

# Housekeeping

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# General Announcements

- **Presentation slides**: have been emailed and will be on the TNT website within one week.
- **TNT Website**: Open to the public.
  - <http://ph.lacounty.gov/acd/TNTProgram/index.htm>
- **Questions**: please enter in the chat.
- **CEUs/Certificates of Completion**: All attendees are eligible if they attend the entire session and successfully pass the post-session evaluation quiz.
  - CEUs: for licensed individuals (ex: RNs, LVNs, physicians)
  - Certificates: for all non-licensed individuals
- **Post-session Evaluation Quiz**:
  - Will be entered in the chat at the end of the session
  - Will be emailed to everyone after the session
  - Will be on the TNT Website within one week after the session



# Announcements for TNT Program Participants

- **Session 4 Slides** have been edited and are on the TNT Website.
- **Final Project Instructions** will be emailed to everyone in the email with the Post-session Evaluation Quiz link.
- Many SNFs are at risk of not completing the Program attendance requirements, which will affect their eligibility for the \$16,000 reward at the end of the Program.
  - ATTEND EVERY SESSION FROM NOW UNTIL THE END OF UNIT 3!
  - Do not rely on makeup sessions to meet attendance requirements!
  - Makeup sessions will be limited and will be announced with short notice!





Session 5 (Unit 3)

# Preventing Legionellosis in Healthcare Facilities Through a Water-Management Program: Information for Infection Preventionists





# Presenters

**Alejandro Ramirez, MSN, RN, PHN**

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**Healthcare Outreach Unit  
Acute Communicable Disease Control  
Los Angeles County Department of Public Health**



# Disclosures

- There is no commercial support for today's call.
- None of the speakers or planners for today's call have disclosed any financial interests related to the content of the meeting.
- This call is meant for healthcare facilities and is off the record, and reporters should log off now.
- Examples given throughout this presentation are for illustrative purposes only and should not be construed as official guidance from LAC DPH.



# Objectives

1. Understand what **legionellosis** illness is and how people get it.
2. Recognize **warning signs** for environmental conditions favorable to the growth and spread of *Legionella*.
3. Know the basic components of a health facility **Water-Management Program (“WMP”)**.
4. Know what, when, and how to **report** to Public Health.



# Outline

- I. Overview of legionellosis
- II. Prevention through water-management program
  - A. General Info
  - B. Warning Signs
  - c. WMP Components
- III. Reporting to Public Health
- IV. Q & A, Discussion





# PART I. OVERVIEW OF LEGIONELLOSIS



# PART I: Overview of Legionellosis

## Definitions

**Legionellosis** = illness from *Legionella* bacteria

**Legionnaires' Disease** = pneumonia (PNA) from *Legionella*

**Pontiac Fever** = mild, usually self-limiting illness from *Legionella*, without PNA, (often in outbreaks)

**Extrapulmonary** = *Legionella* infection outside of lungs



# PART I: Overview of Legionellosis

## Definitions

**Legionellosis** = illness from *Legionella* bacteria

**Legionnaires' Disease** = pneumonia (PNA) from *Legionella*

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**Extrapulmonary** = *Legionella* infection outside of lungs



# PART I: Overview of Legionellosis

- Many types, found in nature, all can cause disease
- ***Legionella pneumophila*** serogroup 1 (Lp1) is most commonly identified
- Grows in complex water systems





# PART I: Overview of Legionellosis

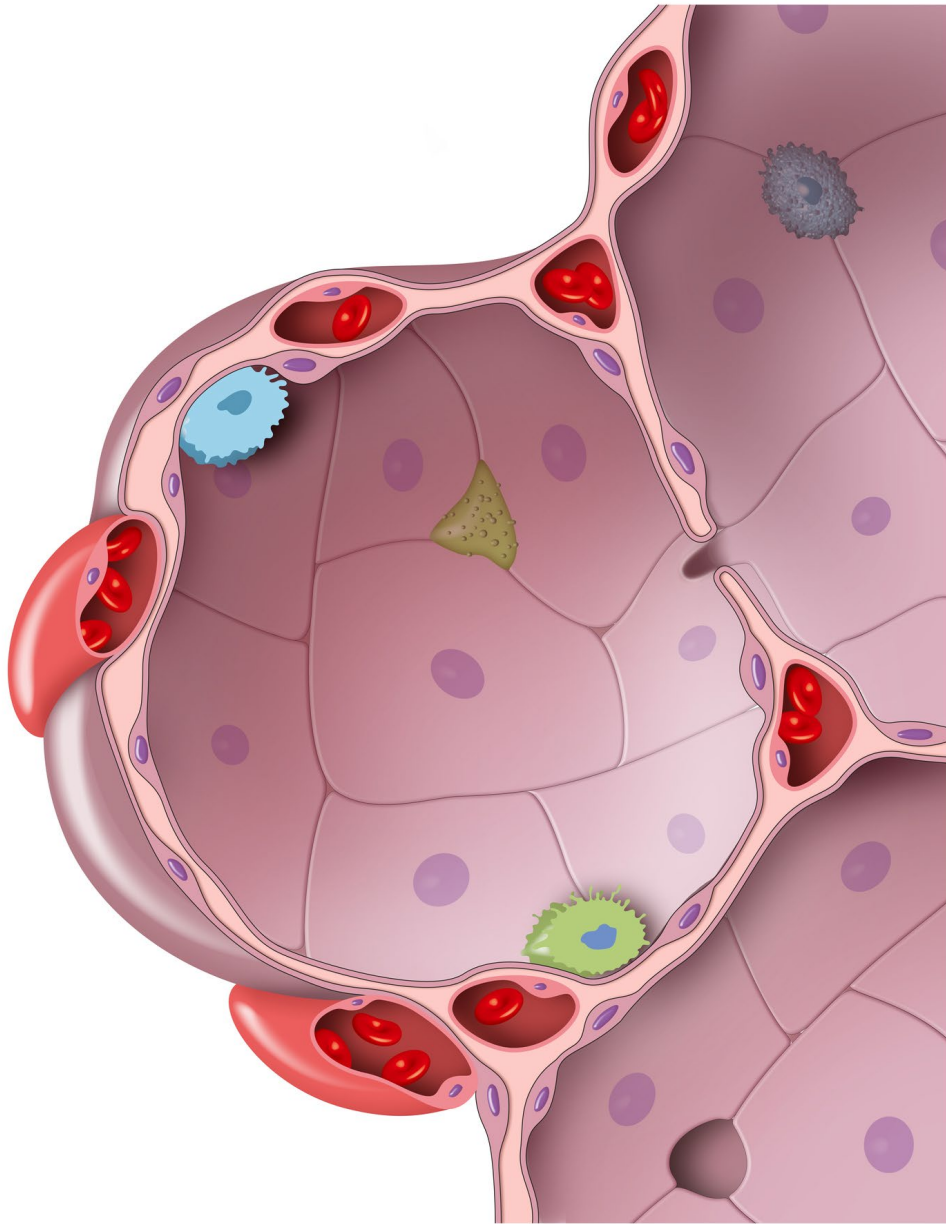
- Grows to dangerous levels in large plumbing systems and heating/ventilation/air conditioning (HVAC) systems.
- *Legionella* contaminates water and water vapor (steam, mist).
- Humans get sick by breathing aerosols or aspirating contaminated water into lungs.
- Some groups of people have higher risk.











