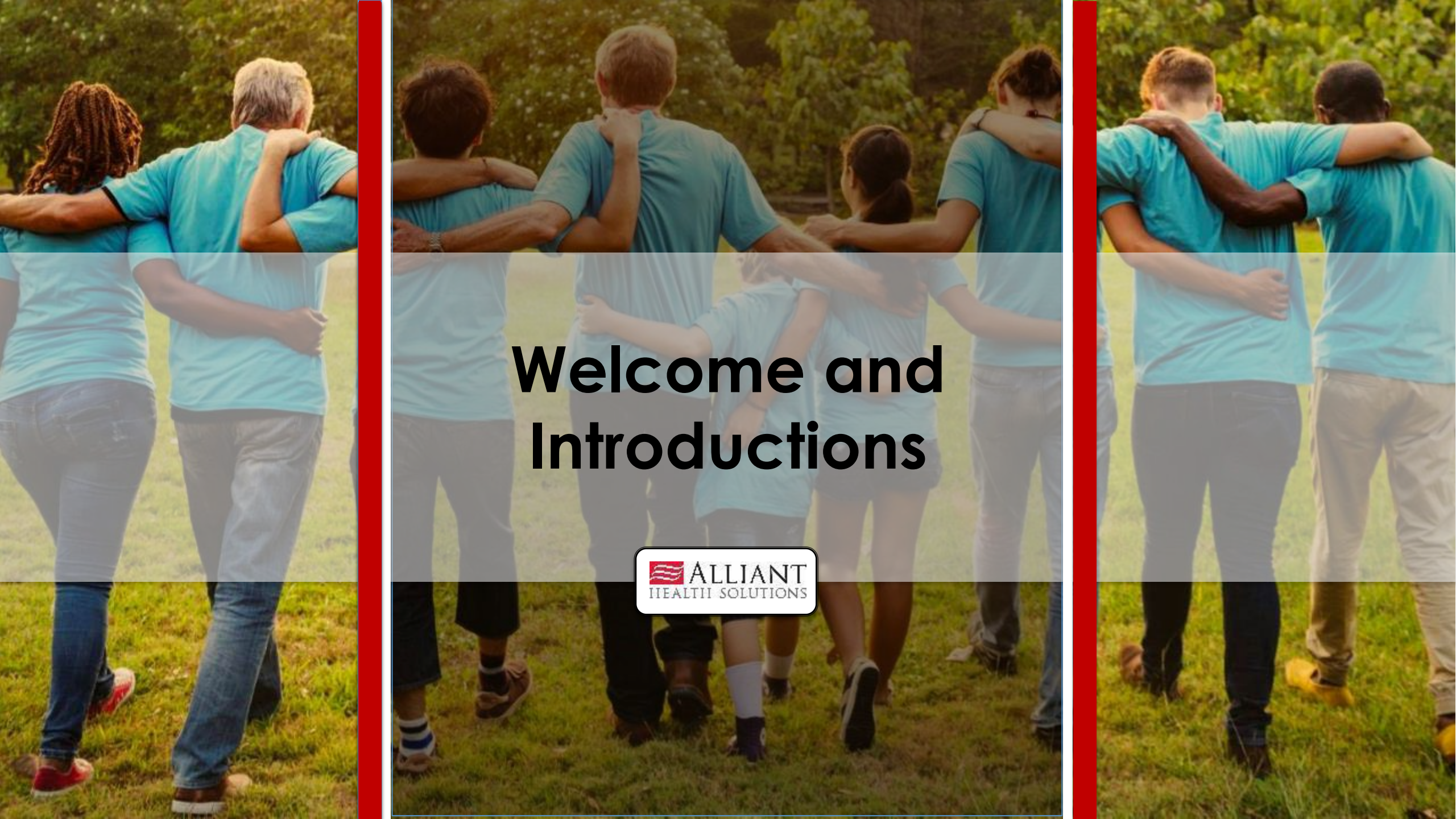
ALLIANT HEALTH SOLUTIONS

Georgia Department of Public Health
GDPH IP Fall 2023 Training: Skilled Nursing Facilities
October 10, 2023



Welcome and Introductions

ALLIANT HEALTH SOLUTIONS

Meet the Team

Presenters:

Amy Ward, MS, BSN, RN, CIC, FAPIC
Patient Safety Manager, Alliant Health Solutions

Donald Chitanda, MPH, CIC, LTC-CIP
Infection Prevention Technical Advisor, Alliant Health Solutions

Paula St. Hill, MPH, A-IPC
Infection Prevention Technical Advisor, Alliant Health Solutions

Erica Umeakunne, MSN, MPH, APRN, CIC
Infection Prevention Specialist, Alliant Health Solutions

Amy Ward, MS, BSN, RN, CIC, FAPIC

Patient Safety Manager

Amy is a registered nurse with a diverse background in acute care nursing, microbiology, epidemiology and infection control. She is passionate about leading and mentoring new and future infection preventionists in their career paths and assisting them in reducing healthcare-associated infections across the continuum of care.

Amy enjoys spending time with her family and being outdoors camping, bicycling and running.

Contact: Amy.Ward@AlliantHealth.org

Donald Chitanda, MPH, CIC, LTC-CIP

Infection Prevention Technical Advisor

Donald is a health professional with experience in public health epidemiology and infection prevention. Over the past several years, he worked as an infection preventionist at the hospital- and system-level, where he was part of a task force to ensure the safety of caregivers and patients during the ongoing COVID-19 pandemic. In addition, he was part of and led several projects to reduce hospital-acquired infections utilizing Lean Six Sigma methodologies. He is also trained in ensuring ongoing facility survey readiness for regulatory agencies such as the CMS and The Joint Commission.

Donald enjoys spending time with family and doing outdoor activities.

Contact: Donald.Chitanda@AlliantHealth.org

Paula St. Hill, MPH, A-IPC

Infection Prevention Technical Advisor

Paula is a doctoral student with a diverse background in public health, infection prevention, epidemiology and microbiology. She has always enjoyed public health and identifying ways to improve health outcomes, specifically those related to healthcare-associated infections.

Paula enjoys spending time with her friends and family.

Contact: Paula.StHill@allianthealth.org

Erica Umeakunne, MSN, MPH, APRN, CIC

Infection Prevention Specialist

Erica Umeakunne is an adult-gerontology nurse practitioner and infection preventionist with experience in primary care, critical care, health care administration and public health.

She was previously the interim hospital epidemiology director for a large health care system in Atlanta and a nurse consultant in the Center for Disease Control and Prevention's (CDC) Division of Healthcare Quality Promotion. While at the CDC, she served as an infection prevention and control (IPC) subject matter expert for domestic and international IPC initiatives and emergency responses, including Ebola outbreaks and, most recently, the COVID-19 pandemic.

Erica enjoys reading, traveling, family time, and outdoor activities.

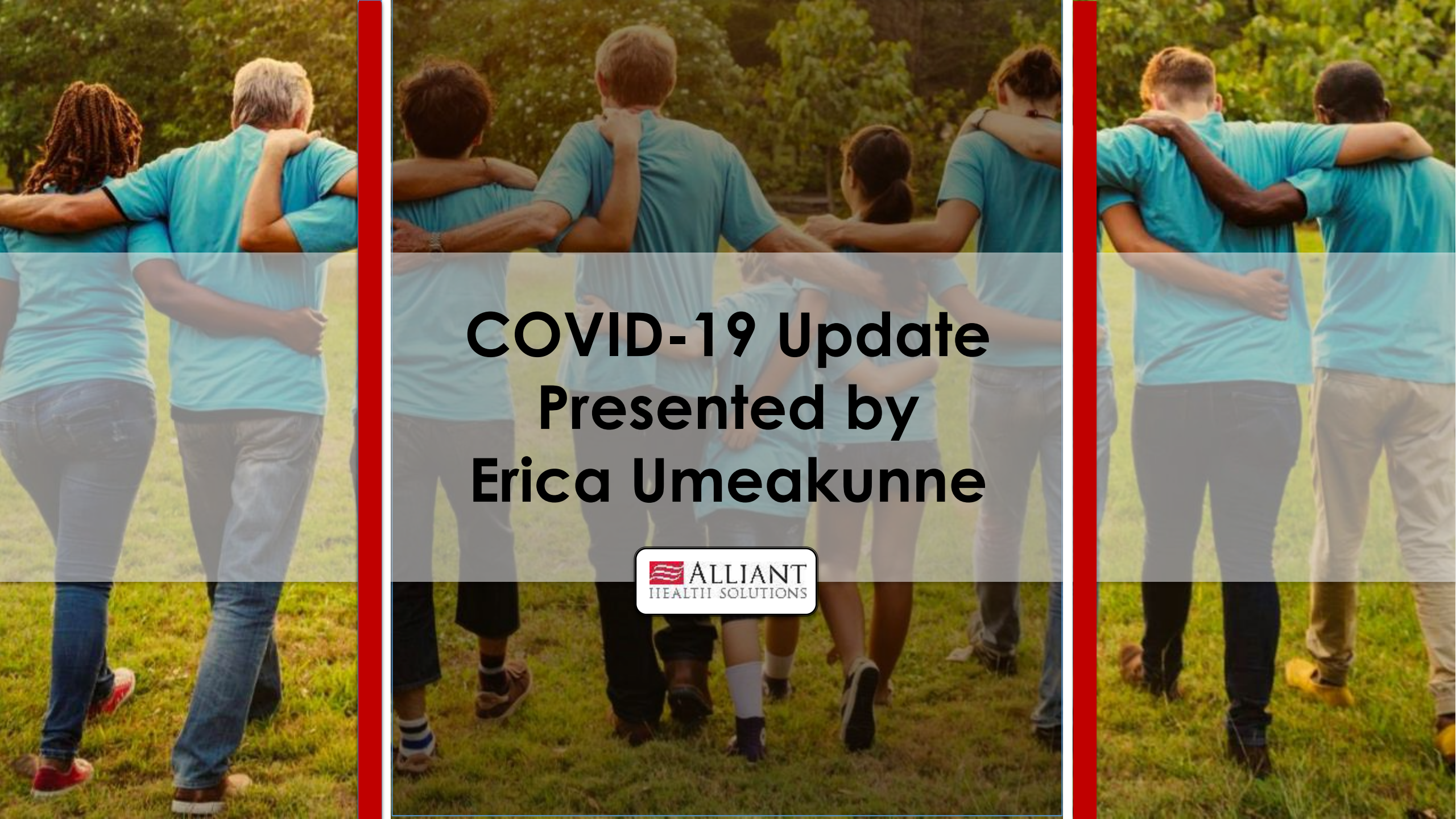
Contact: Erica.Umeakunne@allianthealth.org

Thank You to Our Partners

- Georgia Department of Public Health
- University of Georgia

Objectives

- Provide an update on the state of the COVID-19 pandemic and the end of the Public Health Emergency
- Introduce enhanced barrier precautions and implications for LTCF infection prevention and control (IPC) programs
- Discuss the facility infection preventionist's duties and responsibilities
- Describe the common infection prevention deficiencies and citations
- Summarize strategies to improve the quality of your facility's infection prevention program
- Share Alliant Health Solutions Resources to support IPC activities



COVID-19 Update
Presented by
Erica Umeakunne

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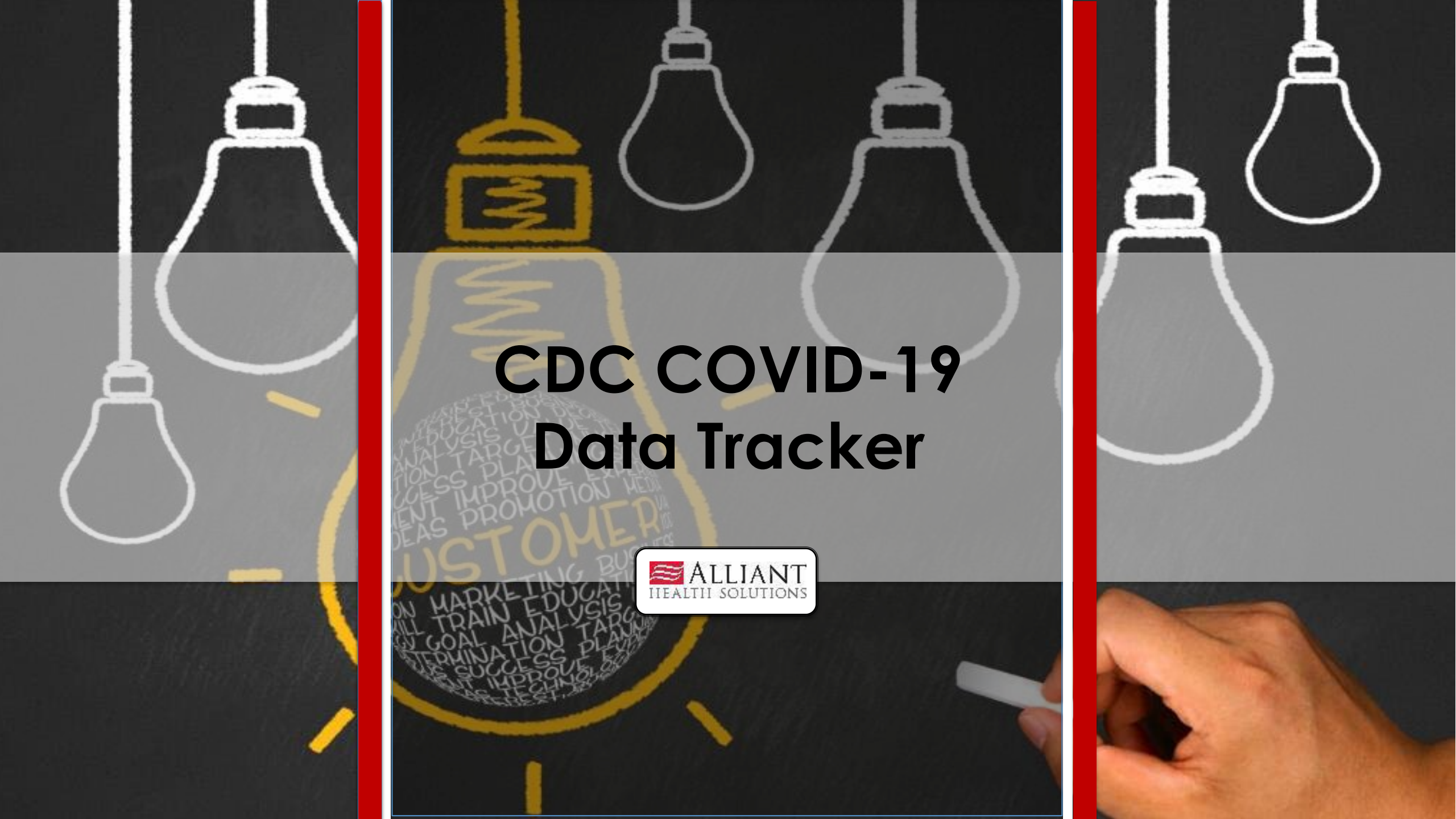
Objectives

- Provide an update on COVID-19 epidemiology
- Review the updated COVID-19 vaccine recommendations
- Summarize infection prevention and control (IPC) strategies to prevent COVID-19 and other infections in nursing facilities
- Share Alliant Health Solutions resources to support COVID-19 IPC activities


CDC COVID-19
Data Tracker
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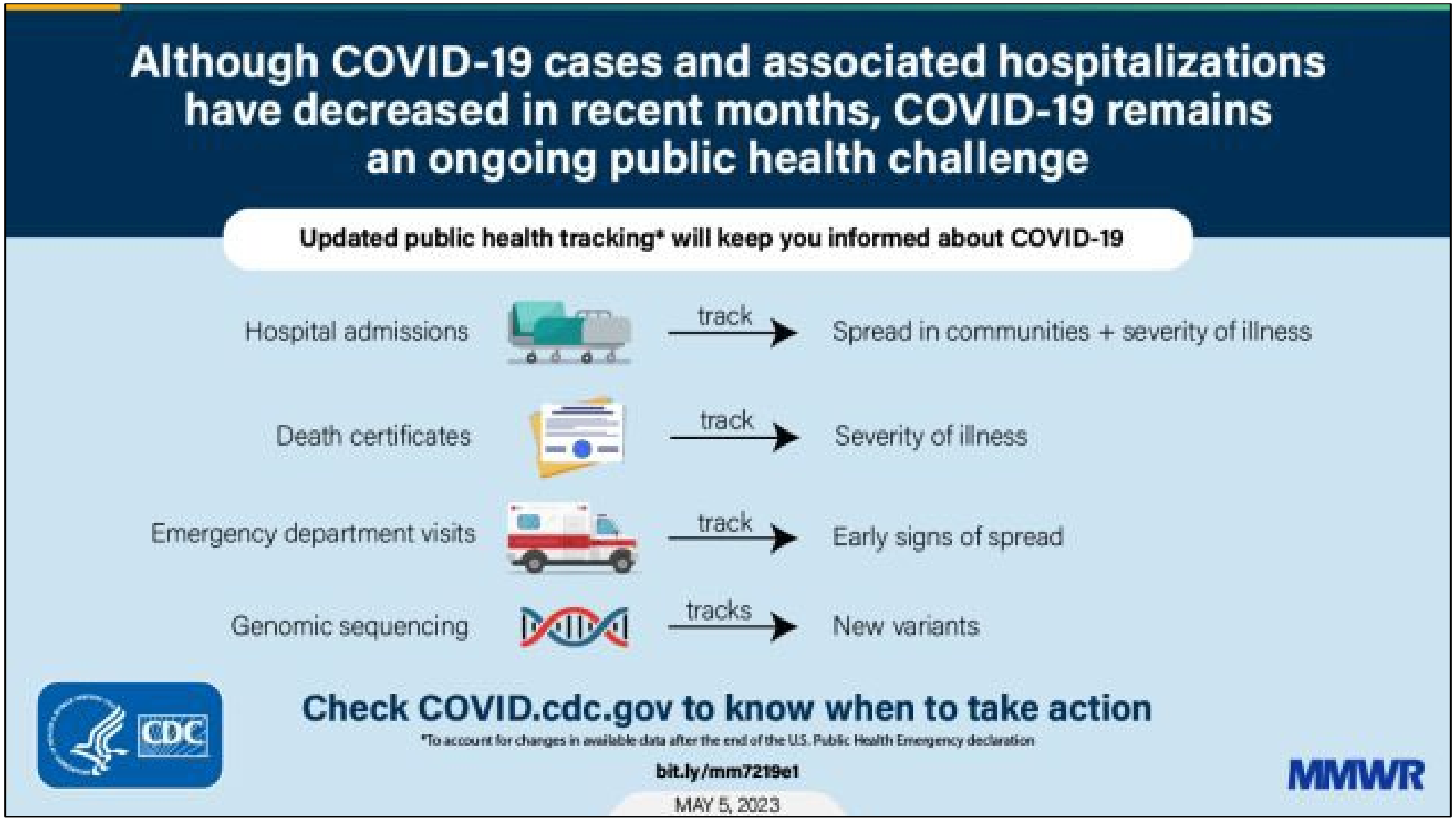
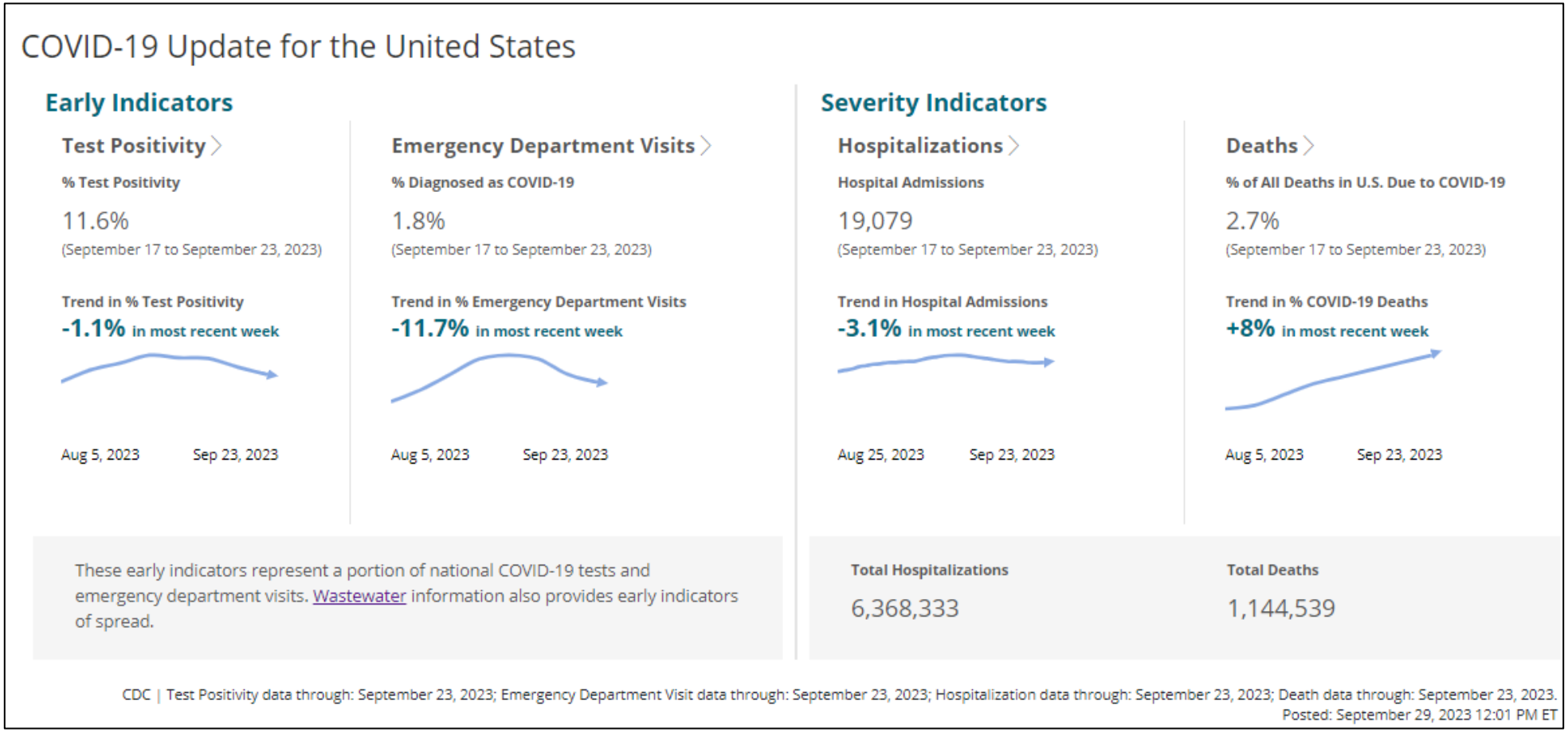
CDC Data & Surveillance: Available Data

- COVID-19 hospital admissions
- COVID-19 deaths
- Emergency department COVID-19 visits
- COVID-19 test positivity
- Wastewater & genomic surveillance
- Percentage of COVID-19 associated deaths



https://www.cdc.gov/mmwr/volumes/72/wr/mm7219e1.htm?s_cid=mm7219e1_w

CDC COVID-19 Data Tracker



COVID-19 Update for the United States

Early Indicators

Test Positivity

% Test Positivity

11.6%

(September 17 to September 23, 2023)

Trend in % Test Positivity

-1.1% in most recent week

Aug 5, 2023 Sep 23, 2023

Emergency Department Visits

% Diagnosed as COVID-19

1.8%

(September 17 to September 23, 2023)

Trend in % Emergency Department Visits

-11.7% in most recent week

Aug 5, 2023 Sep 23, 2023

Severity Indicators

Hospitalizations

Hospital Admissions

19,079

(September 17 to September 23, 2023)

Trend in Hospital Admissions

-3.1% in most recent week

Aug 25, 2023 Sep 23, 2023

Deaths

% of All Deaths in U.S. Due to COVID-19

2.7%

(September 17 to September 23, 2023)

Trend in % COVID-19 Deaths

+8% in most recent week

Aug 5, 2023 Sep 23, 2023

These early indicators represent a portion of national COVID-19 tests and emergency department visits. Wastewater information also provides early indicators of spread.

