Instructions and Lab Names

Thank you for taking the time to complete the CDPHE Statewide Lab Survey.

We understand that your lab staff are very busy and we aim to limit the number of times we seek information regarding lab testing. Unfortunately, deadlines associated with our funding do not always coincide in order to do that. We know that some of you may have recently completed a survey asking about STI testing; this survey does NOT include any of those questions.

If you could please complete this entire survey by COB on April 23rd, 2021, we would greatly appreciate it.

If clinical laboratories have questions regarding...

- Non Tuberculous Mycobacterium and/or Candida auris - Devra Barter 303.692.2706 or devra.barter@state.co.us

- Antibiogram and/or Carbapenemase Testing- Sarah Janelle sarah.janelle@state.co.us

- C.difficile - Helen Johnston 720.383.7419 or helen.johnston@state.co.us

- Vaccine-Preventable Diseases - Emily Spence Davizon emily.spencedavizon@state.co.us

- Enteric Pathogens - Elisha Wilson elisha.wilson@state.co.us

- Influenza and Respiratory Syncytial Virus (RSV): Emma Schmoll emma.schmoll@state.co.us, Molly Middleton molly.middleton@state.co.us, Elizabeth Austin elizabeth.austin@state.co.us

- COVID-19: Millen Tsegaye millen.tsegaye@state.co.us, Breanna Kawasaki breanna.kawasake@state.co.us

Please select your Lab/Hospital Name:

- ◯ Animas Surgical Hospital
- ◯ Arkansas Valley Regional Medical Center
- ◯ Aspen Valley Hospital
- ◯ Avista Adventist Hospital
- ◯ Banner Fort Collins Medical Center
- ◯ Boulder Community Hospital
- ◯ Castle Rock Adventist Hospital
- ◯ Children's Hospital Colorado
- ◯ Colorado Canyons
- ◯ Colorado Mesa University Student Health
- ◯ Colorado Plains Medical Center
- ◯ Community Hospital
- ◯ Delta County Memorial Hospital
- ◯ Denver Health
- ◯ East Morgan County Hospital
- ◯ Estes Park Medical Center
- ◯ Evans Army Hospital
- ◯ Good Samaritan Medical Center
- ◯ Grand Junction Diagnostics and Mammography
- ◯ Grand River Medical Center
- ◯ Grandview Hospital
- ◯ Gunnison Valley Hospital
- ◯ Hartshorn at CSU
- ◯ Haxtun Hospital District
- ◯ Health One Center of Excellence at Rose
- ◯ Heart of the Rockies Regional Medical Center
- ◯ Kaiser Permanente Colorado
- ◯ Keefe Memorial Hospital
- ◯ Kindred Hospital Denver
- ◯ Kit Carson County Memorial Hospital
- ◯ LabCorp Denver
- ◯ Lincoln Community Hospital
- ◯ Littleton Adventist Hospital
- ◯ Lutheran Medical Center
- ◯ McKee Medical Center (Banner Health)
- ◯ Medical Center of Aurora
- ◯ Medical Center of the Rockies
- ◯ Melissa Memorial Hospital
- ◯ Memorial Hospital for Children
- ◯ Mercy Medical Center
- ◯ Middle Park Medical Center - Granby
- ◯ Middle Park Medical Center - Kremmling
- ◯ Montrose Memorial Hospital
- ◯ Mt. San Rafael Hospital
- ◯ National Jewish
- ◯ North Colorado Medical Center
- ◯ North Suburban Medical Center
- ◯ Pagosa Springs Medical Center
- ◯ Parker Adventist Hospital
- ◯ Parkview Medical Center
- ◯ Penrose Hospital
- ◯ Peterson Air Force Base
- ◯ Pikes Peak Regional Hospital
- ◯ Pioneers Medical Center
- ◯ Platte Valley
- ◯ Porter Adventist Hospital
- ◯ Poudre Valley Hospital
- ◯ Precision Clinical Laboratory
- ◯ Prowers Medical Center
- ◯ Presbyterian/St. Luke's Medical Center
- ◯ Quest Diagnostics, Denver, CO
- ◯ Rangely District Hospital
- ◯ Rio Grande Hospital
- ◯ San Luis Valley Health/ Conejos County Hospital
- ◯ San Luis Valley Regional Medical Center
- ◯ Schryver Medical
- ◯ Sedgwick County Memorial Hospital
- ◯ Sky Ridge Medical Center
- ◯ Southeast Colorado Hospital District

- ◯ Southwest Memorial Hospital
- ◯ Spanish Peaks Regional Health Center
- ◯ St. Francis Medical Center
- ◯ St. Joseph Hospital (SCL)
- ◯ St. Vincent General Hospital
- ◯ St. Anthony Hospital (Centura)
- ◯ St. Anthony North Health Campus
- ◯ St. Mary-Corwin Medical Center
- ◯ St. Mary's Hospital
- ◯ St. Thomas More Hospital
- ◯ Sterling Regional Medical Center
- ◯ Swedish Medical Center
- ◯ Telluride Medical Center
- ◯ The Memorial Hospital
- ◯ Unipath
- ◯ United States Air Force Academy
- ◯ University - Memorial Hospital
- ◯ University - Memorial Hospital NORTH
- ◯ University of Colorado Hospital
- ◯ VA Hospital
- ◯ Vail Valley Medical Center
- ◯ Valley View Hospital
- ◯ Veteran's Affairs - Mesa
- ◯ Wardenburg Health Services
- ◯ Weisbrod Memorial County Hospital
- ◯ Wray Community District Hospital
- ◯ Yampa Valley Medical Center
- ◯ Yuma District Hospital
- ◯ Other

If other, please specify:

_____

Name of Lab Staff Completing Survey:

_____
(first and last name)

A) Clinical Lab Contact Information

Please complete the following lab contact questions:

Laboratory Director

Name: _____

Phone: _____

Email: _____

Microbiology Supervisor

Name: _____

Phone: _____

Email: _____

General Laboratory

Phone: _____

Fax: _____

Email: _____

Are there any additional contacts the laboratory would like to provide to state public health?
(Please include name, title, and contact information.) _____

B) Disease Reporting and Isolate Submission

1)	B1. Where do you send lab reports for reportable conditions when a patient resides outside of Colorado?	◯ CDPHE ◯ State where patient resides ◯ Nowhere ◯ Other (describe below)
2)	If Other, please describe:	_____
3)	B2. Are you/your agency familiar with CDPHE guidance for disease reporting in Colorado? It is located here: https://www.colorado.gov/pacific/cdphe/report-a-disease (link will open in a new window)	◯ Yes ◯ No
4)	B3. Are you/your agency familiar with specimen submission requirements for clinical microbiology laboratories in Colorado? It is located here: https://www.colorado.gov/pacific/cdphe/report-a-disease (link will open in a new window)	◯ Yes ◯ No
5)	B4. Are you aware that both originating (the lab where the specimen is first collected) and testing labs (where the specimen is actually tested) are responsible for reporting to CDPHE?	◯ Yes ◯ No
6)	If you answered no, or have general reporting/isolate submission questions, would you like us to contact you with more information?	◯ Yes ◯ No
7)	If you would like to be contacted, please provide your name and preferred contact information:	_____

C) Antibiogram

An antibiogram is a report or table that summarizes the results of antimicrobial susceptibility testing on clinical isolates from a defined period of time (such as a year). It reflects the percentages of organisms that are susceptible to antimicrobial agents routinely tested in the microbiology laboratory. Clinicians use facility-specific antibiograms to guide antibiotic selection for treatment of infection before a patient's culture and susceptibility results are available. A regional antibiogram summarizes the pooled results of facility-specific antibiogram data for a region. Regional antibiogram data guide public health antimicrobial stewardship and antimicrobial resistance prevention efforts.

CDPHE produces a regional antibiogram (an antibiotic susceptibility report) for Colorado by pooling facility-specific antibiogram data from hospitals, nursing homes, and clinical laboratories. Please provide contact information for the person or persons in your laboratory responsible for creating antibiograms specific to each facility that your laboratory serves. CDPHE will contact these persons to request that they voluntarily submit antibiogram data.

Contact Name #1

_____

Contact Email #1

_____

Contact Phone #1

_____

Contact Name #2

_____

Contact Email #2

_____

Contact Phone #2

_____

If available, please also provide contact information for a person or persons outside your laboratory (such as a clinician, pharmacist, or infection preventionist) that could provide antibiogram data from each facility your laboratory serves, and/or from multiple facilities within a health system. CDPHE will contact these persons to request that they voluntarily submit their data.

Contact Name #3

_____

Contact Email #3

_____

Contact Phone #3

_____

Contact Name #4

_____

Contact Email #4

_____

Contact Phone #4

_____

Additional comments about contacts for collecting antibiogram data:

D) Vaccine Preventable Diseases and Respiratory Pathogens

D1. PERTUSSIS

The following questions can pertain to a variety of different specimen types.

D1. Does your laboratory currently perform Pertussis testing on-site?
- ◯ Yes
- ◯ No

If no, where do you send specimens for Pertussis testing?
_____

D.1.1. Which method(s) does your laboratory currently use for Pertussis testing? (Check ALL that apply.)
- ☐ PCR
- ☐ Serology
- ☐ Culture
- ☐ Respiratory Panel
- ☐ Other
- ☐ Unknown

D.1.1.a. Does your laboratory distinguish between B. pertussis, B. parapertussis and/or B. holmseii?
- ☐ Yes
- ☐ No

D.1.1.b. Which PCR targets does your laboratory use? (check all that apply)
- ☐ IS481
- ☐ pIS1001
- ☐ hIS1001
- ☐ ptxS1
- ☐ Unknown

D.1.1.c. What is your CT value cut-off for a positive PCR?
_____

D.1.2. For serology, please specify assay name, immunoglobulin type (ex. IgG, or IgM), and antigen type(s) (ex. FHA, PT, WC).

