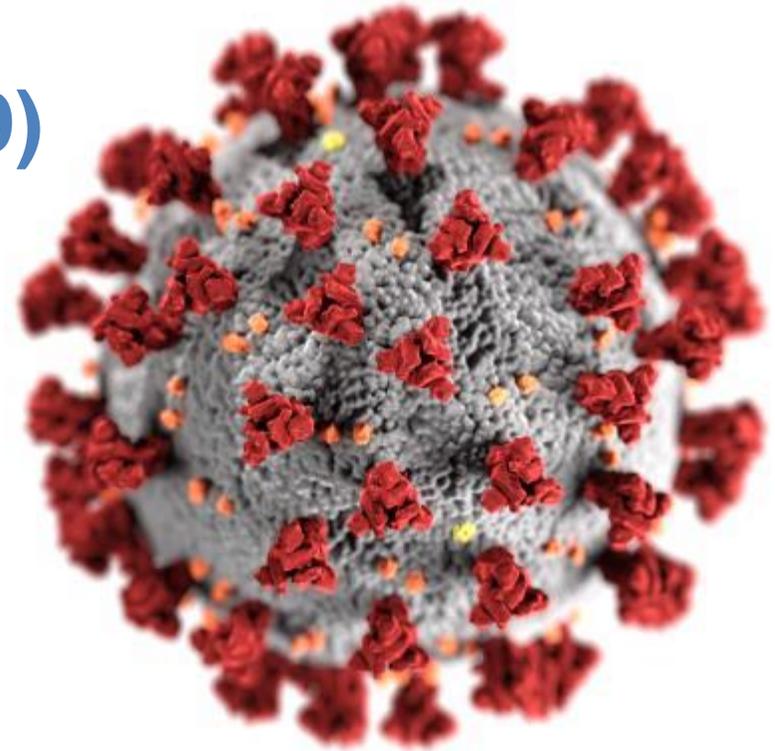


2019 Novel Coronavirus (COVID-19)

South Dakota Department of Health

May 7, 2020



We will begin in just a few moments. Thanks!



SOUTH DAKOTA DEPARTMENT OF HEALTH

This is an **emerging, rapidly evolving situation**. Information in this presentation is current as of May 6, 2020. Please check the South Dakota Department of Health website for the most current information and guidance.

[COVID.sd.gov](https://www.southdakota.gov/covid-19)

Agenda

- Situation Update
- Laboratory Guidance
- Infection Prevention
- Community Mitigation
- Supply Chain Management
- On-going Communications
- Q&A Session

Note: Slides and a recording of the presentations will be posted to doh.sd.gov/news/COVID19/Calls.aspx following the webinar.

