



Legionnaires' Disease Risk Communication Toolkit



Healthcare Facilities Module



June 2022



Healthcare Facilities Module



Welcome to the Healthcare Facilities Module, a supplement to the *Legionnaires' Disease Risk Communication Toolkit*. This module should be used in conjunction with the *Toolkit* document and the other supplemental modules. The Healthcare Facilities Module contains the following information:

Contents	Page
Overview of Legionnaires' Disease Risk Communication Toolkit Modules (Information about the module supplements)	HC-5
Healthcare Facilities Module (Foundational materials for communicating LD risks in healthcare settings)	HC-7
Healthcare Facilities Module References	HC-14
Healthcare Facilities Messaging Tables (Multiple messaging templates for a variety of audiences and scenarios in healthcare settings)	HC-17

This project was funded under a cooperative agreement with the Centers for Disease Control and Prevention (NU38OT000297-01-00).

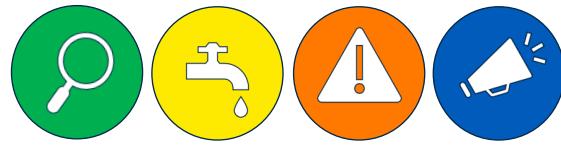
The toolkit was authored for CSTE by Patricia I. Elliott JD, MPH, President, Health | Environment Concepts under the direction of CSTE staff member, Ashley Vineyard, MPH.

For questions about this document, please contact: Council of State and Territorial Epidemiologists, 2635 Century Pkwy NE, Suite 700. Atlanta, GA 30345. Tel: 770.458.3811 | Fax: 770.458.8516

June 2022

Version 1.1

Overview of Legionnaires' Disease Risk Communication Toolkit Modules



The individual chapters in the *Legionnaires' Disease Risk Communication Toolkit* document provide foundational information applicable to all the settings in which exposure to *Legionella* most commonly occurs. The *LDRC Toolkit* document offers key information about Legionnaires' disease (LD), identifies legal issues, discusses important considerations when communicating about LD with stakeholders and the public, and provides an overview of water management programs (WMPs). The information in these chapters applies to all the settings in which exposure to *Legionella* most commonly occurs. The *LDRC Toolkit*'s supplemental modules are a series of setting- and scenario-specific documents that address LD-related information and messaging targeted for that setting. The setting- and scenario-specific modules are:

- Healthcare Facilities
- Congregate Residential Facilities
- Hotels and Hospitality Facilities
- Community Settings
- Routine Environmental Test Results in the Absence of Cases

Each module also provides templates and sample messages for key communication items such as notification letters, public health orders, press releases, and health department advisories. The modules also identify practice tips and other resources to help state, tribal, local, and territorial (STLT) health agency staff communicate the risks of LD in these specific settings and scenarios to target audiences.

Variables Affecting LD Outbreaks

The goal of the modules is to provide STLT health agency staff with clear guidance about communicating LD risks in a specific setting or scenario and tools to use in those efforts. However, it is important to note that there are many factors that may affect a jurisdiction's investigation, response, and communications about a specific LD outbreak. The following factors are just some of the variables that can influence the course of an LD outbreak—even within the same types of settings—and the response to it:

- Potential for population with increased risk for LD in the setting
- Overnight stay at the setting or not
- Commercial setting or non-commercial setting
- Length of exposure in the setting
- Mixed/hybrid settings (i.e., locations with features common to different LD risks)
- Environmental assessment and environmental sampling *Legionella* results

Above all, these modules provide a starting point from which to tailor risk communication about

LD outbreaks in the identified setting. Each jurisdiction can make its own determination about the nature and scope of its investigation and response, and the messages and targets for communication, given the specifics of each LD outbreak and the jurisdiction's laws, regulations, and policies.

Module Components

The setting- and scenario-specific modules follow the same format and include the following sections:

- **Scope of Module**—Provides a quick overview of the types of buildings and facilities addressed in the module.
- **Factors Affecting Investigation**—Discusses factors in the specific setting (e.g., healthcare, congregate residential) or scenario (i.e., routine environmental test results in the absence of cases) that help determine how a public health agency addresses LD cases or an outbreak in that setting.
- **Key Risk Factors**—Identifies and discusses the key risk factors in the setting that can give rise to *Legionella* growth and LD. This section addresses risk factors associated with buildings and facilities as well as factors affecting persons who occupy or visit the setting. Each module includes a one-page figure summarizing these key risk factors for quick reference.
- **Key Audiences and Messages Overview**—Identifies and addresses the key audiences for messaging in the module setting. The section discusses the relevance and role of each audience to the identification, investigation, mitigation, and prevention of *Legionella* and LD.
- **Key Audience and Messaging Tables**—A series of tables provides detailed messaging guides geared to each key audience in the setting or scenario. This section opens with an index table that lists all the messaging table templates by audience. Each series of color-coded key audience tables includes one or more messaging scenarios for that audience. Each messaging table contains an annotated, customizable template of text to include in communications about that scenario.
- **Toolkit Appendix**—Provides other samples and templates related to the content of the module.