D.1.2.a. Assay Name:
_____
((Ex: Focus))

D.1.2.b. Immunoglobulin and Antigen Type:
_____
((Ex: IgG FHA and PT))

D.1.3. If other method, please specify:
_____

D.1.4. Comments about Pertussis testing:
_____

D2. RESPIRATORY PATHOGEN PANEL

The following questions can pertain to a variety of different specimen types.

D.2.1. Does your laboratory currently perform PCR Respiratory Pathogen Panel testing on-site?

- ◯ Yes
- ◯ No

D.2.1.a. If yes, which platform does your laboratory use? (Check ALL that apply.)

- ☐ Luminex
- ☐ Verigene
- ☐ Biofire
- ☐ Binax
- ☐ Prodesse
- ☐ Unknown
- ☐ Other

D.2.1.b. If other, please specify:

_____

D.2.2. Does your laboratory currently send out specimens for Respiratory Pathogen Panel testing?

- ◯ Yes
- ◯ No

D.2.2.a.If yes, list send out lab and platform used at lab:

_____

D.2.3. Comments about respiratory panel testing:

_____

E Carbapenemase Testing

E. Carbapenamase Testing

E1. Do you perform carbapenemase (e.g., KPC, NDM) testing at your laboratory, or send the isolate offsite for carbapenemase testing (does not include carbapenemase testing at the CDPHE laboratory or the Antibiotic Resistance Laboratory Network)?

- ◯ Yes
- ◯ No
- ◯ Unknown

E1.a. What organisms do you test for carbapenemases? (please select all that apply)

- ☐ Enterobacteriaceae
- ☐ Pseudomonas aeruginosa
- ☐ Acinetobacter baumannii
- ☐ Other (please specify)
- ☐ Unknown

Please specify what organism(s):

_____

E1.b. What type of carbapenemase testing is performed at your laboratory? (please select all that apply)

- ☐ Cepheid® GeneXpert Carba-R
- ☐ RAPIDEC® CARBA NP (bioMérieux)
- ☐ BD Phoenix™ CPO detect test
- ☐ CHROMagar™ KPC
- ☐ Etest® KPC MP/MPB or Etest® MBL
- ☐ MALDI-TOF MS
- ☐ Verigene® Gram-Negative Blood Culture Test (Luminex/Nanosphere)
- ☐ FilmArray® Blood Culture Identification Panel (KPC only) [BioFire Diagnostics, Inc.]
- ☐ Rosco Diagnostica carbapenemase screening and confirmation kit
- ☐ Carbapenem Inactivation Method (CIM)
- ☐ Modified Carbapenem Inactivation Method (mCIM)
- ☐ eCIM alongside mCIM
- ☐ ARM-D® Kit, β-Lactamase
- ☐ Multiplex Real-Time PCR
- ☐ Modified Hodge Test (MHT)
- ☐ Other (please specify)
- ☐ Unknown

Other type of carbapenemase testing:

_____

E1.c. What prompts carbapenemase testing at your lab? (please select all that apply)

- ☐ A specific antibiotic resistance profile
- ☐ Request from a clinician
- ☐ Request from infection prevention staff
- ☐ Other (please specify):
- ☐ Unknown

Specify the resistance profile that prompts carbapenemase testing:

_____

Please specify other reason for carbapenemase testing at your lab:

_____

E2. Additional comments about carbapenemases testing:

_____

F Candida auris

F. Candida auris

Candida auris is an emerging fungal infection that is often resistant to many anti-fungal drugs that are normally used to treat Candida. It is often difficult to identify with standard laboratory methods and may be misidentified, leading to missed opportunities for prevention, control and management. Candida auris can also cause outbreaks in healthcare settings. Individuals with Candida auris can be colonized with it, or they can have clinical infection.

Candida auris is most commonly misidentified as Candida haemulonii. Both Candida auris (including suspect cases) and Candida haemolonii have been immediately reportable conditions by laboratories and providers in Colorado since July 2018.

F1. Species-level identification is performed in your lab for Candida spp. isolated from which of the following?

a. Blood isolates	◯ Yes, reflexively ◯ Yes, with clinician order ◯ No ◯ Unknown
b. Other normally sterile body site isolates	◯ Yes, reflexively ◯ Yes, with clinician order ◯ No ◯ Unknown
c. Abdominal isolates	◯ Yes, reflexively ◯ Yes, with clinician order ◯ No ◯ Unknown
d. Respiratory isolates	◯ Yes, reflexively ◯ Yes, with clinician order ◯ No ◯ Unknown
e. Urine isolates	◯ Yes, reflexively ◯ Yes, with clinician order ◯ No ◯ Unknown
f. Other (specify)	◯ Yes, reflexively ◯ Yes, with clinician order ◯ No ◯ Unknown
Specify other isolates	_____
1 F2. Does your laboratory have the capacity to, or is it in the process of being able to, identify Candida auris or Candida haemulonii?	◯ Yes ◯ No ◯ Unknown
2 F2a. Does your laboratory send out specimens to another laboratory that can identify Candida auris or Candida haemulonii?	◯ Yes ◯ No ◯ Unknown

Specify laboratory name (such as an affiliated hospital, reference laboratory, commercial laboratory or other type of laboratory)

_____

If your lab is in the process of being able to identify C. auris or C. haemulonii, describe

_____

I3. F3. Which methodology does your laboratory use that can, or will be able to, detect C. auris or C. haemulonii (select all that apply)?

- ☐ Bruker Biotyper MALDI-TOF
- ☐ BioMerieaux VITEK MS MALDI-TOF
- ☐ Other MALDI (Specify)
- ☐ Vitek 2 YST
- ☐ Other Vitek (Specify)
- ☐ API 20C
- ☐ API ID 32C
- ☐ BD Phoenix Yeast Identification System
- ☐ Microscan
- ☐ RapidID Yeast Plus
- ☐ GenMark ePlex BCID-FB Panel
- ☐ Other (specify)
- ☐ Unknown

Which library does this instrument use?

- ☐ RUO library (versions 2014 or later)
- ☐ CA system library (version claim 4)
- ☐ Unknown

Which library does this instrument use?

- ☐ RUO library (with Saramis Version 4.14 database and Saccharomycetaceae update)
- ☐ IVD library (v3.2)
- ☐ IVD library (older than v3.2)
- ☐ Unknown

Which software version does this instrument use?

- ☐ Software version 8.01
- ☐ Software version older than 8.01
- ☐ Unknown

I.3.a. Other MALDI (Specify):

_____

I.3.b. Other Vitek (Specify):

_____

I.3.c. Other Methodology (Specify):

_____

I4. F4. Other comments about Candida auris testing and identification: (optional)

_____

G) Enterics

G1. Does your laboratory test stool specimens on site (in house) for the following organisms?

	Yes	No
Campylobacter	◯	◯
Shiga toxin-producing E. coli (STEC)	◯	◯
Salmonella	◯	◯
Shigella	◯	◯
Vibrio	◯	◯
Yersinia	◯	◯
Cryptosporidium	◯	◯
Cyclospora	◯	◯
Norovirus	◯	◯

G1a. If your laboratory does not test for any/all organisms on site, to which laboratory(ies) do you send stool specimens?

_____

G2. When does your laboratory test stool specimens for the following organisms?

	On all stool specimens submitted	Only when specifically requested/ordered	Only for specific projects/outbreaks	Other (please specify below)
Campylobacter	◯	◯	◯	◯
Shiga toxin-producing E. coli (STEC)	◯	◯	◯	◯
Salmonella	◯	◯	◯	◯
Shigella	◯	◯	◯	◯
Vibrio	◯	◯	◯	◯
Yersinia	◯	◯	◯	◯
Cryptosporidium	◯	◯	◯	◯
Cyclospora	◯	◯	◯	◯
Norovirus	◯	◯	◯	◯

G2a. Other frequency, please specify your laboratory's protocol for determining when stool specimens are tested for enteric pathogens.

G3. What methods are used to initially identify the following bacterial organisms in stool specimens?

	Stool culture	Multiplex PCR/NAAT gastrointestinal panel	Stool immunoassay (EIA microplate or lateral flow assay)	Other (please specify below)
Campylobacter	☐	☐	☐	☐
Shiga toxin-producing E. coli (STEC) (stool culture for E. coli O157 using selective media, e.g. SMAC, CT-SMAC, CHROMager O157)	☐	☐	☐	☐
Salmonella	☐	☐	☐	☐
Shigella	☐	☐	☐	☐
Vibrio (stool culture using selective media, e.g. DCLS, TCBS, Vibrio ChromoSelect)	☐	☐	☐	☐
Yersinia (stool culture using selective media, e.g. CIN)	☐	☐	☐	☐

G3a. Other methods, please specify any other methods used to initially identify bacterial organisms from stool specimens.

G3b. If a bacterial organism is identified using a multiplex PCR/NAAT gastrointestinal panel or stool immunoassay, is a reflex culture of the stool specimen attempted on site?

	Yes, always	Sometimes	No, never
Campylobacter	○	○	○
E. coli O157 (stool culture for E. coli O157 using selective media, e.g. SMAC, CT-SMAC, CHROMager O157)	○	○	○
Salmonella	○	○	○
Shigella	○	○	○
Vibrio (stool culture using selective media, e.g. DCLS, TCBS, Vibrio ChromoSelect)	○	○	○
Yersinia (stool culture using selective media, e.g. CIN)	○	○	○

G3bi. If Yes, why is reflex culture of the stool specimen attempted on site?