Close-up of cells in the smallest “air sacs” (alveoli) in human lungs







# PART I: Overview — People at Increased Risk

CDC notes increased risk among the following:

- **Age** 50 or greater
- **Aspiration** risk
- **Cancer**
- **Chronic** diseases (kidney, liver, pulmonary)
- **Diabetes**
- **Healthcare** exposure, recent
- **Immunocompromised / immunosuppressed**
- **Smoking** status — current or history
- **Travel**, recent



# PART I: Overview — Signs and Symptoms

Per CDC:

- **Fever**
- **Cough**
- **Shortness of breath (dyspnea)**
- **Nausea, diarrhea, vomiting**
- **Body & muscle aches (arthralgia & myalgia)**
- **Headache**



# PART I: Overview — Signs and Symptoms

Additional symptoms (Sx.) & clinical presentations:

- Weakness
- Confusion
- Change in level of consciousness
- Falls
- Pneumonia that doesn't respond to first-line therapy





# PART I: Overview — Diagnosis

- Most common is a urine test (UAT)
- Special “*Legionella* respiratory culture” may be used
- Other, less frequent tests

# PNEUMONIA



# PART I: Overview — Diagnosis

Did we mention

# PNEUMONIA?!

(OK, you get our point...)



# PART I: Overview — Treatment

Legionnaires' Disease is treated with antibiotics



# PART I: Overview — Disease Complications

Hospitalization, possibly **death**

Per CDC *MMWR*, **case-fatality rate** is approximately:

- Community onset = **1 in 10**
- Healthcare onset = **1 in 4**

U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. (2017). Vital Signs: Health Care–Associated Legionnaires’ Disease Surveillance Data from 20 States and a Large Metropolitan Area — United States, 2015. *Morbidity and Mortality Weekly Report*, (66)22, initially issued as *MMWR Early Release* (6 June 2017), pp 584–589. Authors: Soda, E., Barskey, A., Shah, P., Schrag, S., Whitney, C., Arduino, M., . . . Cooley, L. Retrieved on 18 Nov. 2021 from <https://www.cdc.gov/mmwr/volumes/66/wr/pdfs/mm6622e1.pdf>.





# PART I: Overview — Public Health Investigation



# PART I: Overview — Healthcare-Onset Legionellosis

Public Health investigates **healthcare-onset** cases:

- Incubation period is 2–14 days prior to Sx. onset
- **Presumptive healthcare-associated (HA)**  
≥ 10 days of incubation period in health facility
- **Possible healthcare-associated**  
< 10 days of incubation period in health facility

Prevent healthcare-onset Legionnaires' Disease cases  
through a **WATER-MANAGEMENT PROGRAM**



# Part I — Main Takeaways

*Legionella* occurs naturally but may grow to dangerous levels in human-built water systems and can cause disease and death.

Anyone may get sick—but certain persons (patients) have higher risk.

Legionellosis is preventable.

Single confirmed HA legionellosis → Public Health investigation!

Best prevention is to have an active water-management program.





# PART II. WATER-MANAGEMENT PROGRAM



# PART II: WMP — Overview



## WMP Overview

1. General Info
2. Warning Signs
3. WMP Components



## PART II: WMP — General Information

- Since 2017, **WMP is mandatory** per CMS (QSO-17-30 rev. 2018) and CDPH (AFL 18-39)
  - Hospitals
  - Critical-access hospitals
  - Long-Term Care (LTC)
  - Skilled Nursing Facilities (SNF)
- WMP is **multidisciplinary** — draws upon different types of expertise
- WMP should be reviewed and updated **regularly**





# PART II: WMP — CMS Mandate QSO-17-30

DEPARTMENT OF HEALTH & HUMAN SERVICES  
Centers for Medicare & Medicaid Services  
7500 Security Boulevard, Mail Stop C2-21-16  
Baltimore, Maryland 21244-1850



## Center for Clinical Standards and Quality/Quality, Safety and Oversight Group

Ref: *QSO-17-30- Hospitals/CAHs/NHs*  
**REVISED 07.06.2018**

**DATE:** June 02, 2017

**TO:** State Survey Agency Directors

**FROM:** Director  
Quality, Safety and Oversight Group (*formerly Survey & Certification Group*)

**SUBJECT:** Requirement to Reduce *Legionella* Risk in Healthcare Facility Water Systems to Prevent Cases and Outbreaks of Legionnaires' Disease (LD)

*\*\*\*Revised to Clarify Expectations for Providers, Accrediting Organizations, and Surveyors\*\*\**

### Memorandum Summary



# PART II: WMP — CDPH All Facilities Letter 18-39



KAREN L. SMITH, MD, MPH

*Director and State Public Health Officer*

State of California—Health and Human  
Services Agency

## California Department of Public Health



EDMUND G. BROWN JR.

*Governor*

September 17, 2018

AFL 18-39

**TO:** All Facilities

**SUBJECT:** Reducing Legionella Risks in Health Care Facility Water Systems

**AUTHORITY:** Title 42 Code of Federal Regulations sections 482.42, 483.80, and 485.635

### **All Facilities Letter (AFL) Summary**

- This AFL notifies hospitals, critical access hospitals (CAHs), and skilled nursing facilities (SNFs) of the



COUNTY OF LOS ANGELES  
**Public Health**

# PART II: WMP — Multidisciplinary Team





# PART II: Test Your Knowledge

## Question 1

In a Long-Term Care (SNF) setting, name **four** (4) essential roles or persons with expertise who should be on your facility's WMP Team.



# PART II: Test Your Knowledge

## Answer 1

### 4 essential members of SNF WMP Team?

#### Minimum:

1. Infection Preventionist
2. Facilities Engineer
3. Administrator
4. Director of Nursing

#### Ideally also include:

1. Environmental Services
2. Licensing & Accreditation
3. Risk & Quality Management
4. Infectious disease specialist
5. Building owner
6. Outside vendors and consultants, as needed\*



## PART II: WMP — Warning Signs

Warning signs of high-risk phenomena = “red flags!”

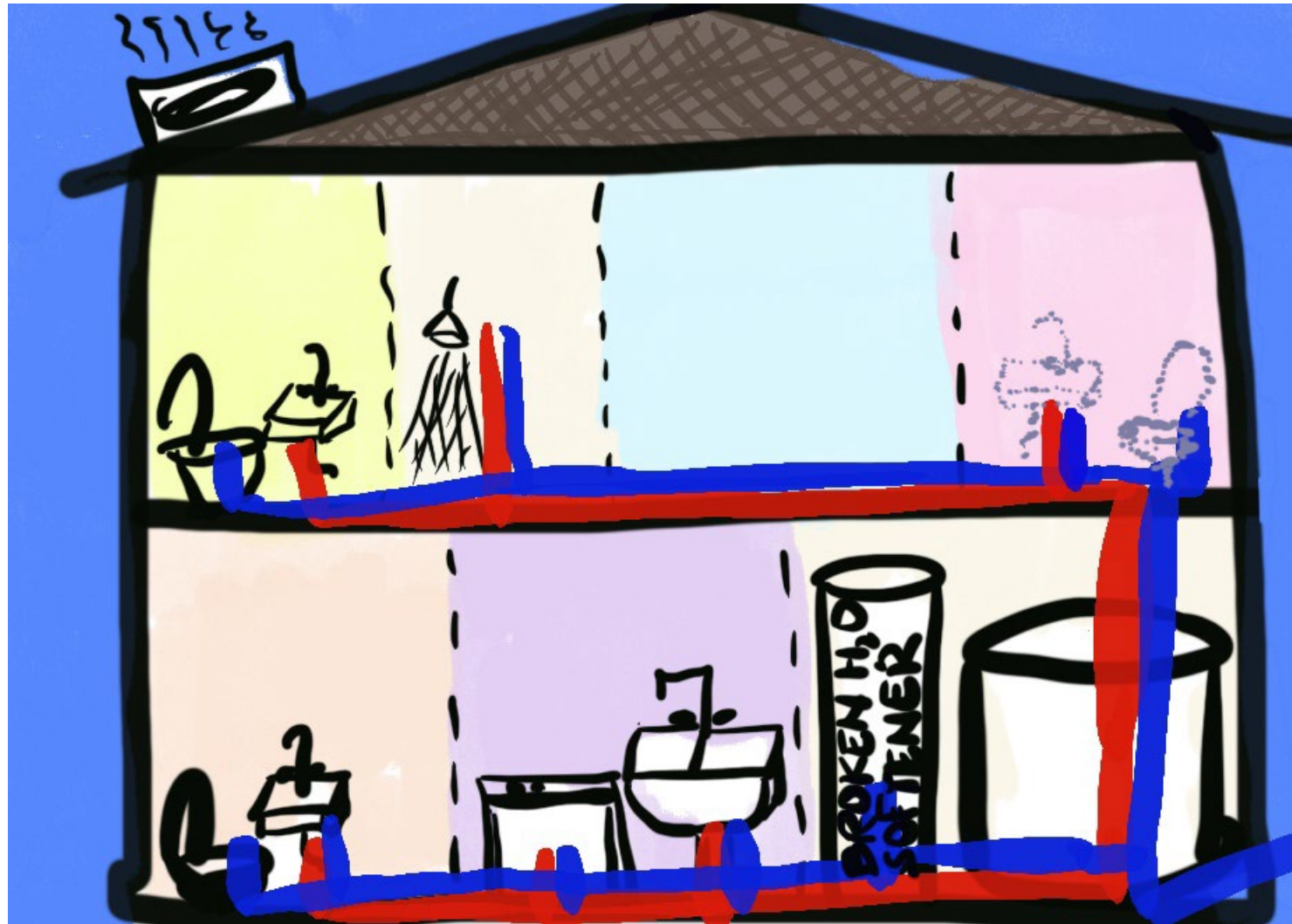
- **Water stagnation**
- **Dead legs**
- **Unused fixtures**
- **Out-of-service, maintenance needed**
- **Biofilm, sediment, scale**
- **Out-of-range values (temp, pH, etc.)**
- **Areas with high-risk patients**



