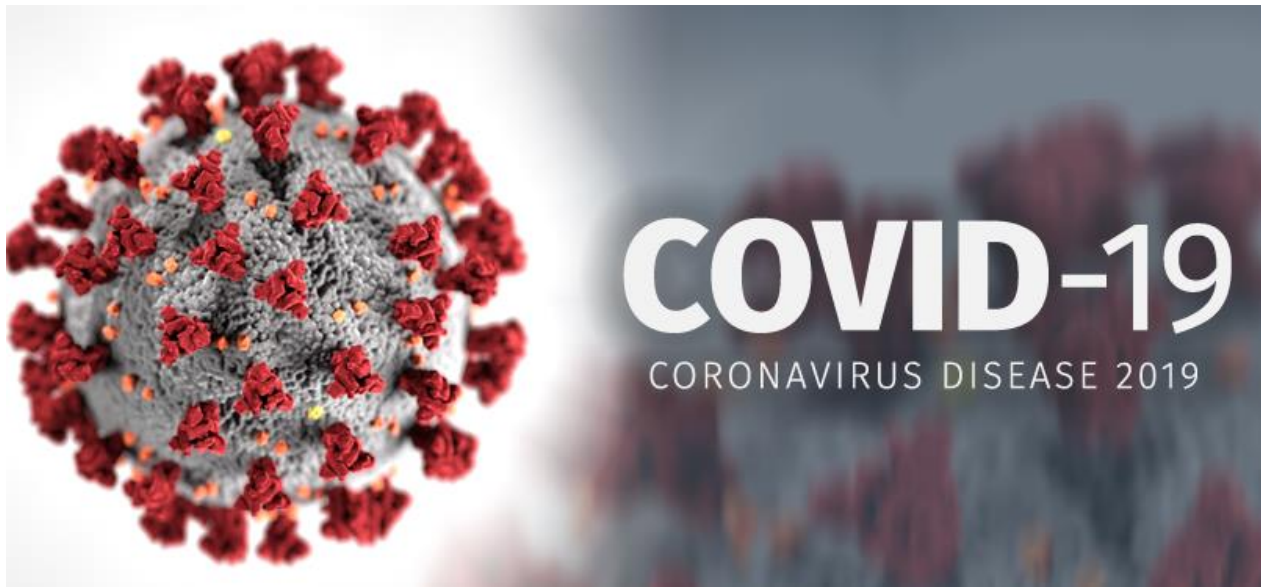
Health

Exercise Objectives

- Improve preparedness for a response to a patient infected with novel coronavirus (COVID-19) presenting at a healthcare facility.

- Evaluate the hospital's capability to safely identify and effectively isolate a symptomatic patient at the facility.

- Assess the notification and communications processes internally with rostered staff and externally between local, regional, state public health, emergency medical services, other healthcare delivery partners, and media.

- Assess just-in-time training for Personal Protective Equipment (PPE) donning/doffing and availability.

- Discuss the capabilities and capacities to sustain a prolonged medical surge novel virus outbreak event for both adult and pediatric patients.

- Assess planning for special considerations (surge capacity, diagnostic radiological imaging, laboratory services, waste management and decedent management).

Planning Considerations

- Timely recognition and isolation
- Personal protective equipment use
- Protection of healthcare workers, patients, and visitors
- Proper reporting to the Tennessee Department of Health
- Information management both internal and external
- Surveillance, contact tracing, and movement monitoring
- Maintaining normal hospital operations
- Laboratory services coordination
- Environmental and waste management
- Patient transportation

**Healthcare Resource Tracking System (HRTS)
and
Inventory and Resource Monitoring**

Questions?