Total Hospitalizations

6,368,333

Total Deaths

1,144,539

CDC | Test Positivity data through: September 23, 2023; Emergency Department Visit data through: September 23, 2023; Hospitalization data through: September 23, 2023; Death data through: September 23, 2023.
Posted: September 29, 2023 12:01 PM ET

https://covid.cdc.gov/covid-data-tracker/#datatracker-home

CDC COVID-19 Data Tracker

https://covid.cdc.gov/covid-data-tracker/#datatracker-home

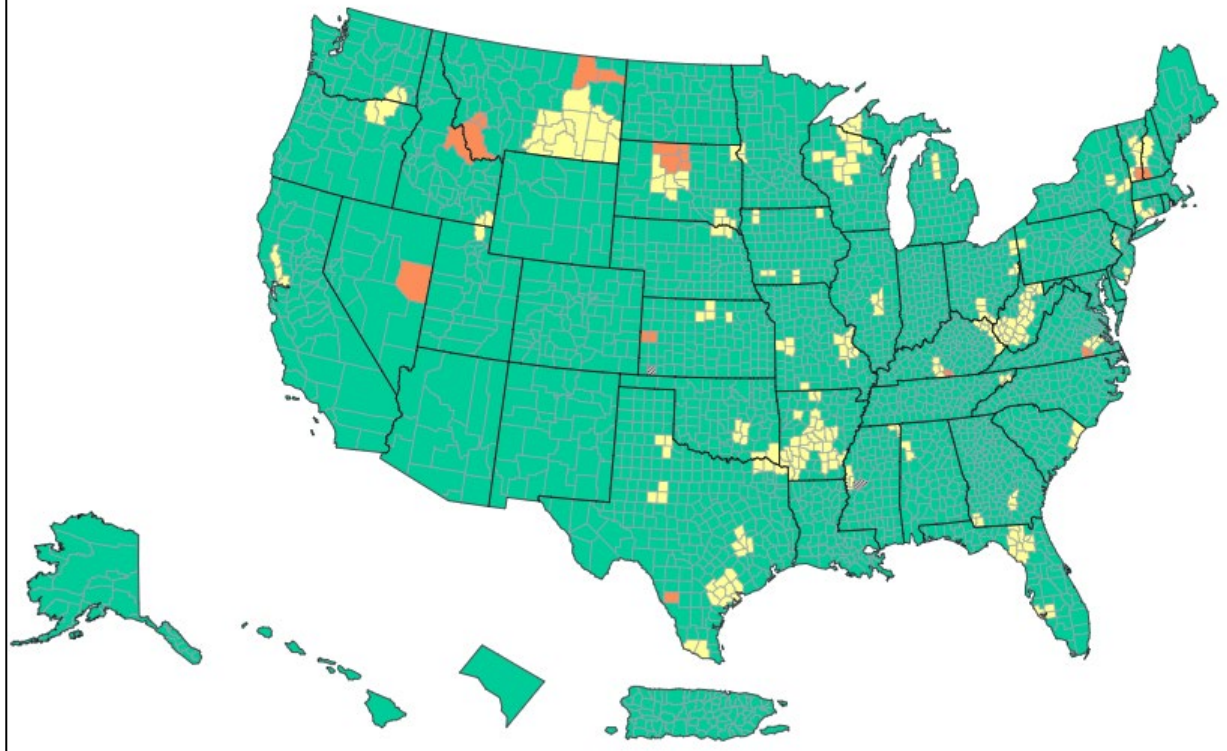
COVID-19 hospital admissions levels in U.S. by county

Based on new COVID-19 hospital admissions per 100,000 population

	Total	Percent	% Change
≥ 20.0	22	0.68%	0.31%
10.0 - 19.9	243	7.55%	-2.45%
<10.0	2955	91.77%	2.08%

Time Period: New COVID-19 hospital admissions per 100,000 population (7-day total) are calculated using data from the MMWR week (Sun-Sat) ending September 23, 2023.

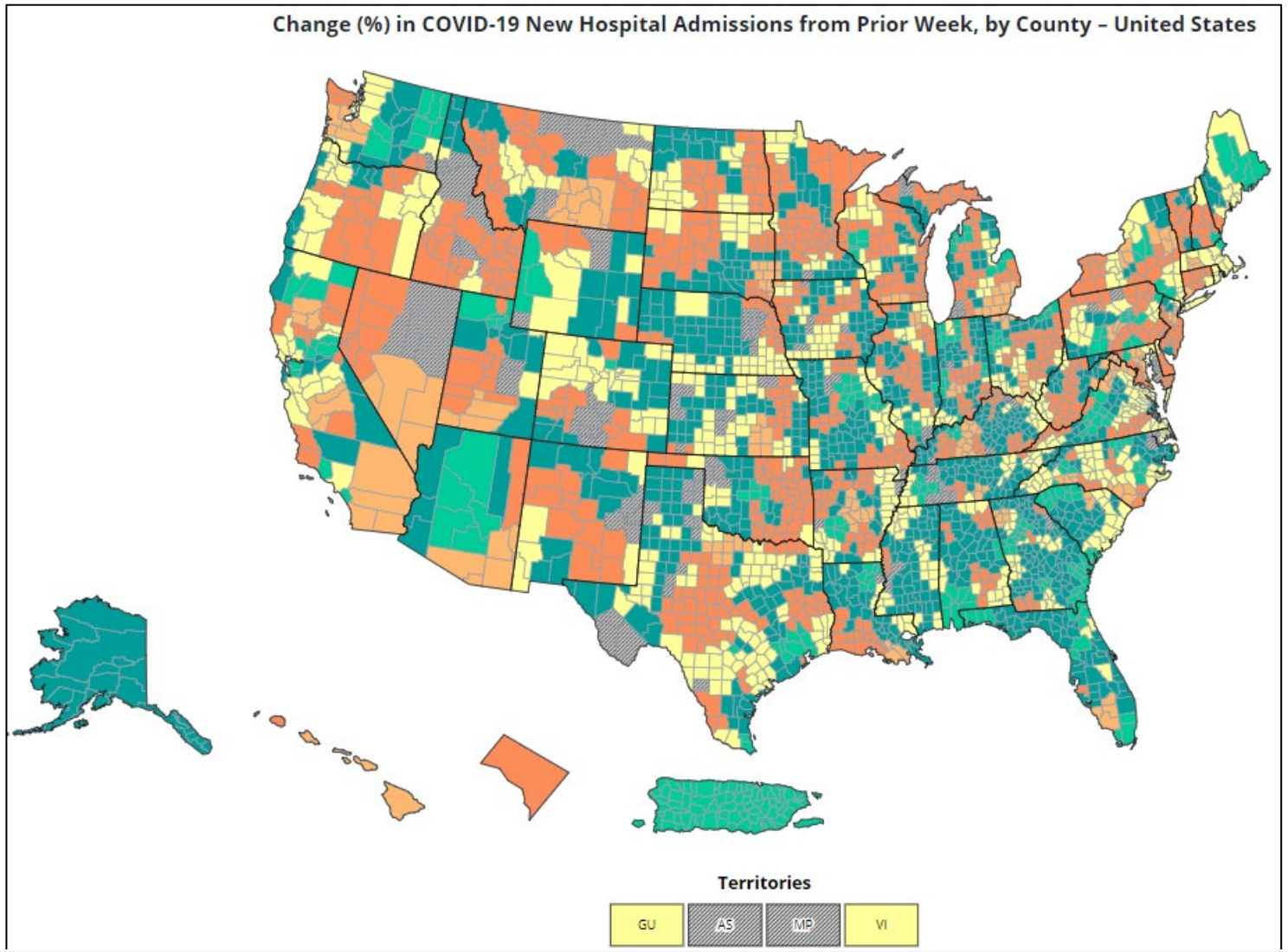
Reported COVID-19 New Hospital Admissions Rate per 100,000 Population in the Past Week, by County – United States



Territories

GU AS MP VI

https://covid.cdc.gov/covid-data-tracker/#cases_new-admissions-rate-county



https://covid.cdc.gov/covid-data-tracker/#cases_new-admissions-percent-change-county

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COVID-19 Prevention Actions

There are many ways your actions can help protect you, your household, and your community from severe illness from COVID-19. CDC's COVID-19 hospital admission levels provide information about the amount of severe illness in the community where you are located to help you decide when to take action to protect yourself and others.

COVID-19 County Check

Find hospital admission levels and prevention steps by county. Data updated weekly.

Select a Location (all fields required)

State | County | Go

Find the COVID-19 hospital admission level in your county >

https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/prevention.html

COVID-19 County Check

Find hospital admission levels and prevention steps by county. Data updated weekly.

Select a Location (all fields required)

Georgia | Decatur County | Go

< Start Over

Medium

In **Decatur County, Georgia**, the COVID-19 hospital admission level is **Medium**.

- If you are at high risk of getting very sick, wear a high-quality mask or respirator (e.g., N95) when indoors in public.
- If you have household or social contact with someone at high risk for getting very sick, consider self-testing to detect infection before contact, and consider wearing a high-quality mask when indoors with them.
- Stay up to date with COVID-19 vaccines.
- Maintain ventilation improvements.
- Avoid contact with people who have suspected or confirmed COVID-19.
- Follow recommendations for isolation if you have suspected or confirmed COVID-19.
- Follow the recommendations for what to do if you are exposed to someone with COVID-19.

People may choose to mask at any time. People with symptoms, a positive test, or exposure to someone with COVID-19 should wear a high-quality mask or respirator when indoors in public.

If you are immunocompromised, learn more about how to protect yourself.

Find out more about the COVID-19 situation in **Decatur County, Georgia** with COVID-19 Data Tracker.

September 23, 2023

https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/prevention.html

Trends in United States COVID-19 Hospitalizations, Deaths, Emergency Department (ED) Visits, and Test Positivity by Geographic Area

Maps, charts, and data provided by CDC, updates weekly for the previous MMWR week (Sunday-Saturday) on Fridays by 8 pm ET†

View Footnotes and Download Data

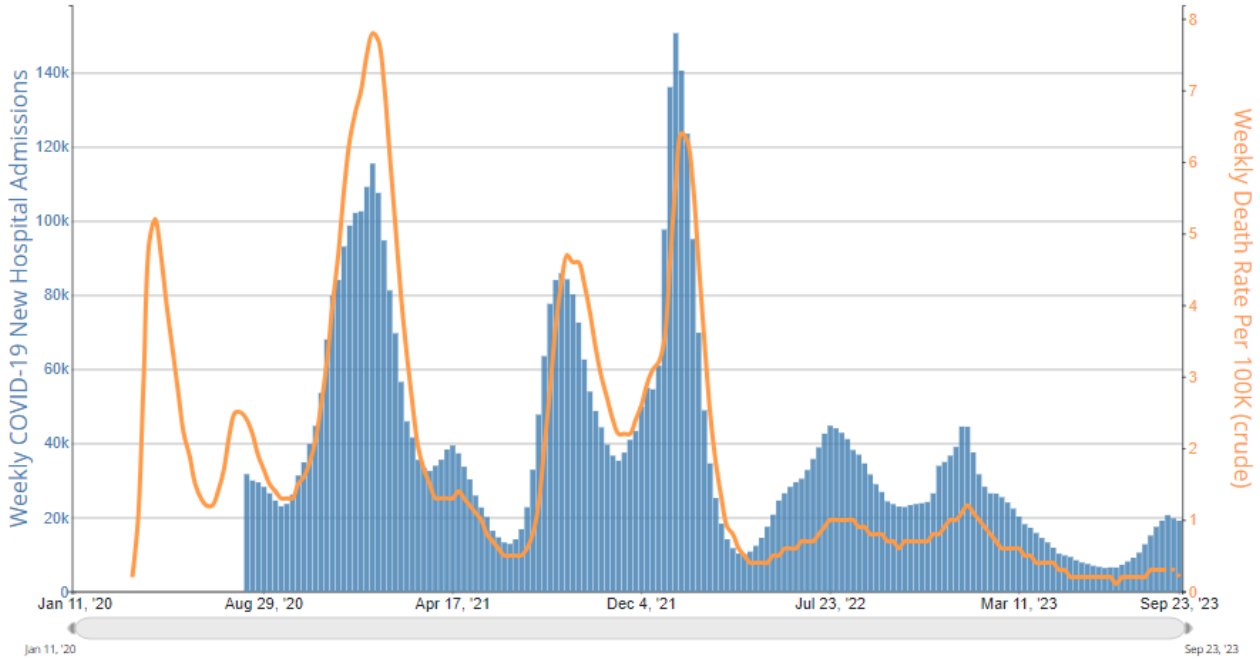
Select a geographic area: The United States

View (left axis): Weekly COVID-19 New Hospital Admissions

View (right axis): Weekly Death Rate Per 100,000 (crude)

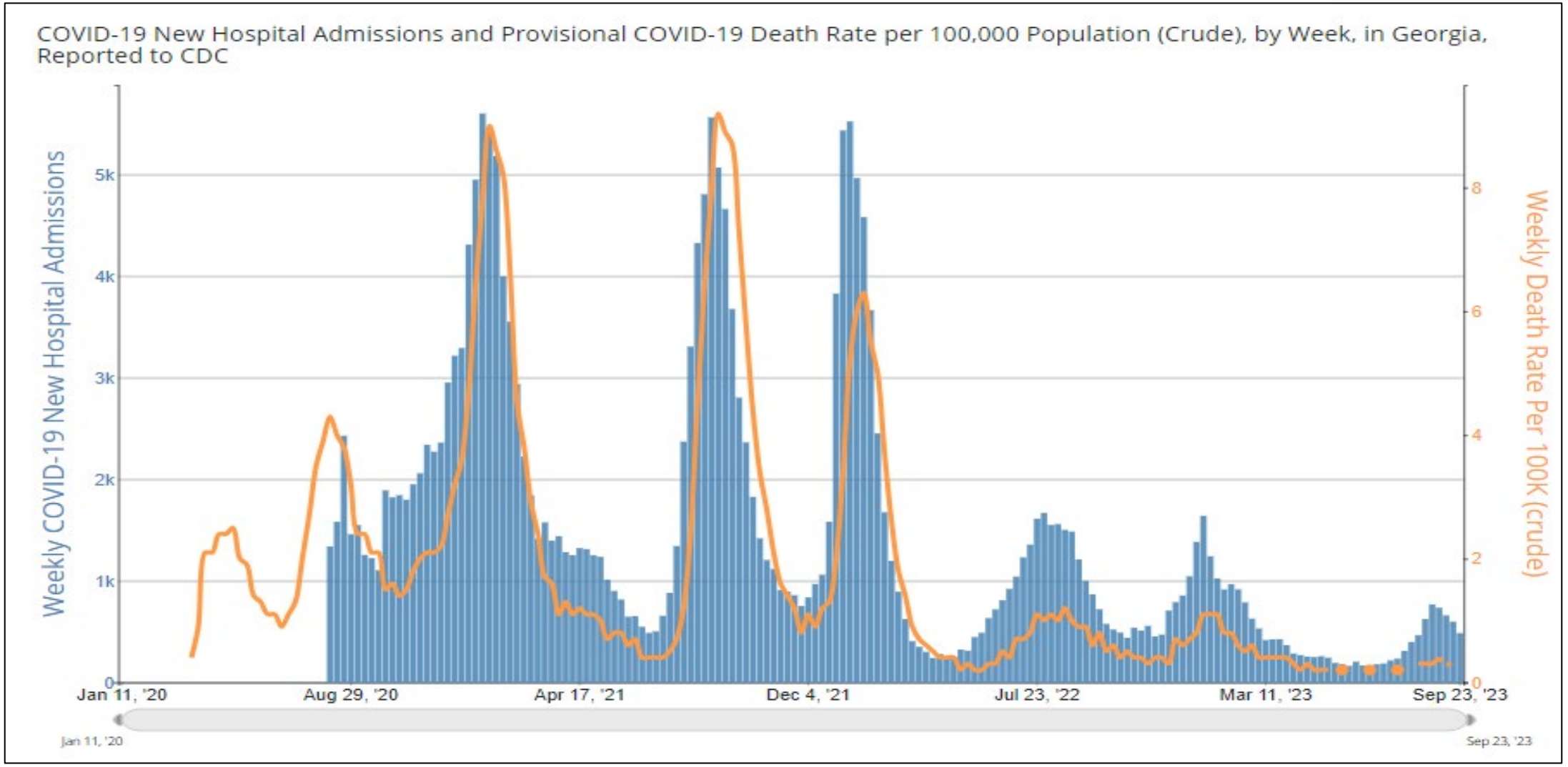
The blue bars show weekly COVID-19 hospital admissions. The orange line represents the weekly crude provisional death rate per 100,000, allowing for comparisons between areas with different population sizes but not adjusted for age distribution.