Finally, the messaging needed in a specific scenario or outbreak will vary with the unique facts of that event and the laws and policies of the jurisdiction where it is occurring. **For this reason, the information in each module and the messaging tables, templates, and samples should be used as a starting point to craft communications tailored to the user's specific needs and circumstances.**



Healthcare Facilities Module



Healthcare facilities like hospitals, long-term care (LTC) facilities, and clinics pose significant risks for potential exposures to water containing *Legionella*. Healthcare facilities frequently have complex water systems, cooling towers, and specialized equipment that can present additional risks of exposure to *Legionella* (CDC, 2021b). Patients can be especially vulnerable to acquiring Legionnaires' disease (LD) if they are exposed to water systems colonized by *Legionella* given other potential risk factors such as weakened immune systems, advanced age, and chronic medical conditions (CDC, 2021b).

CDC (2021a) specifically tracks healthcare-associated LD by facility type and the kind of healthcare exposure (i.e., inpatient, outpatient, employee, and visitor or volunteer). CDC uses case definitions established in CSTE's 2019 position statement on legionellosis to classify healthcare-associated cases as either presumptive healthcare-associated LD or possible healthcare-associated LD (CDC, 2021a).

Scope of Module

This module covers three broad categories of healthcare facilities as recognized by CDC: hospitals, long-term care (LTC) facilities, and clinics. CDC (2021a) further identifies several kinds of facilities included within each broad category:

- Hospitals
 - Acute care hospitals (general or specialty); long-term acute care hospitals; critical access hospitals; children's hospitals; psychiatric hospitals; clinics located within hospitals
- LTC facilities
 - Skilled nursing facilities; nursing homes; inpatient hospice; rehabilitation hospitals; psychiatric residential treatment facilities

Defining Healthcare-associated LD Cases

CSTE defines healthcare-associated Legionnaires' disease (HA-LD) in Appendix 3 of its Position Statement 19-ID-04 Revision to the Case Definition for National Legionellosis Surveillance (June 6, 2019)¹. Patients who meet clinical and laboratory or epi linkage criteria for LD² are also classified based on the duration of their exposure in a healthcare setting:

- **Presumptive healthcare-associated LD**—A case with 10 or more days² of continuous stay at a healthcare facility³ during the 14 days before onset of symptoms.
- **Possible healthcare-associated LD**—A case that spent a portion of the 14 days before date of symptom onset in one or more healthcare facility, but does not meet the criteria for presumptive HA-LD.

¹ See *LDRC Toolkit* Chapter 1 "Legionnaires' Disease Basics" for a review of clinical and laboratory criteria.

² The majority of LD cases have illness onset within 10 days of exposure. For healthcare-associated case surveillance purposes, the goal is to capture the most likely exposure source.

³ Examples of healthcare facilities include acute care facilities, long-term acute care facilities, skilled nursing, and clinics.



- Clinics
 - General and specialty outpatient clinics (not located in a hospital); ambulatory/same-day surgery centers (not located in a hospital); outpatient rehabilitation clinics; dialysis centers; dental offices/clinics

Other CDC-recognized healthcare facilities include associated sites such as pharmacies and outpatient laboratories. CDC does not include facilities like assisted living or senior living facilities, prisons, and group homes in the definition of healthcare facilities; the Congregate Residential Facilities Module in this toolkit addresses these types of facilities.

Factors Affecting Investigation

Several factors affect how a public health agency addresses LD cases in a healthcare setting. These factors as identified by CDC (2021c) can include:

- Type and size of the healthcare facility.
- Existing capacity of the facility and health department.
- Number of cases.
- Water management program performance.
- Routine environmental sampling results.

For More Information...

See CDC's materials for health departments conducting investigations in healthcare facilities for more in-depth information about legionellosis case definitions, case and outbreak investigation resources, and water management strategies for preventing LD. These materials are available at <https://www.cdc.gov/legionella/health-depts/healthcare-resources/index.html>.