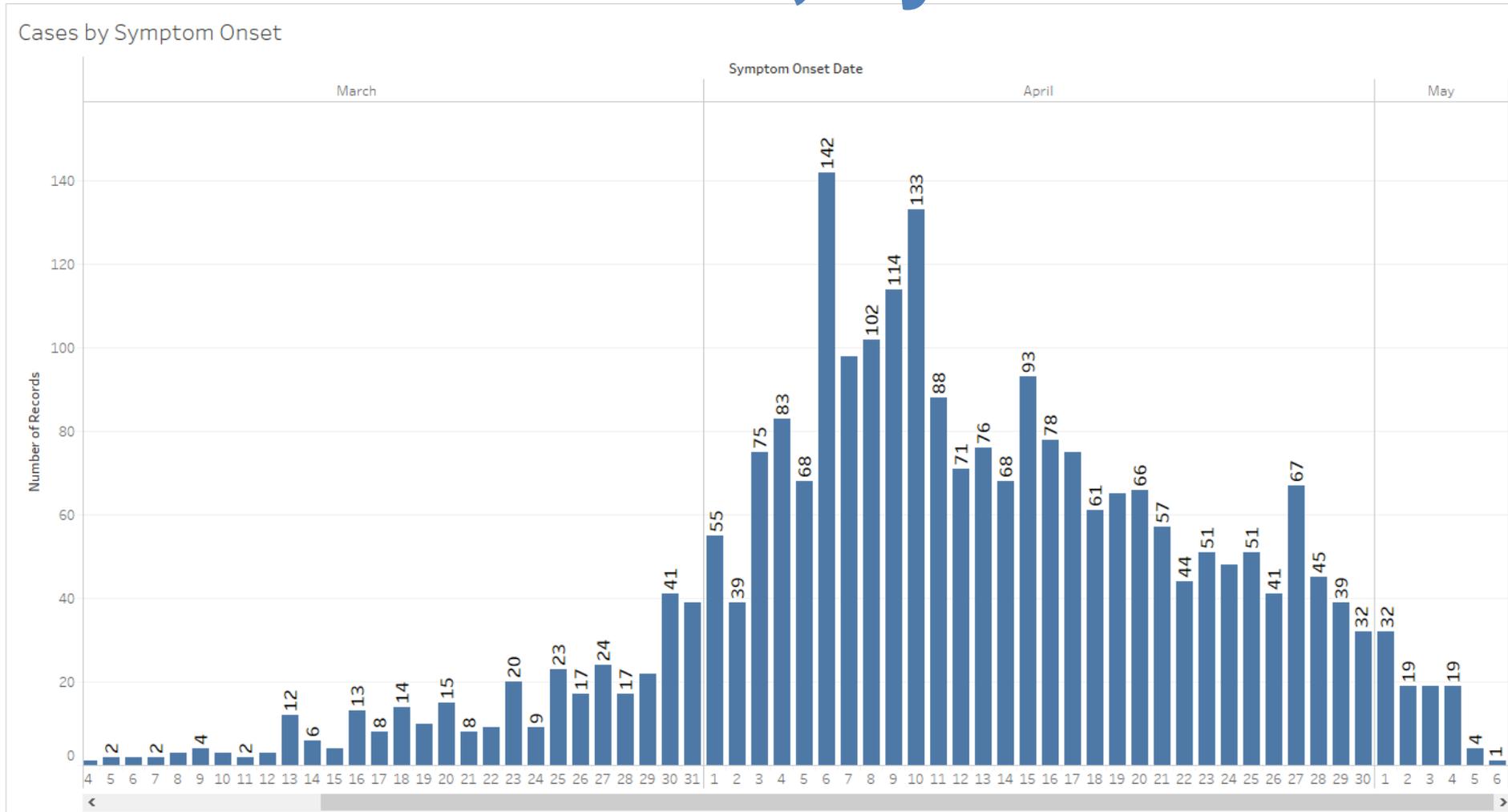


Situation Update

Coronavirus Situation (as of May 6, 2020)

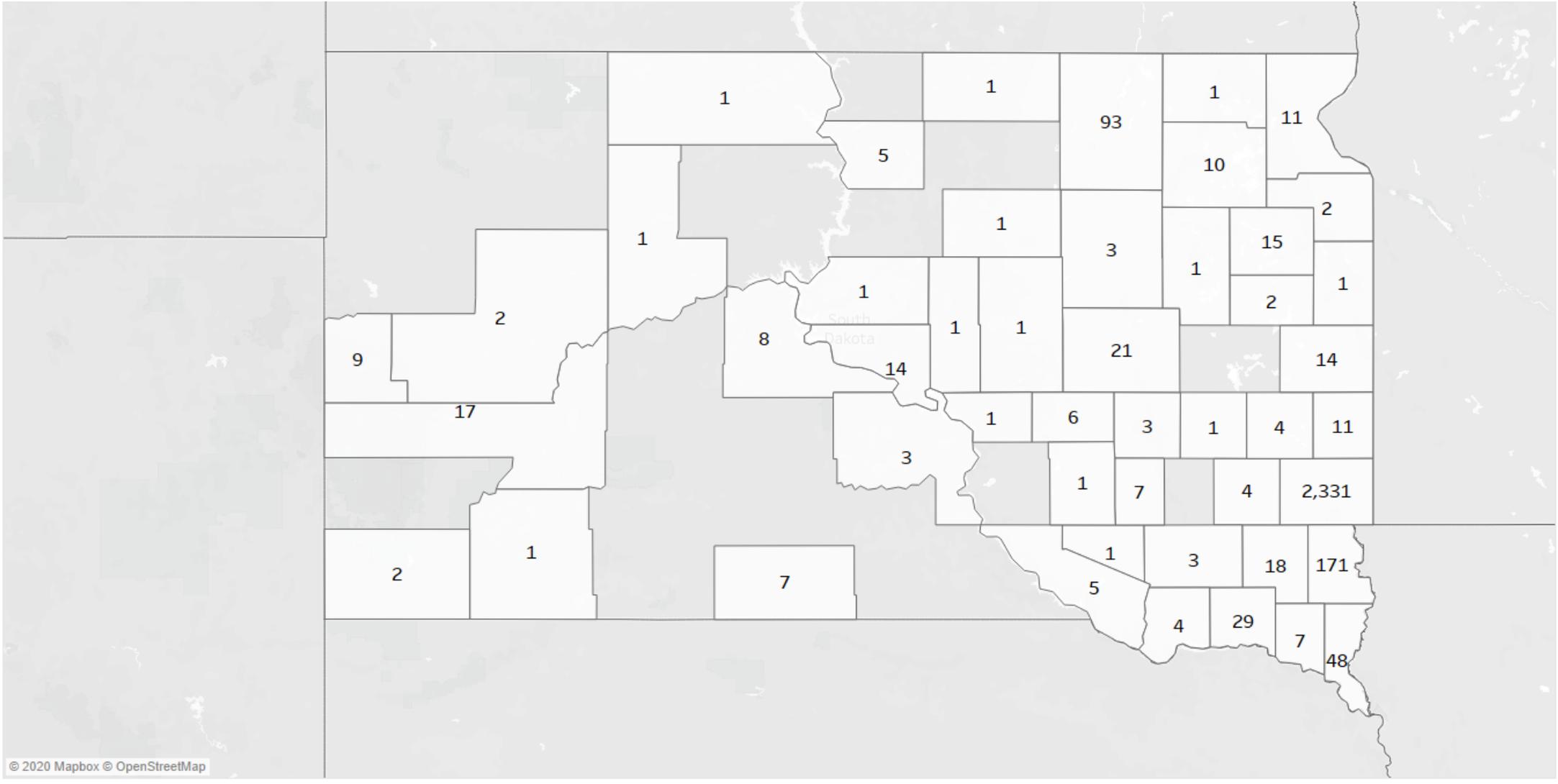
- International
 - 3,588,773 confirmed cases
 - 247,503 deaths
- United States (50 states + DC)
 - 1,193,813 confirmed cases in U.S.
 - 70,802 deaths
 - Community transmission identified in all neighboring states
- South Dakota
 - 2,779 confirmed cases in South Dakota
 - 29 death
 - 1,977 recovered

