Georgia Department of Public Health: GDPH Office Hours for ALFs & PCHs
September 22, 2023
Meet the Team

Presenters:

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

**Donald Chitanda, MPH, CIC, LTC-CIP**
Infection Prevention Technical Advisor
Alliant Health Solutions
Erica Umeakunne, MSN, MPH, APRN, CIC

Infection Prevention Specialist
Alliant Health Solutions

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
Donald Chitanda, MPH, CIC, LTC-CIP

Infection Prevention Technical Advisor
Alliant Health Solutions

Donald is a health professional with experience in public health epidemiology and infection prevention. For 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 using 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
Thank You to Our Partners

• Georgia Department of Public Health
• University of Georgia
Learning Objectives

- Learners will be updated on COVID-19 epidemiology and infection prevention interventions.
- Learners will be able to understand risks associated with improperly managed building water systems.
- Learners will be able to utilize the CDC Guide to Developing a Water Management Program as a reference for policies, procedures and the water management program.
- Learners will utilize the resources provided regularly in their IP practice.
COVID-19 Update
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

<table>
<thead>
<tr>
<th>Total</th>
<th>Percent</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>≥ 20.0</td>
<td>22</td>
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</tr>
<tr>
<td>10.0 - 19.9</td>
<td>230</td>
<td>7.14%</td>
</tr>
<tr>
<td>&lt;10.0</td>
<td>2970</td>
<td>92.18%</td>
</tr>
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</table>

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 2, 2023.

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

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 Thursdays (Deaths, Emergency Department Visits, Test Positivity) and weekly the following Mondays (Hospitalizations) by 8 pm ET.

View Footnotes and Download Data

COVID-19 HOSPITAL ADMISSIONS (PAST WEEK) 18,871
% CHANGE IN COVID-19 HOSPITAL ADMISSIONS 8.7%
COVID-19 HOSPITAL ADMISSIONS PER 100,000 (PAST WEEK) 5.68

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
Wastewater Surveillance

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

<table>
<thead>
<tr>
<th>15-day detection category</th>
<th>Num. sites</th>
<th>% sites</th>
<th>Category change in last 7 days</th>
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</thead>
<tbody>
<tr>
<td>Non-Detect</td>
<td>0</td>
<td>0</td>
<td>N/A**</td>
</tr>
<tr>
<td>1% to 19%</td>
<td>0</td>
<td>0</td>
<td>N/A**</td>
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<tr>
<td>20% to 39%</td>
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<td>40% to 59%</td>
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<tr>
<td>60% to 79%</td>
<td>0</td>
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<td>N/A**</td>
</tr>
<tr>
<td>80% to 100%</td>
<td>15</td>
<td>100</td>
<td>- 38%</td>
</tr>
</tbody>
</table>

Total sites with current data: 15
Total number of wastewater sampling sites: 27

https://covid.cdc.gov/covid-data-tracker/#wastewater-surveillance
### Weighted and Nowcast Estimates in United States for 2-Week Periods in 5/28/2023 – 9/16/2023

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

#### Weighted Estimates: Variant proportions based on reported genomic sequencing results

<table>
<thead>
<tr>
<th>Collection date</th>
<th>% Varial Lineages Among Infections</th>
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<tbody>
<tr>
<td>6/1/23</td>
<td></td>
</tr>
<tr>
<td>6/22/23</td>
<td></td>
</tr>
<tr>
<td>7/1/23</td>
<td></td>
</tr>
<tr>
<td>7/12/23</td>
<td></td>
</tr>
<tr>
<td>8/1/23</td>
<td></td>
</tr>
<tr>
<td>8/12/23</td>
<td></td>
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</table>