The decision to conduct a full investigation of LD cases in a healthcare facility will depend on the identification of the number of cases within a defined time, which could raise suspicion about the potential for ongoing *Legionella* transmission at the facility. CDC (2021c) recommends full investigation if either of the following two situations occur:

- One or more (≥ 1) case of presumptive healthcare-associated LD at any time; or
- Two or more (≥ 2) cases of possible healthcare-associated LD within 12 months of each other.

Key Risk Factors in Healthcare Facilities

There are multiple factors that can make healthcare facilities especially susceptible to *Legionella* colonization and spread. Also, their patients and visitors may be at increased risk for acquiring LD. While not all the risk factors identified below will apply equally to every type of facility discussed in this module, they are indicative of the types of risks common in healthcare facilities. The categories of risk factors are discussed in the following sections.

Complex Potable and Drinking Water Distribution Systems

Healthcare facilities generally have complex water systems given the size of these facilities and the wide range of water applications in them. These types of facilities can also undergo frequent construction or renovation to modernize and expand capacity. This can cause disruptions or



changes in water pressure that dislodge biofilm and release *Legionella* into the water system. Disruptions and changes in water pressure can also introduce contaminants into the water system and potential stagnation in areas where water flow is reduced or cut-off.

Sources of Aerosolized Water

This is a broad category that includes many potential sources of *Legionella* exposure within a healthcare facility. These can include aerosolized water from showers and faucets in patient rooms and in the facility generally. Equipment unique to healthcare settings such as respiratory therapy equipment, hydrotherapy tubs, or dental devices using water are also sources of aerosolized water. Finally, healthcare properties may include other sources of aerosolized water such as decorative fountains or other water features.

Building Systems with Cooling Towers

Large facilities are likely to have complex cooling systems that include cooling towers, which if not properly maintained, can become colonized with *Legionella*. The bacteria are then dispersed through water droplets generated during cooling processes, which can extend to areas neighboring the healthcare facility. Large healthcare complexes can have one or more cooling towers on the property.

Specific Building or Location Features

There may be features specific to a particular building, facility, or location that increase its potential for *Legionella* colonization or the potential for people occupying it to be exposed. The sheer variety of water uses associated with healthcare facilities coupled with the high-risk populations they serve make healthcare settings distinctive for LD risk.

Hybrid Settings

Healthcare facilities have several aspects that make them a risk for fostering *Legionella* growth and exposure. Facilities can also include hot tubs, decorative fountains, or other water features that create aerosolized water. In the context of a healthcare facility, an example of a hybrid setting could be one that includes recreational-type water sources such as in a Veterans Affairs (VA) facility that includes residential areas for patients to stay during longer-term treatments. Each element can be assessed as an individual functional unit as well as in the context of a healthcare facility as a whole.

Length of Stay in the Facility

LD is associated with overnight stays or extended exposures to a source within a healthcare facility colonized with *Legionella*. Therefore, the longer a person is at the facility—as a patient, visitor, volunteer, employee, or otherwise working or spending prolonged periods in a healthcare facility setting—the greater the potential to contract LD.

At-risk Persons in the Facility

Healthcare facilities generally serve individuals with one or more characteristics that puts them at higher risk for acquiring LD. These include being age 50 and older, being a current or past smoker, or having a higher risk for infection (e.g., having a chronic illness, respiratory disease, weakened immune system). Patients at a healthcare facility may also have a greater risk for aspirating water which allows water to enter the lungs. Other individuals may be at risk for LD



based on the amount of time they spend in a healthcare facility and exposed to *Legionella*. Employees, volunteers, visitors, and others may also have individual risk factors that put them at increased risk for LD.

Figure 1 describes risk factors that affect healthcare buildings and the persons using them. Specific facility types (e.g., hospitals, LTC facilities, clinics) and the risk factors they may be subject to are indicated in parentheses.

Key Audiences and Messages

Each type of healthcare facility has key audiences for messaging about LD identification, investigation, mitigation, and prevention. Each of these persons and organizations may require somewhat different information about LD tailored to their perspective in the LD event.

Messaging may evolve during the LD event as suspected outbreaks are confirmed and follow-up may be indicated. It is also important to note that healthcare professionals (e.g., physicians, nurses, dentists) can also be the owners, operators, or managers of a healthcare facility in addition to their roles as healthcare providers. Alternatively, a healthcare provider could be leasing space in a larger building or facility owned and managed by other parties. While core information about LD, investigation, mitigation, and prevention will likely be similar, there may be differences in the kinds and details of messages intended for different audiences. The key audiences in healthcare facility settings are identified in the following sections.