Epidemiologic “Epi” Curve of COVID-19 Cases, by Onset Date



COVID-19 Cases, by County

As of May 6, 2020



© 2020 Mapbox © OpenStreetMap

General Testing Recommendations

Medical providers should consider testing individuals, using a viral test, with the following signs and symptoms of COVID-19:

(<https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html>)

- Cough or
- Shortness of breath or difficulty breathing

Or at least two of these symptoms:

- Fever
- Chills
- Repeated shaking with chills
- Muscle pain
- Headache
- Sore throat
- New loss of taste or smell

Please note that not everyone may need a test because most people have mild illness and can recover at home without medical care.

Symptomatic Patient – Discontinue Isolation

Preference can be given to the symptom-based strategy due to the potential for prolonged detection of RNA in molecular assay without direct correlation to recovery of virus in culture.

Symptom-based strategy

- At least 10 days have passed since symptoms first appeared, AND
- At least 3 days (72 hours) have passed since recovery, defined as:
 - Resolution of fever, without the use of fever-reducing medications, AND
 - Progressive improvement or resolution of respiratory symptoms (e.g., cough, shortness of breath)

Test-based Strategy

- Resolution of fever without the use of fever-reducing medications, AND
- Improvement in respiratory symptoms (e.g., cough, shortness of breath), AND

Negative results of an FDA Emergency Use Authorized COVID-19 molecular assay for detection of SARS-CoV-2 RNA from at least two consecutive nasopharyngeal swab specimens collected at least 24 hours apart (total of two negative specimens).

Asymptomatic Patient – Discontinue Isolation

Time-based Strategy

- At least 10 days have passed since the date of their first positive COVID-19 diagnostic test, assuming they have not subsequently developed symptoms since their positive test.
- Because of the absence of symptoms, it is not possible to gauge where these individuals are in the course of their illness.

Test-based Strategy

- Because of the absence of symptoms, it is not possible to gauge where these individuals are in the course of their illness.
- Follow the Test-based Strategy above with the modification that initiation of testing can begin immediately.

COVID-19 Testing of Previously Positive After Discontinue Isolation

Symptom-based Strategy

- At least 10 days have passed since symptoms first appeared, AND
- At least 3 days (72 hours) have passed since recovery, defined as:
 - Resolution of fever, without the use of fever-reducing medications, AND
 - Progressive improvement or resolution of respiratory symptoms (e.g., cough, shortness of breath)

Time-based Strategy

- At least 10 days have passed since the date of their first positive COVID-19 diagnostic test, assuming they have not subsequently developed symptoms since their positive test.
- Because of the absence of symptoms, it is not possible to gauge where these individuals are in the course of their illness.

Re-exposure for Previous COVID-19 Cases

From CDC FAQs

- CDC and partners are investigating to determine if you can get sick with COVID-19 more than once. At this time, we are not sure if you can become re-infected. Until we know more, continue to take steps to protect yourself and others.

<https://www.cdc.gov/coronavirus/2019-ncov/faq.html>



Laboratory Guidance

Testing Plan to Combat COVID-19

Guiding Principles

1. All symptomatic individuals will be tested for COVID-19 with recommendation of a provider.
2. Symptomatic individuals can receive a test without charge
3. The plan is flexible and will adapt to the changing needs of South Dakota's COVID-19 response.