	Routine practice to confirm result	Routine practice for antimicrobial susceptibility testing	For public health purposes	Other (please specify below)
Campylobacter	☐	☐	☐	☐
E. coli O157 (stool culture for E. coli O157 using selective media, e.g. SMAC, CT-SMAC, CHROMager O157)	☐	☐	☐	☐
Salmonella	☐	☐	☐	☐
Shigella	☐	☐	☐	☐
Vibrio (stool culture using selective media, e.g. DCLS, TCBS, Vibrio ChromoSelect)	☐	☐	☐	☐
Yersinia (stool culture using selective media, e.g. CIN)	☐	☐	☐	☐

G3bi1. Other, please specify any other reason.

G3bii. If Sometimes, when is reflex culture of the stool specimen attempted on site?

	When requested by provider	For special projects or outbreaks	For specific populations	Other (please specify below)
Campylobacter	☐	☐	☐	☐
E. coli O157 (stool culture for E. coli O157 using selective media, e.g. SMAC, CT-SMAC, CHROMager O157)	☐	☐	☐	☐
Salmonella	☐	☐	☐	☐
Shigella	☐	☐	☐	☐
Vibrio (stool culture using selective media, e.g. DCLS, TCBS, Vibrio ChromoSelect)	☐	☐	☐	☐
Yersinia (stool culture using selective media, e.g. CIN)	☐	☐	☐	☐

G3bii1. Other, please specify when.

G3biii. If No, do you send stool to a reference laboratory for culture (not the state public health laboratory)?

	Yes, always	Sometimes	No, never
Campylobacter	◯	◯	◯
E. coli O157 (stool culture for E. coli O157 using selective media, e.g. SMAC, CT-SMAC, CHROMager O157)	◯	◯	◯
Salmonella	◯	◯	◯
Shigella	◯	◯	◯
Vibrio (stool culture using selective media, e.g. DCLS, TCBS, Vibrio ChromoSelect)	◯	◯	◯
Yersinia (stool culture using selective media, e.g. CIN)	◯	◯	◯

Brand information

G3c. What is the brand name of the multiplex PCR/NAAT gastrointestinal panel?

◯ Becton Dickinson (BD): BD MAXTM Enteric Bacterial Panel
◯ BioFire: FilmArray Gastrointestinal (GI) Panel
◯ Great Basin Stool Bacterial Pathogens Panel
◯ Hologic: Prodesse ProGastro SSCS assay
◯ Laboratory-developed test (LDT)
◯ Luminex: xTAG® Gastrointestinal Pathogen Panel (GPP)
◯ Verigene® Enteric Pathogens Test (EP, formerly Nanosphere)
◯ Other commercially available PCR/NAAT test

G3d. What is the brand name of the Campylobacter stool immunoassay (EIA microplate or lateral flow assay)?

◯ ImmunoCard STAT! CAMPY assay (Meridian)
◯ PREMIERTM CAMPY assay (Meridian)
◯ ProSpecT Campylobacter assay (Remel)
◯ Xpect Campylobacter assay (Remel)
◯ Other commerically available antigen test

G3e. What is the brand name of the shiga toxin stool immunoassay (EIA microplate or lateral flow assay)?

◯ Alere Shiga Toxin Quik Chek
◯ Duopath Verotoxins (Merck)
◯ ImmunoCard STAT! EHEC (Meridian)
◯ PREMIERTM EHEC (Meridian)
◯ ProSpecT Shiga Toxin E. coli (Remel)
◯ VTEC Screen (Denka Seiken)
◯ Other commerically available antigen test

G4. What methods are used to initially identify the following parasitic organisms in stool specimens?

	Staining and microscopy, (modified acid fast stain)	Multiplex PCR/NAAT gastrointestinal panel	Stool immunoassay (EIA microplate)	Stool rapid card test (lateral flow assay)	Direct fluorescent antibody (DFA or IFA)	Other (please specify below)
Cryptosporidium	☐	☐	☐	☐	☐	☐
Cyclospora	☐	☐	☐	☐	☐	☐

G4a. Other methods, please specify any other methods used to initially identify enteric pathogens from stool specimens.

G4b. What technique(s) are used for staining and microscopy?

◯ Wet mount (unenhanced)
◯ Wet mount with UV fluorescence
◯ Modified acid-fast or modified safranin stained smear
◯ Other technique(s)

Listeria

G5. Does your laboratory test blood or CSF specimens on site (in house) for Listeria?

◯ Yes
◯ No

G5a. Which of the following protocols are followed to detect Listeria from blood?

◯ PCR concurrently used with culture
◯ PCR performed first, if positive reflex culture performed
◯ Only PCR panels, no culture is performed
◯ Only culture, no PCR test is performed
◯ Only CSF, do not test blood specimens

G5b. Which of the following protocols are followed to detect Listeria from CSF?

◯ PCR concurrently used with culture
◯ PCR performed first, if positive reflex culture performed
◯ Only PCR panels, no culture is performed
◯ Only culture, no PCR test is performed
◯ Only blood, do not test CSF specimens

G5c. What is the brand name of the blood panel?

☐ FilmArray (BioFire) Blood Culture Identification Panel
☐ Verigene (Nanosphere) Gram-positive Blood Culture Test
☐ Lab-developed test that detects Listeria
☐ Other commercially available PCR test

G5d. What is the brand name of the CSF panel?

☐ FilmArray (BioFire) Meningitis/Encephalitis (ME) Panel
☐ Lab-developed test that detects Listeria
☐ Other commercially available PCR test

Comments

Please provide any comments/feedback on the enterics section.
(comments)

H C difficile (EIP Only)

Please complete the survey below.

Thank you!

CDPHE currently conducts populaton-based surveillance for C. difficile in the 5-county Denver metroplitan area.

◯ Yes
◯ No

Is your laboratory located in Adams, Arapahoe, Boulder, Broomfield, Denver, Douglas or Jefferson County?

OR

Does your laboratory provide testing services to residents/healthcare providers in these counties?

You do not need to complete the C.difficile portion of the survey. Thank you!

Position of staff responding to survey

◯ Laboratory Supervisor
◯ Microbiology Supervisor
◯ Other

Specify:

_____

1. OFF-SITE TESTING

H1. Does your lab ever send specimens off-site for Clostridioides difficile testing?

◯ Always (No onsite testing performed)
◯ Regularly, as part of standard testing algorithm
◯ Not regularly, but when a test ordered by a physician cannot be performed onsite
◯ Never (All testing performed onsite)
◯ Unknown
◯ Other

Name of offsite lab

_____

Which tests are done offsite and at which point in the testing algorithm?

_____

Specify tests performed offsite:

_____

Specify:

Comments on off-site testing:

2. TESTING ROUTINE

H2a. What type and order of testing is routinely used by your lab in standard testing for C. diff?

1st Line of Testing:
(Choose only one option for each line of testing)

◯ A. EIA Toxin A and B
◯ B. EIA for Toxin A only
◯ C. EIA for Toxin B only
◯ D. EIA Antigen (GDH)
◯ E. EIA Toxin A/B and Antigen (Simultaneous testing)
◯ F. EIA Other
◯ G. Nucleic Acid Amplification (e.g. PCR, Illumigene, Luminex, Biofire)
◯ H. Culture
◯ I. Cytotoxin
◯ J. Other
◯ K. No one routine test; clients can order from among several tests
◯ L. NONE (N/A)

Specify other EIA type:

_____

Specify other test type:

_____

Specify types:

_____
(Enter letters from choices above)

2nd Line of Testing:
(Choose only one option for each line of testing)

◯ A. EIA Toxin A and B
◯ B. EIA for Toxin A only
◯ C. EIA for Toxin B only
◯ D. EIA Antigen (GDH)
◯ E. EIA Toxin A/B and Antigen (Simultaneous testing)
◯ F. EIA Other
◯ G. Nucleic Acid Amplification (e.g. PCR, Illumigene, Luminex)
◯ H. Culture
◯ I. Cytotoxin
◯ J. Other
◯ K. No one routine test; clients can order from among several tests
◯ L. NONE (N/A)

Specify other EIA type:

_____

Specify other test type:

_____

Specify tests from which clients could choose:

_____
(Enter letters from choices above)

3rd Line of Testing:
(Choose only one option for each line of testing)

◯ A. EIA Toxin A and B
◯ B. EIA for Toxin A only
◯ C. EIA for Toxin B only
◯ D. EIA Antigen (GDH)
◯ E. EIA Toxin A/B and Antigen (Simultaneous testing)
◯ F. EIA Other
◯ G. Nucleic Acid Amplification (e.g. PCR, Illumigene, Luminex)
◯ H. Culture
◯ I. Cytotoxin
◯ J. Other
◯ K. No one routine test; clients can order from among several tests
◯ L. NONE (N/A)

Specify other EIA type:

_____

Specify other test type:

_____

Specify tests from which clients could choose:

_____
(Enter letters from choices above)

H2b. Which specimens are used during your 2nd line of testing?
(Choose one)

◯ Positive by the 1st line of testing
◯ Negative by the 1st line of testing
◯ Specimens with discordant results (e.g. EIA +/GDH- or GDH+/EIA-)
◯ All specimens

H2c. Which specimens are used during your 3rd line of testing?
(Choose one)

◯ Positive by the 2nd line of testing
◯ Negative by the 2nd line of testing
◯ Specimens with discordant results (e.g. EIA +/GDH- or GDH+/EIA-)
◯ All specimens

H2d. Does your laboratory perform any onsite testing for C. difficile outside of your normal testing algorithm?