COVID-19 New Hospital Admissions and Provisional COVID-19 Death Rate per 100,000 Population (Crude), by Week, in The United States, Reported to CDC



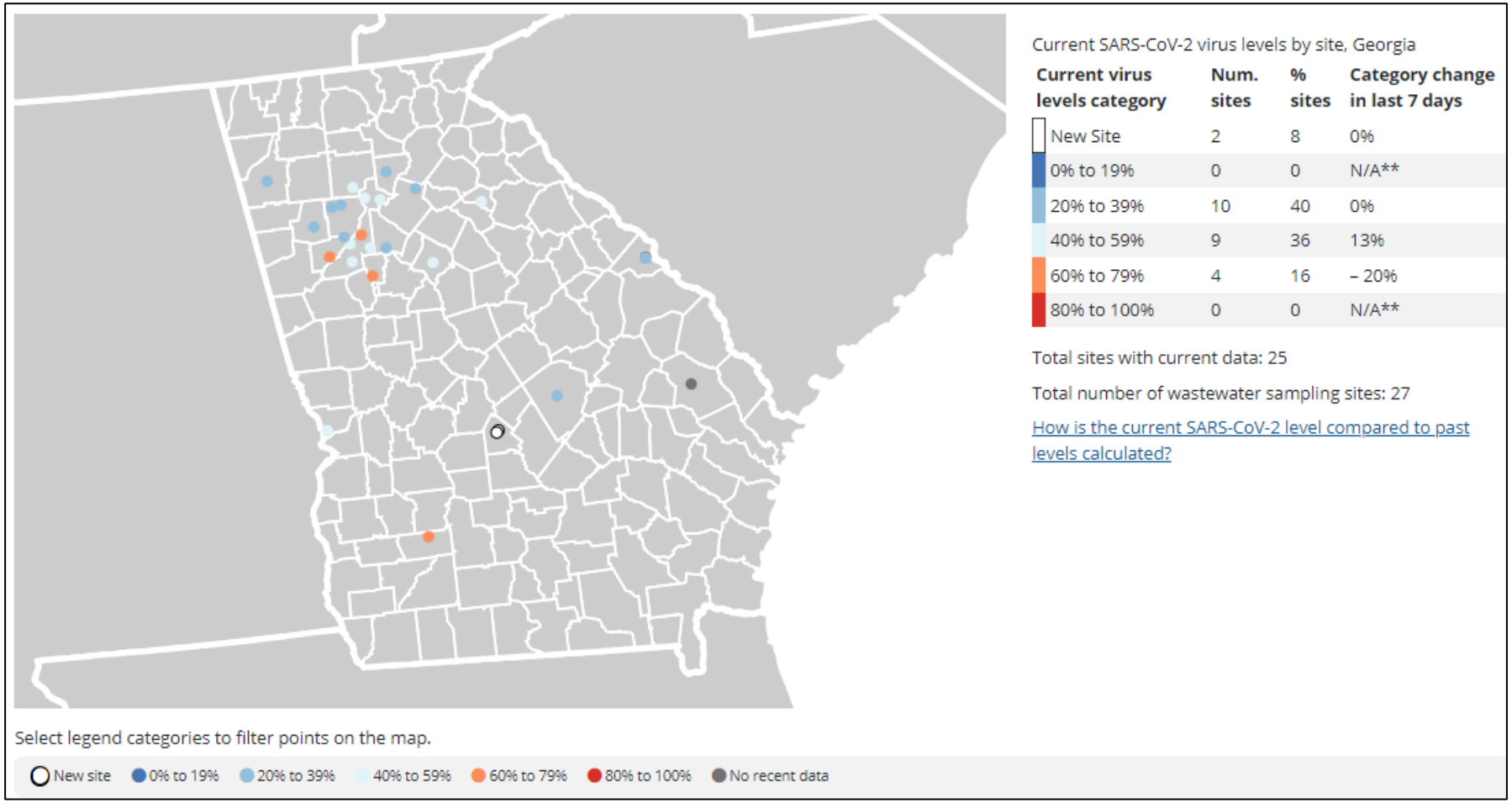
View Trends in Hospitalizations, Deaths, Emergency Department Visits, and Test Positivity

https://covid.cdc.gov/covid-data-tracker/#trends_weeklyhospitaladmissions_weeklydeathratecrude_00



https://covid.cdc.gov/covid-data-tracker/#trends_weeklyhospitaladmissions_weeklydeathratecrude_13

Wastewater Surveillance



Current SARS-CoV-2 virus levels by site, Georgia

Current virus levels category	Num. sites	% sites	Category change in last 7 days
New Site	2	8	0%
0% to 19%	0	0	N/A**
20% to 39%	10	40	0%
40% to 59%	9	36	13%
60% to 79%	4	16	– 20%
80% to 100%	0	0	N/A**

Total sites with current data: 25

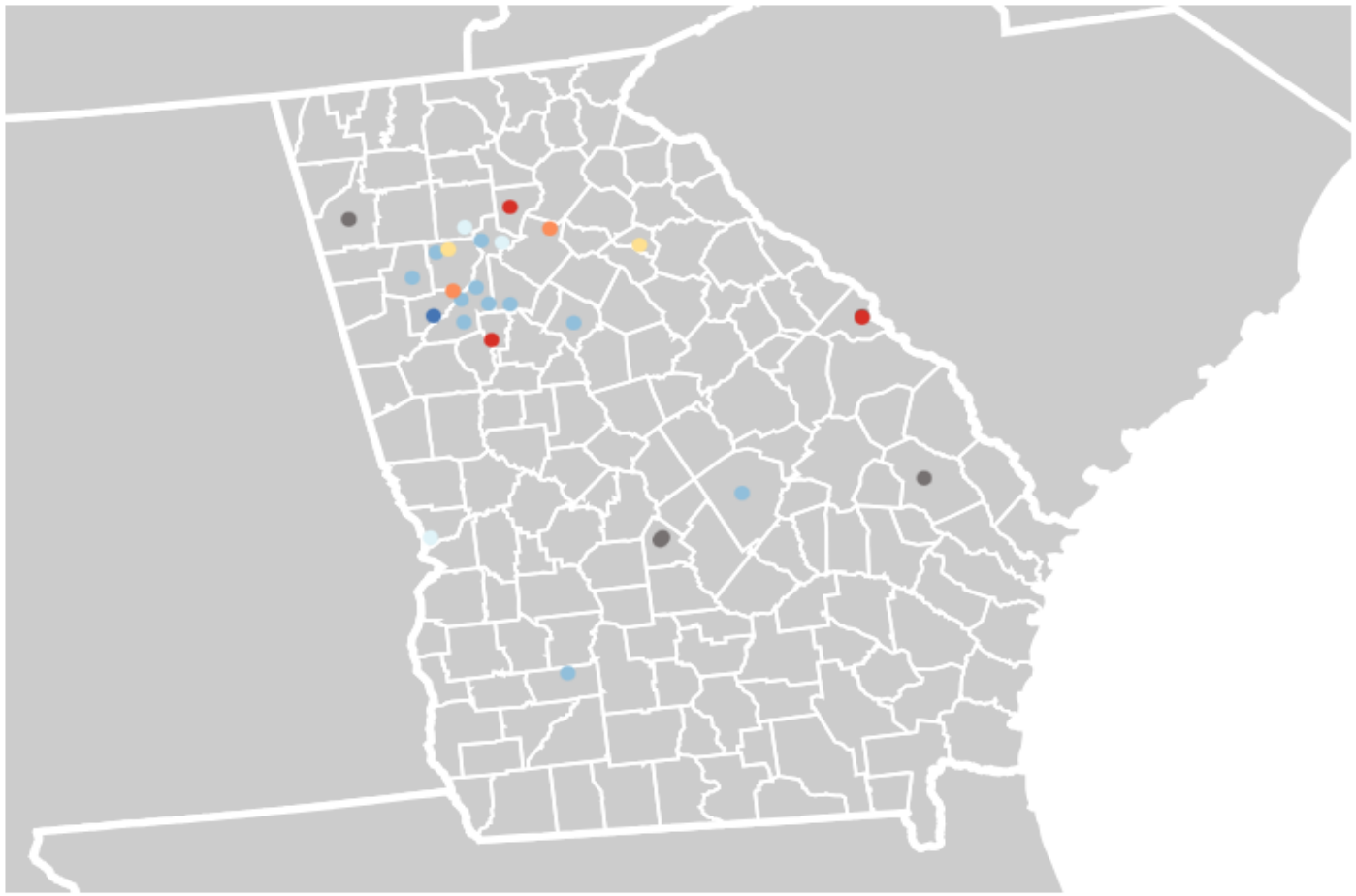
Total number of wastewater sampling sites: 27

How is the current SARS-CoV-2 level compared to past levels calculated?

Select legend categories to filter points on the map.

New site | 0% to 19% | 20% to 39% | 40% to 59% | 60% to 79% | 80% to 100% | No recent data

https://covid.cdc.gov/covid-data-tracker/#wastewater-surveillance



Percent change of SARS-CoV-2 in the last 15 days by site, Georgia

15-day % change category	Num. sites	% sites	Category change in last 7 days
– 100%	1	5	N/A**
– 99% to – 10%	11	50	22%
– 9% to 0%	3	14	– 25%
1% to 9%	0	0	– 100%
10% to 99%	2	9	– 33%
100% to 999%	2	9	– 60%
1000% or more	3	14	200%

Total sites with current data: 22

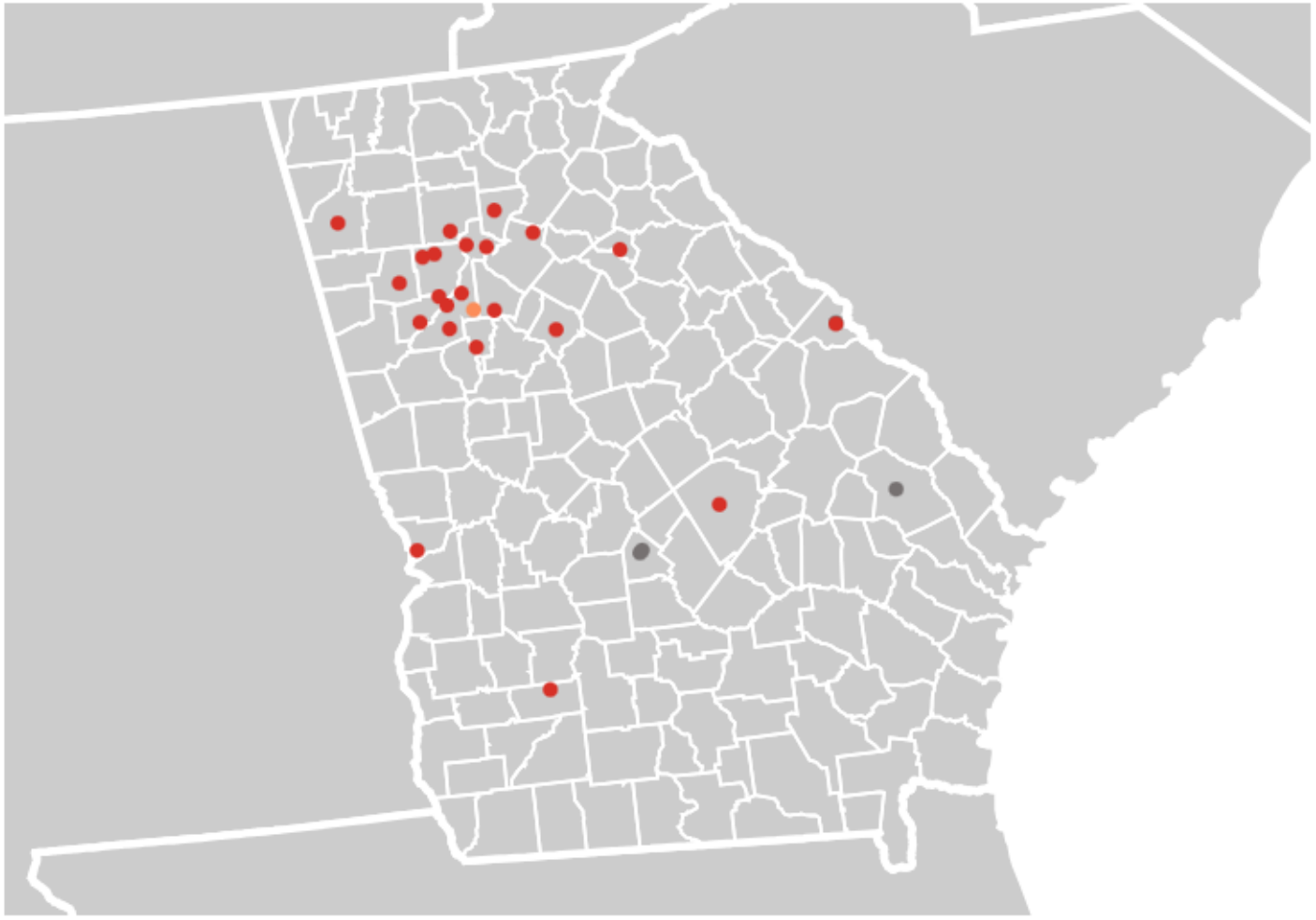
Total number of wastewater sampling sites: 27

How is the 15-day percent change calculated?

Select legend categories to filter points on the map.

– 100% – 99% to – 10% – 9% to 0% 1% to 9% 10% to 99% 100% to 999% 1000% or more No recent data

https://covid.cdc.gov/covid-data-tracker/#wastewater-surveillance



Percent of wastewater samples with detectable SARS-CoV-2 in the last 15 days by site, Georgia

15-day detection % category	Num. sites	% sites	Category change in last 7 days
Non-Detect	0	0	N/A**
1% to 19%	0	0	N/A**
20% to 39%	0	0	N/A**
40% to 59%	0	0	N/A**
60% to 79%	1	4	N/A**
80% to 100%	22	96	– 4%

Total sites with current data: 23

Total number of wastewater sampling sites: 27

How is the percent of wastewater samples with detectable SARS-CoV-2 in the last 15 days calculated?

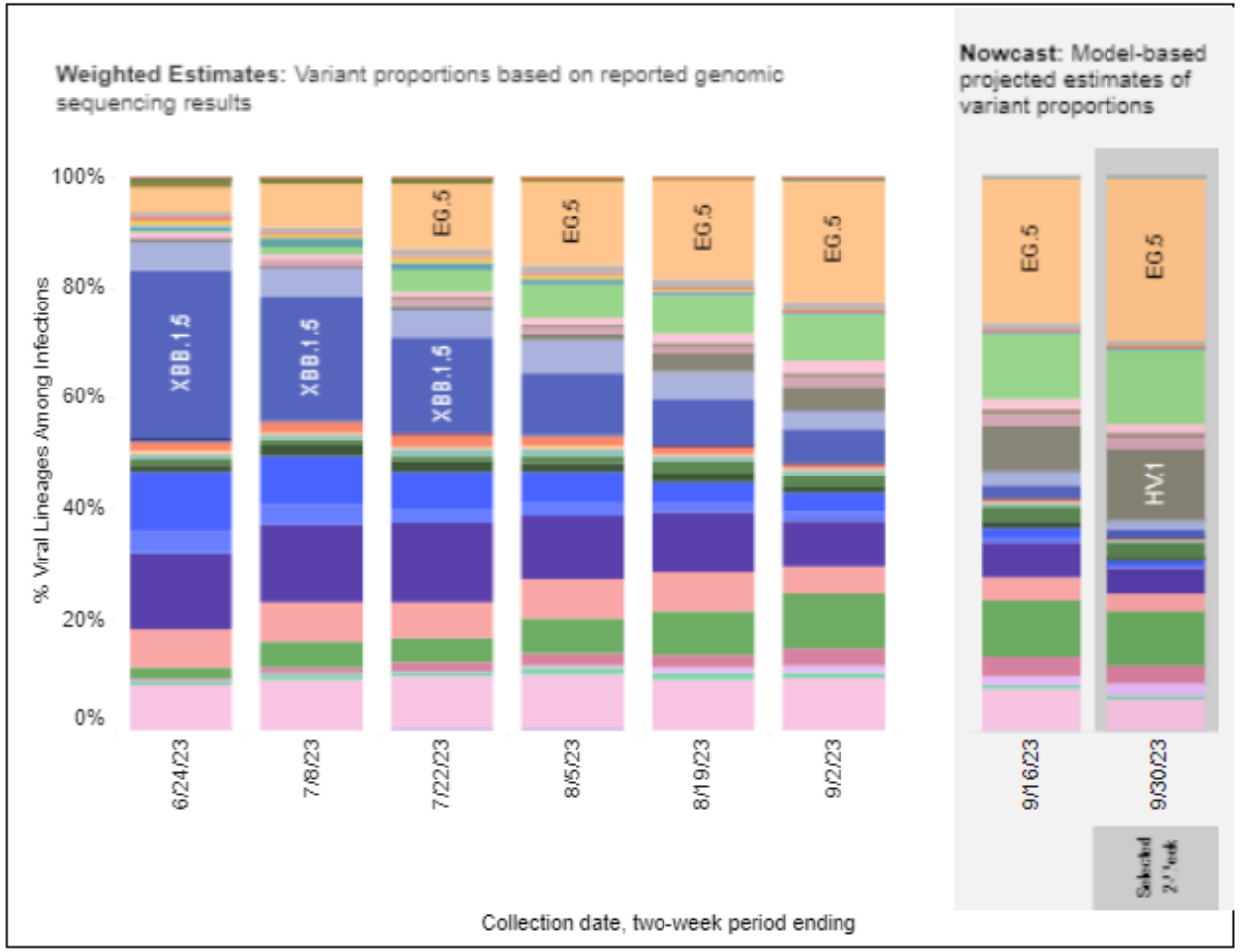
Select legend categories to filter points on the map.

Non-detect | Less than 20% | 20% to 39% | 40% to 59% | 60% to 79% | 80% to 100% | No recent data

https://covid.cdc.gov/covid-data-tracker/#wastewater-surveillance

Weighted and Nowcast Estimates in United States for 2-Week Periods in 6/11/2023 – 9/30/2023

Hover over (or tap in mobile) any lineage of interest to see the amount of uncertainty in that lineage's estimate.



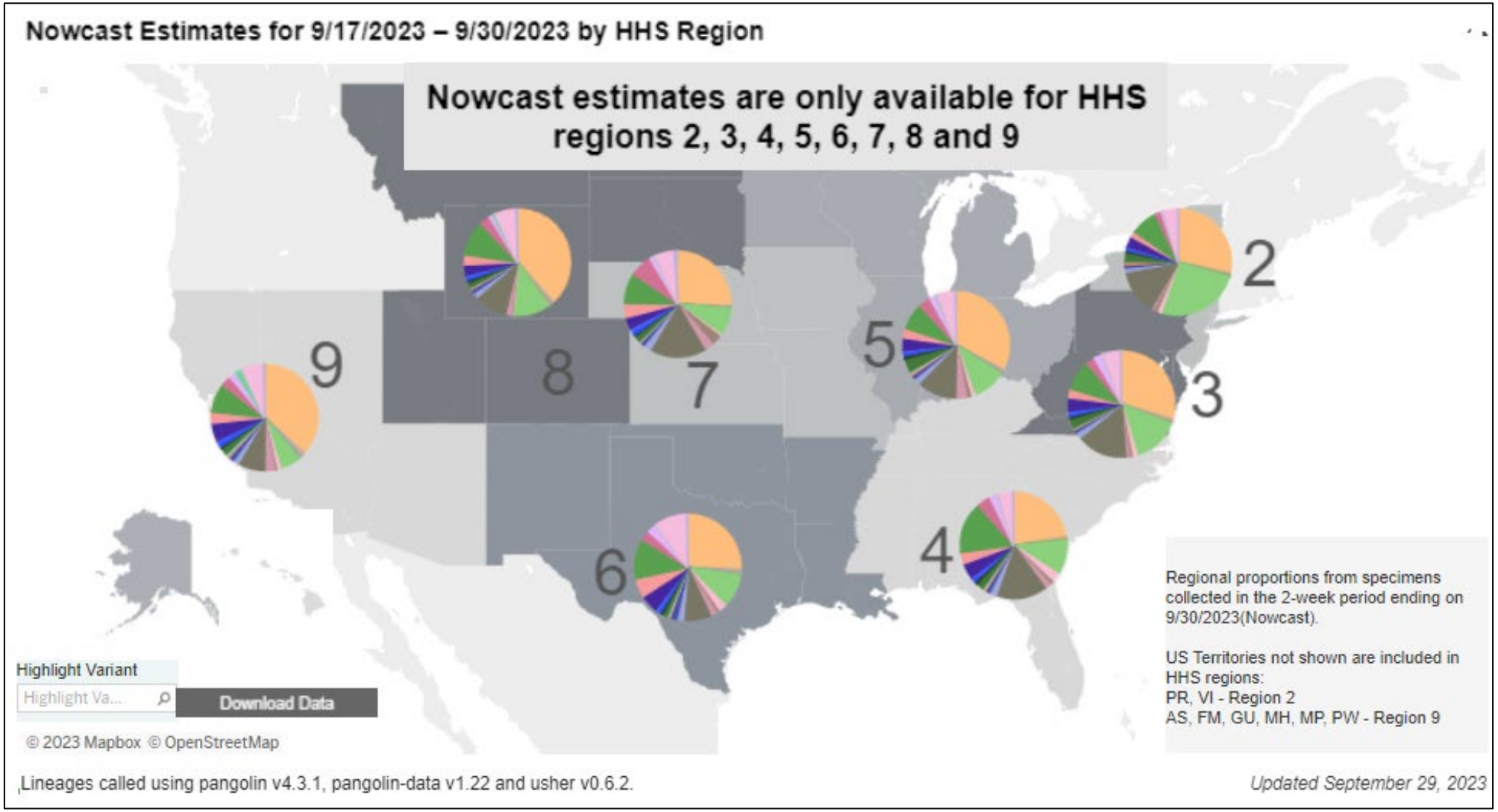
Nowcast Estimates in United States for 9/17/2023 – 9/30/2023