Laboratory Strategies to Combat COVID-19

The Public Health Laboratory has a 3 tiered plan to support COVID-19 testing in South Dakota

Tier 1 – Implementation of SARS-CoV-2 testing

- Implement SARS-CoV-2 testing at SDPHL
- Support development of SARS-CoV-2 testing capabilities in clinical labs
- Advocate for diversification of SARS-CoV-2 testing capabilities statewide

Laboratory Strategies to Combat COVID-19

Tier 2 – Expand Access to Testing

- Support smaller facilities with the placement of Abbott ID Now instruments
- Ensure SDPHL Mobile Laboratory readiness for possible deployment
- Support mass testing events that target at-risk, vulnerable populations
- Expand testing capacity with new platforms entering the market

Laboratory Strategies to Combat COVID-19

Tier 3 – Increase Statewide Testing Capacity

- Advocate for strong supply chains for laboratory supplies
- Share resources to ensure continuity of specimen collection and testing
- Evaluate laboratory workflows to increase efficiency and productivity
- Leverage commercial laboratory capabilities to fill unmet needs or gaps



Laboratory Strategies to Combat COVID-19

Ensure Vulnerable and At-Risk Populations Receive SARS-CoV-2 Testing:

- Hospitalized individuals
- Healthcare workers, first responders, and active military
- Individuals in communal living settings like long-term care facilities
- Underinsured or uninsured individuals
- Low-income individuals or individuals unable to pay for testing
- Homeless individuals



Laboratory Strategies to Combat COVID-19

Increase Testing Capacity by Diversification of Specimen Collection:

- PREFERRED: NP Swab (flocked) in VTM, Sterile Saline, or Sterile PBS
- ACCEPTABLE: OP Swab (flocked) in VTM, Sterile Saline, or Sterile PBS
- ACCEPTABLE: OP Swab (foam) in VTM, Sterile Saline, or Sterile PBS
- ACCEPTABLE: MTS Swab (foam) in VTM, Sterile Saline, or Sterile PBS
- ACCEPTABLE: Nasal Swab (foam) in VTM, Sterile Saline, or Sterile PBS

Laboratory Strategies to Combat COVID-19

Ensure Availability of Specimen Collection Supplies:

- Flocked swabs (limited availability at the SDPHL)
- Foam swabs (available at the SDPHL beginning immediately)
- Viral transport media (limited availability at the SDPHL)
- Sterile PBS and sterile saline (limited availability at the SDPHL)
- Sterile sputum cups (limited availability at the SDPHL)
- Category B shipping supplies (limited availability at the SDPHL)



Laboratory Strategies to Combat COVID-19

Increase Capacity at SDPHL Through Diversification of Testing Platforms:

1. CDC 2019-nCoV RT-PCR
2. Alternative RT-PCR Method
3. Cepheid GeneXpert
4. Hologic Panther
5. Biofire FilmArray RP2.1

Laboratory Strategies to Combat COVID-19

Implement Antibody Testing using Dual-Method Approach:

- Chembio Diagnostic System, Inc, DPP COVID-19 IgM/IgG System
- Abbott Laboratories Inc., SARS-CoV-2 IgG assay
- **bioMerieux, serology tests for SARS-CoV-2 on VIDAS**

Information for providers interested in SARS-CoV-2 antibody tests:

<https://www.idsociety.org/globalassets/idsa/public-health/covid-19/idsa-covid-19-antibody-testing-primer.pdf>

Laboratories interested in antibody tests for SARS-CoV-2 should consult the

FDA website:

<https://www.fda.gov/medical-devices/emergency-situations-medical-devices/emergency-use-authorizations#covid19ivd>

Laboratory Strategies to Combat COVID-19

Connect Facilities with Payment Information for Reimbursable Services:

- Medicare
- Medicaid
- Private Insurance
- Health Resource and Service Administration (HRSA)

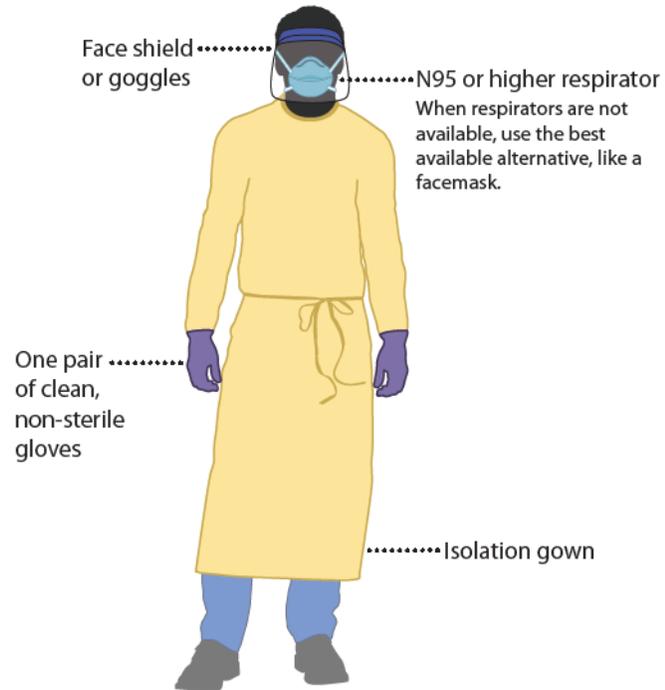
Reimbursable Services Include:

- Specimen collection, diagnostic testing, antibody testing
- Visits to healthcare providers

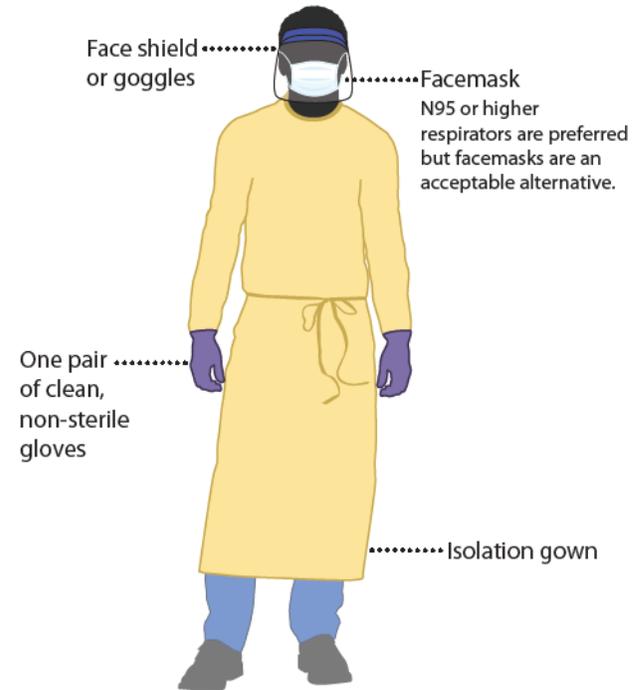
Infection Control

COVID-19 Personal Protective Equipment (PPE) for Healthcare Personnel

Preferred PPE – Use N95 or Higher Respirator



Acceptable Alternative PPE – Use Facemask



CS 315836-C 03/23/2020

[cdc.gov/COVID19](https://www.cdc.gov/COVID19)



SOUTH DAKOTA DEPARTMENT OF HEALTH

Criteria for Return to Work for Healthcare Personnel with Confirmed or Suspected COVID-19 (Interim Guidance)

Symptom-based strategy. Exclude from work until:

At least 3 days (72 hours) have passed *since recovery* defined as resolution of fever without the use of fever-reducing medications **and** improvement in respiratory symptoms (e.g., cough, shortness of breath); **and**,

At least 10 days have passed *since symptoms first appeared*

Test-based strategy. Exclude from work until:

Resolution of fever without the use of fever-reducing medications **and**

Improvement in respiratory symptoms (e.g., cough, shortness of breath), **and**

Negative results of an FDA Emergency Use Authorized COVID-19 molecular assay for detection of SARS-CoV-2 RNA from at least two consecutive nasopharyngeal swab specimens collected ≥ 24 hours apart (total of two negative specimens)

HCP with laboratory-confirmed COVID-19 who have not had any symptoms:

Time-based strategy. Exclude from work until:

10 days have passed since the date of their first positive COVID-19 diagnostic test assuming they have not subsequently developed symptoms since their positive test. If they develop symptoms, then the *symptom-based* or *test-based strategy* should be used.

Counterfeit respirators: what you need to know



How to spot a NIOSH-approved respirator

- ✓ An approval label on or within the packaging of the respirator.
- ✓ An abbreviated approval on the filtering face piece respirator (FFR) itself.

Source: National Institute for Occupational Safety and Health (NIOSH)

Signs a respirator may be counterfeit

- No markings at all on the FFR.
- No approval number on the respirator or headband.
- No NIOSH markings.
- NIOSH spelled incorrectly.
- Decorative fabric or add-ons (for example, sequins).
- Claims to be approved for children's use.
- Ear loops instead of headbands.

Visit [CDC.gov/NIOSH](https://www.cdc.gov/NIOSH) for respirator guidance.

Visit usfa.fema.gov/coronavirus for fire and EMS COVID-19 updates.