# PART II: WMP “Red Flag” — Water Stagnation



# PART II: WMP “Red Flag” — “Dead Legs” in Plumbing





# PART II: WMP “Red Flag” — “Dead Legs” in Plumbing



**Toilet & sink  
were removed;  
pipes remain!**

**Broken  
water softener;  
still connected!**





# PART II: WMP “Red Flag” — “Dead Legs” in Plumbing



Fix the 'dead leg' plumbing

Fix the 'dead leg' plumbing

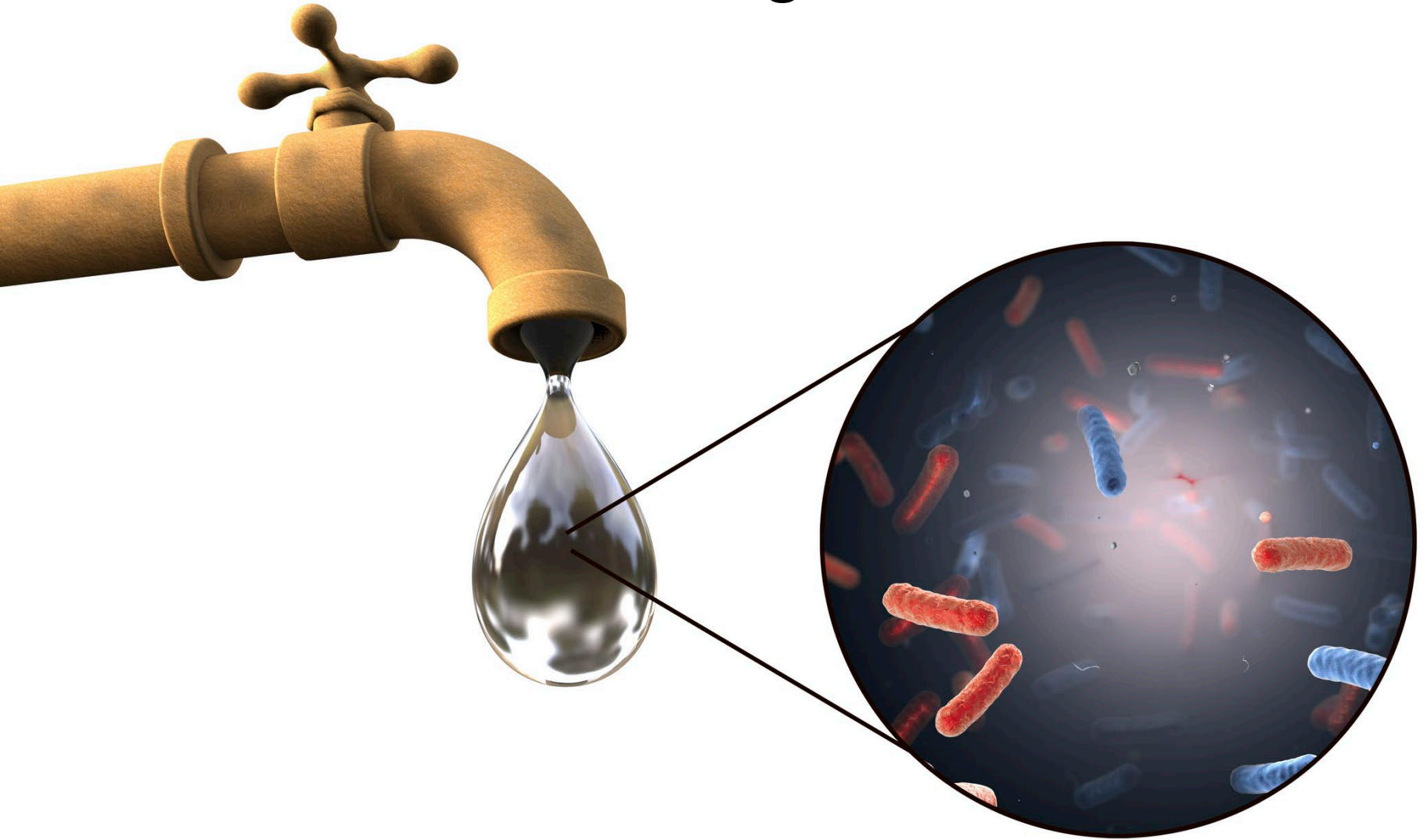


## PART II: WMP “Red Flag” — Unused Fixtures





# PART II: WMP “Red Flag” — Unused Fixtures



## PART II: WMP “Red Flag” — Out-of-Service & Maintenance Needed





## PART II: WMP “Red Flag” — Biofilm, Sediment, & Scale





# PART II: WMP “Red Flag” — Out-of-Range Values

**TEMPERATURE**

**pH**

**DISINFECTANT**



# PART II: WMP “Red Flag” — High-Risk Patient Areas

- Age 50 or greater
- Aspiration risk
- Cancer
- Diabetes
- Immunocompromised &
- Immunosuppressed

- Kidney disease
- Liver disease
- Pulmonary disease
- Smoking status —  
current or smoking Hx
- Travel

**Healthcare exposure = thus all your patients & residents!**



# PART II: Test Your Knowledge

## Question 2

Name at least **five** (5) warning signs or “red flags” you should look out for in terms of your facility’s water and HVAC systems.



# PART II: Test Your Knowledge

## Answer 2

### 5 *Legionella* warning signs in HF water system?

1. Water stagnation
2. Dead legs
3. Unused fixtures
4. Out-of-service, maintenance needed
5. Biofilm, sediment, scale
6. Out-of-range values (temp, pH, disinfectant)
7. Areas with high-risk patients







## PART II: WMP — Components of WMP

1. **Description** and **diagram** of water system
2. **Control measures** as prevention
3. **Verification** and **validation** processes
4. **Remediation** of problems
5. **Documentation** of activities
6. **Communication** with appropriate parties
7. **Cyclical, ongoing** process

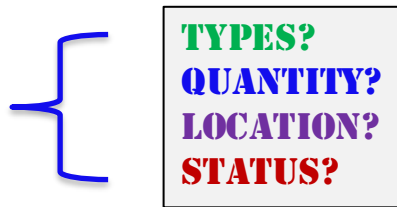
**Disclaimer:** Each building is unique and should have its own WMP. The examples herein are used only to illustrate general principles and concepts. Follow all laws, regulations, and your facility's own water-management program.