USA

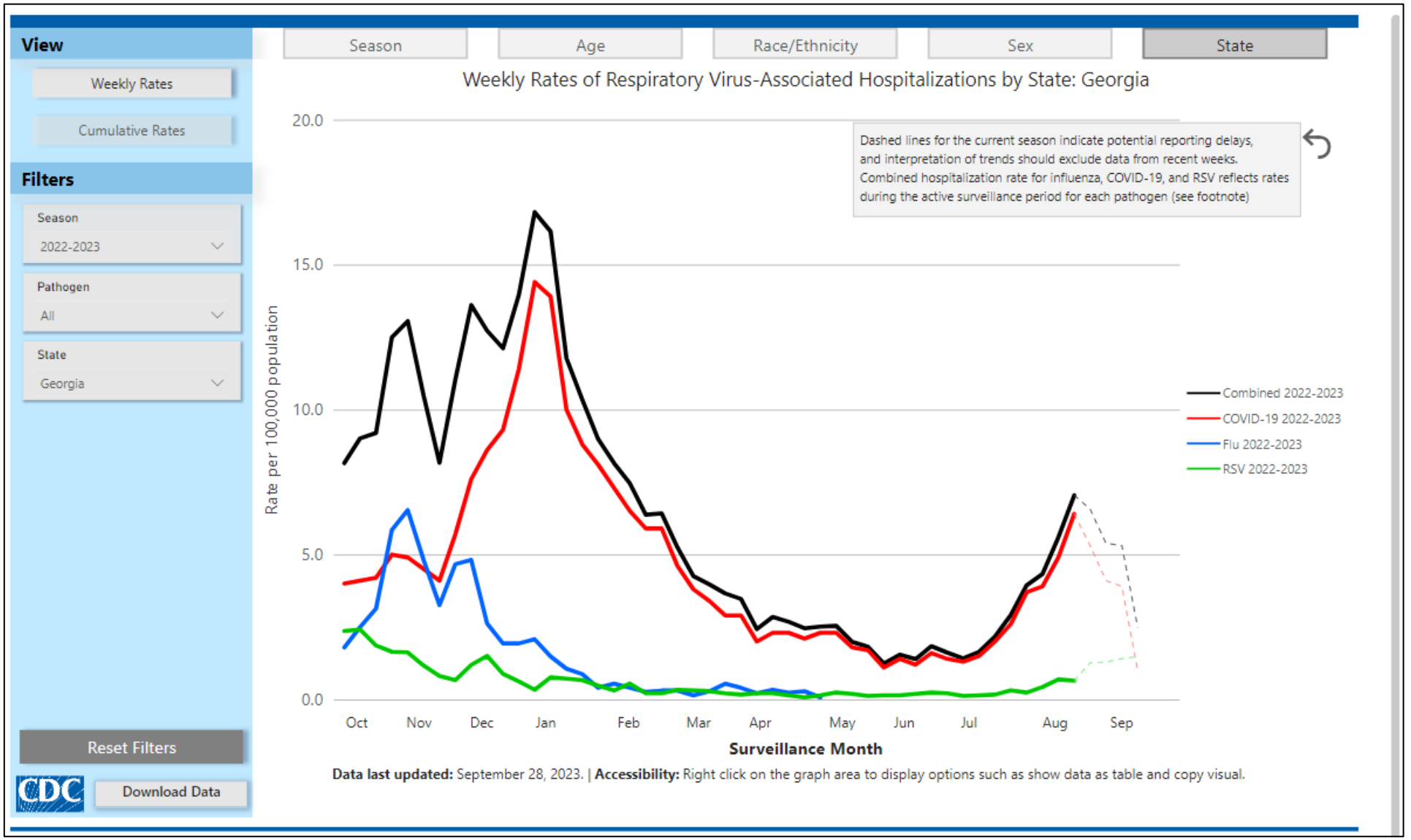
WHO label	Lineage #	%Total	95%PI
Omicron	EG.5	29.4%	26.4-32.6%
	FL.1.5.1	13.7%	10.8-17.1%
	HV.1	12.9%	10.5-15.6%
	XBB.1.16.6	10.1%	8.6-11.7%
	XBB.2.3	5.6%	4.7-6.5%
	XBB.1.16	4.3%	3.8-4.9%
	XBB.1.16.11	3.2%	2.6-3.9%
	XBB.1.16.1	3.0%	2.4-3.8%
	XBB.1.5.70	2.5%	1.9-3.4%
	XBB.1.16.15	2.0%	1.4-3.0%
	HF.1	1.8%	1.1-2.9%
	XBB	1.8%	1.5-2.1%
	GE.1	1.7%	1.3-2.2%
	XBB.1.5	1.1%	1.0-1.3%
	XBB.1.9.1	1.1%	0.9-1.3%
	EG.6.1	1.0%	0.7-1.4%
	GK.2	0.9%	0.7-1.3%
	XBB.1.5.72	0.8%	0.6-1.0%
	XBB.1.42.2	0.7%	0.4-1.1%
	XBB.1.9.2	0.5%	0.4-0.7%
	XBB.1.5.68	0.5%	0.3-0.8%
	XBB.1.5.10	0.4%	0.3-0.6%
	XBB.2.3.8	0.3%	0.2-0.4%
	CH.1.1	0.2%	0.1-0.3%
	XBB.1.5.59	0.2%	0.1-0.3%
	FD.1.1	0.2%	0.1-0.2%
	FE.1.1	0.1%	0.1-0.2%
	BA.2	0.1%	0.0-0.2%
	EU.1.1	0.0%	0.0-0.1%
	XBB.1.5.1	0.0%	0.0-0.0%
	BQ.1	0.0%	0.0-0.0%
	FD.2	0.0%	0.0-0.0%
	BA.5	0.0%	0.0-0.0%
Other	Other*	0.1%	0.0-0.1%

SARS-CoV-2 Variant Surveillance

https://covid.cdc.gov/covid-data-tracker/#variant-proportions

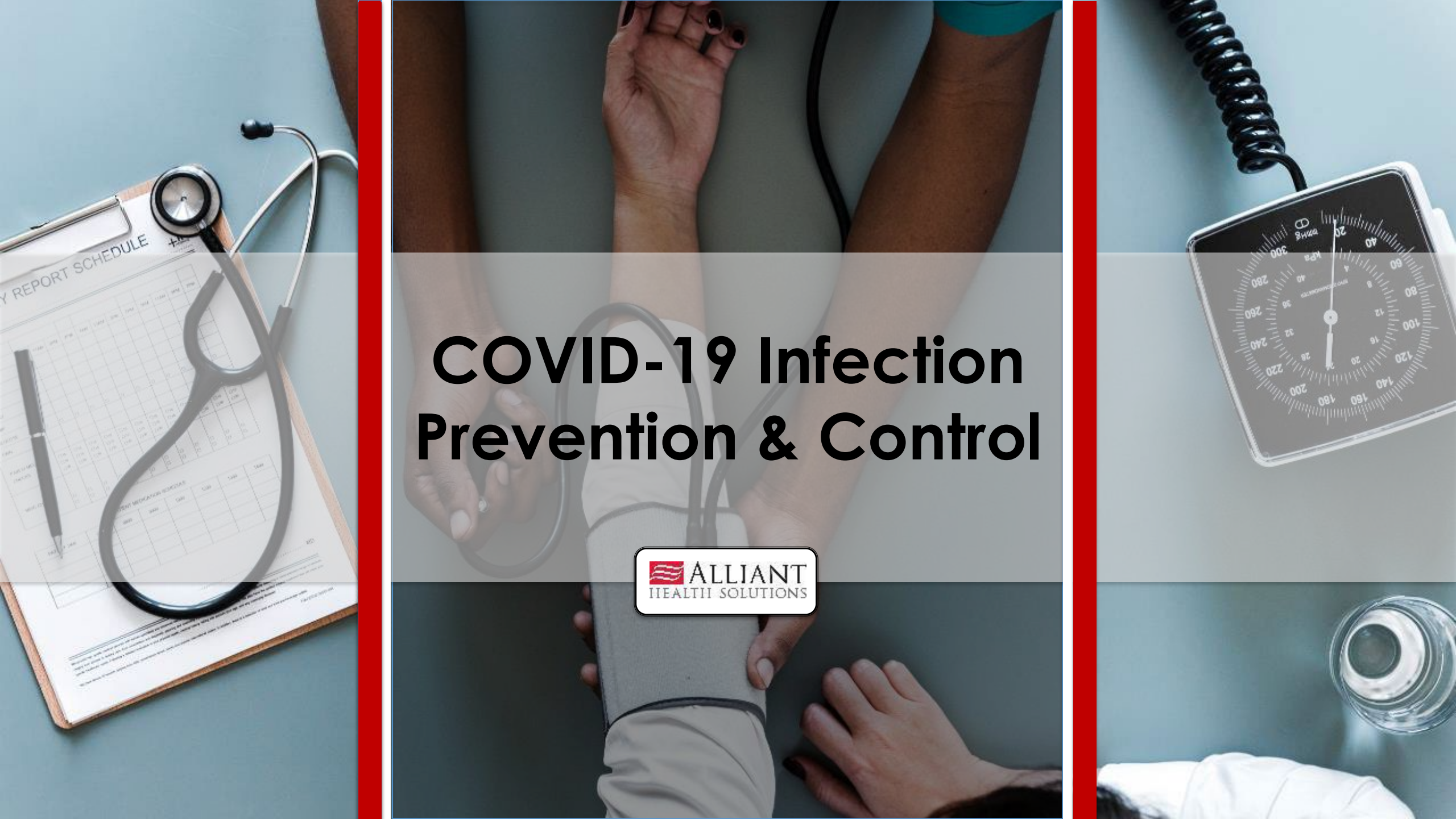


https://covid.cdc.gov/covid-data-tracker/#variant-proportions



RESP-NET Surveillance

https://www.cdc.gov/surveillance/resp-net/dashboard.html



COVID-19 Infection Prevention & Control

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COVID-19 IPC Practices

- Source control / Respiratory etiquette/ Hand hygiene
- Personal protective equipment (PPE) use (N95 respirator or surgical mask, goggles, etc.)
- Appropriate use of transmission-based precautions when caring for an ill resident
- Early screening, testing, isolation, and work restrictions
- Environmental cleaning and disinfection
- Process to promptly identify & isolate with SAR-CoV-2 infection
- Appropriate vaccinations, therapeutics, and treatments

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

COVID-19 IPC Updates (May 2023)

Admission Screening	• Admission testing is at the discretion of the facility. Residents who leave the facility for 24 hours or longer should generally be managed as an admission.
Source Control	• health care facilities should identify local metrics that could reflect increasing community respiratory viral activity to determine when broader use of source control in the facility might be warranted
Staff Screening	• Screening testing of asymptomatic HCP (that have not had an exposure or are part of an outbreak investigation) is at the discretion of the health care facility.
Exposure/Close Contact	• Asymptomatic patients/residents with close contact with someone with SARS-CoV-2 infection should have a series of three viral tests for SARS-CoV-2 infection.
Outbreak Investigations	• A single new case of SARS-CoV-2 infection in any HCP or resident should be evaluated to determine if others in the facility could have been exposed.

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

COVID-19 IPC Guidance: Source Control

- Vaccination status will no longer be used to inform source control, screening testing, or post-exposure recommendations.

- Source control **broadly recommended** as described in the CDC's Core IPC Practices in the following circumstances:

  - During SARS-CoV-2 outbreak or other respiratory infection outbreak
  - Facility-wide or, based on a facility risk assessment, targeted toward higher risk areas or patient or resident population
  - When recommended by public health authorities (e.g., in guidance for the community when COVID-19 hospital admission levels are high)

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

Broader Use of Source Control: Potential Metrics

Consider masking during typical respiratory virus season

- ~October through April

COVID Hospital Admission levels

- High => 20 new COVID-19 admissions per 100,000 population over the last 7 days

Follow national (or local, if available) data on trends of several respiratory viruses

- RESP-NET interactive dashboard
- National Emergency Department Visits for COVID-19, Influenza, and Respiratory Syncytial Virus
- ILINET

COVID-19 Vaccine Update

- FDA approved updated 2023-2024 COVID-19 vaccines for this fall/winter season. The bivalent vaccines are no longer authorized as of 9/12/2023.

- CDC recommends that everyone six months and older receive the 2023-2024 updated COVID-19 vaccine to protect against serious illness from COVID-19 and remain up to date.

- Review the updated Interim Clinical Guidance for COVID-19 Vaccines for clinical information and considerations.

Case Studies

Scenario 1: Admission Testing

Mr. Jones has been a resident at Sunshine Health Nursing Facility for the past year. Mr. Jones is a 72-year-old male with a history of heart failure, diabetes type II and renal failure. He receives hemodialysis 3x/week at the local dialysis clinic. During yesterday's dialysis session, he experienced abnormal heart rhythms accompanied by chest discomfort. His dialysis session was stopped, and he was subsequently transferred to the local hospital for evaluation and admitted for observation for 48 hours. He is now stable and ready to return to Sunshine Health Nursing Facility. **Should the facility obtain a COVID-19 (admission) test upon Mr. Jones' arrival?**

- Yes
- No
- I'm not sure; I need more information

Scenario 1: Admission Testing

Should the facility obtain a COVID-19 (admission) test upon Mr. Jones' arrival?

A. Yes

B. No

C. I'm not sure; I need more information

- ✓ Residents who leave the facility for 24 hours or longer should generally be managed as an admission
- ✓ In general, the performance of pre-procedure or pre-admission testing is at the discretion of the facility.
- ✓ Considerations (more information)
  - ✓ Facility admission testing policy/procedure
  - ✓ Resident population risk
  - ✓ Known COVID-19 exposures while hospitalized
  - ✓ Weekly COVID-19 hospital admissions
  - ✓ Weekly COVID-19 percentage death
  - ✓ Emergency department visits

https://covid.cdc.gov/covid-data-tracker/#cases_new-admissions-rate-county
https://covid.cdc.gov/covid-data-tracker/#trends_weeklyhospitaladmissions_weeklypctdeaths_13
https://www.cdc.gov/coronavirus/2019-ncov/hcp/infection-control-recommendations.html#admission_testing

Scenario 2: Staff Screenings

Nurse Smith arrived this morning for her shift. She shares that she is returning from vacation. She states she feels fatigued but attributes it to traveling. She also mentions that she has a cough and runny nose, which she attributes to allergies. Her records indicate that she is up to date with her COVID-19 vaccinations. **Should the administration conduct a COVID-19 test on Nurse Smith before she starts her shift?**

- Yes
- No

Scenario 2: Staff Screenings

Nurse Smith arrived this morning for her shift. She shares that she is returning from vacation. She states she feels mildly fatigued but attributes it to traveling. She also mentions that she has a cough and runny nose, which she attributes to allergies. Her records indicate that she is up to date with her COVID-19 vaccinations. **Should the administration conduct a COVID-19 test on Nurse Smith before she starts her shift?**

A. Yes

B. No

- ✓ Exhibiting COVID-19 symptoms
- ✓ Anyone with even mild symptoms of COVID-19, **regardless of vaccination status**, should receive a viral test for SARS-CoV-2 as soon as possible.
- ✓ Health care personnel with even mild COVID-19 symptoms should be prioritized for viral testing with nucleic acid or antigen detection assays.
  - ✓ When testing a person with symptoms of COVID-19, negative results from at least one viral test indicate that the person most likely does not have an active SARS-CoV-2 infection when the sample was collected.

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

Scenario 3: Source Control

The administrator's or IP's immediate next step, in addition to COVID-19 testing, should be to ensure Nurse Smith is wearing source control.

- True
- False

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

Scenario 3: Source Control

The administrator's or IP's immediate next step, in addition to COVID-19 testing, should be to ensure Nurse Smith is wearing source control.

A. True

B. False

- ✓ **Source control is recommended for individuals in health care settings who:**
  - ✓ Have suspected or confirmed SARS-CoV-2 infection or other respiratory infection (e.g., those with runny nose, cough, sneeze); or
  - ✓ Had close contact (patients and visitors) or a higher-risk exposure (HCP) with someone with SARS-CoV-2 infection for 10 days after their exposure

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

Scenario 4: Outbreak Investigation

Today, a CNA reported a positive COVID-19 result from a viral SARS-CoV-2 PCR test taken two days ago. His last and only shift in the past week was on 9/12/2023 from 7 a.m. - 3 p.m., and he was sent home early for not feeling well (reporting a runny nose, sore throat, fatigue, and headache).

Does this constitute a COVID-19 outbreak and require an outbreak investigation?

- Yes
- No

Scenario 4: Outbreak Investigation

- Today, a CNA reported a positive COVID-19 result from a viral SARS-CoV-2 PCR test taken two days ago. His last and only shift in the past week was on 9/12/2023 from 7 a.m. - 3 p.m., and he was sent home early for not feeling well (reporting a runny nose, sore throat, fatigue, and headache).

- Does this constitute a COVID-19 outbreak and require an outbreak investigation?
  - Yes
  - No

- ✓ A single new case of SARS-CoV-2 infection in any HCP or resident should be evaluated to determine if others in the facility could have been exposed.
- ✓ Outbreak investigation approach
  - ✓ Contact tracing **OR** a broad-based approach
  - ✓ Perform testing for all residents and HCP identified as close contacts or on the affected unit(s) if using a broad-based approach, regardless of vaccination status

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

CDC COVID-19 Infection Prevention and Control Guidance

- Interim IPC Recommendations for Healthcare Personnel
- Interim Guidance for Managing Healthcare Personnel with Infection or Exposure
- Strategies to Mitigate Healthcare Personnel Staffing Shortages

Enhanced Barrier Precautions

Presented by

Paula St. Hill

ALLIANT HEALTH SOLUTIONS

Objectives

- Explain antimicrobial resistance and how it occurs
- Describe the burden of multidrug-resistant organisms (MDROs)
- Describe challenges to preventing MDRO transmission in nursing homes
- Define Standard Precautions, Enhanced Barrier Precautions, and Contact Precautions
- Identify which residents and activities meet the criteria for Enhanced Barrier Precautions
- Discuss best practices for implementing Enhanced Barrier Precautions

Antimicrobial Resistance: A Growing Concern

- Antimicrobial resistance happens when germs like bacteria and fungi develop the ability to defeat the drugs designed to kill them; this means the germs are not killed and continue to grow
- Antimicrobial resistance is an urgent global public health threat, associated with nearly five million deaths in 2019
- In the U.S., nearly three million antimicrobial-resistant infections occur each year
    - More than 35,000 die as a result

https://www.cdc.gov/drugresistance/about.html

Antimicrobial Resistance

Bacteria and fungi do not have to be resistant to every antibiotic or antifungal to be dangerous. Resistance to even one antibiotic can mean serious problems. For example:

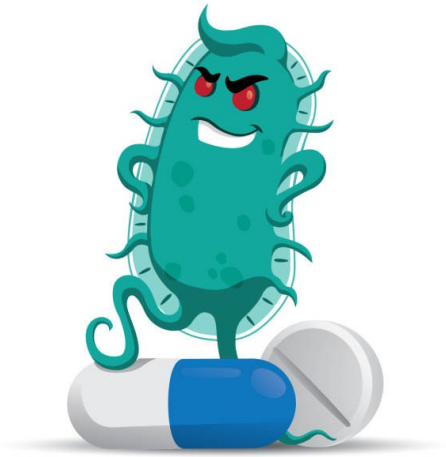
- Antimicrobial-resistant infections that require the use of second- and third-line treatments can harm patients by causing serious side effects, such as organ failure and prolonged care and recovery, sometimes for months
- Many medical advances are dependent on the ability to fight infections using antibiotics, including joint replacements, organ transplants, cancer therapy, and the treatment of chronic diseases like diabetes, asthma, and rheumatoid arthritis
- In some cases, these infections have no treatment options

If antibiotics and antifungals lose their effectiveness, we lose the ability to treat infections and control these public health threats.

https://www.cdc.gov/drugresistance/about.html

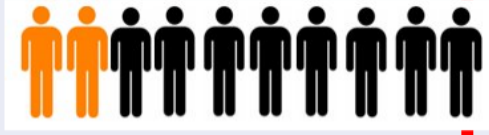
Multi-Drug Resistant Organisms (MDROs)

- Multidrug-resistant organisms (MDROs) are continuing to develop and spread in health care settings throughout the United States. Because of this, efforts to prevent MDRO transmission are still needed. In the past, MDROs were identified after lab confirmation. However, research has found that these organisms can spread long before detection.



https://www.cdc.gov/hai/mdro-guides/index.html

Burden of MDROs in Nursing Homes

Facility Type	Documented MDRO	Actual MDRO
Nursing Homes (n = 14)	17% 	58% 
Ventilator-Capable Nursing Homes (n = 4)	20% 	76% 

McKinnell, J. A., Singh, R. D., Miller, L. G., Kleinman, K., Gussin, G. M., He, J., Saavedra, R., Dutciuc, T. D., Estevez, M., Chang, J. S., Heim, L., Yamaguchi, S., Custodio, H., Gohil, S. K., Park, S. I., Tam, S. P., Robinson, P., Tjoa, T., Nguyen, J. P., . . . Huang, S. S. (2019). The SHIELD Orange County Project: Multidrug-resistant Organism Prevalence in 21 Nursing Homes and Long-term Acute Care Facilities in Southern California. *Clinical Infectious Diseases*, 69(9), 1566–1573. https://doi.org/10.1093/cid/ciz119

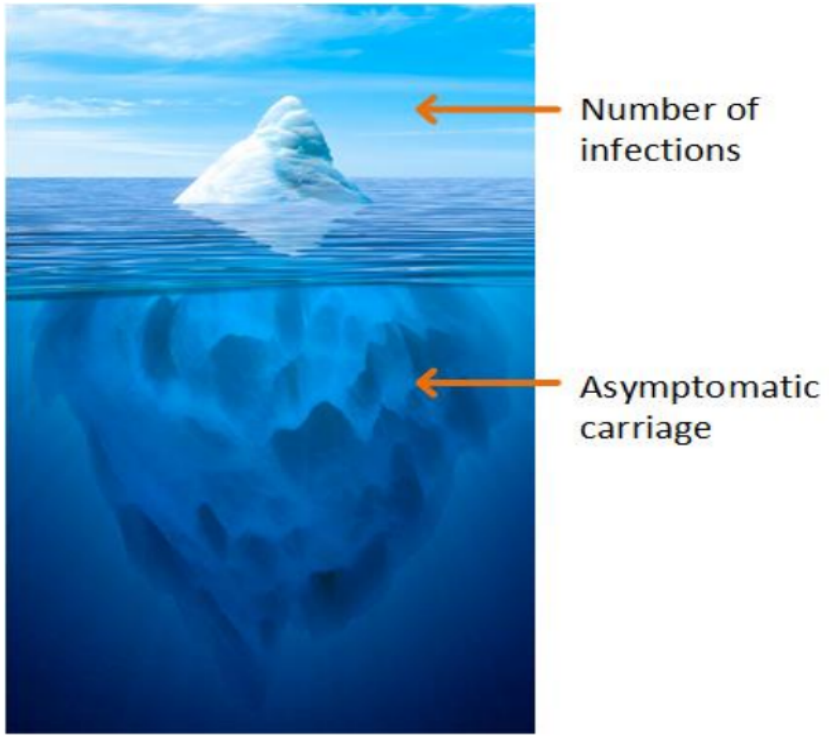
Risk Factors for the Development and Colonization of MDROs in Nursing Homes

- Indwelling medical devices (e.g., urinary catheter, PEG tube, tracheostomy/vents, central line)
- Presence of wounds or decubitus ulcers
- Antibiotic use in the prior three months, particularly fluoroquinolones
- Recent hospitalization
- Comorbid medical conditions
- Increased functional dependence
- Prolonged length of stay (increases opportunities for spread)
  - Residing in an LTCF/NH