#### Nowcast: Model-based projected estimates of variant proportions

<table>
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<tr>
<th>Lineage</th>
<th>% Total</th>
<th>95% PI</th>
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<td></td>
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<td>FL 1.1</td>
<td>13.7%</td>
<td>9.6-18.7%</td>
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<tr>
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<td>6.6-10.5%</td>
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<td>3.8%</td>
<td>2.9-4.9%</td>
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<td>2.6%</td>
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<tr>
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<tr>
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<td>1.3-2.3%</td>
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<td>0.2-0.6%</td>
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<tr>
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<tr>
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<tr>
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<td>0.0-0.1%</td>
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<tr>
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<td>0.0-0.0%</td>
</tr>
<tr>
<td>FD.2</td>
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<td>0.0-0.0%</td>
</tr>
<tr>
<td>Other</td>
<td>0.1%</td>
<td>0.0-0.1%</td>
</tr>
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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 everyone aged six months and older should receive the 2023-2024 updated COVID-19 vaccine to protect against serious illness from COVID-19 and to remain up to date.

• Review the updated Interim Clinical Guidance for COVID-19 Vaccines for clinical information and considerations.
IPC Water Management Program & COVID-19 Implications
Legionnaires’ Disease

• A serious type of pneumonia caused by Legionella bacteria that live in water.

• Legionella can make people sick when they inhale contaminated water from building water systems that are not adequately maintained.
Other Waterborne Pathogens

• Pseudomonas
• Acinetobacter
• Stenotrophomonas
• Non-tuberculous mycobacteria
• Fungi
If You Answer YES to Any of These....

1. Is your building a health care facility where patients stay overnight, or does your building house or treat people who have chronic acute medical problems or weakened immune systems?
If You Answer YES to Any of These....

2. Does the building primarily house people older than 65 years (e.g., a retirement home or assisted-living facility?)

3. Does the building have multiple housing units and a centralized hot water system?
If You Answer YES to Any of These….

- Then, you should have a water management program for your facility’s hot and cold-water distribution system.
So Where Do We Start?
Elements of a Water Management Program

Developing and maintaining a water management program is a multi-step, continuous process. The key steps, listed here, are explained in more detail throughout the toolkit with the associated step number appearing on the page where the specific step is discussed.

1. Establish a water management program team
2. Describe the building water systems using text and flow diagrams
3. Identify areas where Legionella could grow and spread
4. Decide where control measures should be applied and how to monitor them
5. Establish ways to intervene when control limits are not met
6. Make sure the program is running as designed and is effective
7. Document and communicate all the activities

Continuous program review (see below)
Establish a Water Management Program Team

Certain skills, described in the diagram below, are needed to develop and implement your water management program. These skills would typically be provided by a combination of people, some of whom may have multiple skills (examples shown below).

- Ability to oversee the program
- Knowledge of the water systems
- Ability to identify control locations and control limits
- Ability to identify and take corrective actions
- Ability to communicate regularly about the program
- Ability to confirm program performance
- Ability to monitor and document program performance
Water Management Team (Nursing Homes)

• Three or more individuals representing:
  – Management
  – Infection preventionist
  – Facilities engineer
  – Clinician with expertise in infectious diseases
  – Risk and quality management staff
  – Contractors/consultants (e.g., water treatment professionals)
  – Microbiologists

Legionella Toolkit-Version 1.1-June 24, 2021 (cdc.gov)
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Continuous program review (see below)
Describe Your Building Water Systems Using a Flow Diagram

EXAMPLE: BUILDING A

In addition to developing a written description of your building water systems, you should develop a process flow diagram. Below is an example of a process flow diagram for Building A. Note that this diagram does not need to be as detailed as your building plans. In fact, it’s best if the process flow diagram can be understood easily by all members of your team.

Legend:
- Backflow Preventer
- Water Flow
- Recirculating Return Flow
- Water Process

Municipal Water - pipes from Maple St.

1. Receiving

2. Cold Water Distribution
- Cooling Tower Roof
- Ice Machines Floors 2, 4, 6, 8, 13
- Sinks/Shower Floors 5-11

3. Heating
- Hot Water Storage Basement

4. Hot Water Distribution
- Sinks/Shower Floors B-5
- Sinks/Shower Floors 6-11

5. Waste
- Sanitary Sewer
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Continuous program review (see below)
Where Can Legionella or Waterborne Pathogens Grow and/or Spread?