Facility

Owners, administrators, and managers can be both the operational and legal points of contact for suspected and confirmed public health communicable disease investigations and response activities; however, this should be confirmed by the facts of the specific event and the laws and regulations in the jurisdiction.

For More about Routine Environmental Testing Results....

See the "Routine Environmental Testing Results in the Absence of Cases" Module for additional messaging about this scenario.

The healthcare facility is also often a key source of information about patients, visitors, employees, volunteers, contractors, and other persons who stayed or visited during the period under investigation. Depending on the laws, regulations, or policies of a jurisdiction, facility managers and employees may be required to use messaging supplied by a public health agency to communicate with potentially exposed persons or to alert prospective patients and visitors about an ongoing LD investigation; however, in other jurisdictions, public health agencies can recommend but not require specific messaging.

Should a facility raise concerns about sharing personally identifiable information about patients, note that federal and state laws provide exceptions to confidentiality requirements for public health purposes (see *LDRC Toolkit* Chapter 3 "Access to Information and Confidentiality"). Any questions or concerns about accessing or sharing personally identifiable information may be discussed with the public health agency's legal counsel.

Facility representatives should be informed about the process for investigating, testing, and mitigating potential sources of *Legionella* in the facility's water systems, cooling towers, and

**Figure 1: Key Risk Factors in Healthcare Facilities****Building and Facility Factors****Water Distribution Systems**

- Complex potable/drinking water systems that may include recirculating hot water, long distribution or riser runs, multiple water heaters, and numerous fixtures (*hospitals, large LTC, large clinics*)
- Complex potable/drinking water distribution system possible (*large/medium LTC, large/medium clinics*)
- Less complex potable/drinking water distribution systems likely but potential for less frequent maintenance and water system management (*small LTC, small clinics*)
- Technical water/non-potable systems of varying complexity possible (*all*)

Sources of Aerosolized Water

- Numbers and size of sources will vary with the type of facility
- Potential sources:
 - Showers and faucets in patient rooms, treatment rooms, and throughout the facility (*all*)
 - Medical devices and therapeutic equipment (*all*)
 - Hot tubs (*all*)
 - Other water features possibly onsite (e.g., pools, decorative fountains) (*all*)

Building Systems with Cooling Towers

- Complex cooling systems with one or more cooling towers possible (*hospitals, large/medium LTC, large/medium clinics*)
- Could have cooling systems with cooling towers in some facilities, not likely in smaller facilities (*small LTC, small clinics*)
- May be present at a building owned/operated by a third party (*clinics*)

Features Specific to the Building or Location

- Potential for frequent to periodic construction or renovation that can dislodge biofilm and introduce pathogens and stagnation areas where water flow is reduced or cut-off (*all*)
- Unused or infrequently used rooms and equipment (*all*)
- May be present at a building owned/operated by a third-party with unknown water management practices (*clinics*)
- Potentially fewer staff for water system maintenance (*smaller LTC, smaller clinics*)
- Technical water/non-potable systems of varying complexity possible (*all*)

Hybrid Setting / Features of Multiple Settings

- May include one or more recreational water setting features (e.g., pools, hot tubs) (*LTC*)
- May be present at a larger building with a mix of tenant types (*clinics*)

Personal Factors**Length of Time in Setting**

- Overnight and multiple-night stays by patients (*hospitals, some clinics*)
- Permanent or long-term stays by patients (*LTC*)
- Patients attending offices and appointments may be onsite for extended periods without overnight stay (*hospitals, clinics*)
- Employees, contractors, visitors, and volunteers may be onsite for extended periods (*all*)

Persons with Risk Factors

- Patients are more likely than the general population to have conditions increasing LD susceptibility (*all*)
- Can have employees, contractors, visitors, and volunteers with a cross-section of personal risk factors (*all*)



plumbed water features, as well as medical devices, therapeutic equipment, and any other water features at the facility. If general risk communication methods are ineffective at prompting action by the facility, messaging about and the use of public health orders or other enforcement mechanisms may be helpful.

Finally, public health agencies should consider requesting (or requiring) copies of all written materials and other notices shared with patients, staff, and visitors to ensure that the information being provided is accurate and complete. Correct information is especially important for persons potentially exposed to *Legionella* who should be monitored for symptoms and seek treatment if symptoms develop. Facilities subject to health orders may also be required to provide copies of all notices and notifications. Public health agencies should also confirm that facilities notify patients, staff, and visitors about the results of tests on its water systems arising from a public health investigation.