Rodríguez-Villodres, Á., Martín-Gandul, C., Peñalva, G., Guisado-Gil, A. B., Crespo-Rivas, J. C., Pachón-Ibáñez, M. E., Lepe, J. A., & Cisneros, J. M. (2021). Prevalence and Risk Factors for Multidrug-Resistant Organisms Colonization in Long-Term Care Facilities Around the World: A Review. Antibiotics, 10(6), 680. https://doi.org/10.3390/antibiotics10060680

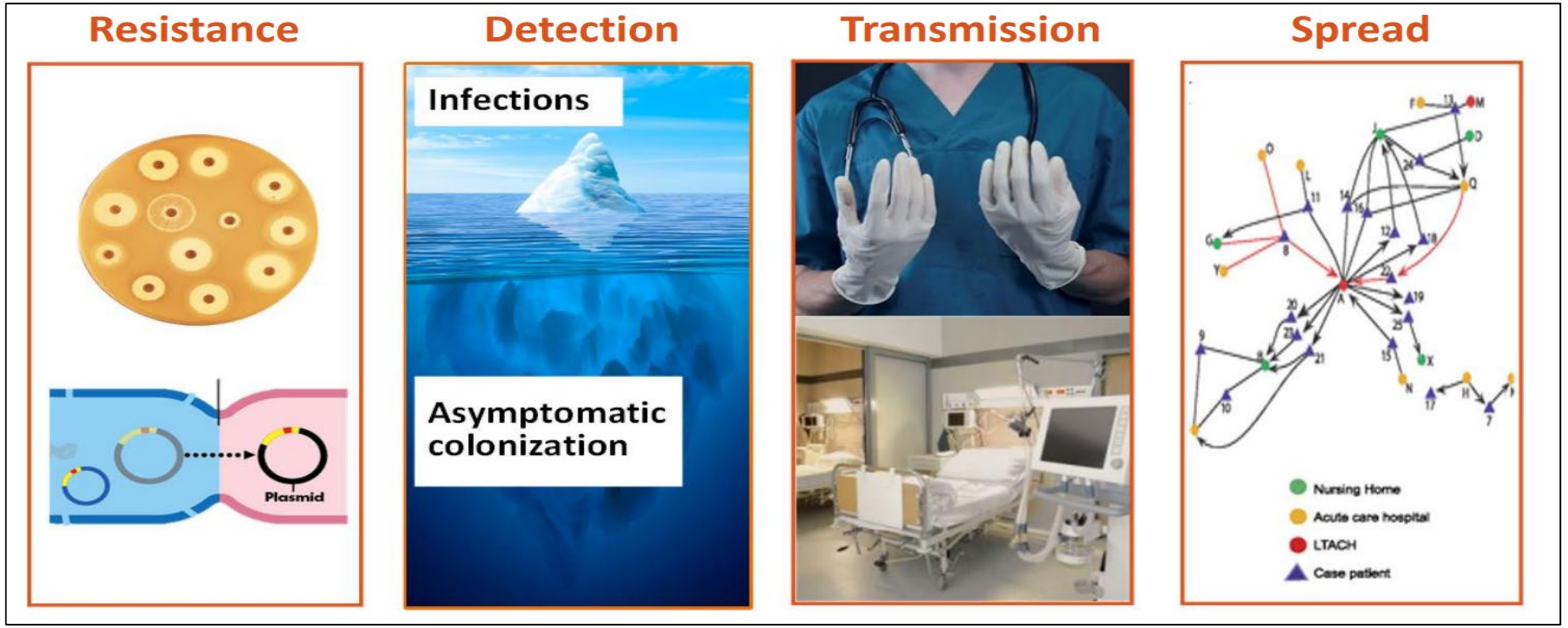
Challenges With the Detection of MDROs

- Clinical cultures underestimate true prevalence of MDROs
- Most centers are not performing active surveillance to identify asymptomatic, colonized residents
  - ***Contribute to the reservoir for transmission***
- Inadequate communication about individual MDRO history or risk factors between healthcare facilities during care transitions



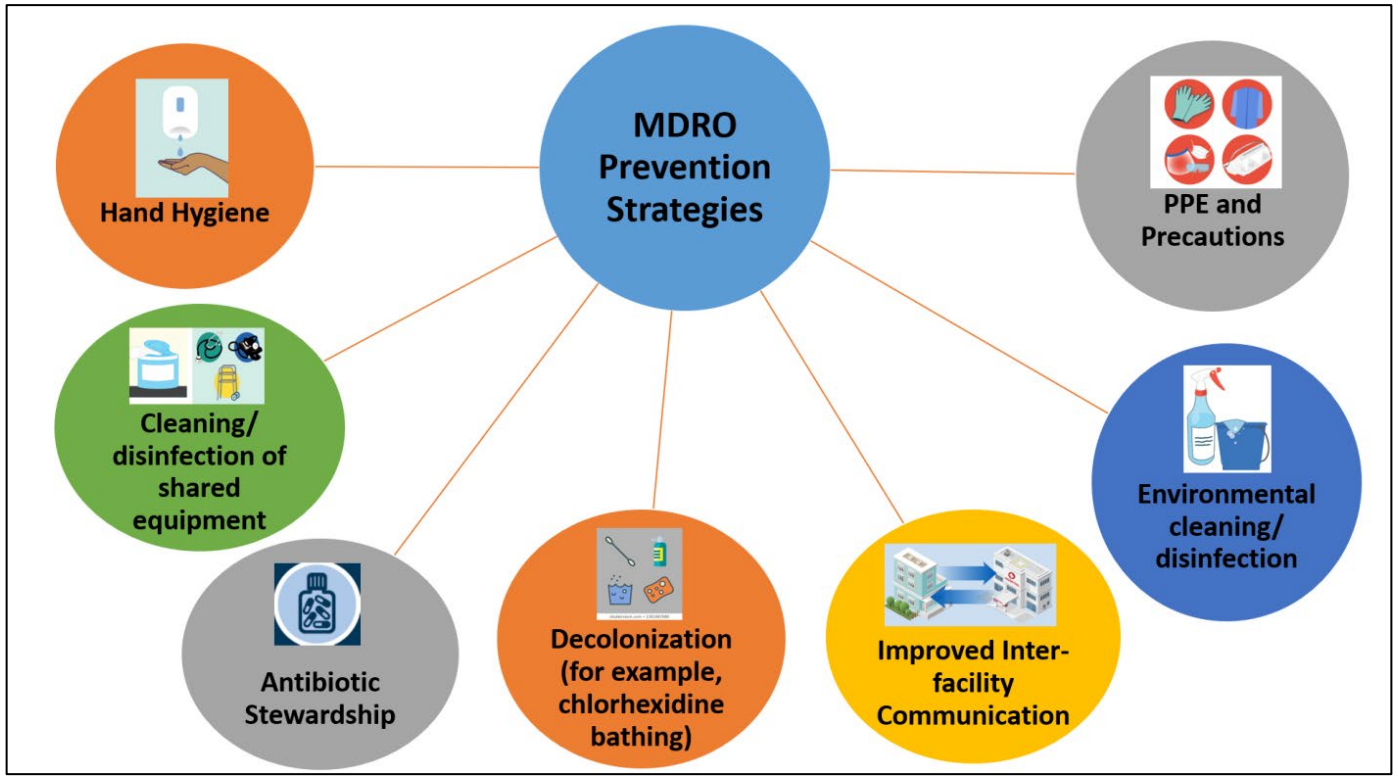
https://emergency.cdc.gov/coca/ppt/Enhanced-Barrier-Precautions-for-MDRO-Final.pdf-

Characteristics of Novel/Targeted MDROs in Health Care



https://emergency.cdc.gov/coca/ppt/Enhanced-Barrier-Precautions-for-MDRO-Final.pdf-

MDRO Prevention: Novel and Core Strategies



https://emergency.cdc.gov/coca/ppt/Enhanced-Barrier-Precautions-for-MDRO-Final.pdf-

https://www.cdc.gov/infectioncontrol/guidelines/mdro/index.html#:~:text=Use%20Standard%20Precautions%20for%20patients,and%20ostomy%20tubes%20and%20bags.

Personal Protective Equipment (PPE) & Precautions

Standard Precautions

Transmission-Based Precautions

Standard Precautions

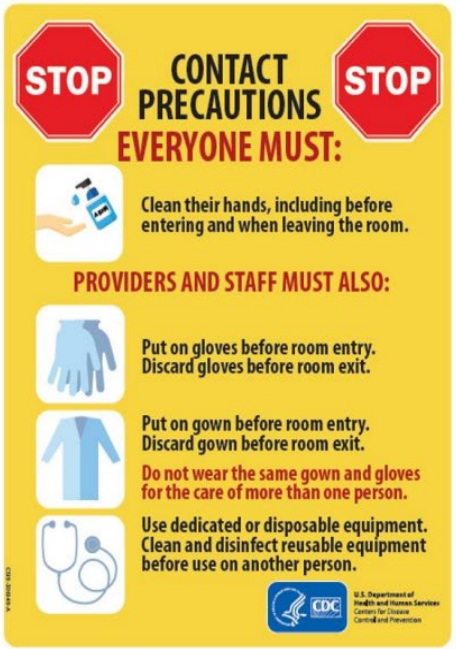
Standard Precautions are used for all patient care. They're based on a risk assessment and make use of common or basic knowledge practices and personal protective equipment use that protect health care providers from infection and prevent the spread of infection from patient to patient. Standard precautions include:

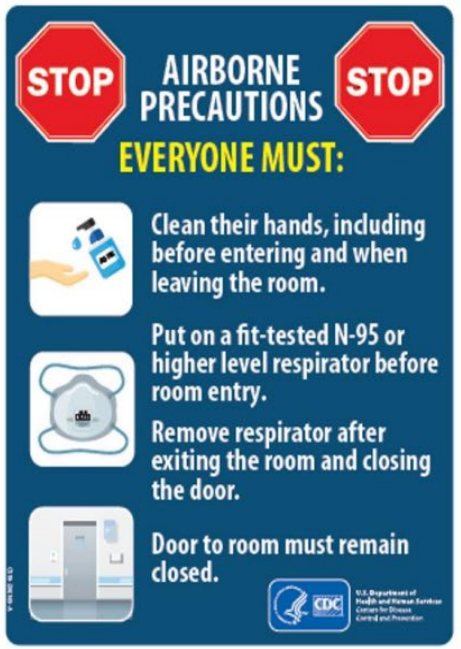
- Hand hygiene
- Use of personal protective equipment (e.g., gloves, masks, eyewear)
- Respiratory hygiene/cough etiquette
- Sharps safety (engineering and work practice controls)
- Safe injection practices (i.e., an aseptic technique for parenteral medications)
- Sterile instruments and devices
- Clean and disinfect environmental surfaces

https://www.cdc.gov/oralhealth/infectioncontrol/summary-infection-prevention-practices/standard-precautions.html

Transmission-Based Precautions

- Transmission-based precautions are the second tier of basic infection control. They are to be used in addition to Standard Precautions for patients who may be infected or colonized with certain infectious agents for which additional precautions are needed to prevent infection transmission.





https://www.cdc.gov/infectioncontrol/basics/transmission-based-precautions.html)

Enhanced Barrier Precautions (EBP)

- Enhanced Barrier Precautions expand the use of PPE and refer to the use of gowns and gloves during high-contact resident care activities that provide opportunities for transferring MDROs to staff hands and clothing.
- MDROs may be indirectly transferred from resident to resident during these high-contact care activities. Nursing home residents with wounds and indwelling medical devices are at especially high risk of acquiring and colonization with MDROs.
- The use of gown and gloves for high-contact resident care activities is indicated when Contact Precautions do not otherwise apply for nursing home residents with wounds and/or indwelling medical devices regardless of MDRO colonization and for residents with MDRO infection or colonization.

Contact Precautions for MDROs

- Perform hand hygiene
- Gown and gloves upon room entry
- Dedicated equipment
- Private room
- Room restriction

https://www.cdc.gov/infectioncontrol/basics/transmission-based-precautions.html

Enhanced Barrier Precautions

Examples of high-contact resident care activities requiring gown and glove use for Enhanced Barrier Precautions include:

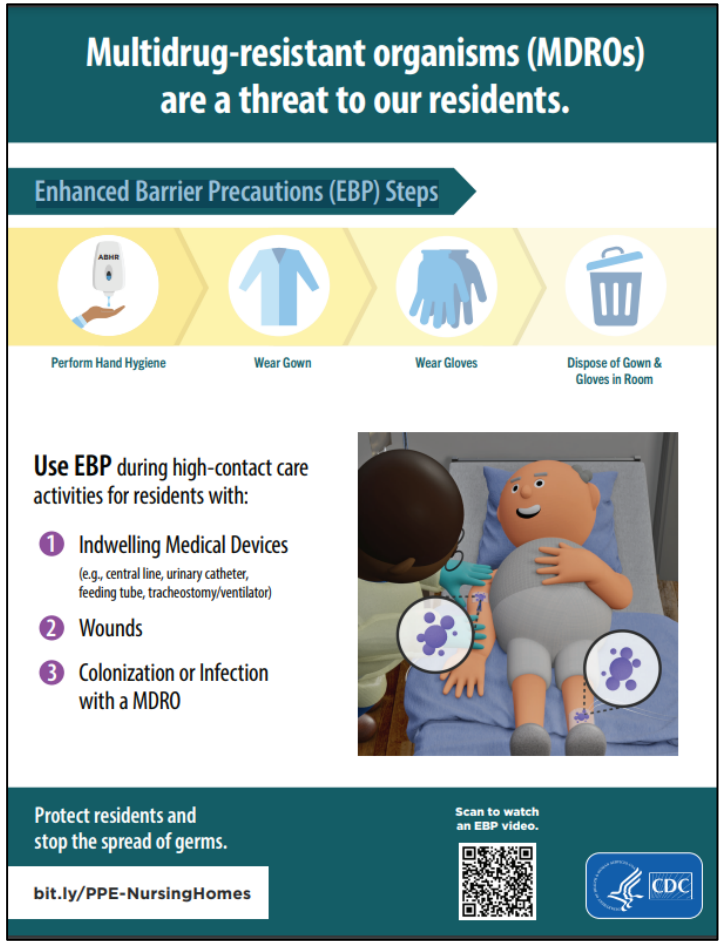
- Dressing
- Bathing/showering
- Transferring
- Providing hygiene
- Changing linens
- Changing briefs or assisting with toileting
- Device care or use: central line, urinary catheter, feeding tube, tracheostomy/ventilator
- Wound care: any skin opening requiring a dressing

In general, gowns and gloves would not be required for resident care activities other than those listed above unless otherwise necessary for adherence to Standard Precautions.

https://www.cdc.gov/hai/containment/PPE-Nursing-Homes.html

Enhanced Barrier Precautions Steps

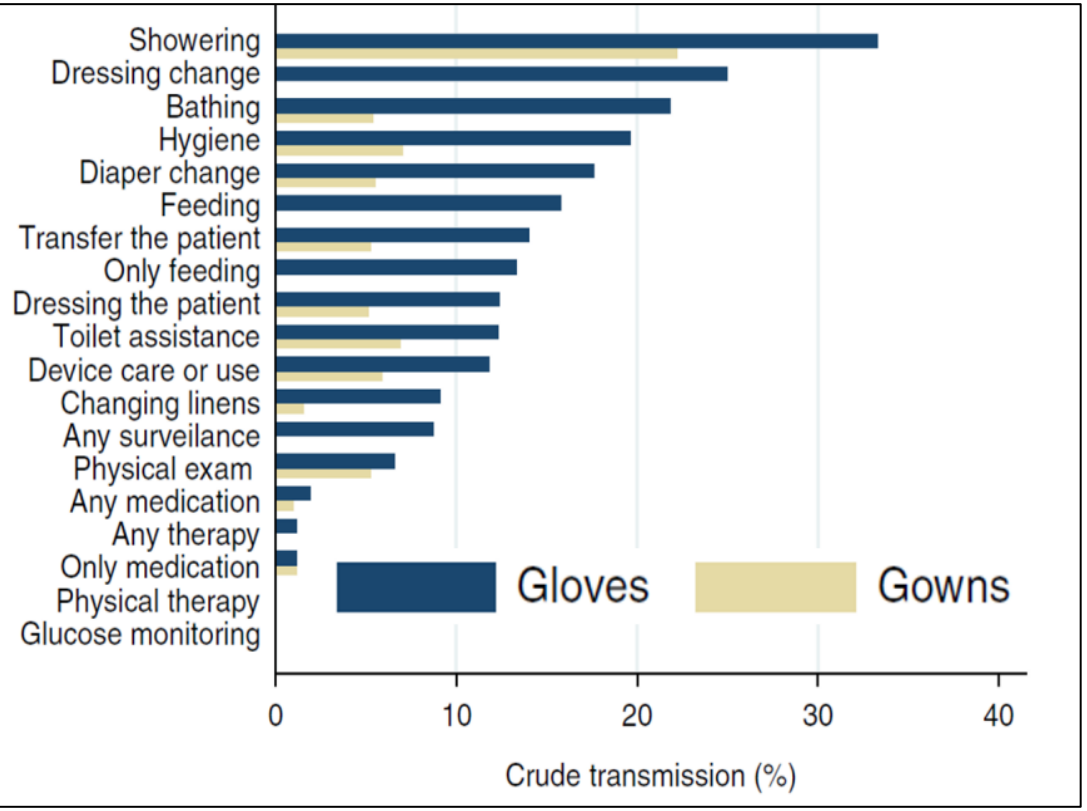
- In the majority of situations, EBP should be continued for the duration of a resident's admission.



https://www.cdc.gov/hai/pdfs/containment/EBP-MDROs-Poster-508.pdf

Resistant Gram-Negative Bacteria (RGNB) Transmission to Gowns and Gloves of HCW During Care of Colonized Residents

- **Highest Risk:**
  - **Showering**
  - **Hygiene**
  - **Toileting**
  - **Wound dressing changes**
- Lowest Risk:
  - Assist feeding
  - Giving meds
  - Glucose monitoring



Blanco et al. Infect Control Hosp Epidemiol (2018), 39, 1425-1430

EBP Implementation

Enhanced Barrier Precautions should be used for all residents with any of the following:

- **Infection or colonization with a novel or targeted MDRO** (as of July 2022) defined as:
  - Pan-resistant organisms
  - Carbapenemase-producing Enterobacteriaceae
  - Carbapenemase-producing *Pseudomonas* spp
  - Carbapenemase-producing *Acinetobacter baumannii*
  - *Candida auris*
- **Other epidemiologically important MDROs may include:**
  - Methicillan-resistant Staphyloccous aureus (MRSA)
  - ESBL- producing Enterobacterales
  - Vancomycin-resistant Enterococci (VRE)
  - Multidrug-resistant *Pseudomonas aeruginosa*

https://www.cdc.gov/hai/containment/PPE-Nursing-Homes.html

EBP Implementation (continued)

- Wounds and/or indwelling medical devices (e.g., central line, urinary catheter, feeding tube, tracheostomy/ventilator) regardless of MDRO colonization status residing in an at-risk area
- When Contact Precautions do not apply

https://www.cdc.gov/hai/containment/PPE-Nursing-Homes.html

Contact Precautions Implementation

- For all residents infected or colonized with a novel or targeted multidrug-resistant organism in specific situations:
  - Presence of acute diarrhea, draining wounds or other sites of secretions or excretions that are unable to be kept covered or contained
  - On units or in facilities where ongoing transmission is documented or suspected

- For infections (e.g., C. difficile, norovirus, scabies) and other conditions where Contact Precautions are recommended
  - See Appendix A – Type and Duration of Precautions Recommended for Selected Infections and Conditions of the CDC Guideline for Isolation Precautions

https://www.cdc.gov/infectioncontrol/guidelines/isolation/appendix/type-duration-precautions.html

Implementation of Both EBP and Contact Precautions

When implementing Contact Precautions or Enhanced Barrier Precautions, it is critical to ensure that staff has an awareness of the facility's expectations about hand hygiene and gown/glove use, initial and refresher training and access to appropriate supplies. To accomplish this:

- Post clear signage on the door or wall outside of the resident room indicating the type of Precautions and required PPE (e.g., gown and gloves).
- For Enhanced Barrier Precautions, signage should also clearly indicate the high-contact resident care activities that require the use of a gown and gloves.
- Make PPE, including gowns and gloves, available immediately outside of the resident's room.
- Ensure access to alcohol-based hand rub in every resident room (ideally both inside and outside of the room).
- Position a trash can inside the resident's room and near the exit for discarding PPE after removal, prior to the exit of the room or before providing care for another resident in the same room.
- Incorporate periodic monitoring and assessment of adherence to determine the need for additional training and education.
- Provide education to residents and visitors.