# PART II: WMP — Describe the System

Describe water & HVAC system components in **words**.

- Facility — rooms, floors, areas
- Pipes / plumbing — where are they found, accessed, materials
- Water fixtures
- HVAC fixtures
- Item information: names, description, model #, serial #, installation date
- Vendor information (if applicable) — contact info, emergency contact info, service dates



# PART II: WMP — Diagram the System

Describe systems in **pictures & diagrams**.

Direction of **flow** for hot & cold water, waste

- **Arrows** 




- **Colors** 

- 

- 

- **Symbols w/ legend**



<b>LEGEND</b>	
	<b>STAGNATION RISK</b>
	<b>LOW DISINFECTANT</b>
	<b>MAY AEROSOLIZE</b>

# PART II: WMP — Diagram the System

Describe water & HVAC systems in **pictures & diagrams**.

Identify where ***Legionella*** might grow and spread

- Cooling tower, swamp coolers
- Therapy pool
- Water heaters, reservoirs
- Sinks, showers, toilets, bathrooms
- Decorative fountains, misters, sprinklers
- Ice machine
- Unoccupied rooms or areas of the building
- Infrequently used or broken fixtures
- Low residual disinfectant levels
- Areas of low- or no-flow, stagnation



# PART II: WMP — Control Measures

## Control

Managing your water system to reduce the risk of *Legionella* growing and spreading (= why + how)

## Control measures

Actions taken to ensure the quality of your water and reduce the risk of *Legionella* (= what)

## Control points

Locations in the water system where control measures are implemented (= where)

## Control limits

Upper & lower limits (max. & min. values) of acceptable findings to ↓ *Legionella* risk





## PART II: WMP — Control Measures

Implement water & HVAC system **control measures**.

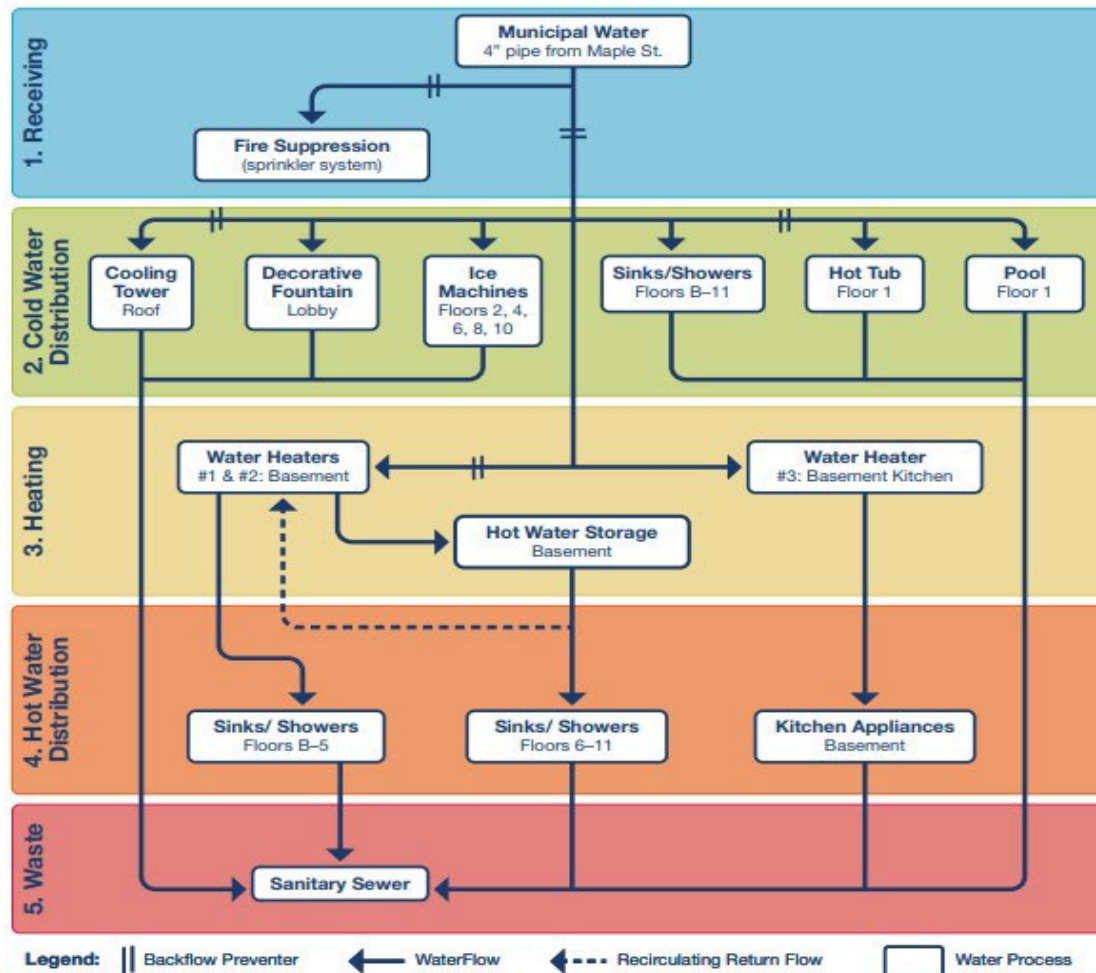
- **Control measures** = actions you take to **lower the risk** of *Legionella* and other waterborne pathogens
- **Have  $\geq 1$  control measure for each control point**
  - Cooling tower, swamp coolers
  - Therapy pool
  - Water heater
  - Sinks, showers, toilets, bathrooms
  - Decorative fountain
  - Ice machine
  - Infrequently used or broken fixtures
  - Low / no disinfectant
  - Areas of low- or no-flow, stagnation
  - Other control points specific to your facility



**CONTROL MEASURES  
NEEDED FOR EACH  
CONTROL POINT.**



# PART II: WMP — Water System Diagram: Step 1, Flow



*Disclaimer: Example content is provided for illustrative purposes only and is not intended to be relevant to all buildings.*