- Hot and cold water storage tanks
- Water heaters
- Aerators
- Showerheads and hoses
- Faucets
- Pipes, valves and fittings
- Misters and humidifiers
- Ice machines
- Decorative fountains or aquariums
- Hydrotherapy/hot tubs
- Infrequently used equipment, including eyewash stations
Consider…

• Areas that were shut down/closed due to COVID-19 and are due for re-opening.

• Patient care areas and other places like dialysis, respiratory therapy, hydrotherapy, dietary, and central supply that could contribute to the spread.

• Places where patients can be exposed to contaminated water (ice machines, heater-cooler units, respiratory therapy equipment).

• Areas where patient care supplies could be contaminated due to splashing.
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Continuous program review (see below)
Decide How to Monitor Your Control Measures

**EXAMPLE: BUILDING A**

The diagram below shows which types of monitoring could occur at different locations within Building A’s water system to reduce the risk of growth and spread of Legionella.

[Diagram of water system showing various monitoring points and processes]
Elements of a Water Management Program

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6. Make sure the program is running as designed and is effective
7. Document and communicate all the activities
8. Continuous program review (see below)
Establish Ways to Intervene When Control Limits Are Not Met

CORRECTIVE ACTION EXAMPLES

Building water systems are dynamic. You should plan for your monitoring results to vary over time and be prepared to apply corrective actions. **Corrective actions** are taken in response to systems performing outside of control limits. The following are examples of corrective actions.

Example 1—Biofilm growth in the decorative fountain

1. During her weekly inspection of the fountain in the first floor lobby, Michelle Patterson notes that the fountain walls have accumulated a slimy growth.

2. As dictated by her water management program, Michelle immediately shuts off the fountain, drains it to the sanitary sewer, and scrubs it with a detergent recommended by the manufacturer.

[Legionella Toolkit-Version 1.1-June 24, 2021 (cdc.gov)]
3. She then follows the program’s start up procedure to refill the fountain with water and checks the residual disinfectant levels to make sure that they are within control limits.

4. Michelle documents her observations and the performance of interim cleaning in her log book. She informs her supervisor.
Example 2—Unoccupied floor

1. The eighth floor of the building is being renovated and is closed to the public. Jason Hernandez understands that this may cause a temporary hazardous condition because water usage will decrease, which means that stagnation is possible.

2. After discussing the issue with his supervisor, Jason counters the potential for stagnation by daily flushing of the sinks and fixtures with hot and cold water in several rooms including those at the end of the hall, which are farthest from the vertical pipe serving that floor (snip).

3. Jason also increases the frequency of measuring temperature and chlorine levels on the eighth floor from weekly to daily for the duration of the renovation.

4. He documents the method and duration of flushing and records his daily temperature and chlorine readings in his log book. He reviews his documentation with his supervisor.
Elements of a Water Management Program

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7. Document and communicate all the activities

Continuous program review (see below)
Questions to Consider...

• **Are we doing what we said we would do?**
  – Establish procedures initially and ongoing to confirm that the water management program is being implemented as designed

• **Is our program working?**
  – Environmental testing for Legionella
  – Surveillance for healthcare-associated cases

Legionella Toolkit-Version 1.1-June 24, 2021 (cdc.gov)
Elements of a Water Management Program

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6. Make sure the program is running as designed and is effective
7. Document and communicate all the activities
8. Continuous program review (see below)
Documentation

• **Your written program should include at least the following:**
  – Program team, including names, titles, contact info and roles on the team
  – Building description, including location, age, uses and occupants and visitors
  – Water system description
  – Control measures
  – Confirmatory procedures, including verification steps to show that the program is being followed as written and validation to show that the program is effective
  – Document collection and transport methods and which lab will perform the testing if environmental testing is conducted

[Legionella Toolkit-Version 1.1-June 24, 2021 (cdc.gov)]
Communication

• Share your work/ plan with your occupants, employees, and colleagues regularly to keep them informed that you have a plan in place to keep building water systems safe.