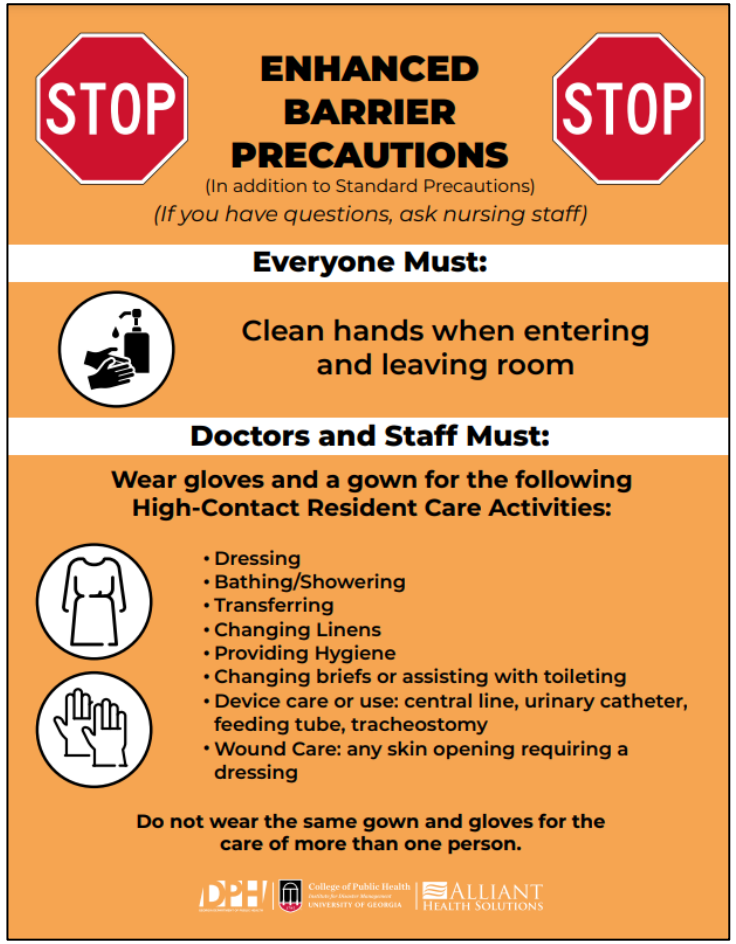
https://www.cdc.gov/hai/containment/PPE-Nursing-Homes.html

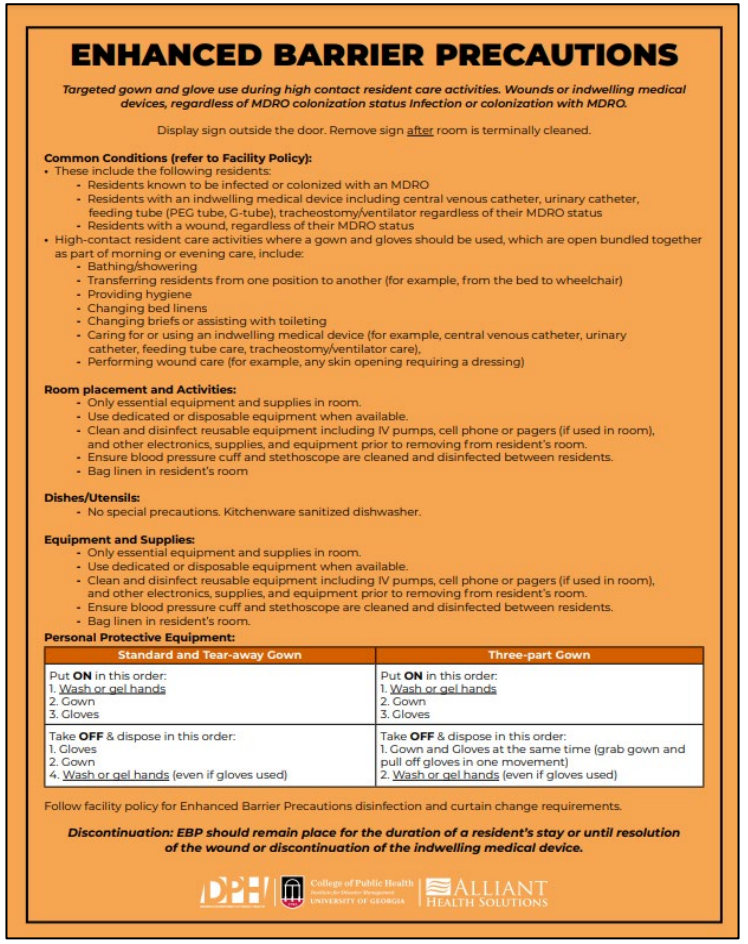
Summary of PPE Use and Room Restriction When Caring for Residents in Nursing Homes

Precautions	Applies to	PPE used for these situations	Required PPE	Room restriction
Standard Precautions	All residents	Any potential exposure to: • Blood • Body fluids • Mucous membranes • Non-intact skin • Potentially contaminated environmental surfaces or equipment	Depending on anticipated exposure: gloves, gown, facemask or eye protection (Change PPE before caring for another resident)	None
Enhanced Barrier Precautions	All residents with *any of the following*: • Infection or colonization with an MDRO *when Contact Precautions do not otherwise apply* • Wounds and/or indwelling medical devices (e.g., central line, urinary catheter, feeding tube, tracheostomy/ventilator) *regardless of MDRO colonization status*	During high-contact resident care activities: • Dressing • Bathing/showering • Transferring • Providing hygiene • Changing linens • Changing briefs or assisting with toileting • Device care or use: central line, urinary catheter, feeding tube, tracheostomy/ventilator • Wound care: any skin opening requiring a dressing	Gloves and gown prior to the high-contact care activity (Change PPE before caring for another resident) (Face protection may also be needed if performing activity with risk of splash or spray)	None
Contact Precautions	All residents infected or colonized with a MDRO *in any of the following situations*: • Presence of acute diarrhea, draining wounds or other sites of secretions or excretions that are unable to be covered or contained • For a limited time period, as determined in consultation with public health authorities, on units or in facilities during the investigation of a suspected or confirmed MDRO outbreak • When otherwise directed by public health authorities All residents who have another infection (e.g., *C. difficile*, norovirus, scabies) or condition for which Contact Precautions is recommended in Appendix A (Type and Duration of Precautions Recommended for Selected Infections and Conditions) of the CDC Guideline for Isolation Precautions.	Any room entry	Gloves and gown (Don before room entry, doff before room exit; change before caring for another resident) (Face protection may also be needed if performing activity with risk of splash or spray)	Yes, except for medically necessary care

https://www.cdc.gov/hai/containment/PPE-Nursing-Homes.html

Enhanced Barrier Precautions Signage





ENHANCED BARRIER PRECAUTIONS

Targeted gown and glove use during high contact resident care activities. Wounds or indwelling medical devices, regardless of MDRO colonization status Infection or colonization with MDRO.

Display sign outside the door. Remove sign after room is terminally cleaned.

Common Conditions (refer to Facility Policy):

- These include the following residents:
  - Residents known to be infected or colonized with an MDRO
  - Residents with an indwelling medical device including central venous catheter, urinary catheter, feeding tube (PEG tube, G-tube), tracheostomy/ventilator regardless of their MDRO status
  - Residents with a wound, regardless of their MDRO status
- High-contact resident care activities where a gown and gloves should be used, which are open bundled together as part of morning or evening care, include:
  - Bathing/showering
  - Transferring residents from one position to another (for example, from the bed to wheelchair)
  - Providing hygiene
  - Changing bed linens
  - Changing briefs or assisting with toileting
  - Caring for or using an indwelling medical device (for example, central venous catheter, urinary catheter, feeding tube care, tracheostomy/ventilator care),
  - Performing wound care (for example, any skin opening requiring a dressing)

Room placement and Activities:

- Only essential equipment and supplies in room.
- Use dedicated or disposable equipment when available.
- Clean and disinfect reusable equipment including IV pumps, cell phone or pagers (if used in room), and other electronics, supplies, and equipment prior to removing from resident's room.
- Ensure blood pressure cuff and stethoscope are cleaned and disinfected between residents.
- Bag linen in resident's room

Dishes/Utensils:

- No special precautions. Kitchenware sanitized dishwasher.

Equipment and Supplies:

- Only essential equipment and supplies in room.
- Use dedicated or disposable equipment when available.
- Clean and disinfect reusable equipment including IV pumps, cell phone or pagers (if used in room), and other electronics, supplies, and equipment prior to removing from resident's room.
- Ensure blood pressure cuff and stethoscope are cleaned and disinfected between residents.
- Bag linen in resident's room.

Personal Protective Equipment:

Standard and Tear-away Gown	Three-part Gown
Put **ON** in this order: 1. Wash or gel hands 2. Gown 3. Gloves	Put **ON** in this order: 1. Wash or gel hands 2. Gown 3. Gloves
Take **OFF** & dispose in this order: 1. Gloves 2. Gown 4. Wash or gel hands (even if gloves used)	Take **OFF** & dispose in this order: 1. Gown and Gloves at the same time (grab gown and pull off gloves in one movement) 2. Wash or gel hands (even if gloves used)

Follow facility policy for Enhanced Barrier Precautions disinfection and curtain change requirements.

Discontinuation: EBP should remain place for the duration of a resident's stay or until resolution of the wound or discontinuation of the indwelling medical device.

https://quality.alliancehealth.org/wp-content/uploads/2023/01/Enhanced-Barrier-Precautions-Sign_508.pdf

Enhanced Barrier Precautions vs. Contact Precautions

Enhanced Barrier Precautions **Applies to:**	**Contact Precautions** **Applies to:**
All residents with any of the following: • Infection or colonization with a novel or targeted MDRO **when Contact Precautions do not apply** • Wounds and/or indwelling medical devices (e.g., central line, urinary catheter, feeding tube, tracheostomy/ventilator) regardless of MDRO colonization status Facilities may consider applying Enhanced Barrier Precautions to residents infected or colonized with other epidemiologically-important MDROs based on facility policy	**All residents infected or colonized with a novel or targeted multidrug-resistant in specific situations:** • Presence of acute diarrhea, draining wounds or other sites of secretions or excretions that are unable to be covered or contained • On units or in facilities where ongoing transmission is documented or suspected **For infections (e.g., C. difficile, norovirus, scabies) and other conditions where Contact Precautions are recommended**

https://www.cdc.gov/hai/containment/PPE-Nursing-Homes.html

Enhanced Barrier Precautions vs. Contact Precautions (continued)

Enhanced Barrier Precautions **PPE used for these situations:**	**Contact Precautions** **PPE used for these situations:**
During high-contact resident care activities: • Dressing • Bathing/showering • Transferring • Providing hygiene • Changing linens • Changing briefs or assisting with toileting • Device care or use: central line, urinary catheter, feeding tube, tracheostomy/ ventilator • Wound care: any skin opening requiring a dressing	**Any room entry**

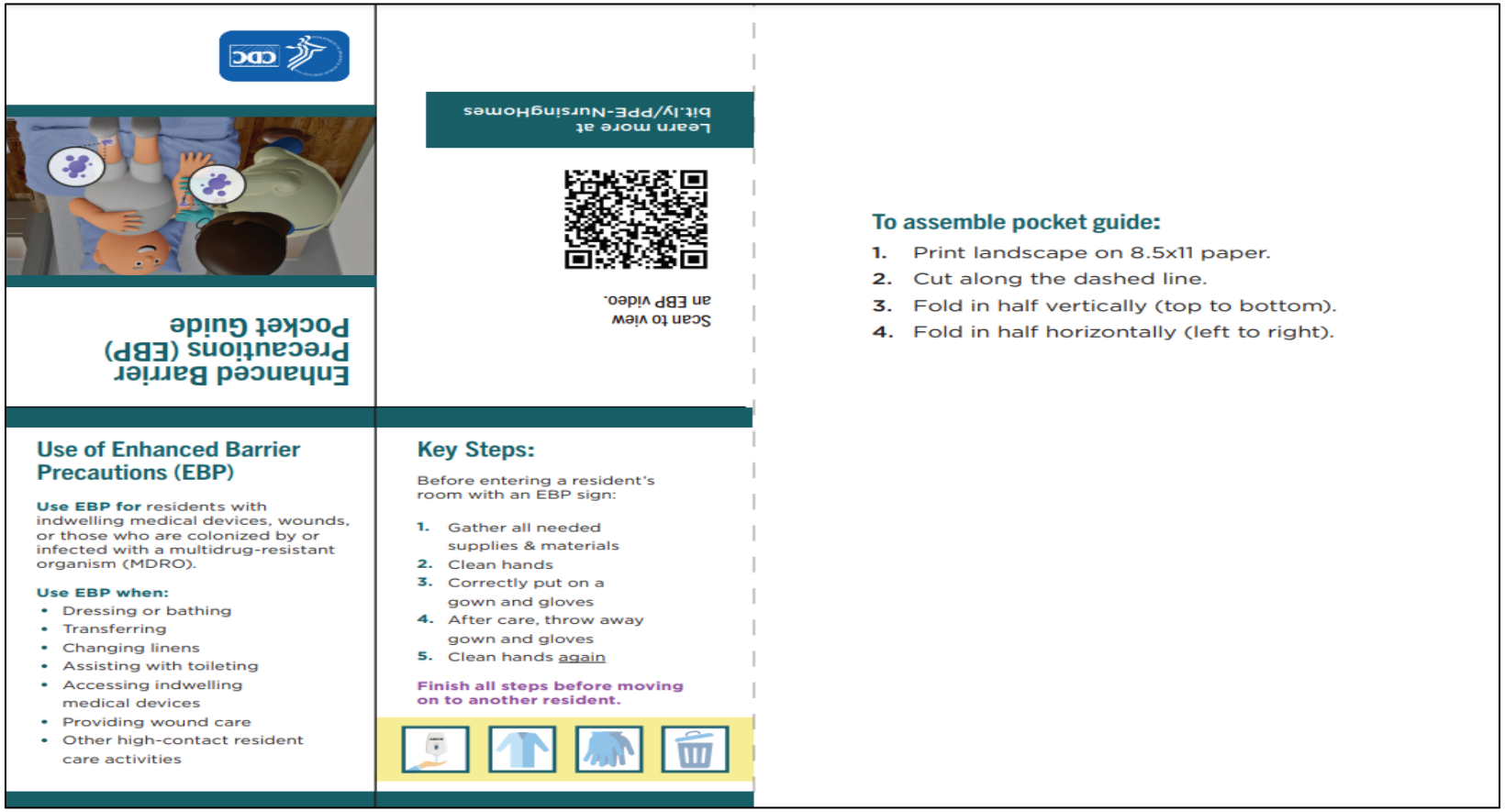
https://www.cdc.gov/hai/containment/PPE-Nursing-Homes.html

Enhanced Barrier Precautions vs. Contact Precautions (continued)

Enhanced Barrier Precautions **Applies to:**	**Contact Precautions** **Applies to:**
• Gloves and gown prior to the high-contact care activity **Note:** • Does <u>not</u> require single-room • Does <u>not</u> require restrictions of movement/participation within facility policy	• Gloves and gown **Note:** • Includes consideration for single room or cohorting • Includes restriction of movement and participation in group activities within the facility

https://www.cdc.gov/hai/containment/PPE-Nursing-Homes.html

EBP Staff Pocket Guide



Enhanced Barrier Precautions (EBP) Pocket Guide

Learn more at bit.ly/PPE-NursingHomes

Scan to view an EBP video.

Use of Enhanced Barrier Precautions (EBP)

Use EBP for residents with indwelling medical devices, wounds, or those who are colonized by or infected with a multidrug-resistant organism (MDRO).

Use EBP when:

- Dressing or bathing
- Transferring
- Changing linens
- Assisting with toileting
- Accessing indwelling medical devices
- Providing wound care
- Other high-contact resident care activities

Key Steps:

Before entering a resident's room with an EBP sign:

1. Gather all needed supplies & materials
2. Clean hands
3. Correctly put on a gown and gloves
4. After care, throw away gown and gloves
5. Clean hands again

Finish all steps before moving on to another resident.

To assemble pocket guide:

1. Print landscape on 8.5x11 paper.
2. Cut along the dashed line.
3. Fold in half vertically (top to bottom).
4. Fold in half horizontally (left to right).

Reference: https://www.cdc.gov/hai/pdfs/containment/EBP-PocketGuide-508.pdf

Take-home Video

IP Duties and Responsibilities

Presented by

Donald Chitanda

ALLIANT HEALTH SOLUTIONS

IP Responsibilities

- Serve as Subject Matter Expert (SME) for the facilities in these areas:
  - Evidence-based Infection Prevention practices
  - Regulatory Compliance
  - Infectious disease surveillance

Main Goals of an IP

- To ensure that safe and quality care is given to residents within your facility
- To minimize the spread of infections within the facility

Hand Hygiene

- Ensuring health care personnel (HCP) clean their hands as indicated in the World Health Organization (WHO) five moments for hand hygiene:
  - Immediately before touching a patient
  - Before performing an aseptic task, such as placing or handling an indwelling device
  - After touching a patient or the patient's environment
  - After contact with blood, body fluids or contaminated surfaces
  - Immediately after glove removal

Hand Hygiene

- Ensuring availability and accessibility of hand hygiene supplies and stations
  - Alcohol-based hand sanitizer location, ease of access, expiration.
  - Soap and paper towels available at hand sinks
  - Does the sink drain?

Hand Hygiene Observation Tool

Part C. Hand Hygiene Adherence Observations

Complete as many observations as possible during the visit. If observed, note hand conditions that increase risk of colonization with pathogens (e.g., dermatitis, use of artificial nails) in comments.

Location/Unit	Staff type	Type of opportunity	HH performed?	Comments
		○ Room entry ○ Room exit ○ Before patient/resident contact* ○ Before clean/aseptic procedure ○ After patient/resident contact* ○ After glove removal ○ Other *(specify)*:	○ ABHS ○ Hand Wash ○ No hand hygiene done	
		○ Room entry ○ Room exit ○ Before patient/resident contact* ○ Before clean/aseptic procedure ○ After patient/resident contact* ○ After glove removal ○ Other *(specify)*:	○ ABHS ○ Hand Wash ○ No hand hygiene done	

Standard Precautions (SP)

- Assume every person is potentially infected or colonized with an organism that could be transmitted
- Should be practiced by all health care personnel when anticipating contact with blood, body secretions, non-intact skin
- Elements of SP that IP can monitor include safe injection practices, hand hygiene, proper use of gloves, gown, mask and eye protection depending on anticipated exposure

Transmission-Based Precautions

- Implemented for residents known or suspected to be infected with an infectious agent
- Initiated according to facility policy and in accordance with state guidelines
- Can be initiated by IP, physician or nursing team
- Can be terminated when the risk of transmission is no longer a safety threat to others in the facility

Location #1 Unit: _____ Room: _____ # occupied beds in room: _____

○ Direct obs. of elements ○ Interview of frontline HCP

TBP Type (*select all that apply*):

☐ Contact ☐ Droplet ☐ Airborne ☐ Enhanced Barrier ☐ Other (*specify*): _____

Contact (*Select all that are present*):

- ☐ Signage is present at entry
- ☐ Adequate supplies of gowns and gloves stocked at room entry
- ☐ Waste receptacle readily available for doffing PPE prior to exiting room
- ☐ Alcohol based hand sanitizer (ABHS) is readily available for personnel to clean hands

If >1 patient or resident in room

- ☐ Clear separation between patient/resident care areas (e.g., a privacy curtain)
- ☐ Personnel doff gown and gloves and clean hands when moving between patients/residents
- ☐ Enough space (3 feet) exists between beds to allow for clinical care to occur from either side of the bed

Droplet (*Select all that are present*):

- ☐ Signage is present at entry
- ☐ Adequate supplies of masks stocked at room entry
- ☐ Waste receptacle readily available for doffing PPE immediately upon room exit
- ☐ ABHS readily available for personnel to clean hands

If >1 patient or resident in room

- ☐ Clear separation between patient/resident care areas (e.g., a privacy curtain)
- ☐ Personnel clean hands when moving between patients/residents
- ☐ Enough space (3 feet) exists between beds to allow for clinical care to occur from either side of the bed

Airborne (*Select all that are present*)

- ☐ Signage is present at entry
- ☐ Adequate supplies of respirators stocked at room entry
- ☐ Room door is kept closed
- ☐ Waste receptacle readily available for doffing of respiratory protection outside the room.
- ☐ If reusable supplies (e.g., PAPR/CAPR) are used, there is a dedicated area for cleaning and disinfection
- ☐ ABHS readily available for personnel to clean hands

If >1 patient or resident in room

- ☐ Clear separation between patient/resident care areas (e.g., a privacy curtain)
- ☐ Personnel clean hands when moving between patients/residents
- ☐ Enough space (3 feet) exists between beds to allow for clinical care to occur from either side of the bed

Enhanced Barrier (*Select all that are present*)

- ☐ Signage is present at entry
- ☐ Adequate supplies of gowns and gloves stocked at room entry
- ☐ Waste receptacle readily available for doffing PPE prior to exiting room
- ☐ Alcohol based hand sanitizer (ABHS) is readily available for personnel to clean hands

If >1 resident in room

- ☐ Clear separation between resident care areas (e.g., a privacy curtain)
- ☐ Personnel doff gown and gloves and clean hands when moving between residents
- ☐ Enough space (3 feet) exists between beds to allow for clinical care to occur from either side of the bed

Sample Observation Tool

Surveillance

- Infectious disease surveillance to monitor trends and identify outbreaks
- Should be collected on a routine, systematic and ongoing basis
- Best if surveillance is collected concurrently as it occurs

Surveillance

- Data can be collected from sources such as:
  - 24-hour reports which can include residents placed on TBP, new antibiotics, acute condition changes
  - Night supervisor reports
  - Pharmacy and lab reports
  - Documentation from transferring facilities
  - Intake and nursing assessment data upon admission
  - Medical record
  - Collaboration with other IPs from transferring facility

Surveillance

- Infection surveillance definitions can be used to identify specific conditions that qualify as infections for the purpose of surveillance data collection and calculation of infection rates
- Surveillance definitions are NOT the same as clinical diagnosis

Surveillance

- Once surveillance is completed, data should be collected and analyzed and their significance summarized
- IP must know **What** to report, **How** to report, and **Who** must be informed per facility policy as well as federal, state and local reporting requirements

- IP can use gathered surveillance data to report internally to key stakeholders such as:
  - Residents and family members
  - Nursing and clinical teams
  - Environmental services
  - Nutrition/dining services
  - Maintenance
  - Administration

Surveillance

- In addition to internal reporting, IP must be familiar with all applicable external reporting requirements and contacts such as:
  - Local/County Health Dept
  - State Health Dept
  - CDC/NHSN

Education

- All employees in LTCFs must be educated about infection prevention.
- The IP should provide orientation to all new employees and additional training for staff on a continual basis.