Federal Healthcare
Resilience Task Force



U.S. Fire Administration
Working for a fire-safe America



FEMA



SOUTH DAKOTA DEPARTMENT OF HEALTH

Interim Guidance for Basic and Advanced Life Support in Adults, Children, and Neonates With Suspected or Confirmed COVID-19:

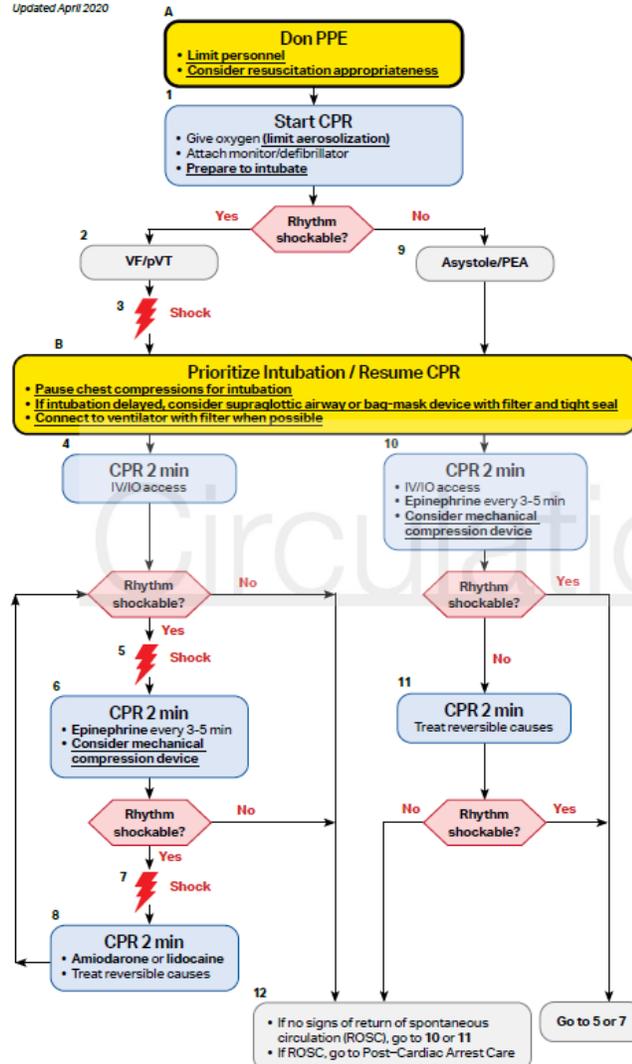
**From the Emergency Cardiovascular Care Committee and Get With the Guidelines®-Resuscitation Adult and Pediatric Task Forces of the American Heart Association in Collaboration with the American Academy of Pediatrics, American Association for Respiratory Care, American College of Emergency Physicians, The Society of Critical Care Anesthesiologists, and American Society of Anesthesiologists:
Supporting Organizations: American Association of Critical Care Nurses and National EMS Physicians**

<https://www.ahajournals.org/doi/pdf/10.1161/CIRCULATIONAHA.120.047463>

- Reduce provider exposure to COVID-19
- Prioritize oxygenation and ventilation strategies with lower aerosolization risk.
- Consider the appropriateness of starting and continuing resuscitation.
- BLS Healthcare Provider Adult & Pediatric Cardiac Arrest Algorithm for Suspected or Confirmed COVID-19 Patients
- ACLS Cardiac Arrest Algorithm for Suspected or Confirmed COVID-19 Patients