◯ No, all onsite testing is done according to the testing algorithm specified above
◯ Yes, on physician request
◯ Other

Specify tests:

_____

Specify

_____

3. TESTING KITS

H3a. Which EIA test kit is currently used by your laboratory?
(Check all that apply)

- ☐ Premier (Meridian) Toxins A & B
- ☐ Premier (Meridian) Toxin A
- ☐ Remel ProSpecT Toxins A & B
- ☐ TechLab Toxins A & B
- ☐ Inverness Medical/Wampole Toxins A & B QuikCheck
- ☐ Inverness Medical/Wampole QuikCheck Complete (Toxins A & B and Antigen)
- ☐ Antigen Testing
- ☐ Other
- ☐ N/A (Do not use EIA testing)

Specify antigen testing kit name/manufacturer: _____

Specify other kit name/manufacturer: _____

H3b. Which Nucleic Acid Amplification tests are currently used by your laboratory?
(Check all that apply)

- ☐ BD-GeneOhm C. difficile
- ☐ BD MAX C. difficile
- ☐ Cepheid Xpert C. difficile
- ☐ Meridian Illumigene
- ☐ Prodesse (Gen-Probe) Progastro CD
- ☐ Luminex xTAG GPP
- ☐ Biofire Filmarray GI Panel
- ☐ Quidel AmpliVue C. difficile Assay
- ☐ Great Basin Portrait Toxigenic C. difficile Assay
- ☐ Nanosphere Verigene SP
- ☐ Other
- ☐ N/A (Do not use nucleic acid amplification)

Specify other test:

_____

4. MULTIPLEX GI PANELS

H4a. If your laboratory uses a multiplexed molecular diagnostic (e.g., Biofire Filmarray GI Panel, Luminex xTAG GPP) to test for several GI Pathogens, does your laboratory suppress the C. diff result so clinicians cannot see it?

- ◯ Yes, C. difficile result is always suppressed
- ◯ Yes, C. difficile result is suppressed at clinician request
- ◯ Yes, C. difficile result is suppressed but the laboratory will release the result upon clinician request
- ◯ Yes, C. difficile result is suppressed in certain situations
- ◯ No, clinicians always see C. difficile result
- ◯ N/A (Do not use multiplexed molecular diagnostic)

Specify:

_____

H4b. If your laboratory uses a multiplexed diagnostic and the result is suppressed, where does the suppression occur?

◯ At the multiplexed molecular diagnostic instrument level (the result is not entered into the laboratory information management system (LIMS))
◯ At the laboratory information management system (LIMS) level
◯ Other
◯ N/A (Do not use multiplexed molecular diagnostic or the result is never suppressed)

Specify:

_____

5. Multistep Algorithm Testing for C. difficile

H5a H5a. If your laboratory uses a nucleic acid amplification test (NAAT) (e.g., Cepheid Xpert C. difficile) as first line testing followed by a toxin EIA test (whenever NAAT result is positive) , does your laboratory suppress the positive NAAT result so that clinicians cannot see it?

◯ Yes, NAAT result is always suppressed when NAAT result is positive and confirmatory toxin EIA result is negative
◯ Yes, NAAT result is always suppressed but laboratory will release the positive NAAT result upon clinician request
◯ Yes, NAAT result is suppressed in certain situations
◯ No, clinicians always see the positive NAAT result
◯ N/A (Do not use this type of multistep algorithm testing)

Specify:

_____

H5b H5b. If your laboratory uses NAAT as first line testing followed by confirmatory toxin EIA testing, and BOTH the NAAT and toxin EIA results are released to the clinician, does your laboratory provide any comments to help the clinician interpret the test results (e.g., NAAT-positive only result might represent colonization, etc.)?

◯ Yes, laboratory provides comments to accompany the test results
◯ No, laboratory does not provide comments to accompany the test results
◯ The laboratory provides comments to accompany the test results in certain situations
◯ N/A (Do not use this type of multistep algorithm testing or NAAT test result is always suppressed)

If yes, please specify the comments your laboratory uses to accompany the test results:

If yes, please specify the situations in which your laboratory provides comments and the comments your laboratory uses to accompany the test results:

6. TESTING CODES

H6a. What are the LOINC or internal testing codes associated with the tests your lab currently uses (e.g. LOINC codes 13957-6, 34713-8 or 54067-4)?

_____

H6b. Have there been any changes in the laboratory's data management system (e.g., changes in software) and data entry procedures (e.g., using a different field in the local database for entering test results) that might affect how cases are identified by laboratory queries since January 2020?

◯ Yes
◯ No
◯ Unsure

When did this change occur? (MM/YYYY)

_____

Please describe:

7. CDI Testing Shortage and Capacity

H7a. Has your lab been experiencing any shortages in supplies, reagents, and/or test kits for performing C. difficile testing (e.g., NAAT or EIA reagents, swabs)?

◯ Yes
◯ No
◯ N/A (C. difficile testing was not routinely performed onsite)

If yes, please specify the dates during which the supply shortage occurred (provide approximate dates if the exact dates are not known): _____

H7b. If your laboratory experienced a supply shortage for C. difficile testing, how did the shortage affect your laboratory's ability to perform C. difficile testing? (Check all that apply)

☐ We had to decrease the frequency of C. difficile testing during the shortage
☐ We had to switch to an alternative method to test for C. difficile during the shortage
☐ We were not able to perform any type of C. difficile testing during the shortage
☐ We had to send all C. difficile testing offsite to another laboratory
☐ The shortage did not affect our ability to perform C. difficile testing
☐ Other
☐ N/A (C. difficile testing was not routinely performed onsite)

Specify: _____

H7c. Has your laboratory experienced a high demand for COVID-19 testing that limited the availability of staff (e.g., reduced staffing or work time) or the use of equipment to perform C. difficile testing?

◯ Yes
◯ No
◯ N/A (C. difficile testing and/or COVID-19 testing was not routinely performed onsite)

8. LABORATORY ALGORITHM CHANGES

H8. Has your lab testing algorithm for C. difficile changed since January 1, 2020? ◯ Yes ◯ No

What date did this change occur?

_____
(If only the month and year are available, enter "01" as the day, i.e., 11/2020 enter as 11/01/2020)

H6a. What was your previous type and order of testing?

Previous 1st Line of Testing:
(Choose only one option for each line of testing)

◯ A. EIA Toxin A and B
◯ B. EIA for Toxin A only
◯ C. EIA for Toxin B only
◯ D. EIA Antigen (GDH)
◯ E. EIA Toxin A/B and Antigen (Simultaneous testing)
◯ F. EIA Other
◯ G. Nucleic Acid Amplification (e.g. PCR, Illumigene, Luminex, Biofire)
◯ H. Culture
◯ I. Cytotoxin
◯ J. Other
◯ K. No one routine test; clients can order from among several tests
◯ L. NONE (N/A)

Specify other EIA type:

_____

Specify other test type:

_____

Specify tests from which clients could choose:

_____
(Enter letters from choices above)

Previous 2nd Line of Testing:
(Choose only one option for each line of testing)

◯ A. EIA Toxin A and B
◯ B. EIA for Toxin A only
◯ C. EIA for Toxin B only
◯ D. EIA Antigen (GDH)
◯ E. EIA Toxin A/B and Antigen (Simultaneous testing)
◯ F. EIA Other
◯ G. Nucleic Acid Amplification (e.g. PCR, Illumigene, Luminex, Biofire)
◯ H. Culture
◯ I. Cytotoxin
◯ J. Other
◯ K. No one routine test; clients can order from among several tests
◯ L. NONE (N/A)

Specify EIA other type:

_____

Specify other type:

_____

Specify tests from which clients could choose:

_____
(Enter letters from choices above)

Previous 3rd Line of Testing:
(Choose only one option for each line of testing)

◯ A. EIA Toxin A and B
◯ B. EIA for Toxin A only
◯ C. EIA for Toxin B only
◯ D. EIA Antigen (GDH)
◯ E. EIA Toxin A/B and Antigen (Simultaneous testing)
◯ F. EIA Other
◯ G. Nucleic Acid Amplification (e.g. PCR, Illumigene, Luminex, Biofire)
◯ H. Culture
◯ I. Cytotoxin
◯ J. Other
◯ K. No one routine test; clients can order from among several tests
◯ L. NONE (N/A)

Specify EIA other type:

_____

Specify other type:

_____

Specify tests from which clients could choose:

_____
(Enter letters from choices above)

H6b. Which specimens were used during your 2nd line of testing?
(Choose one)

◯ Positive by the 1st line of testing
◯ Negative by the 1st line of testing
◯ Specimens with discordant results (e.g. EIA +/GDH- or GDH+/EIA-)
◯ All specimens

H6c. Which specimens were used during your 3rd line of testing?
(Choose one)

◯ Positive by the 2nd line of testing
◯ Negative by the 2nd line of testing
◯ Specimens with discordant results (e.g. EIA +/GDH- or GDH+/EIA-)
◯ All specimens

9. LABORATORY POLICIES

H9. Does your lab have a policy to reject stool specimens for C. diff testing? (Check all that apply)

☐ Yes, when stools are formed (formed stools are defined as stools that do NOT take the shape of the container)
☐ Yes, if there is a stool specimen already positive within 24 hrs of a new stool specimen
☐ Yes, if there is a stool specimen already positive within 48 hrs of a new stool specimen
☐ Yes, if there is a stool specimen that tested negative for C. difficile within 48 hours of a new stool specimen
☐ Yes, will not accept more than one stool specimen in a 24 hr period
☐ No rejection policy
☐ Other rejection policies

Specify other rejection policy:

H9a. Has this rejection policy for stool specimens changed since January 1, 2020? ◯ Yes ◯ No

Date of rejection policy change:

_____
(If only the month and year are available, enter "01" as the day, i.e., 11/2020 enter as 11/01/2020)

Specify changes:

10. TESTING CAPACITY

Please provide the number of stool samples POSITIVE for C.diff and the total number of stool samples TESTED for C. diff for each month in 2020. These data are important for helping to understand trends in testing and positivity rates.