Proper Care of Indwelling Devices

- Residents in LTCFs may be chronically dependent on ventilators, urinary catheters, and central venous catheters, which put them at increased risk of infection.
- IP should be familiar with evidence-based best practices for the care and maintenance of these devices.

Linen Management

- IP should be familiar with whether laundry is performed onsite or offsite and how it is handled.
- Linen should be handled, stored, processed and transported so as to prevent the spread of infection.

Linen Management

- IP can assess the following as part of the assessment of the linen program:
  - PPE availability and use by personnel sorting soiled laundry
  - Hand hygiene stations available in the clean and soiled areas of the laundry area
  - Soiled linen is contained at the point of use
  - Clean laundry is packaged and transported in a manner that prevents contact with the environment

Environmental Services (EVS)

- IP can assess if there are policies indicating which environmental surfaces are to be routinely cleaned and disinfected in resident rooms.
- Assist in selecting products used by the facility for cleaning and disinfection.
- Who is responsible for cleaning, what areas/equipment and how often?

Environmental Services (EVS)

- IP can assess the following as part of a review of the facility's EVS practices and policies:
  - Where are cleaning supplies stored
  - Is appropriate PPE worn by staff performing cleaning activities
  - For rooms of residents on transmission-based precautions, are selected cleaning and disinfection products effective against suspected pathogens (e.g., if a patient has C. diff)
  - Are new wipes and cloths used for each resident area?
  - Are cleaning and disinfection products used according to their product label?
  - Are surfaces cleaned in order from clean to dirty?

Other Duties

- Employee Health
- Antibiotic Stewardship
- Policy and Procedure Development
- Emergency and Disaster Planning
- Regulatory Readiness
  - Federal Regulatory groups (F tags) 483.80

Summary

- A competent IP should be able to:
  - Apply scientific principles and methods to the collection and presentation of IPC data
  - Conduct surveillance following current definitions of infection and standard methodologies for case identification, data collected and reporting
  - Prepare reports and presentations for committees

Summary

- A competent IP should be able to:
  - Investigate outbreaks and implement interventions
  - Report outbreaks of communicable diseases to county/state health departments as needed
  - Plan and conduct educational programs
  - Develop and review policies and procedures
  - Ensure compliance with county, state and federal standards for infection prevention

Training Resources for IP Competency

- CDC LTCFs Infection Prevention Training- https://www.cdc.gov/longtermcare/training.html

- Long-Term Care Infection Preventionist Essentials Training- https://apic.org/course/long-term-care-infection-preventionist-essentials-training/

- CBIC Long Term Care Certification in Infection Prevention (LTC-CIP)- https://www.cbic.org/CBIC/Long-term-care-certification.htm


Break
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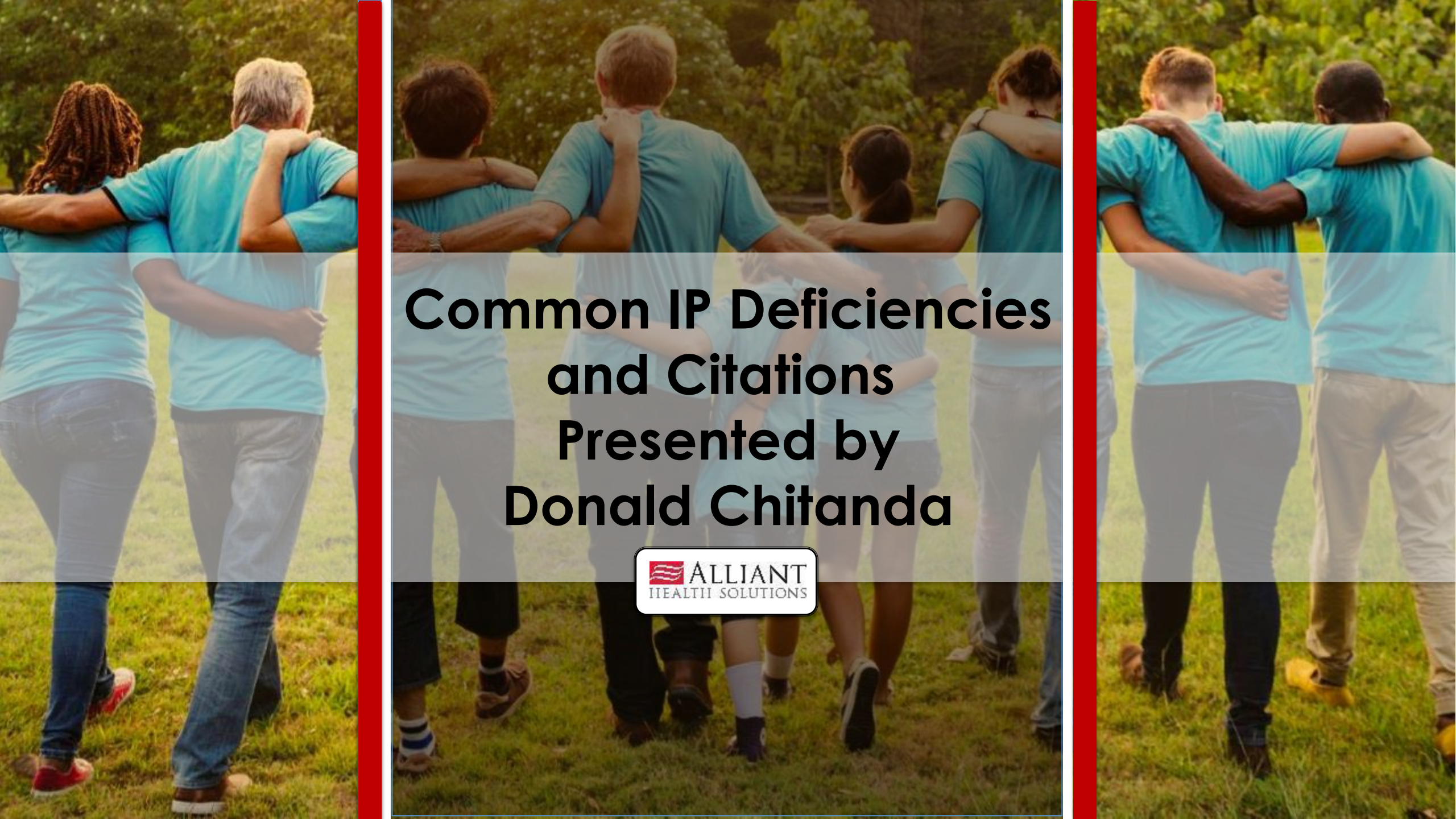

Common IP Deficiencies and Citations Presented by Donald Chitanda

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483.80 Infection Control

- The facility must establish and maintain an infection prevention and control program designed to provide a safe, sanitary and comfortable environment and to help prevent the development and transmission of communicable diseases and infections.

483.80 Infection Control

- Infection Prevention Program- the facility must establish an infection prevention and control program
- Infection Preventionist- The facility must designate one or more individuals as the Infection Preventionist
- IP Participation in quality assessment and assurance committee

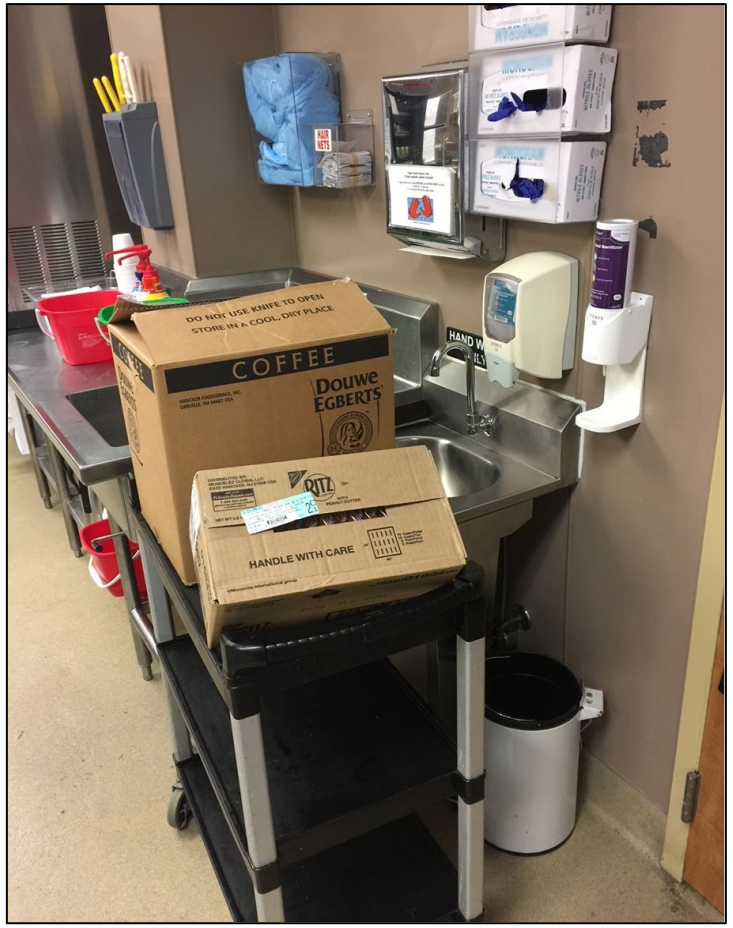
483.80 Infection Control

- Influenza, pneumococcal and COVID-19 Immunizations
- Linens- personnel must handle, store, process and transport linen to prevent the spread of infection
- Annual review: The facility will conduct an annual review of its IPC program and update it as necessary
- COVID-19 Reporting- Until December 31, 2024

Common IP Deficiencies

- **Failure to perform hand hygiene in accordance with CDC recommendations**
  - Hand hygiene should be performed immediately before touching a resident, performing an aseptic task, after touching a resident or their environment, after contact with blood, body fluids or contaminated surfaces, after glove removal

Failure To Perform Hand Hygiene in Accordance With CDC Recommendations



Common IP Deficiencies

Failure to select appropriate PPE for transmission-based precaution

- Masks, eye protection, gloves, gowns not worn when warranted

Common IP Deficiencies

Failure to disinfect resident's personal devices, such as wheelchairs

- Equipment not disinfected between patients
- Equipment found visibly soiled or unable to distinguish if cleaning and disinfection had taken place

Failure To Disinfect Resident's Personal Devices, Such As Wheelchairs

Common IP Deficiencies

Failure to adhere to laundry control measures

- Staff not using standard precautions to handle contaminated linen
- Clean linen transported or stored in dirty carts or drawers
- Transporting contaminated and clean linen in the same cart

Failure To Adhere to Laundry Control Measures

Common IP Deficiencies

Failure to use correct disinfection solution for the type of pathogen/infection, failure to follow product label

- C. diff rooms not cleaned with a sporicidal agent
- Kill/dwell times not achieved
- Point of care devices not disinfected between patients

Common IP Deficiencies

F884 COVID-19 Reporting to CDC

- Failure to report within a seven-day period
- Missing reporting elements such as Pathway data or Vaccination data
- Incomplete data reported

Improving the Quality of the Infection Prevention Program:

Presented by

Amy Ward

ALLIANT HEALTH SOLUTIONS

Quality of the IP Program

- Effective IP programs look to data to continuously improve
- Tools that can be used to drive improvement include:
  - Surveillance data
  - Performance Improvement Plans
  - Gap Analysis
  - Root Cause Analysis
  - Model for improvement (plan, do, study, act)
  - Strengths, Weaknesses, Opportunities, Threats (SWOT) analysis
  - Failure Mode Effect Analysis (FMEA)

Monsees, E. (2014). Quality Concepts. In: Boston K.M., et al, eds. APIC Text. 2014. Available at http://text.apic.org/toc/epidemiology-surveillance-performance-and-patient-safety-measures/use-of-statistics-in-infection-prevention. Accessed September 29, 2023.

Gap Assessment

- Use a tool that compares best practices with current processes
- Use to identify opportunities for improvement
- When gaps are identified, action plans to fill the gap can be developed
- This ensures the organization meets current or updated standards and guidelines

Monsees, E. (2014). Quality Concepts. In: Boston K.M., et al, eds. APIC Text. 2014. Available at http://text.apic.org/toc/epidemiology-surveillance-performance-and-patient-safety-measures/use-of-statistics-in-infection-prevention. Accessed September 29, 2023.

Infection Control Assessment and Response (ICAR) as Gap Analysis Tool

- ICAR Section 1 – Demographics
  - IP Program infrastructure
    - Care setting
    - Affiliation
    - EPA number of disinfectants utilized
    - IP personnel training, expertise and additional duties
    - Resources for surveillance and data management
    - IPC Committee
    - Facility-specific information to assist in evaluating areas of risk

- https://www.cdc.gov/infectioncontrol/pdf/icar/IPC-demo-LTC-508.pdf

ICAR Modules

- Fillable documents that can be saved to a computer with the date of completion for reference
- Module 1 – Training, Audits, Feedback [PDF – 5 pages]
  Module 2 – Hand Hygiene [PDF – 7 pages]
  Module 3 – Transmission-Based Precautions (TBP) [PDF – 30 pages]
  Module 4 – Environmental Services (EVS) [PDF – 18 pages]
  Module 5 – High-level Disinfection and Sterilization [PDF – 13 pages]
  Module 6 – Injection Safety [PDF – 11 pages]
  Module 7 – Point of Care (POC) Blood Testing [PDF – 8 pages]
  Module 8 – Wound Care [PDF – 9 pages]
  Module 9 – Healthcare Laundry [PDF – 9 pages]
  Module 10 – Antibiotic Stewardship [PDF – 5 pages]
  Module 11 – Water Exposure [PDF – 18 pages]

ICAR Observation Forms

Observation tools to collect data and determine how previously discussed policies and practices are implemented in the facility

Observation Form – Hand Hygiene [PDF – 3 pages]
Observation Form – Transmission-Based Precautions (TBP) [PDF – 16 pages]
Observation Form – Environmental Services (EVS) [PDF – 15 pages]
Observation Form – High-level Disinfection and Sterilization [PDF – 10 pages]
Observation Form – Injection Safety [PDF – 10 pages]
Observation Form – Point of Care (POC) Blood Testing [PDF – 7 pages]
Observation Form – Wound Care [PDF – 7 pages]
Observation Form – Healthcare Laundry [PDF – 3 pages]
Observation Form – Water Exposure [PDF – 7 pages]

Identification of Gaps

- Answer questions honestly and collect observations with fresh perspective eyes
  - Actively look for gaps as a surveyor would
  - Meet with frontline staff and leadership to understand the processes they follow
  - Avoid making assumptions that policies are accessed or followed
  - Staff being interviewed must feel safe and understand that this process is non-punitive and is intended to improve the overall quality of care and the IP program

ICAR Tool

- Each section refers CDC guidelines with links
- When the module is completed, review answers and notes to identify areas for improvement
- Create an action plan to bring facility policies and process up to the standard
- Share findings and actions plans with QAPI Committee
- Update QAPI committee regularly on progress of action plan implementation

ICAR Tool Example

9. Are multi-dose vials that will be used for more than one patient/resident kept in a centralized medication area?

Note: *If multi-dose vials enter the immediate patient/resident treatment area (e.g., operating room, patient/resident room/cubicle) they should be dedicated only for use on that individual patient/resident or discarded immediately after use.*

- ○ Yes
- ○ No
- ○ Not observed but endorsed by frontline staff
- ○ Not observed and not endorsed by frontline staff

"Multi-dose vials should be dedicated to a single patient whenever possible. If multi-dose vials must be used for more than one patient, they should only be kept and accessed in a dedicated clean medication preparation area (e.g., nurses station), away from immediate patient treatment areas. This is to prevent inadvertent contamination of the vial through direct or indirect contact with potentially contaminated surfaces or equipment that could then lead to infections in subsequent patients. If a multi-dose vial enters an immediate patient treatment area, it should be dedicated for single-patient use only."

Source: https://www.cdc.gov/injectionsafety/providers/provider_faqs_multivials.html

Reference the recommended practices listed for each section so you can determine if the current practice or policy meets the standard.

ICAR Observation Tool

Location #1 **Unit:** _____ **Room:** _____ **# occupied beds in room:** _____

○ Direct obs. of elements ○ Interview of frontline HCP

TBP Type (*select all that apply*):

☐ Contact ☐ Droplet ☐ Airborne ☐ Enhanced Barrier ☐ Other (*specify*): _____

Contact (*Select all that are present*):

- ☐ Signage is present at entry
- ☐ Adequate supplies of gowns and gloves stocked at room entry
- ☐ Waste receptacle readily available for doffing PPE prior to exiting room
- ☐ Alcohol based hand sanitizer (ABHS) is readily available for personnel to clean hands

If >1 patient or resident in room

- ☐ Clear separation between patient/resident care areas (e.g., a privacy curtain)
- ☐ Personnel doff gown and gloves and clean hands when moving between patients/residents
- ☐ Enough space (3 feet) exists between beds to allow for clinical care to occur from either side of the bed

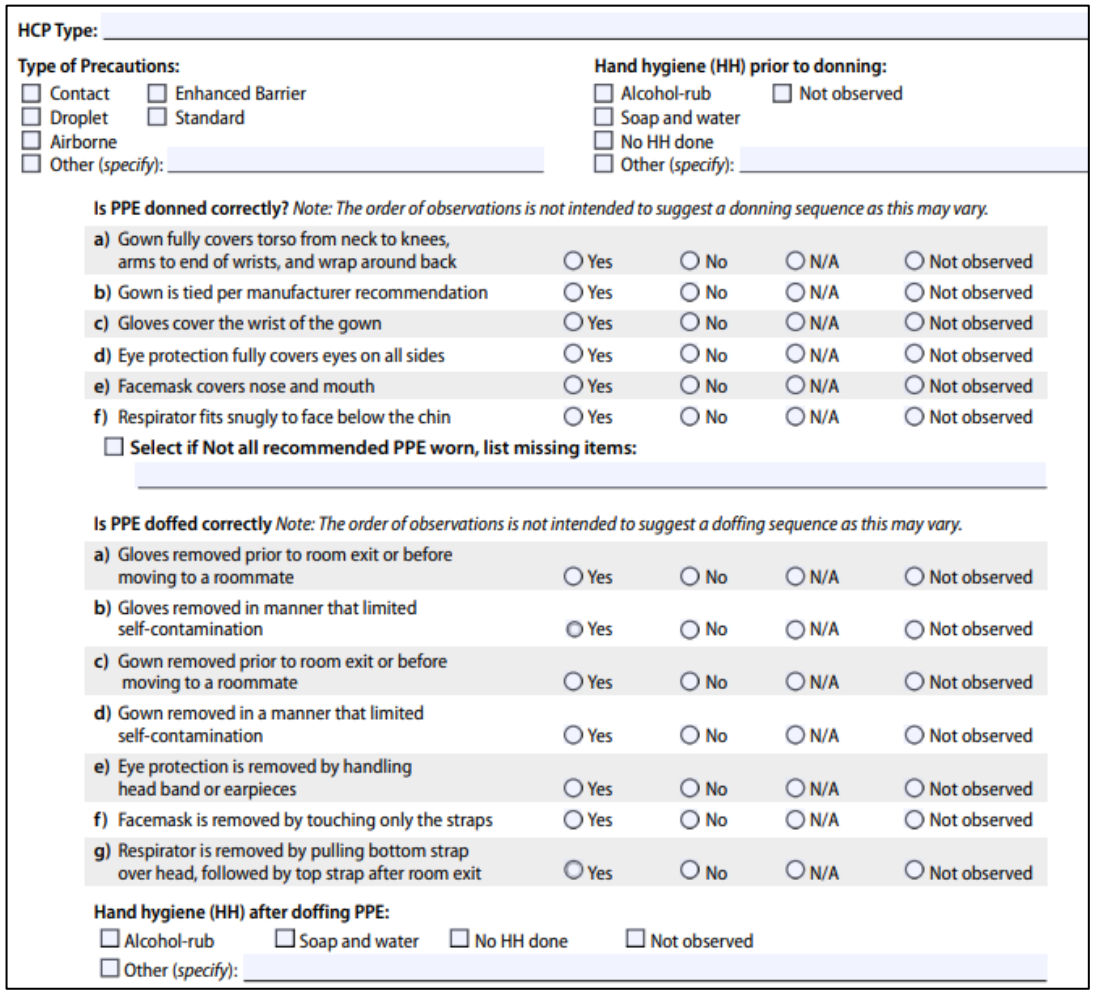
Droplet (*Select all that are present*):

- ☐ Signage is present at entry
- ☐ Adequate supplies of masks stocked at room entry
- ☐ Waste receptacle readily available for doffing PPE immediately upon room exit
- ☐ ABHS readily available for personnel to clean hands

If >1 patient or resident in room

- ☐ Clear separation between patient/resident care areas (e.g., a privacy curtain)
- ☐ Personnel clean hands when moving between patients/residents
- ☐ Enough space (3 feet) exists between beds to allow for clinical care to occur from either side of the bed

ICAR Observation Tool



HCP Type: _____

Type of Precautions:
☐ Contact ☐ Enhanced Barrier
☐ Droplet ☐ Standard
☐ Airborne
☐ Other (*specify*): _____

Hand hygiene (HH) prior to donning:
☐ Alcohol-rub ☐ Not observed
☐ Soap and water
☐ No HH done
☐ Other (*specify*): _____

Is PPE donned correctly? *Note: The order of observations is not intended to suggest a donning sequence as this may vary.*

a) Gown fully covers torso from neck to knees, arms to end of wrists, and wrap around back	○ Yes	○ No	○ N/A	○ Not observed
b) Gown is tied per manufacturer recommendation	○ Yes	○ No	○ N/A	○ Not observed
c) Gloves cover the wrist of the gown	○ Yes	○ No	○ N/A	○ Not observed
d) Eye protection fully covers eyes on all sides	○ Yes	○ No	○ N/A	○ Not observed
e) Facemask covers nose and mouth	○ Yes	○ No	○ N/A	○ Not observed
f) Respirator fits snugly to face below the chin	○ Yes	○ No	○ N/A	○ Not observed

☐ **Select if Not all recommended PPE worn, list missing items:**

_____

Is PPE doffed correctly *Note: The order of observations is not intended to suggest a doffing sequence as this may vary.*

a) Gloves removed prior to room exit or before moving to a roommate	○ Yes	○ No	○ N/A	○ Not observed
b) Gloves removed in manner that limited self-contamination	◉ Yes	○ No	○ N/A	○ Not observed
c) Gown removed prior to room exit or before moving to a roommate	○ Yes	○ No	○ N/A	○ Not observed
d) Gown removed in a manner that limited self-contamination	○ Yes	○ No	○ N/A	○ Not observed
e) Eye protection is removed by handling head band or earpieces	○ Yes	○ No	○ N/A	○ Not observed
f) Facemask is removed by touching only the straps	○ Yes	○ No	○ N/A	○ Not observed
g) Respirator is removed by pulling bottom strap over head, followed by top strap after room exit	◉ Yes	○ No	○ N/A	○ Not observed

Hand hygiene (HH) after doffing PPE:
☐ Alcohol-rub ☐ Soap and water ☐ No HH done ☐ Not observed
☐ Other (*specify*): _____

- Standard precautions should always be followed regardless of TBP
- Collect as many observations for as many disciplines and care areas as possible
- Analyze data to determine if interventions can be applied to improve compliance with PPE by precaution type
- Determine if competency-based training may be needed by discipline type

Communication – Presented by Amy Ward

ALLIANT HEALTH SOLUTIONS

Communication Regulations and Guidelines

- Communication is essential to improving infection prevention and control programs and controlling the spread of communicable diseases
- CMS F941§483.95(a) Communication - A facility must include effective communications as mandatory training for direct care staff.
- CDC's Core Infection Prevention Practices for health care settings describes the need to notify receiving facilities and transport agencies of suspected or confirmed infections or the presence of targeted organisms

Case Study 1

- You are the IP in the nursing facility and receive a call from the hospital IP who states that a Staphylococcus aureus isolate with intermediate resistance to vancomycin was cultured from one of your residents during a recent emergency department visit.