ACLS Cardiac Arrest Algorithm for Suspected or Confirmed COVID-19 Patients

Updated April 2020

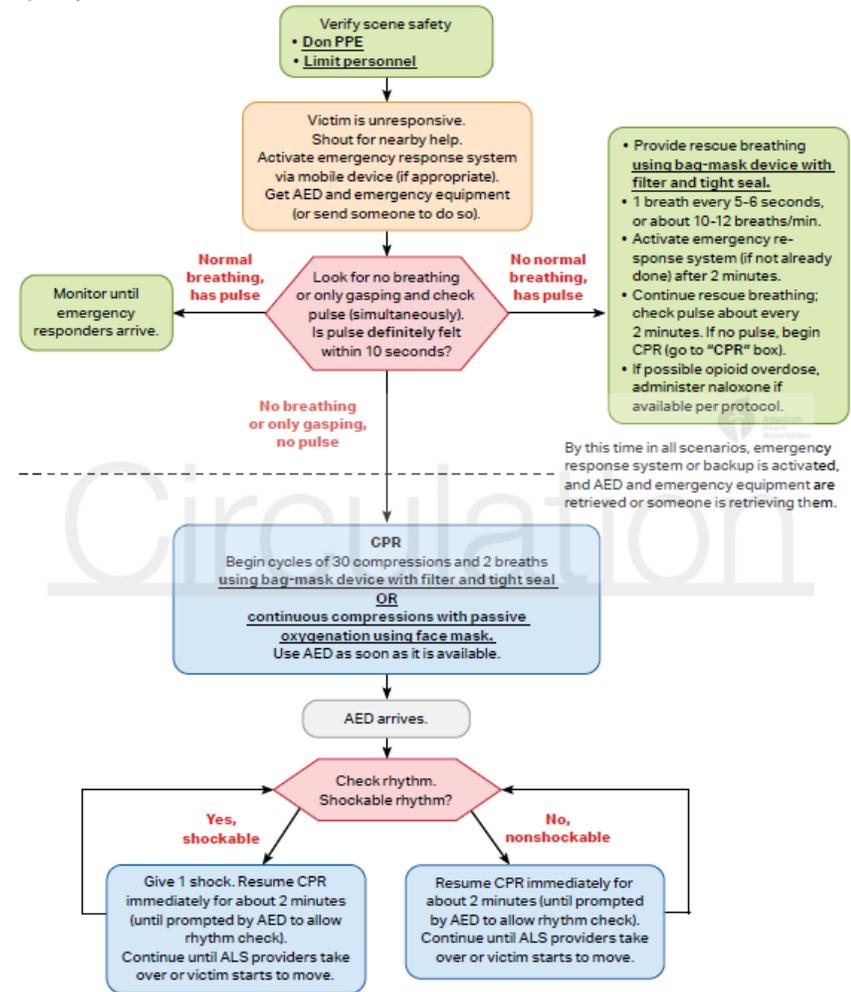


© 2020 American Heart Association

CPR Quality
<ul style="list-style-type: none"> • Push hard (at least 2 inches [5 cm]) and fast (100-120/min) and allow complete chest recoil. • Minimize interruptions in compressions. • Avoid excessive ventilation. • Change compressor every 2 minutes, or sooner if fatigued. • If no advanced airway, 30:2 compression-ventilation ratio. • Quantitative waveform capnography <ul style="list-style-type: none"> - If P_{ETCO_2} < 10 mm Hg, attempt to improve CPR quality. - Intra-arterial pressure <ul style="list-style-type: none"> - If relaxation phase (diastolic) pressure < 20 mm Hg, attempt to improve CPR quality.
Shock Energy for Defibrillation
<ul style="list-style-type: none"> • Biphasic: Manufacturer recommendation (eg, initial dose of 120-200 J); if unknown, use maximum available. Second and subsequent doses should be equivalent, and higher doses may be considered. • Monophasic: 360 J
Advanced Airway
<ul style="list-style-type: none"> • Minimize closed-circuit disconnection • Use intubator with highest likelihood of first pass success • Consider video laryngoscopy • Endotracheal intubation or supraglottic advanced airway • Waveform capnography or capnometry to confirm and monitor ET tube placement • Once advanced airway in place, give 1 breath every 6 seconds (10 breaths/min) with continuous chest compressions
Drug Therapy
<ul style="list-style-type: none"> • Epinephrine IV/IO dose: 1 mg every 3-5 minutes • Amiodarone IV/IO dose: First dose: 300 mg bolus. Second dose: 150 mg, or • Lidocaine IV/IO dose: First dose: 1-1.5 mg/kg. Second dose: 0.5-0.75 mg/kg.
Return of Spontaneous Circulation (ROSC)
<ul style="list-style-type: none"> • Pulse and blood pressure • Abrupt sustained increase in P_{ETCO_2}, (typically ≥ 40 mm Hg) • Spontaneous arterial pressure waves with intra-arterial monitoring
Reversible Causes
<ul style="list-style-type: none"> • Hypovolemia • Hypoxia • Hydrogen ion (acidosis) • Hypo-/hyperkalemia • Hypothermia • Tension pneumothorax • Tamponade, cardiac • Toxins • Thrombosis, pulmonary • Thrombosis, coronary

BLS Healthcare Provider Adult Cardiac Arrest Algorithm for Suspected or Confirmed COVID-19 Patients

Updated April 2020



© 2020 American Heart Association

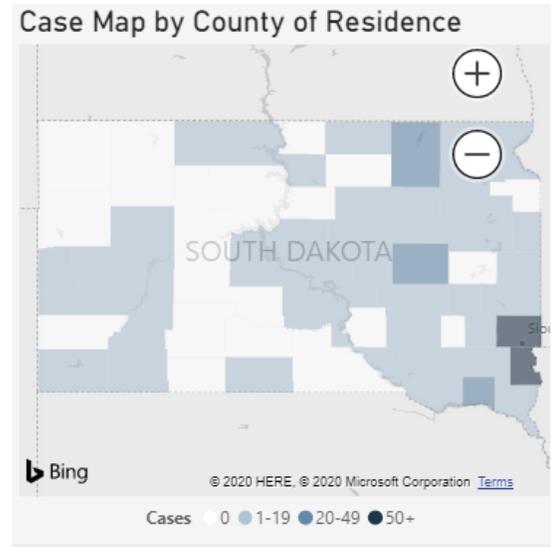
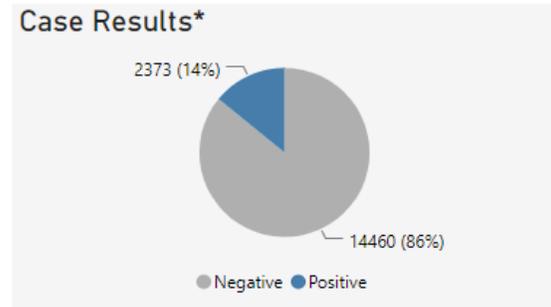
Additional Infection Control Discussions