If you would prefer, you may also upload a document with this information or email the information to Helen.Johnston@state.co.us.

If you would prefer to upload a document with these data, please do so by clicking the 'Upload File' link to the right.

January 2020

Total number of C.diff POSITIVE samples _____

Total number of stool samples TESTED for C. diff

February 2020

Total number of C.diff POSITIVE samples

Total number of stool samples TESTED for C. diff

March 2020

Total number of C.diff POSITIVE samples

Total number of stool samples TESTED for C. diff

April 2020

Total number of C.diff POSITIVE samples

Total number of stool samples TESTED for C. diff

May 2020

Total number of C.diff POSITIVE samples

Total number of stool samples TESTED for C. diff

June 2020

June 2020: Total number of C.diff POSITIVE samples

Total number of stool samples TESTED for C. diff

July 2020

Total number of C.diff POSITIVE samples

Total number of stool samples TESTED for C. diff

August 2020

Total number of C.diff POSITIVE samples

_____

Total number of stool samples TESTED for C. diff

_____

September 2020

Total number of C.diff POSITIVE samples

_____

Total number of stool samples TESTED for C. diff

_____

October 2020

Total number of C.diff POSITIVE samples

_____

Total number of stool samples TESTED for C. diff

_____

November 2020

Total number of C.diff POSITIVE samples

_____

Total number of stool samples TESTED for C. diff

_____

December 2020

Total number of C.diff POSITIVE samples

_____

Total number of stool samples TESTED for C. diff

_____

Please provide any additional comments about C.diff testing here:

_____

J Non Tuberculous Mycobacterium (EIP Only)

Please complete the survey below.

Thank you!

Nontuberculous mycobacteria (NTM) are a group of bacteria that can be difficult to treat and cause severe infections. Pulmonary NTM infections are common causes of illness among patients with underlying lung diseases, but extrapulmonary NTM infections are an increasing healthcare-associated infection and are associated with poor outcomes and severe disease, even among immunocompetent individuals.

CDPHE is currently conducting a pilot surveillance project for pulmonary and exrapulmonary NTM infections in the 5-county Denver metro area.

J1. My laboratory has the capacity to identify NTM from pulmonary and extrapulmonary sources

- ◯ Yes
- ◯ No
- ◯ Unknown

J1.a. My laboratory sends out specimens to another laboratory for identification of NTM

- ◯ Yes
- ◯ No
- ◯ Unknown

Specify laboratory name (such as an affiliated hospital, reference laboratory, commercial laboratory or other type of laboratory)

_____

J1.b. My laboratory uses the following methods to identify NTM (pulmonary and extrapulmonary sources) (select all that apply)

- ☐ AFB fluorescent staining
- ☐ Line probe assay
- ☐ Molecular sequencing, such as pyrosequencing
- ☐ Gen probe
- ☐ NAAT
- ☐ PCR
- ☐ MALDI-TOF
- ☐ Culture (Isolation of microorganisms in a growth medium [liquid or solid])
- ☐ Other (specify)

Other method for identifying NTM

_____

J2. My laboratory can perform antimicrobial susceptibility testing (AST) for NTM isolates

- ◯ Yes
- ◯ No
- ◯ Unknown

J2.a. My laboratory uses the following methods to perform AST testing on NTM isolates

- ☐ Broth microdilution
- ☐ Disk diffusion (Kirby-Bauer)
- ☐ Agar disk elution
- ☐ Broth macrodilution
- ☐ Epsilometer test or "E test"
- ☐ Molecular methods (such as RT-PCR, Line-probe assays, or Whole Genome Sequencing)
- ☐ Other
- ☐ Unknown

Specify molecular method(s)

_____

Specify other method

_____

J3. My laboratory sends out specimens to another laboratory for AST on NTM isolates	◯ Yes ◯ No ◯ Unknown
Specify laboratory name (such as an affiliated hospital, reference laboratory, commercial laboratory or other type of laboratory)	_____
J4. Other comments about NTM testing and identification (optional)	_____

Influenza And RSV

Please complete the survey below.

Thank you!

Influenza

Please note: The participant completing this section of the survey should have comprehensive knowledge of influenza and RSV testing methods used in your facility.

Does the laboratory perform diagnostic testing for influenza on-site?

◯ Yes ◯ No

Rapid Influenza Diagnostic Test

Does the laboratory perform rapid influenza diagnostic test (rapid test, RIDT)?

◯ Yes, pediatric patients only
◯ Yes, adult patients only
◯ Yes, pediatric and adult patients
◯ No, we confirm RIDT tests performed elsewhere in the hospital (such as ED)
◯ No

Select the kit name(s) (manufacturer) for the rapid influenza diagnostic test(s) performed at the laboratory: (Check all that apply) (https://www.cdc.gov/flu/professionals/diagnosis/table-ridt.html)

☐ BD Veritor System for Rapid Detection of Flu A+B (CLIA-waived) (Becton Dickinson & Co.)
☐ BD Veritor System for Rapid Detection of Flu A+B (Moderately Complex) (Becton Dickinson & Co.)
☐ Binax NOW Influenza A&B Card 2 (Abbott)
☐ BioSign Flu A+B or OraSure QuickFlu Rapid A+B Test or Polymedco Poly stat Flu A&B Test or LifeSign LLC Status Flu A&B (Princeton BioMedtech Corp.)
☐ QuickVue Influenza A+B Test (Quidel Corp.)
☐ Sofia Analyzer and Influenza A+B FIA (CLIA-waived) (Quidel Corp.)
☐ Sofia Analyzer and Influenza A+B FIA (Quidel Corp.)
☐ XPECT Influenza A/B (Remel Inc./Thermo Fisher Scientific)
☐ Other, specify

Specify other kit used:

_____

If more than one kit is selected above, please select the one kit that is (or will be) used most frequently for rapid influenza diagnostic testing at the laboratory during the current influenza season:

◯ BD Veritor System for Rapid Detection of Flu A+B (CLIA-waived) (Becton Dickinson & Co.)
◯ BD Veritor System for Rapid Detection of Flu A+B (Moderately Complex) (Becton Dickinson & Co.)
◯ Binax NOW Influenza A&B Card 2 (Abbott)
◯ BioSign Flu A+B or OraSure QuickFlu Rapid A+B Test or Polymedco Poly stat Flu A&B Test or LifeSign LLC Status Flu A&B (Princeton BioMedtech Corp.)
◯ QuickVue Influenza A+B Test (Quidel Corp.)
◯ Sofia Analyzer and Influenza A+B FIA (CLIA-waived) (Quidel Corp.)
◯ Sofia Analyzer and Influenza A+B FIA (Quidel Corp.)
◯ XPECT Influenza A/B (Remel Inc./Thermo Fisher Scientific)
◯ Other, specify

Specify other kit used:

_____

Molecular Assays

Does the laboratory perform molecular assays (including rapid molecular, RT-PCR, RVPs) for influenza? ◯ Yes ◯ No

Select kit name(s) (manufacturer) for all molecular assays performed at the laboratory: (Check all that apply) (https://www.cdc.gov/flu/professionals/diagnosis/table-nucleic-acid-detection.html) Multiplex Assays Authorized for Simultaneous Detection of Influenza Viruses and SARS-CoV-2 by FDA: (https://www.cdc.gov/flu/professionals/diagnosis/table-flu-covid19-detection.html))