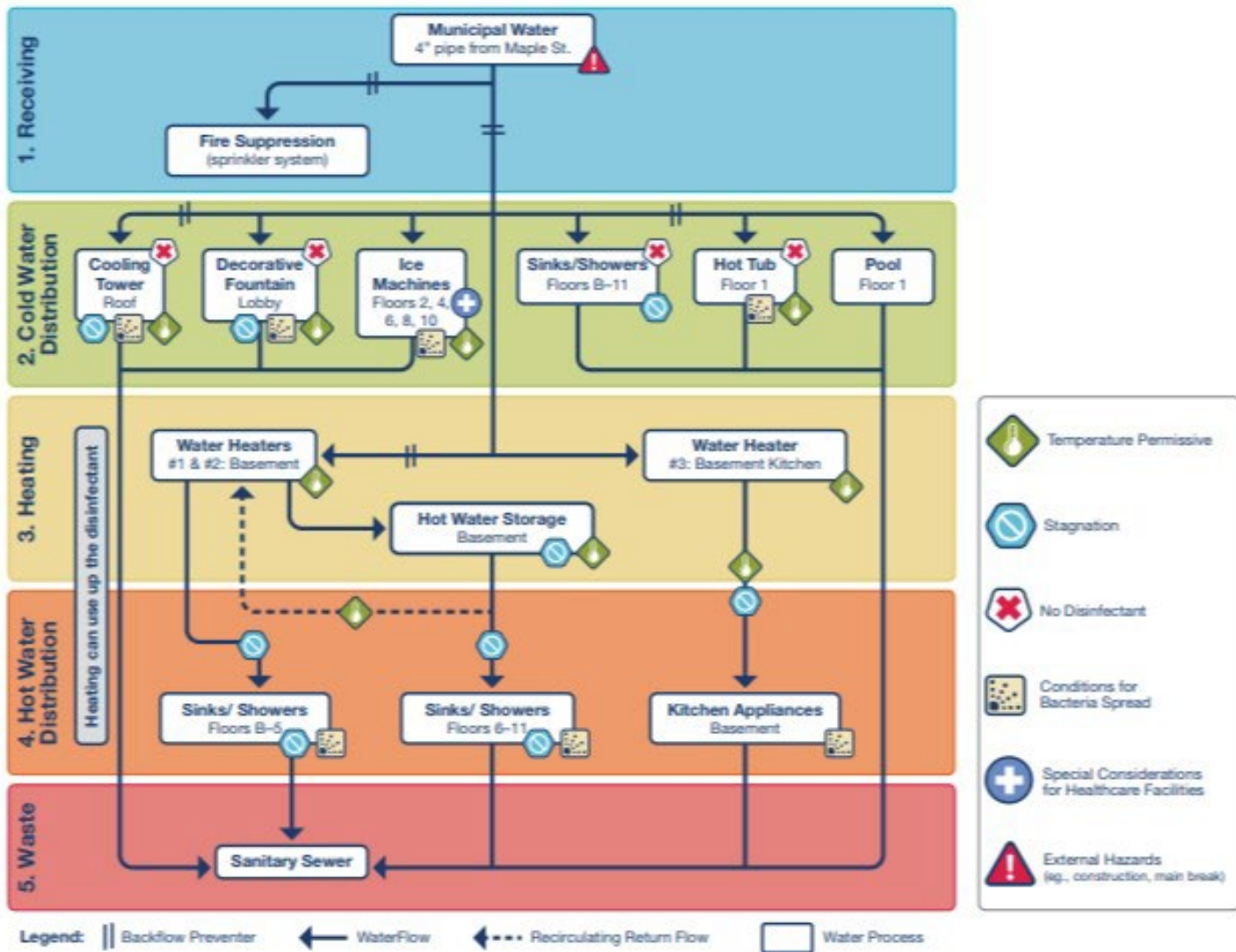
Reference: ASHRAE 188: *Legionellosis: Risk Management for Building Water Systems* June 26, 2015. ASHRAE: Atlanta. [www.ashrae.org](http://www.ashrae.org)

U.S. Department for Health and Human Services, Centers for Disease Control and Prevention (2021). *Developing a Water Management Program to Reduce Legionella Growth & Spread in Buildings: A Practical Guide to Implementing Industry Standards* (Version 1.1, June 24, 2021). Retrieved on 11/12/2021 from <https://www.cdc.gov/Legionella/downloads/toolkit.pdf>.

This document references ASHRAE 188: *Legionellosis: Risk Management for Building Water Systems* June 26, 2015. ASHRAE: Atlanta. [www.ashrae.org](http://www.ashrae.org)



# PART II: WMP — Water System Diagram: Step 2, Identify Areas of Potential *Legionella* Growth



Disclaimer: Example content is provided for illustrative purposes only and is not intended to be relevant to all buildings.

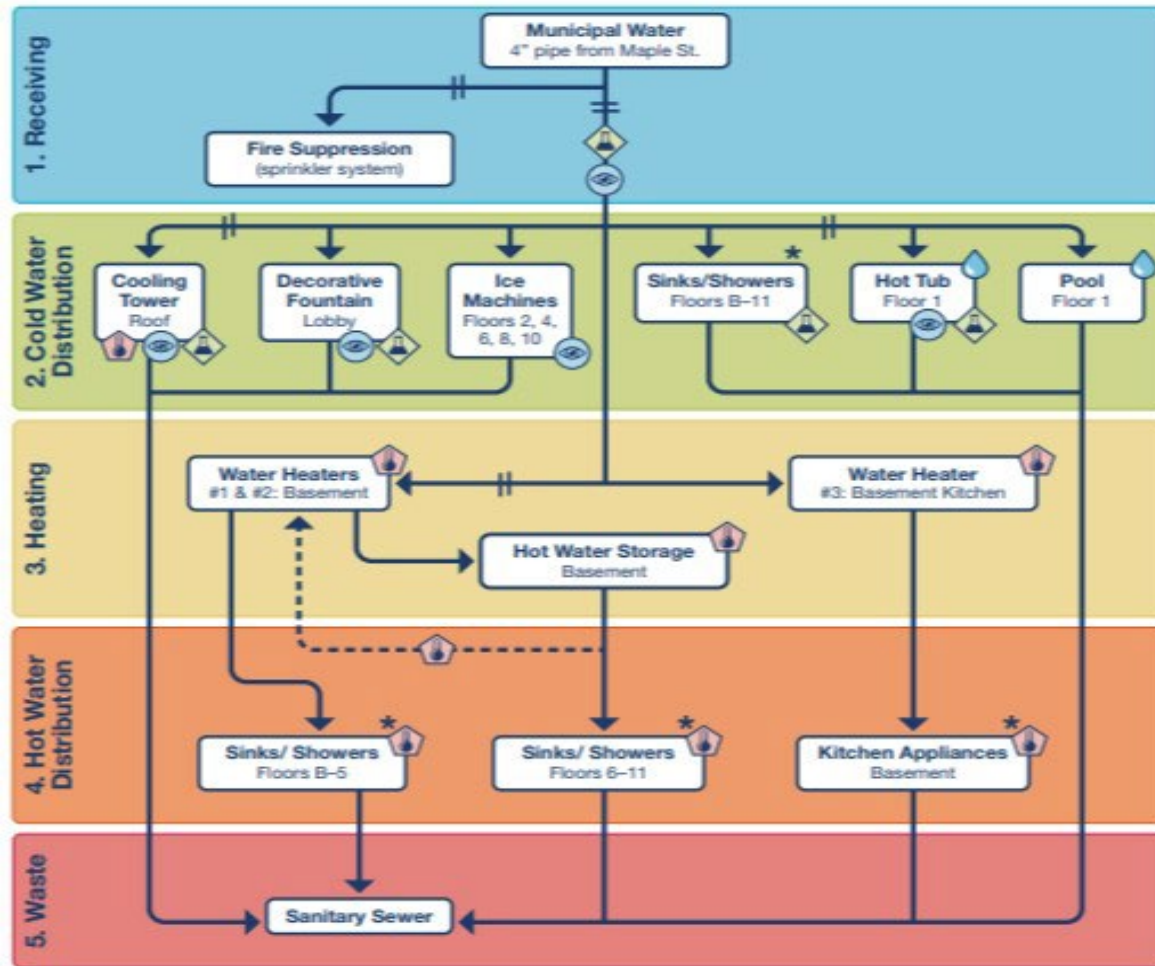
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This document references ASHRAE 188: *Legionellosis: Risk Management for Building Water Systems* June 26, 2015. ASHRAE: Atlanta. [www.ashrae.org](http://www.ashrae.org)



# PART II: WMP — Water System Diagram: Step 3, Control Measures



**Legend:** || Backflow Preventer   ← WaterFlow   ←--- Recirculating Return Flow   □ Water Process



Visual Inspection



Check Disinfectant Levels



Check Temperature

\* Monitoring at representative fixtures close to and far from the central distribution point is recommended. It is not necessary to routinely monitor water conditions at every tap.