- The resident was seen in the emergency department last week for a urinary tract infection, the isolate was from a urine specimen.

- The resident has been admitted back to their room at your nursing facility and you recognize that they are also a dialysis patient and that they have had recurrent presumed MRSA bacteremia and lumbar abscess/osteomyelitis.

Who Should You Communicate This Result To?

- Resident and family
- Hospital IP
- Public health epidemiologist
- Dialysis facility
- Medical director
- Infectious disease specialist

What Information Would Each Person or Agency Need? Why?

- **Resident and family**
  - Precautions that will be taken at the facility
  - What to expect for the future (if unclear, offer an explanation)
  - What to do at home to keep others healthy
- **Hospital IP**
  - Additional hospital records or results that may be helpful
  - Assistance with IP practice resources or recommendations if you are unsure
- **Public Health epidemiologist**
  - Reportable condition – provide demographics, history and physical, dialysis information if available, laboratory results, and additional information if requested.
- **Dialysis Facility**
  - Inform of results and discuss the need for precautions during treatment, connect with public health epidemiologist
- **Medical Director**
  - Discuss precautions, risks to others in the facility and how to mitigate them, need for ID consultation
- **Infectious Disease specialists – if consulted they may be a wealth of knowledge to assist your medical director in preventing further resistance of this organism and potential transmission to other residents in the facility**

Case Study 2

- MDR Pseudomonas aeruginosa isolated from a local SNF resident during the most recent inpatient admission
- Specimen collected at SNF 3 days prior to admission for respiratory failure
- Multiple recent admissions ~ every two weeks for 3-5 days x 6 weeks

Source: SPUTUM
Ordered: CULTURE, SPUTUM

Procedure	Result

GRAM STAIN *Final*
3+ WBC
3+ RBC
2+ GRAM POSITIVE COCCI
3+ DIPHTHEROID LIKE GRAM POSITIVE RODS

CULTURE, RESPIRATORY *Final*
2+ **PSEUDOMONAS AERUGINOSA MDRO**

OCC **PROTEUS SP**
NO FURTHER WORKUP

1+ MIXED RESPIRATORY FLORA

Organism 1 **PSEUDOMONAS AERUGINOSA MDRO**

	PSA MDRO M.I.C.	RX
AMIKACIN	<16	S
AZTREONAM	16	I
CEFTAZADIME	16	I
CIPROFLOXACIN	>2	R
GENTAMICIN	8	I
IMIPENEM	>8	R
PIPERACILLIN/TA		I
TOBRAMYCIN	<4	S

Case Study 2

- What is concerning about this result?
  - Labeled as MDRO
    - Resistant to 1 or more classes of antibiotics
  - Imipenem resistance
    - Additional testing to determine if carbapenemase-producing

Source: SPUTUM
Ordered: CULTURE, SPUTUM

Procedure	Result
GRAM STAIN *Final*	
3+ WBC	
3+ RBC	
2+ GRAM POSITIVE COCCI	
3+ DIPHTHEROID LIKE GRAM POSITIVE RODS	
CULTURE, RESPIRATORY *Final*	
2+ **PSEUDOMONAS AERUGINOSA MDRO**	
OCC **PROTEUS SP**	
NO FURTHER WORKUP	
1+ MIXED RESPIRATORY FLORA	

Organism 1 **PSEUDOMONAS AERUGINOSA MDRO**

	PSA MDRO M.I.C.	RX
AMIKACIN	<16	S
AZTREONAM	16	I
CEFTAZADIME	16	I
CIPROFLOXACIN	>2	R
GENTAMICIN	8	I
IMIPENEM	>8	R
PIPERACILLIN/TA		I
TOBRAMYCIN	<4	S

Who Should Receive This Result?

- Hospital IP – provide sputum results (current and other recent if available)
- Local public health agency due to worsening resistance pattern
- Resident and Family – when they return to SNF, discuss precautions that will be taken and duration if known

Case Study 3

- Two very similar isolates collected within two days of one another
- Both isolated from sputum specimens
- Patients in separate critical care units of the hospital
- Patient A isolate initially thought to be hospital-associated
  - Identified in sputum collected after 3rd day of admission
- Patient B isolates present on admit
- Both residents at long-term facility

	Patient A Isolate	Patient B Isolate
Aztreonam	R	R
Cefepime	R	R
Ceftazadime	I	S
Ceftriaxone	R	R
Gentamicin	R	R
Levofloxacin	I	I
Pip/Tazo	S	S
Tobramycin	R	R
Trimeth/Sulfa	S	S

Transitions Between Facilities – Setting Communication Expectations

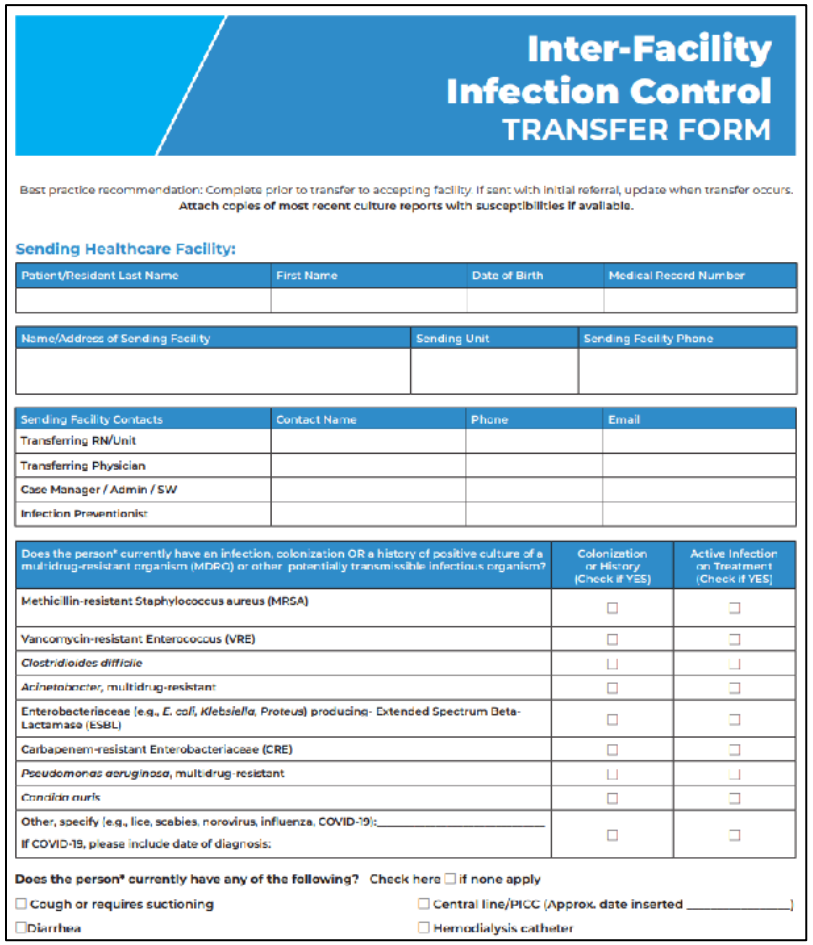
- Discussions should be had prior to transfer regarding current signs and symptoms of infectious diseases, pending culture and sensitivity reports, and other pertinent test results, invasive devices, etc.
- Antibiotic therapy should also be discussed with the receiving facility regarding dosing/route/reason/start date and anticipated stop date
- When communication breaks down leading to an event, complete root cause analysis.

- Example – patient with chronic UTI and foley catheter transferred from SNF to hospital, med reconciliation was inaccurate and UTI prophylaxis was not prescribed, CAUTI resulted on hospital day 3 leading to unnecessary increased length of stay.

- We could accept the root cause was an incomplete medication reconciliation, however, if the resident was not alert and oriented and the hospital did not receive the current problem list and current medication list, it could be very easy to miss.

Inter-Facility Infection Control Transfer Form

- Complete prior to transfer to accepting facility as a best practice
- Attach copies of the most recent culture reports if available
- Includes:
  - Resident information – Name and DOB
  - Sending facility information – phone, unit, name
  - Sending facility contact information – RN, unit, physician, case manager, IP
  - Current or history of transmissible organisms or MDROs
  - Current signs and symptoms
  - Current precautions utilized
  - Current or recent antibiotic treatment
  - COVID-19 treatments
  - Vaccination history



Inter-Facility Infection Control TRANSFER FORM

Best practice recommendation: Complete prior to transfer to accepting facility. If sent with initial referral, update when transfer occurs.
Attach copies of most recent culture reports with susceptibilities if available.

Sending Healthcare Facility:

Patient/Resident Last Name	First Name	Date of Birth	Medical Record Number

Name/Address of Sending Facility	Sending Unit	Sending Facility Phone

Sending Facility Contacts	Contact Name	Phone	Email
Transferring RN/Unit			
Transferring Physician			
Case Manager / Admin / SW			
Infection Preventionist			

Does the person* currently have an infection, colonization OR a history of positive culture of a multidrug-resistant organism (MDRO) or other potentially transmissible infectious organism?	Colonization or History (Check if YES)	Active Infection or Treatment (Check if YES)
Methicillin-resistant Staphylococcus aureus (MRSA)	☐	☐
Vancomycin-resistant Enterococcus (VRE)	☐	☐
Clostridioides difficile	☐	☐
Acinetobacter, multidrug-resistant	☐	☐
Enterobacteriaceae (e.g., *E. coli*, *Klebsiella*, *Proteus*) producing- Extended Spectrum Beta-Lactamase (ESBL)	☐	☐
Carbapenem-resistant Enterobacteriaceae (CRE)	☐	☐
Pseudomonas aeruginosa, multidrug-resistant	☐	☐
Candida auris	☐	☐
Other, specify (e.g., lice, scabies, norovirus, influenza, COVID-19):_____ If COVID-19, please include date of diagnosis:	☐	☐

Does the person* currently have any of the following? Check here ☐ if none apply

☐ Cough or requires suctioning ☐ Central line/PICC (Approx. date inserted _____)

☐ Diarrhea ☐ Hemodialysis catheter

https://quality.allianthealth.org/wp-content/uploads/2023/01/Interfacility-Infection-Control-Transfer-Form_508.pdf

Additional Records To Request

Items to consider requesting during transitions of care:

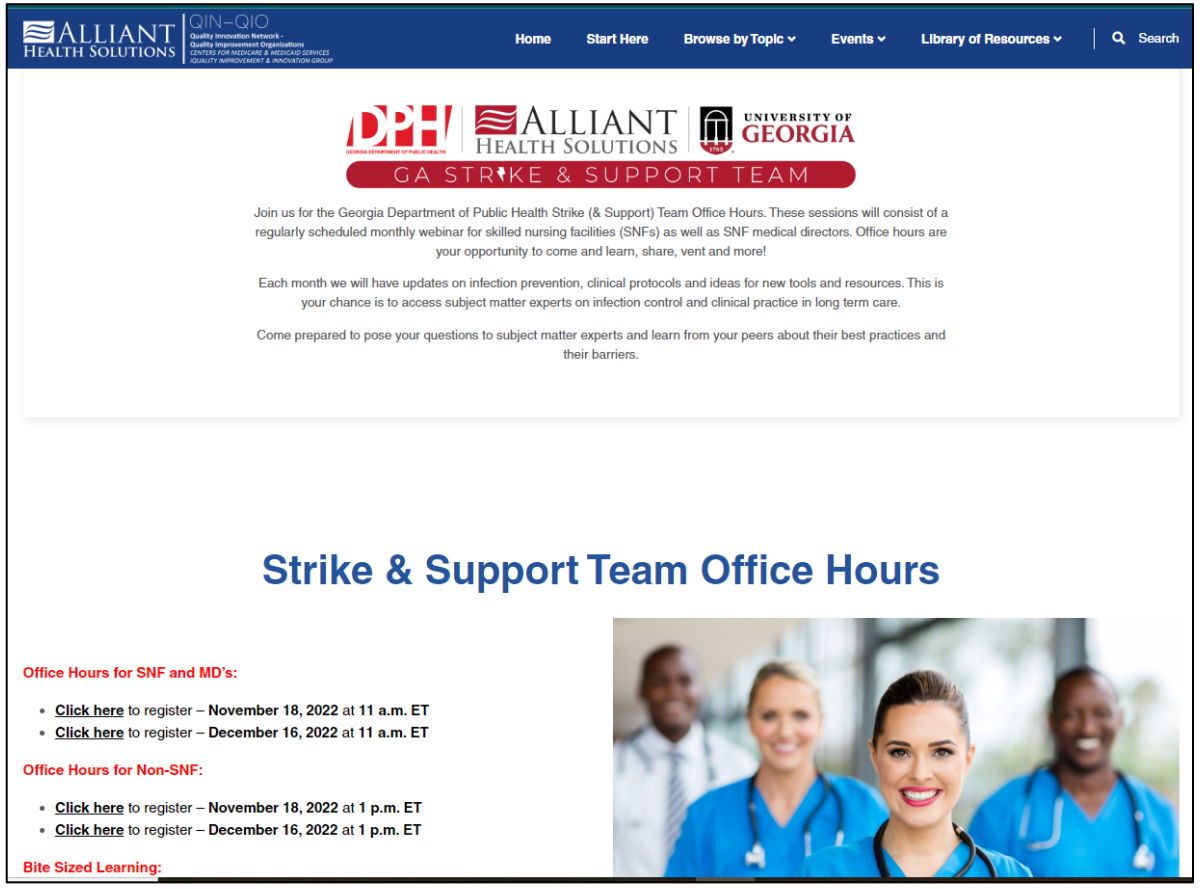
- Patient demographics
- Recent encounters with the facility
- Care team providers
- Allergies
- Problem list or diagnoses
- Medications
- Advanced directives
- Immunizations
- Vital Signs
- Reports – history and physical and progress notes
- Procedures
- Lab Results
- Microbiology Results
- Radiology Procedures
- Social History
- Cognitive Status
- Functional Status

Operationalizing Improved Communication During Transitions of Care

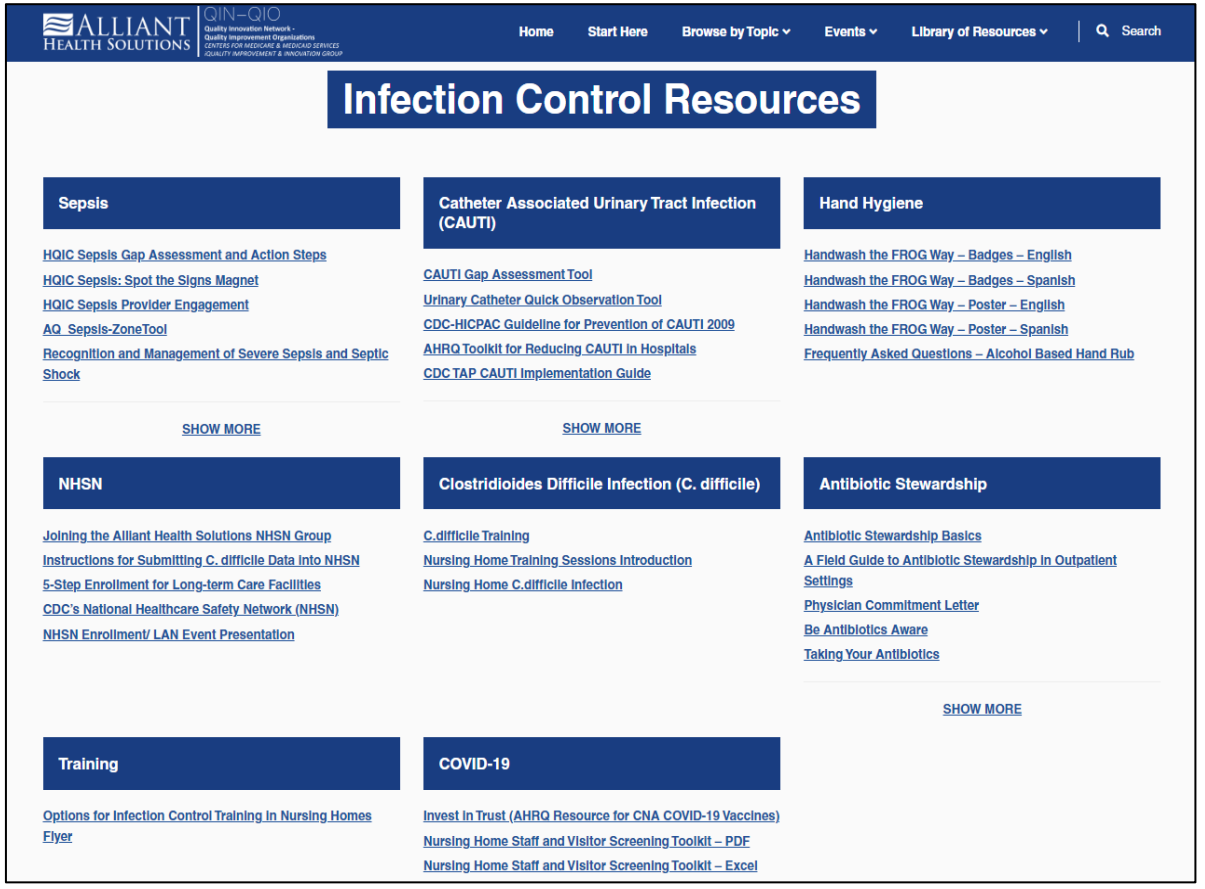
- Discuss at Partnership for Community Health (PCH) meetings
  - Do other health care facility leaders have similar concerns and recommendations?
- Provide case studies to convey importance at PCH meetings and open the dialogue
- Most facilities (acute and post-acute) would like improved communication during transitions of care

Questions?

Alliant Health Solutions Resources



https://quality.allianthealth.org/topic/georgia-department-of-public-health/



https://quality.allianthealth.org/topic/infection-control/

Thank You for Your Time!
Contact the AHS Patient Safety Team
Patientsafety@allianthealth.org

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Thank you!
Consult with the DPH Team! We are here to help!

State Region/Districts	Contact Information
North (Rome, Dalton, Gainesville, Athens) Districts 1-1, 1-2, 2, 10	Sue.bunnell@dph.ga.gov (404-967-0582)
Atlanta Metro (Cobb-Douglas, Fulton, Clayton, Lawrenceville, DeKalb, LaGrange) Districts 3-1, 3-2, 3-3, 3-4, 3-5, 4	Teresa.Fox@dph.ga.gov (256-293-9994) Renee.Miller@dph.ga.gov (678-357-4797)
Central (Dublin, Macon, Augusta, & Columbus) Districts 5-1, 5-2, 6, 7	Theresa.Metro-Lewis@dph.ga.gov (404-967-0589) Karen.Williams13@dph.ga.gov (404-596-1732)
Southwest (Albany, Valdosta) Districts 8-1, 8-2	Connie.Stanfill1@dph.ga.gov (404-596-1940)
Southeast (Savannah, Waycross) Districts 9-1, 9-2	Lynn.Reynolds@dph.ga.gov (804-514-8756)
Backup/Nights/Weekends	Joanna.Wagner@dph.ga.gov (404-430-6316)

Save the Date

SNF and Medical Directors Office Hours:

October 20, 2023 | 11 a.m. ET

ALF and PCH

October 27, 2023 | 11 a.m. ET

Thanks Again…

- Georgia Department of Public Health
- University of Georgia

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