- ☐ ID Now Influenza A&B (CLIA Waived), (Abbott)
- ☐ Accula Flu A/Flu B (Mesa Biotech, Inc.)†
- ☐ ARIES Flu A/B & RSV Assay, (Luminex)
- ☐ BioFire Respiratory Panel 2.1 (RP2.1) (BioFire Diagnostics, LLC)‡*
- ☐ CDC Human Influenza Virus Real-Time RT-PCR Diagnostic Panel (Influenza A/B Typing Kit4), (CDC Influenza Division)
- ☐ CDC Human Influenza Virus Real-Time RT-PCR Detection and Characterization Panel, (CDC Influenza Division)
- ☐ CDC Influenza A/H5 (Asian Lineage) Virus Real-Time RT-PCR Primer and Probe Set, (CDC Influenza Division)
- ☐ CDC Influenza 2009 A(H1N1)pdm Real-Time RT-PCR Panel, (CDC Influenza Division)
- ☐ CDC Influenza SARS-CoV-2 (Flu SC2) Multiplex Assay (CDC Influenza Division)‡
- ☐ Cepheid Xpert Flu Assay, (Cepheid)
- ☐ Cepheid Xpert Flu/RSV XC Assay, (Cepheid)
- ☐ Cepheid Xpert Express Flu Assay, (Cepheid)
- ☐ Cepheid Xpert Express Flu/RSV Assay, (Cepheid)
- ☐ Cobas Liat Influenza A/B, (Roche Diagnostics)†
- ☐ Cobas Liat Influenza A/B & RSV, (Roche Diagnostics)†
- ☐ ePlex Respiratory Pathogen Panel (Genmark Diagnostics)*
- ☐ eSensor Respiratory Viral Panel (RVP), (GenMark Diagnostics)*
- ☐ FilmArray Respiratory Panel, (BioFire Diagnostics, LLC)*
- ☐ FilmArray Respiratory Panel, EZ (BioFire Diagnostics, LLC)*
- ☐ Idylla Respiratory IFV-RSV Panel, (Biocartis)*
- ☐ IMDx Flu A/B and RSV for Abbott m2000, (IMDx)
- ☐ Lyra Influenza A+B Assay, (Quidel)
- ☐ Nx-TAG Respiratory Pathogen Panel, (Luminex Molecular Diagnostics Inc.)*
- ☐ Panther Fusion Flu A/B RSV, (Assay Hologic)
- ☐ Prodesse PROFLU, (GenProbe/Hologic)
- ☐ Prodesse ProFAST, (GenProbe/Hologic)*
- ☐ QIAstat-Dx Respiratory SARS-CoV-2 Panel (QIAGEN)‡*
- ☐ Silaris Influenza A & Btg, (Sekisui Diagnostic)†
- ☐ Solana Influenza A+B Assay, (Quidel)
- ☐ Simplexa Flu A/B & RSV, (Focus Diagnostics, 3M)
- ☐ Simplexa Flu A/B & RSV Direct, (Focus Diagnostics, 3M)
- ☐ Simplexa Influenza A H1N1 (2009), (Focus Diagnostics, 3M)
- ☐ Verigene Respiratory Virus Nucleic Acid Test, (Nanosphere, Inc)
- ☐ Verigene Respiratory Virus Plus Nucleic Acid Test (RV+), (Luminex)
- ☐ Verigene Respiratory Pathogen Nucleic Acid Test (RP Flex), (Luminex)
- ☐ x-TAG Respiratory Viral Panel Fast (RVP FAST)*, (Luminex Molecular Diagnostics Inc)
- ☐ In-house developed PCR assay
- ☐ Other, specify

Specify other kit used: _____

If more than one kit is selected above, please select the one kit that is (or will be) used most frequently for molecular assays at the laboratory during the current influenza season:

- ◯ ID Now Influenza A&B (CLIA Waived), (Abbott)
- ◯ Accula Flu A/Flu B (Mesa Biotech, Inc.)†
- ◯ ARIES Flu A/B & RSV Assay, (Luminex)
- ◯ BioFire Respiratory Panel 2.1 (RP2.1) (BioFire Diagnostics, LLC)‡*
- ◯ CDC Human Influenza Virus Real-Time RT-PCR Diagnostic Panel (Influenza A/B Typing Kit4), (CDC Influenza Division)
- ◯ CDC Human Influenza Virus Real-Time RT-PCR Detection and Characterization Panel, (CDC Influenza Division)
- ◯ CDC Influenza A/H5 (Asian Lineage) Virus Real-Time RT-PCR Primer and Probe Set, (CDC Influenza Division)
- ◯ CDC Influenza 2009 A(H1N1)pdm Real-Time RT-PCR Panel, (CDC Influenza Division)
- ◯ CDC Influenza SARS-CoV-2 (Flu SC2) Multiplex Assay (CDC Influenza Division)‡
- ◯ Cepheid Xpert Flu Assay, (Cepheid)
- ◯ Cepheid Xpert Flu/RSV XC Assay, (Cepheid)
- ◯ Cepheid Xpert Express Flu Assay, (Cepheid)
- ◯ Cepheid Xpert Express Flu/RSV Assay, (Cepheid)
- ◯ Cobas Liat Influenza A/B, (Roche Diagnostics)†
- ◯ Cobas Liat Influenza A/B & RSV, (Roche Diagnostics)†
- ◯ ePlex Respiratory Pathogen Panel (Genmark Diagnostics)*
- ◯ eSensor Respiratory Viral Panel (RVP), (GenMark Diagnostics)*
- ◯ FilmArray Respiratory Panel, (BioFire Diagnostics, LLC)*
- ◯ FilmArray Respiratory Panel, EZ (BioFire Diagnostics, LLC)*
- ◯ Idylla Respiratory IFV-RSV Panel, (Biocartis)*
- ◯ IMDx Flu A/B and RSV for Abbott m2000, (IMDx)
- ◯ Lyra Influenza A+B Assay, (Quidel)
- ◯ Nx-TAG Respiratory Pathogen Panel, (Luminex Molecular Diagnostics Inc.)*
- ◯ Panther Fusion Flu A/B RSV, (Assay Hologic)
- ◯ Prodesse PROFLU, (GenProbe/Hologic)
- ◯ Prodesse ProFAST, (GenProbe/Hologic)*
- ◯ QIAstat-Dx Respiratory SARS-CoV-2 Panel (QIAGEN)‡*
- ◯ Silaris Influenza A & Btg, (Sekisui Diagnostic)†
- ◯ Solana Influenza A+B Assay, (Quidel)
- ◯ Simplexa Flu A/B & RSV, (Focus Diagnostics, 3M)
- ◯ Simplexa Flu A/B & RSV Direct, (Focus Diagnostics, 3M)
- ◯ Simplexa Influenza A H1N1 (2009), (Focus Diagnostics, 3M)
- ◯ Verigene Respiratory Virus Nucleic Acid Test, (Nanosphere, Inc)
- ◯ Verigene Respiratory Virus Plus Nucleic Acid Test (RV+), (Luminex)
- ◯ Verigene Respiratory Pathogen Nucleic Acid Test (RP Flex), (Luminex)
- ◯ x-TAG Respiratory Viral Panel Fast (RVP FAST)*, (Luminex Molecular Diagnostics Inc)
- ◯ In-house developed PCR assay
- ◯ Other, specify

Specify other kit used: _____

Does the laboratory perform influenza A subtyping? ◯ Yes ◯ No

What testing kit does the testing facility use (or will it use) most often to perform influenza A sub-typing during the current influenza season? (Select one)

◯ BioFire Respiratory Panel 2.1 (RP2.1) (BioFire Diagnostics, LLC)
◯ ePlex Respiratory Pathogen Panel (GenMark Diagnostics)*
◯ eSensor Respiratory Viral Panel (RVP), (GenMark Diagnostics)
◯ FilmArray Respiratory Panel, (BioFire Diagnostics, LLC)
◯ Idylia Respiratory IFV-RSV Panel, (Biocartis)
◯ Nx-TAG Respiratory Pathogen Panel, (Luminex Molecular Diagnostics Inc)
◯ Prodesse ProFAST& (GenProbe/Hologic)
◯ QIAstat-Dx Respiratory SARS-CoV-2 Panel (QIAGEN)
◯ Verigene Respiratory Pathogen Nucleic Acid Test (RP Flex), (Nanosphere, Inc)
◯ x-TAG Respiratory Viral Panel (RVP FAST), (Luminex Molecular Diagnostics Inc)
◯ In-house developed PCR assay
◯ Other, specify

Specify other kit used:

_____

Does the laboratory perform any of the following additional tests to detect influenza (other than PCR or RIDT)? (Check all that apply)

☐ Viral Culture
☐ Indirect fluorescent antibody (IFA) stain
☐ Direct fluorescent antibody (DFA) stain
☐ Serology (IgG or IgM)
☐ No

You chose "No" and another choice!When choosing "No," clear all other choices.

Which influenza test method does the laboratory perform most frequently for hospitalized pediatric patients (aged 0-17years)? (Select one)

◯ Viral culture
◯ Indirect fluorescent antibody (IFA)/direct fluorescent antibody stain (DFA)
◯ Rapid influenza diagnostic test (rapid test, RIDT)
◯ Rapid Molecular assay - singleplex or dualplex
◯ Standard Molecular assay (e.g. RT-PCR, NAAT) - singleplex or duplex
◯ Standard Molecular assay (e.g. RT-PCR, NAAT) - multiplex/respiratory viral panel (RVP)
◯ Not applicable (no pediatric testing)

Which influenza test method does the laboratory perform most frequently for hospitalized adult patients (aged >=18years)?

◯ Viral culture
◯ Indirect fluorescent antibody (IFA)/direct fluorescent antibody stain (DFA)
◯ Rapid influenza diagnostic test (rapid test, RIDT)
◯ Rapid Molecular assay - singleplex or duplex
◯ Standard Molecular assay (e.g. RT-PCR, NAAT) - singleplex or duplex
◯ Standard Molecular assay (e.g. RT-PCR, NAAT) - multiplex/respiratory viral panel (RVP)
◯ Not applicable (no adult testing)

Based on tests that were performed during the 2020-2021 influenza season, approximately what percent of the time are each of these test types used to test for flu overall? (Answers should add to 100%)

% Viral Culture

_____

% Indirect fluorescent antibody stain (IFA)/direct fluorescent antibody stain (DFA)	_____
% Rapid influenza diagnostic test (rapid test, RIDT)	_____
% Rapid Molecular assay - singleplex or dualplex	_____
% Standard Molecular assay (e.g. RT-PCR, NAAT) - singleplex or dualplex	_____
% Standard Molecular assay (e.g. RT-PCR, NAAT) - multiplex/respiratory viral panel (RVP)	_____
AUTO-CALCULATION: Sum of testing percentages for the 2020-2021 influenza season (should add to 100%)	_____
The sum of the percentages should equal 100%	
Does the lab send specimens to other labs for clinical testing of influenza?	◯ Yes ◯ No
Select all that apply:	☐ Commercial lab(s) ☐ Public Health lab(s) ☐ Other lab(s)
List names of all commercial lab(s):	_____
List names of all public health lab(s):	_____
List names of all other lab(s):	_____
Laboratory comments:	_____
Respiratory Syncytial Virus (RSV)	
Does the laboratory perform diagnostic testing for RSV on-site?	◯ Yes ◯ No
What are the reasons that the laboratory does not perform testing for RSV? (Check all that apply)	☐ Cost prohibitive ☐ Send out to another laboratory ☐ Inadequate staffing (not enough staff or lack of staff training) ☐ Other (specify):
Specify other reason:	_____
Rapid Antigen Detection	