*Disclaimer: Example content is provided for illustrative purposes only and is not intended to be relevant to all buildings.*

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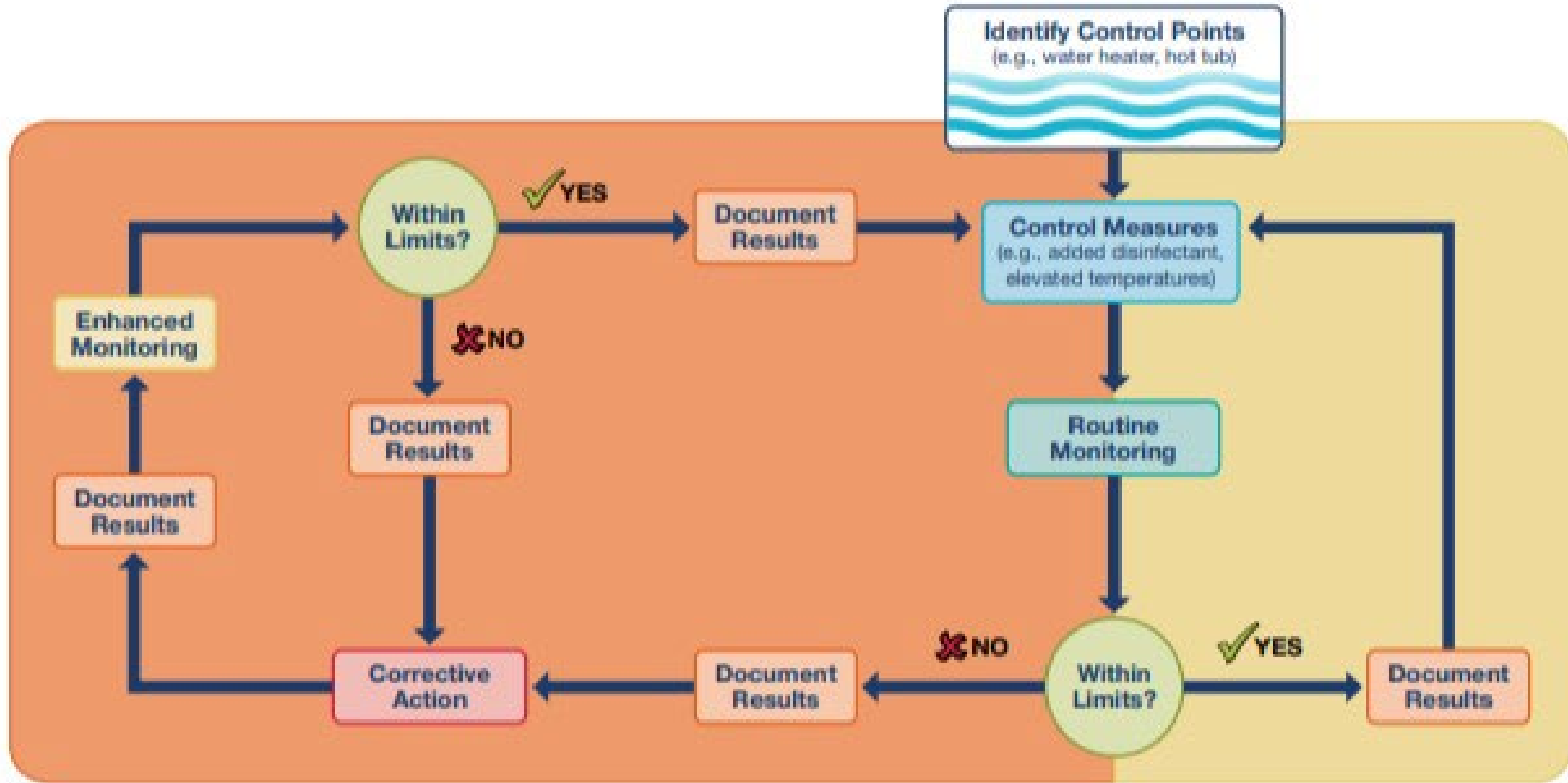
U.S. Department for Health and Human Services, Centers for Disease Control and Prevention (2021). *Developing a Water Management Program to Reduce Legionella Growth & Spread in Buildings: A Practical Guide to Implementing Industry Standards* (Version 1.1, June 24, 2021). Retrieved on 11/12/2021 from <https://www.cdc.gov/Legionella/downloads/toolkit.pdf>.

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## PART II: WMP — Diagram: Step 3, Control Measures Decision Tree



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## PART II: WMP — Control Measures

Active monitoring & reducing risk:

- Take **regular measurements**
- Know the **control limits** (target values)  
Examples: ideal hot vs. cold water temps, pH, residual disinfectant levels, etc.
- Plan **specific interventions** for out-of-range findings
- Reference **industry standards** and guidelines, laws and regulations



# PART II: WMP — Control Measures

## Enhanced control measures for higher-risk situations

- Facilities & environmental emergencies
- System start-up or shut-down
- Ruptures of nearby water mains
- Construction projects on site or in vicinity
- Equipment upgrade, repair, removal
- *Legionella*-positive environmental specimens
- Healthcare-associated LD in or linked to the facility

## Enhanced patient surveillance

- Monitor for new healthcare-onset pneumonia
- Communicate with providers about testing for legionellosis



# PART II: WMP — Verification & Validation Process





# PART II: WMP — Verification & Validation Process

## Verification

Per CDC, “Are we doing what we said we would do?”

- Have **someone else** (other than the assigned staff) verify that a particular WMP activity is being performed regularly and correctly.
- Verify: If there had been an out-of-range finding, was a corrective measure taken?

U.S. Department for Health and Human Services, Centers for Disease Control and Prevention (2021). *Developing a Water Management Program to Reduce Legionella Growth & Spread in Buildings: A Practical Guide to Implementing Industry Standards* (Version 1.1, June 24, 2021). Retrieved on 11/12/2021 from <https://www.cdc.gov/Legionella/downloads/toolkit.pdf>.

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## PART II: WMP — Verification & Validation Process

### **Validation** Per CDC, “Is our program actually working?”

Routinely check the **quality** of your water & HVAC systems to ensure your WMP is working effectively.

- If testing for *Legionella* growth, are the samples negative?
- What additional modifications to the WMP can be made to further reduce the risk of *Legionella* growth & spread?
- Anticipate hazardous situations
- WMP Team stays actively engaged in WMP activities

U.S. Department for Health and Human Services, Centers for Disease Control and Prevention (2021). *Developing a Water Management Program to Reduce Legionella Growth & Spread in Buildings: A Practical Guide to Implementing Industry Standards* (Version 1.1, June 24, 2021). Retrieved on 11/12/2021 from <https://www.cdc.gov/Legionella/downloads/toolkit.pdf>.

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## PART II: WMP — Remediation & Corrective Actions

**Remediation:** *Legionella* found → must take corrective action.

**Contingency response** — It may take several interventions to control *Legionella* growth.

- **Remediation successful?**
- Must validate! If unsuccessful, then:
  - Expand control points and measures, re-validate
  - Enhanced environmental surveillance
  - As IPs: enhanced patient surveillance
  - Facility may wish to consult outside experts\*
- Keep a log of all corrective actions taken and the results

**VERIFY AFTER REMEDIATION ATTEMPTS**



# PART II: WMP — Documentation





# PART II: WMP — Documentation

## Tips for timely documentation:

- Have a ready-made **checklist** and **log**
- Record **details**: date, who did what, values, observations, etc.
- Include the **normal range** or expected state for reference
- Include whether any **corrective actions** were taken (date, etc.)
- Have **someone else verify** the control measures are being performed.



# PART II: WMP — Communication

Communicate with WMP Team about unusual events:

- Residents w/ **healthcare-onset PNA** ( $\geq 48$  hrs after admission)  
*Especially if negative for more common respiratory pathogens!*
- Unplanned and **unforeseen** events
- **Emergencies**, emergent shut-downs
- **Malfunctioning** equipment / in need of repair
- **Disruptions** to water and/or HVAC systems
- Nearby **water main breaks**
- **Construction** on site or nearby
- Any **unusual occurrences**



## PART II: WMP — Communication

WMP Team should regularly report out to:

- **Infection Control Committee (ICC) meetings**
- **Environment of Care (EOC) meetings**

**WMP report = standing item on meeting agenda**



# PART II: WMP — Cyclical, Ongoing Process





# PART II: WMP — Cyclical, Ongoing Process

WMP are **living programs**, not “plans” to be stuck on a bookshelf.