- EMS Provider Calls
- LTC Call
- LAB/IP Call

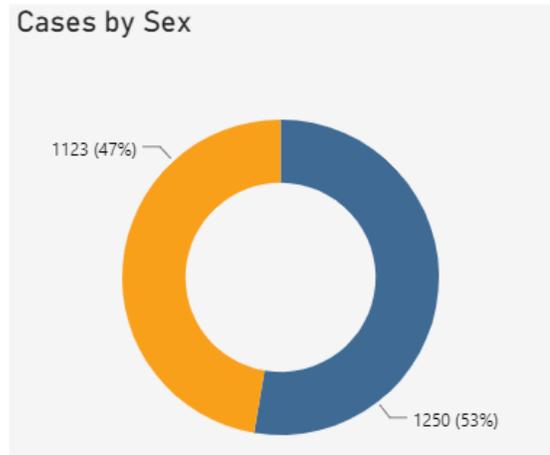
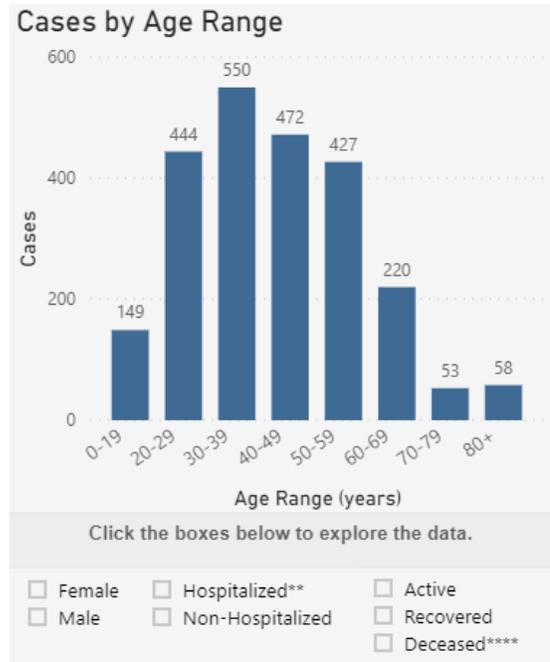


Community Mitigation

SD Overview	Demographics	Tables
-------------	--------------	--------



SD Overview	Demographics	Tables
-------------	--------------	--------



Dashboard

Community Impact Map

Step-down Criteria

Counties will be evaluated on a daily basis for the following steps down in level of community spread:

- Substantial to minimal/moderate: No active cases in a county
- Minimal/moderate to no community spread: 28 days have elapsed since the last active case

The following criteria are still in place to define new or ongoing community spread:

- None: COVID-19 cases may occur in the community, but there is NO community transmission
- Minimal to moderate: There are 1-4 cases of community-acquired COVID-19 in a county
- Substantial: There are 5+ cases of community-acquired COVID-19 in a county or a distinct group of cases in a single area (e.g., city or county)



Supply Chain Management

PPE Request Procedure

All requests for PPE from DOH must be:

- Emailed to COVIDResourceRequests@state.sd.us
- Faxed to **605.773.5942**, or
- Called in to **605.773.3048** to ensure prioritization and coordination of requests.
- Do not duplicate your request by using all three means of communication.
- Any requests received through any other email or number will all be directed to email COVIDResourceRequests@state.sd.us OR call **605.773.3048** and requesting entities must provide information regarding their current facility status.

On-going Communication

Helpful Information Sources

COVID.sd.gov

coronavirus.gov

SD COVID-19 Help Line: 800-997-2880

SOUTH DAKOTA
COVID-19 INFORMATION LINE

Questions about COVID-19? We're here to help.

PLEASE CALL **1-800-997-2880**



Communications

- SD-HAN: sdhan.sd.gov
- [Epi Listserv](#)
- [Lab Listserv](#)
- [HAI Listserv](#)
- [OLC Listserv](#)

Visit **COVID.sd.gov** to subscribe

SOUTH DAKOTA
COVID-19 INFORMATION LINE

Questions about COVID-19? We're here to help.

PLEASE CALL **1-800-997-2880**



Questions?

COVID Helpline: **800-997-2880**

Epidemiology: **605-773-3737**

Laboratory: **605-773-3368**

COVID.sd.gov

COVIDSD@state.sd.us

Slides: doh.sd.gov/news/COVID19/Calls.aspx