Does the laboratory perform rapid antigen detection tests (RADT)

◯ Yes, pediatric patients only
◯ Yes, adult patients only
◯ Yes, pediatric and adult patients
◯ No

Select the kit name(s) (manufacturer) for the RSV rapid antigen detection test(s) performed at the laboratory: (Check all that apply)

☐ BinaxNOW RSV Card (Abbott)
☐ Clearview RSV (Alere Scarborough, Inc.)
☐ QuickVue RSV Test (Quidel Corp.)
☐ Sofia RSV FIA (Quidel Corp.)
☐ Directigen EZ RSV Kit (Becton-Dickinson & Co.)
☐ TRU RSV Kit (Meridian Bioscience, Inc.)
☐ RAMP Rapid Detection RSV Test Kit (Response Biomedical Corp.)
☐ SAS RSVAlert (SA Scientific, Inc.)
☐ Xpect RSV Test (Remel Inc./Thermo Fisher Scientific)
☐ BD Veritor System for Rapid Detection of RSV (Becton-Dickinson & Co.)
☐ Other, specify

Specify other kit used:

_____

If more than one kit is selected above, please select the one kit that is (or will be) used most frequently for RSV rapid antigen detection testing at the laboratory during the current RSV season: (Select one)

◯ BinaxNOW RSV Card (Abbott)
◯ Clearview RSV (Alere Scarborough, Inc.)
◯ QuickVue RSV Test (Quidel Corp.)
◯ Sofia RSV FIA (Quidel Corp.)
◯ Directigen EZ RSV Kit (Becton-Dickinson & Co.)
◯ TRU RSV Kit (Meridian Bioscience, Inc.)
◯ RAMP Rapid Detection RSV Test Kit (Response Biomedical Corp.)
◯ SAS RSVAlert (SA Scientific, Inc.)
◯ Xpect RSV Test (Remel Inc./Thermo Fisher Scientific)
◯ BD Veritor System for Rapid Detection of RSV (Becton-Dickinson & Co.)
◯ Other, specify

Specify other kit used:

_____

Molecular Assays

Does the laboratory perform molecular assays (e.g., RT-PCR) for RSV?

◯ Yes, pediatric patients only
◯ Yes, adult patients only
◯ Yes, pediatric and adult patients
◯ No

Select kit name(s) (manufacturer) for all molecular assays used at the laboratory: (Check all that apply)

☐ ARIES Flu A/B & RSV Assay (Luminex)
☐ Alere i RSV (Alere)
☐ Cepheid GeneXpert Infinity-48 System (Cepheid)
☐ Cepheid Xpert Flu/RSV XC Assay (Cepheid)
☐ Cepheid Xpert Xpress Flu/RSV Assay (Cepheid)
☐ Cobas Liat Influenza A/B and RSV Assay (Roche Molecular Systems, Inc.)
☐ ePlex Respiratory Pathogen Panel (GenMark Diagnostics)
☐ eSensor Respiratory Viral Panel (RVP) (GenMark Diagnostics)
☐ FilmArray Respiratory Panel (BioFire Diagnostics, LLC)
☐ FilmArray Respiratory Panel EZ (BioFire Diagnostics, LLC)
☐ IMDx Flu A/B and RSV for Abbott m2000 (IMDx)
☐ NxTAG Respiratory Pathogen Panel (Luminex Molecular Diagnostics Inc.)
☐ Panther Fusion Flu A/B RSV (Hologic)
☐ Prodesse PROFLU+ (GenProbe/Hologic)
☐ Simplexa Flu A/B & RSV (Focus Diagnostics, 3M)
☐ Simplexa Flu A/B & RSV Direct (Focus Diagnostics, 3M)
☐ Verigene Respiratory Virus Nucleic Acid Test (Luminex)
☐ Verigene Respiratory Virus Plus Nucleic Acid Test (RV+) (Luminex)
☐ Verigene Respiratory Pathogen Nucleic Acid Test (RP Flex) (Nanosphere, Inc)
☐ xTAG Respiratory Viral Panel (RVP or RVP FAST or RVP Fast v2) (Luminex Corporation)
☐ In-house developed PCR assay
☐ CDC Respiratory Syncytial Virus Real-Time RT-PCR Assay
☐ Other, specify

Specify other kit used:

_____

If more than one kit is selected above, please select the one kit that is (or will be) used most frequently for molecular assays at the laboratory during the current RSV season: (Select one)

◯ ARIES Flu A/B & RSV Assay (Luminex)
◯ Alere i RSV (Alere)
◯ Cepheid GeneXpert Infinity-48 System (Cepheid)
◯ Cepheid Xpert Flu/RSV XC Assay (Cepheid)
◯ Cepheid Xpert Xpress Flu/RSV Assay (Cepheid)
◯ Cobas Liat Influenza A/B and RSV Assay (Roche Molecular Systems, Inc.)
◯ ePlex Respiratory Pathogen Panel (GenMark Diagnostics)
◯ eSensor Respiratory Viral Panel (RVP) (GenMark Diagnostics)
◯ FilmArray Respiratory Panel (BioFire Diagnostics, LLC)
◯ FilmArray Respiratory Panel EZ (BioFire Diagnostics, LLC)
◯ IMDx Flu A/B and RSV for Abbott m2000 (IMDx)
◯ NxTAG Respiratory Pathogen Panel (Luminex Molecular Diagnostics Inc.)
◯ Panther Fusion Flu A/B RSV (Hologic)
◯ Prodesse PROFLU+ (GenProbe/Hologic)
◯ Simplexa Flu A/B & RSV (Focus Diagnostics, 3M)
◯ Simplexa Flu A/B & RSV Direct (Focus Diagnostics, 3M)
◯ Verigene Respiratory Virus Nucleic Acid Test (Luminex)
◯ Verigene Respiratory Virus Plus Nucleic Acid Test (RV+) (Luminex)
◯ Verigene Respiratory Pathogen Nucleic Acid Test (RP Flex) (Nanosphere, Inc)
◯ xTAG Respiratory Viral Panel (RVP or RVP FAST or RVP Fast v2) (Luminex Corporation)
◯ In-house developed PCR assay
◯ CDC Respiratory Syncytial Virus Real-Time RT-PCR Assay
◯ Other, specify

Specify other kit used:

_____

Does the laboratory perform any of these additional tests to detect RSV (apart from rapid antigen detection tests and molecular assays) for pediatric patients (aged 0-17 years)? (Select all that apply)

☐ Viral Culture
☐ Indirect fluorescent antibody (IFA) stain
☐ Direct fluorescent antibody (DFA) stain
☐ Serology (IgG or IgM)
☐ No
☐ Not applicable (only do testing in adult patients)

You chose "No" and another choice!When choosing "No," clear all other choices.

You chose "Not applicable" and another choice!When choosing "Not applicable," clear all other choices.

Does the laboratory perform any of these additional tests to detect RSV (apart from rapid antigen detection tests and molecular assays) for adult patients (aged >=18 years)? (Select all that apply)

☐ Viral Culture
☐ Indirect fluorescent antibody (IFA) stain
☐ Direct fluorescent antibody (DFA) stain
☐ Serology (IgG or IgM)
☐ No
☐ Not applicable (only do testing in pediatric patients)

You chose "No" and another choice!When choosing "No," clear all other choices.

You chose "Not applicable" and another choice!When choosing "Not applicable," clear all other choices.

Which RSV test method does the laboratory perform most frequently for pediatric patients (aged 0-17 years)? (Select one)

◯ Viral culture
◯ Indirect fluorescent antibody stain (IFA)/direct fluorescent antibody stain (DFA)
◯ Serology (IgG or IgM)
◯ Rapid antigen detection test (rapid test, RADT)
◯ Molecular assay (e.g. RT-PCR, NAAT) - singleplex (RSV only)
◯ Molecular assay (e.g. RT-PCR, NAAT) - dualplex (RSV/influenza)
◯ Molecular assay (e.g. RT-PCR, NAAT) - multiplex/respiratory viral panel (RVP)
◯ Not applicable (no pediatric testing)

Which RSV test method does the laboratory perform most frequently for adult patients (aged >=18 years)? (Select one)

◯ Viral culture
◯ Indirect fluorescent antibody stain (IFA)/direct fluorescent antibody stain (DFA)
◯ Serology (IgG or IgM)
◯ Rapid antigen detection test (rapid test, RADT)
◯ Molecular assay (e.g. RT-PCR, NAAT) - singleplex (RSV only)
◯ Molecular assay (e.g. RT-PCR, NAAT) - dualplex (RSV/influenza)
◯ Molecular assay (e.g. RT-PCR, NAAT) - multiplex/respiratory viral panel (RVP)
◯ Not applicable (no adult testing)

Based on tests that were performed during the 2020-2021 RSV season, approximately what percent of the time are each of these test types used to test for RSV in pediatric patients (aged 0-17) years? (Answers should add to 100%)

◯ Not applicable (no pediatric testing)

% Viral culture

_____

% Indirect fluorescent antibody stain (IFA)/direct fluorescent antibody stain (DFA)	_____
% Serology (IgG or IgM)	_____
% Rapid antigen detection test (rapid test, RADT)	_____
% Molecular assay (e.g. RT-PCR, NAAT) - singleplex (RSV only)	_____
% Molecular assay (e.g. RT-PCR, NAAT) - dualplex (RSV/influenza)	_____
% Molecular assay (e.g. RT-PCR, NAAT) - multiplex/respiratory viral panel (RVP)	_____
AUTO-CALCULATION: Sum of testing percentages for the 2020-2021 RSV season for pediatric patients (should add to 100%)	_____