They should be an active part of your **regular responsibilities**.

IPs, Facilities Engineers, and HF Administration should be in **regular communication** about all issues pertaining to the HF’s water & HVAC systems to keep patients, staff, and visitors safe.


**Assign & train specific staff** to perform specific duties within their scope of knowledge, expertise, and licenses (if applicable).



# PART II: WMP — CDC WMP Toolkit

## Download the Toolkit



[Developing a Water Management Program to Reduce \*Legionella\* Growth and Spread in Buildings: A Practical Guide to Implementing Industry Standards](#)  [9 MB, 36 pages] —

June 24, 2021



# Part II — Main Takeaways

Know warning signs of *Legionella* in the environment

Multidisciplinary team plans what, where, & how often to monitor

Know control limits; corrective actions if out of range. Validate results.

Contingency response & enhanced surveillance for high-risk situations.

Document, communicate, anticipate, and repeat.



# PART III. REPORTING TO PUBLIC HEALTH





# PART III: Reporting to Local Public Health (LAC DPH)

## REPORTABLE DISEASES AND CONDITIONS

Title 17, California Code of Regulations (CCR), § 2500

It is the duty of every health care provider, knowing of or in attendance on a case or suspected case of any of the diseases or conditions listed below, to report to the local health officer for the jurisdiction where the patient resides. "Health care provider" encompasses physicians (surgeons, osteopaths, oriental medicine practitioners), veterinarians, podiatrists, physician assistants, registered nurses (nurse practitioners, nurse midwives, school nurses), infection control professionals, medical examiners/coroners, dentists, and chiropractors, as well as any other person with knowledge of a case or suspected case.

**Note: This list is specific to Los Angeles County and differs from state and federal reporting requirements ★**

- ☎ Report **immediately** by telephone for both confirmed and suspected cases. [COVID-19 Death Online reporting\\*\\*\\*](#)
  - 📞 Report by telephone **within 1 working day** from identification
  - ✉ Report by electronic transmission (including FAX or email), telephone or mail within **1 working day** from identification, and [COVID-19 Online Reporting](#)
  - 📧 Report by electronic transmission (including FAX or email), telephone or mail within **7 calendar days** from identification
  - ★ Mandated by and reportable to the Los Angeles County Department of Public Health
  - ± If enrolled, report electronically via the **National Healthcare Safety Network** ([www.cdc.gov/nhsn/index.html](http://www.cdc.gov/nhsn/index.html)). If not enrolled, use the LAC DPH **CRE Case Report Form** ([publichealth.lacounty.gov/acd/Diseases/EpiForms/CRERepSNF.pdf](http://publichealth.lacounty.gov/acd/Diseases/EpiForms/CRERepSNF.pdf))
  - For TB reporting questions: contact the TB Control Program (213) 745-0800 or visit [www.publichealth.lacounty.gov/tb/healthpro.htm](http://www.publichealth.lacounty.gov/tb/healthpro.htm)
  - For HIV/STD reporting questions: contact the Division of HIV and STD Programs. HIV (213) 351-8516, STDs (213) 368-7441 [www.publichealth.lacounty.gov/dhsp/ReportCase.htm](http://www.publichealth.lacounty.gov/dhsp/ReportCase.htm)
- For laboratory reporting:** [www.publichealth.lacounty.gov/lab/index.htm](http://www.publichealth.lacounty.gov/lab/index.htm)    **For veterinary reporting:** [www.publichealth.lacounty.gov/vet/index.htm](http://www.publichealth.lacounty.gov/vet/index.htm)

detailed  
view



- confirmed cases, all ages ★
- ☎ Influenza, due to novel strains, human
- 📧 Legionellosis
- 📧 Leprosy (Hansen's Disease)
- 📧 Leptospirosis
- ✉ Listeriosis
- 📧 Lyme Disease
- ✉ Malaria
- ☎ Measles (Rubeola)



# PART III: Reporting to Local Public Health (LAC DPH)

## REPORTABLE DISEASES AND CONDITIONS

Title 17, California Code of Regulations (CCR), § 2500

It is the duty of every health care provider, knowing of or in attendance on a case or suspected case of any of the diseases or conditions listed below, to report to the local health officer for the jurisdiction where the patient resides. "Health care provider" encompasses physicians (surgeons, osteopaths, oriental medicine practitioners), veterinarians, podiatrists, physician assistants, registered nurses (nurse practitioners, nurse midwives, school nurses), infection control professionals, medical examiners/coroners, dentists, and chiropractors, as well as any other person with knowledge of a case or suspected case.

**Note: This list is specific to Los Angeles County and differs from state and federal reporting requirements ★**

- ☎ Report **immediately** by telephone for both confirmed and suspected cases. [COVID-19 Death Online reporting\\*\\*\\*](#)
- 📞 Report by telephone **within 1 working day** from identification
- ✉ Report by electronic transmission (including FAX or email), telephone or mail within **1 working day** from identification, and [COVID-19 Online Reporting](#)
- 📧 Report by electronic transmission (including FAX or email), telephone or mail within **7 calendar days** from identification
- ★ Mandated by and reportable to the Los Angeles County Department of Public Health
- ± If enrolled, report electronically via the **National Healthcare Safety Network** ([www.cdc.gov/nhsn/index.html](http://www.cdc.gov/nhsn/index.html)). If not enrolled, use the LAC DPH **CRE Case Report Form** ([publichealth.lacounty.gov/acd/Diseases/EpiForms/CRERepSNF.pdf](http://publichealth.lacounty.gov/acd/Diseases/EpiForms/CRERepSNF.pdf))
- For TB reporting questions: contact the TB Control Program (213) 745-0800 or visit [www.publichealth.lacounty.gov/tb/healthpro.htm](http://www.publichealth.lacounty.gov/tb/healthpro.htm)
- For HIV/STD reporting questions: contact the Division of HIV and STD Programs. HIV (213) 351-8516, STDs (213) 368-7441 [www.publichealth.lacounty.gov/dhsp/ReportCase.htm](http://www.publichealth.lacounty.gov/dhsp/ReportCase.htm)

**For laboratory reporting:** [www.publichealth.lacounty.gov/lab/index.htm](http://www.publichealth.lacounty.gov/lab/index.htm) **For veterinary reporting:** [www.publichealth.lacounty.gov/vet/index.htm](http://www.publichealth.lacounty.gov/vet/index.htm)

detailed  
view



- ☎ **OCCURRENCE OF ANY UNUSUAL DISEASE**
- ☎ **OUTBREAKS OF ANY DISEASE**, including diseases not listed above. Specify if in an institution and/or the open community.



## PART III: Reporting to Local Public Health (LAC DPH)

- Confirmed and suspect legionellosis cases must be reported to LAC DPH within **7 days**.
- Reporting after 7 days constitutes a **failure to report in a timely fashion** and may be referred to Licensing & Certification for follow-up.
- LAC DPH may request **medical records**.
- **Provider should notify the patient** (or DPOA, conservator, etc.) about the “reportable condition” of which LAC DPH has been or will be notified, and that Public Health may reach out.





# PART III: Reporting to California Dept. of Public Health



KAREN L. SMITH, MD, MPH  
State Public Health Officer & Director

State of California—Health and Human Services Agency  
California Department of Public Health



GAVIN NEWSOM  
Governor

May 13, 2019

AFL 19-18

**TO:** General Acute Care Hospitals (GACH)  
Skilled Nursing Facilities (SNF)

**SUBJECT:** Requirements to Report Outbreaks and Unusual Infectious Disease Occurrences

**AUTHORITY:** Title 42 Code of Federal Regulations (CFR) section 482.42,  
Title 17 California Code of Regulations (CCR) sections 2500-2502,  
Title 22 CCR sections 70737, 70739, 72523, 72539, and 72541

### All Facilities Letter (AFL) Summary

This AFL reminds providers of the requirements to report outbreaks and unusual infectious disease occurrences to the local public health officer and the California Department of Public Health (CDPH), and provides definitions and examples of reportable incidents.