• Continually look for opportunities to improve the management and efficiency of your water systems.
Environment of Care

• Are patient care items located at least three feet from sinks, or is a splash guard in place to prevent items from becoming wet, including in medication preparation areas?
Environment of Care

• Daily cleaning and disinfection of countertops and sinks with EPA-registered disinfectant.

• Are toilets in patient/resident rooms in restrooms with doors that can be closed when flushed, or are toilets equipped with flush covers?

• Does the facility have a policy to routinely flush all eye wash stations to prevent water stagnation in the systems?
Environment of Care

• Are ice machines and ice chests routinely cleaned and protected from contamination?
  – Are ice scoops stored outside the chest?
  – Is a log of preventative maintenance kept?
  – Are ice machines flushed before use if disconnected for a prolonged time?
Environment of Care

• Is shower equipment and surfaces cleaned and disinfected between each resident?
• Is there a system to help HCP readily identify clean equipment vs. not clean?
• For hydrotherapy areas:
  – Routine cleaning with EPA-registered product
  – Monitoring of minimal disinfectant levels
  – Avoid patients with draining wounds or fecal incontinence

Patient Care Activities Using Water

- Clean and disinfect nebulizer with sterile water rinse between treatments for same patient use
  - HLD or sterilize between use on different patient
- Use sterile fluid for nebulization
Resources

• **Legionella Toolkit-Version 1.1-June 24, 2021** (cdc.gov)

• **ICAR Tool for General Infection and Control (IPC) Across Settings - Module 11: Water Exposure Facilitator Guide** (cdc.gov)
Questions?
Alliant Health Solutions Resources


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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Paula.StHill@AlliantHealth.org
678.527.3619

Erica Umeakunne, MSN, MPH, APRN, CIC
Infection Prevention Specialist
Erica.Umeakunne@AlliantHealth.org
Thank you!
Consult with the DPH Team! We are here to help!

<table>
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<th>State Region/Districts</th>
<th>Contact Information</th>
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<tbody>
<tr>
<td>North (Rome, Dalton, Gainesville, Athens) Districts 1-1, 1-2, 2, 10</td>
<td><a href="mailto:Sue.bunnell@dph.ga.gov">Sue.bunnell@dph.ga.gov</a> (404-967-0582)</td>
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<tr>
<td>Atlanta Metro (Cobb-Douglas, Fulton, Clayton, Lawrenceville, DeKalb, LaGrange) Districts 3-1, 3-2, 3-3, 3-4, 3-5, 4</td>
<td><a href="mailto:Teresa.Fox@dph.ga.gov">Teresa.Fox@dph.ga.gov</a> (256-293-9994) <a href="mailto:Renee.Miller@dph.ga.gov">Renee.Miller@dph.ga.gov</a> (678-357-4797)</td>
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<td>Central (Dublin, Macon, Augusta, &amp; Columbus) Districts 5-1, 5-2, 6, 7</td>
<td><a href="mailto:Theresa.Metro-Lewis@dph.ga.gov">Theresa.Metro-Lewis@dph.ga.gov</a> (404-967-0589) <a href="mailto:Karen.Williams13@dph.ga.gov">Karen.Williams13@dph.ga.gov</a> (404-596-1732)</td>
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<td>Southwest (Albany, Valdosta) Districts 8-1, 8-2</td>
<td><a href="mailto:Connie.Stanfill1@dph.ga.gov">Connie.Stanfill1@dph.ga.gov</a> (404-596-1940)</td>
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<tr>
<td>Backup/Nights/Weekends</td>
<td><a href="mailto:Joanna.Wagner@dph.ga.gov">Joanna.Wagner@dph.ga.gov</a> (404-430-6316)</td>
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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