The sum of the percentages should equal 100%

Based on tests that were performed during the 2020-2021 RSV season, approximately what percent of the time are each of these test types used to test for RSV in adult patients (aged >=18 years)? (Answers should add to 100%)

◯ Not applicable (no adult testing)

% Viral culture	_____
% Indirect fluorescent antibody stain (IFA)/direct fluorescent antibody stain (DFA)	_____
% Serology (IgG or IgM)	_____
% Rapid antigen detection test (rapid test, RADT)	_____
% Molecular assay (e.g. RT-PCR, NAAT) - singleplex (RSV only)	_____
% Molecular assay (e.g. RT-PCR, NAAT) - dualplex (RSV/influenza)	_____
% Molecular assay (e.g. RT-PCR, NAAT) - multiplex/respiratory viral panel (RVP)	_____
AUTO-CALCULATION: Sum of testing percentages for the 2020-2021 RSV season for adult patients (should add to 100%)	_____

The sum of the percentages should equal 100%

Does the lab send specimens to other labs for clinical testing of RSV?	◯ Yes ◯ No
Select all that apply	☐ Commercial lab(s) ☐ Public Health lab(s) ☐ Other lab(s)
List names of all commercial lab(s):	_____
List names of all public health lab(s):	_____
List names of all other lab(s):	_____
Laboratory comments	_____

COVID-19

Please complete the survey below.

Thank you!

Does your laboratory perform testing for SARS-CoV-2 on-site?

- ◯ Yes
- ◯ No

What date did testing for SARS-COV-2 begin on-site?

Month:

- ◯ 01- January
- ◯ 02- February
- ◯ 03- March
- ◯ 04- April
- ◯ 05- May
- ◯ 06- June
- ◯ 07- July
- ◯ 08- August
- ◯ 09- September
- ◯ 10- October
- ◯ 11- November
- ◯ 12- December

Date:

- ◯ 1
- ◯ 2
- ◯ 3
- ◯ 4
- ◯ 5
- ◯ 6
- ◯ 7
- ◯ 8
- ◯ 9
- ◯ 10
- ◯ 11
- ◯ 12
- ◯ 13
- ◯ 14
- ◯ 15
- ◯ 16
- ◯ 17
- ◯ 18
- ◯ 19
- ◯ 20
- ◯ 21
- ◯ 22
- ◯ 23
- ◯ 24
- ◯ 25
- ◯ 26
- ◯ 27
- ◯ 28
- ◯ 29
- ◯ 30
- ◯ 31

Year:

- ◯ 2020
- ◯ 2021

- ☐ Unknown start date for SARS-COV-2 testing

What test(s) is (are) used for SARS-CoV-2 (Select all that apply)? See following link for updated tests that have received EUA for SARS-CoV-2 testing: https://www.fda.gov/emergency-preparedness-and-response/mcm-legal-regulatory-and-policy-framework/emergency-use-authorization#covidinvitrodev

- ☐ Abbott RealTime SARS-CoV-2 assay (Abbott Molecular)
- ☐ Alinity m SARS-CoV-2 assay (Abbott Molecular Inc.)
- ☐ Allplex 2019-nCoV Assay (SeeGene, Inc.)
- ☐ BD SARS-CoV-2Reagents for BD MAX System (Becton, Dickinson & Company)
- ☐ BioFire COVID-19 Test (BioFire Defense, LLC)
- ☐ BioGX SARS-CoV-2 Reagents for BD MAX System (Becton, Dickinson & Company)
- ☐ CDC real-time RT-PCR Assay
- ☐ Cobas SARS-CoV-2 (Roche Molecular Systems, Inc.)
- ☐ COVID-19 RT-PCR Test (Laboratory Corporation of America)
- ☐ ePlex SARS-CoV-2 Test (GenMark Diagnostics, Inc.)
- ☐ Lyra SARS-CoV-2 Assay (Quidel Corp.)
- ☐ New York SARS-CoV-2 Real-time Reverse Transcriptase (RT)-PCR Diagnostic Panel (Wadsworth Center, NYSDOH)
- ☐ Panther Fusion SARS-CoV-2 (Hologic, Inc.)
- ☐ PerkinElmer New Coronavirus Nucleic Acid Detection Kit (PerkinElmer, Inc.)
- ☐ Primerdesign Ltd COVID-19 genesig Real-Time PCR assay (Primerdesign Ltd)
- ☐ QIAstat-Dx Respiratory SARS-CoV-2 Panel (QIAGEN GmbH)
- ☐ Quest SARS-CoV-2 rRT-PCR (Quest Diagnostics Infectious Disease, Inc.)
- ☐ RealStar SARS-CoV02 RT-PCR Kits U.S. (altona Diagnostics GmbH)
- ☐ Simplexa COVID-19 Direct (DiaSorin Molecular LLC)
- ☐ TaqPath COVID-19 Combo Kit (Thermo Fisher Scientific, Inc.)
- ☐ Xpert Xpress SARS-CoV-2 test (Cepheid)
- ☐ Other, specify:

Specify Other Test: _____

Does your laboratory send specimens, or did they previously send specimens for SARS-CoV-2 testing off-site?

- ◯ Yes, the lab currently sends specimens off-site for SARS-CoV-2 testing (specify start date)
- ◯ The lab previously sent specimens off-site for SARS-CoV-2 testing (specify stop date)
- ◯ No

Specify Start Date: _____

Specify End Date: _____

Where does/has your laboratory send/sent specimens for SARS-CoV-2 testing?

- ☐ Hospital Network Central lab
- ☐ State or public health lab
- ☐ Commercial lab
- ☐ Other

Specify Hospital Network Central lab: _____

Specify commercial lab: _____

Specify other lab:

_____

If you do not currently have capability to test for SARS-CoV-2 on-site or off-site, when do you anticipate that your lab will have the capability to test for SARS-CoV-2 on- or off-site?

Month:

◯ 01- January ◯ 02- February
◯ 03- March ◯ 04- April
◯ 05- May ◯ 06- June
◯ 07- July ◯ 08- August
◯ 09- September ◯ 10- October
◯ 11- November ◯ 12- December

Date:

◯ 1
◯ 2
◯ 3
◯ 4
◯ 5
◯ 6
◯ 7
◯ 8
◯ 9
◯ 10
◯ 11
◯ 12
◯ 13
◯ 14
◯ 15
◯ 16
◯ 17
◯ 18
◯ 19
◯ 20
◯ 21
◯ 22
◯ 23
◯ 24
◯ 25
◯ 26
◯ 27
◯ 28
◯ 29
◯ 30
◯ 31

Year:

◯ 2020
◯ 2021

☐ Unknown anticipated start date for SARS-CoV-2 testing

What test types for SARS-CoV-2 do you perform on-site (Select all that apply)?

☐ RT-PCR
☐ Other Molecular Assay
☐ Antigen
☐ Serology
☐ Whole genome sequencing
☐ Other, specify:
☐ No testing on-site

Specify Other Test Type:

_____

Are you reporting all SARS-CoV-2 results (including antigen, rapid, sendout etc.) to public health?	◯ Yes ◯ No ◯ Unknown ◯ N/A - No testing on-site
To which public health agency(ies) are you reporting (select all that apply)?	☐ CDPHE ☐ Local Public Health Agency ☐ Other, specify:
Specify Other:	_____
What method of reporting are you using to report to CDPHE?	☐ HL7 ELR via MOVEIT or PHINMS ☐ standardized flat file reporting via MoveIT ☐ standardized flat file reporting via flat file uploading portal ☐ CDPHE's COVID-19 Provider Reporting Portal ☐ Emailed spreadsheets ☐ Fax ☐ Other, specify:
Specify Other:	_____
What method of reporting are you using to report to other (non-CDPHE) agencies?	☐ Emailed spreadsheets ☐ Fax ☐ Other, specify:
Specify Other:	_____
Are you reporting cases that reside out of state to their state of residence? (Please note: this is a requirement per the HHS COVID Cares Act)	◯ Yes ◯ No ◯ Unknown ◯ N/A - No testing on-site

FORM STATUS INSTRUCTIONS

If this section of the Lab Survey is not yet complete, select Incomplete below. This is the default.

If this section of the Lab Survey is complete, select Complete below and go to the next page.

Please click "submit" to complete the survey.

Thank you!

If you have any questions about the survey or your responses, please contact Colleen McGuinness
colleen.mcguinness@state.co.us

If clinical laboratories have questions regarding...
- Non Tuberculous Mycobacterium and/or Candida auris - Devra Barter 303.692.2706 or devra.barter@state.co.us
- Antibiogram and/or Carbapenemase Testing- Sarah Janelle sarah.janelle@state.co.us
- C.difficile - Helen Johnston 720.383.7419 or helen.johnston@state.co.us
- Vaccine-Preventable Diseases - Emily Spence Davizon emily.spencedavizon@state.co.us
- Enteric Pathogens - Elisha Wilson elisha.wilson@state.co.us
- Influenza and Respiratory Syncytial Virus (RSV): Emma Schmoll emma.schmoll@state.co.us, Molly Middleton molly.middleton@state.co.us, Elizabeth Austin elizabeth.austin@state.co.us
- COVID-19: Millen Tsegaye millen.tsegaye@state.co.us, Breanna Kawasaki breanna.kawasake@state.co.us