COUNTY OF LOS ANGELES  
**Public Health**



# PART III: Reporting to California Dept. of Public Health

## Examples of Reportable Incidents:

CDPH is aware that licensed facilities are interpreting these requirements differently. To improve understanding of the requirements, CDPH provides the following examples of outbreaks or unusual infectious disease occurrences that should be reported:

- Single case of colonization or infection with a novel multi-drug resistant organism (MDRO) that was never previously or only rarely encountered in California, such as:
  - *Candida auris*
  - mcr-1-producing bacteria
  - Vancomycin-resistant *Staphylococcus aureus* (VRSA)
  - pan-resistant MDRO
- Single case of measles in a patient not placed into airborne isolation precautions upon facility entry, or a healthcare worker or other employee
- Single cases of healthcare-associated legionellosis
- Single case of healthcare-associated invasive group A beta hemolytic *Streptococcus*



# PART III: Test Your Knowledge

## Question 3

What is the maximum amount of time that you have to report a legionellosis case to LAC DPH in order to avoid *failure to report in a timely fashion*?



# PART III: Test Your Knowledge

## Answer 3

How long to report all legionellosis cases to LAC DPH?

7 calendar days or less.

When in doubt, report.



# Part III — Main Takeaways

Report on time.

Report confirmed and suspected legionellosis cases to LAC DPH  $\leq 7$  calendar days.

LAC DPH may request medical records.

Provider should communicate to patient or patient's representative that Public Health may follow up with them.

Report a single confirmed case of healthcare-associated legionellosis to CDPH Licensing and Certification.

When in doubt, report!





# Resources and Helpful Links

- **CDC. Developing a Water Management Program to Reduce Legionella Growth & Spread in Buildings: A Practical Guide to Implementing Industry Standards. June 24, 2021.**  
<https://www.cdc.gov/legionella/downloads/toolkit.pdf>
- **CDC. Controlling *Legionella* in Potable Water Systems:**  
<https://www.cdc.gov/Legionella/wmp/control-toolkit/potable-water-systems.html>
- **CDC. Guidelines for Environmental Infection Control in Health-Care Facilities (2003). Appendix C. Water**  
<https://www.cdc.gov/infectioncontrol/guidelines/environmental/appendix/water.html>
- **CDC water management toolkit: Developing a Water Management Program to Reduce Legionella Growth & Spread in Buildings:**  
<https://www.cdc.gov/legionella/downloads/toolkit.pdf>



# Resources and Helpful Links, Cont.

- CDC ELITE Program for labs — Environmental Legionella Isolation Techniques Evaluation (ELITE) Program: <https://www.cdc.gov/elite/public/elitehome.aspx>
- CMS: Requirement to Reduce Legionella Risk in Healthcare Facility Water Systems to Prevent Cases and Outbreaks of Legionnaires' Disease (LD):  
<https://www.cms.gov/Medicare/Provider-Enrollment-and-Certification/SurveyCertificationGenInfo/Downloads/QSO17-30-HospitalCAH-NH-REVISED-.pdf>
- CDPH AFL 18-39 Reducing Legionella Risks in Health Care Facility Water Systems: <https://www.cdph.ca.gov/Programs/CHCQ/LCP/Pages/AFL-18-39.aspx>
- AFL 19-18: Requirements to Report Outbreaks and Unusual Infectious Disease Occurrences:  
<https://www.cdph.ca.gov/Programs/CHCQ/LCP/CDPH%20Document%20Library/AFL-19-18.pdf>



# Resources and Helpful Links, Cont.

- **California Department of Public Health: Healthcare-Associated Legionnaires' Disease Investigation Quick sheet:**

[https://www.cdph.ca.gov/Programs/CHCQ/HAI/CDPH%20Document%20Library/HA\\_LegionnairesDiseaseQuicksheet\\_12.20.19\\_final.pdf](https://www.cdph.ca.gov/Programs/CHCQ/HAI/CDPH%20Document%20Library/HA_LegionnairesDiseaseQuicksheet_12.20.19_final.pdf)

- **Los Angeles County Department of Public Health: Legionellosis FAQ's:**

<http://www.publichealth.lacounty.gov/hea/library/topics/legionellosis/CDCP-ACDC-0069-01.pdf>



# Additional Resources and Helpful Links

- **Department of Public Health: Health Facilities Inspection Division:**  
<http://publichealth.lacounty.gov/hfd/>
- **CDPH Licensing and Certification Program:**  
<https://www.cdph.ca.gov/Programs/CHCQ/LCP/Pages/LandCProgramHome.aspx>
- **California Division of Occupational Safety and Health (Cal Osha):**  
<https://www.dir.ca.gov/dosh/>
- **California Department of Health Care Access and Information (HCAI): formerly the Office of Statewide Health Planning and Development (OSHPD):** <https://hcai.ca.gov/>





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- U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. (2017). Vital Signs: Health Care–Associated Legionnaires’ Disease Surveillance Data from 20 States and a Large Metropolitan Area — United States, 2015. *Morbidity and Mortality Weekly Report*, (66)22, initially issued as *MMWR Early Release* (6 June 2017), pp 584–589. Authors: Soda, E., Barskey, A., Shah, P., Schrag, S., Whitney, C., Arduino, M., . . . Cooley, L. Retrieved on 18 Nov. 2021 from <https://www.cdc.gov/mmwr/volumes/66/wr/pdfs/mm6622e1.pdf>.
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- CDC. Guidelines for Environmental Infection Control in Health-Care Facilities (2003). Appendix C. Water. Retrieved from <https://www.cdc.gov/infectioncontrol/guidelines/environmental/appendix/water.html> Accessed 11/24/2021.
- Title 17, California Code of Regulations (CCR) §2500, §2593, §2641.5-2643.20, and §2800-2812 Reportable Diseases and Conditions\*. Retrieved from <https://www.cdph.ca.gov/Programs/CID/DCDC/CDPH%20Document%20Library/ReportableDiseases.pdf>. Accessed 11/24/2021.
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- Center for Clinical Standards and Quality/Quality, Safety and Oversight Group (2018). *Requirement to Reduce Legionella Risk in Healthcare Facility Water Systems to Prevent Cases and Outbreaks of Legionnaires' Disease (LD)*. Retrieved from <https://www.cms.gov/Medicare/Provider-Enrollment-and-Certification/SurveyCertificationGenInfo/Downloads/QSO17-30-HospitalCAH-NH-REVISED-.pdf> Accessed 11/24/2021.



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- ASHRAE (2018). *ANSI/ASHRAE Standard 188-2018 -- Legionellosis: Risk Management for Building Water Systems*. Atlanta, GA.
- ASHRAE (2000). *ASHRAE Guideline 12-2000 -- Minimizing the Risk of Legionellosis Associated with Building Water Systems*. Atlanta, GA.
- Centers for Disease Control and Prevention (2017). *What Clinicians Need to Know about Legionnaires' Disease* [Brochure]. Retrieved from <https://www.cdc.gov/legionella/downloads/fs-legionella-clinicians.pdf>. Accessed 11/24/2021.





# Contacting LAC DPH Healthcare Outreach Unit

Please reach out to our Long-Term Care and Infection Preventionist teams with any further questions or requests for additional information.

Email: [LACSNF@ph.lacounty.gov](mailto:LACSNF@ph.lacounty.gov)

Phone: 213-240-7941

URL: <http://publichealth.lacounty.gov/acd/SNF.htm>



» Thank You! «

Questions?