Patients and Visitors

Any messaging to patients (and/or their designated contacts or legal representatives) and visitors should include clear information in plain language about LD basics such as the cause, sources, risk factors, and symptoms of the disease. If available, information should be provided about their specific potential exposures to *Legionella* at the healthcare facility, when it occurred (if known), and how to speak with their doctor about the exposure. Consider including language advising recipients to speak with a medical provider if they develop symptoms within 14 days of exposure. Also clearly communicate information about sources to consult for additional information and points of contact within the public health agency, if appropriate.

Employees, Contractors, and Volunteers

Similar to the messaging for patients and visitors, employees, contractors, volunteers, and others who are regularly in the healthcare facility should receive clear information in plain language about LD that addresses the cause, sources, risk factors, and symptoms of the disease. Messaging should include information about specific potential exposures at the facility and when exposure likely occurred (if known). It should also address how the facility would like employees and others to proceed if they are sick or worried about having been exposed, and how to speak with their doctor about the exposure. Additionally, a jurisdiction's occupational health and safety laws and workers' compensation system, as well as obligations arising from union contracts and other agreements or personnel policies affecting the rights of employees can arise. Further, the issue of personal protective equipment (PPE) consistent with or beyond that already used in the healthcare setting may arise if there are employees or others at higher risk (whether due to personal medical history or exposure risks due to job duties). Points of contact within the organization and the public health agency, information about employee rights, and sources for additional information should also be clearly communicated.

Persons with Confirmed LD

Persons who have been confirmed to have LD from an outbreak may require additional information as the public health investigation proceeds (e.g., for medical or legal purposes, out of interest or concern). Public health agency staff should identify the extent and types of information that can be legally shared within the scope of the jurisdiction's laws, and that the information released is supported by data and sound public health practice. Health agencies



may also consider media releases with investigation updates to keep affected and interested persons informed. (See "Media and the Public" section below.)

Healthcare Providers and Other Healthcare Facilities

Healthcare providers associated with a facility where LD cases have occurred should be alerted so they can monitor their patients for *Legionella* exposure and LD symptoms. More broadly, conducting outreach to healthcare providers and other healthcare facilities in the community in which an LD outbreak is occurring or has occurred helps to educate them about LD and alert them to the signs and symptoms indicating a patient may be suffering from LD. The public health agency can also provide guidance on appropriate diagnostic testing and treatment, and instructions about retaining or forwarding clinical specimens or isolates. Health alerts sent by the public health agency to healthcare providers and facilities are used to highlight specific suspected or confirmed LD outbreaks and to inform practitioners and clinical laboratories how to report cases to the agency.

Other Agencies and Governments

A public health agency may inform other divisions within the public health agency, other government agencies in its state/jurisdiction, and agencies in other units of government (i.e., local, regional, state, federal, tribal, territorial) about an LD outbreak at a healthcare facility as required by standard procedure, law, or voluntarily as public health partners. Consider issuing an Epi-X alert if the healthcare facility draws patients, visitors, or staff from other geographic areas, especially if persons travel to the facility for specialized care or the facility is located near a state or other jurisdictional boundary. Identifiable patient information can only be shared according to state and federal confidentiality laws and rules. Depending on the extent and nature of the LD event, other divisions, agencies, or units of government may have regulatory or other legal authority over or an interest in the operation of the healthcare facility (e.g., building code enforcement, environmental health/sanitation inspections).

Media and the Public

Providing information to the media and the public about a suspected or confirmed LD outbreak is an important part of the risk communication process, but it should be approached taking care to balance the privacy interests of the involved facilities and individuals with the right of the public to be made aware of public health threats. (See *LDRC Toolkit* Chapter 3 "Accessing Information and Confidentiality" for more information.) LD cases or outbreaks associated with a healthcare facility may generate significant public and media attention. Issuing press releases and other statements about an LD outbreak at a specific healthcare facility can help to identify other persons who may have been exposed at that facility and alert them to the symptoms to watch for. Providing updates on the status of an LD investigation can help to assure the public that the outbreak is being addressed and mitigated.



Healthcare Facilities Module References

Centers for Disease Control and Prevention. (2021a, March 25). Legionella (*Legionnaires' disease and Pontiac fever*): *Defining healthcare facilities and healthcare-associated Legionnaires' disease*. <https://www.cdc.gov/legionella/health-depts/healthcare-resources/healthcare-facilities.html>

Centers for Disease Control and Prevention. (2021b, March 25). Legionella (*Legionnaires' disease and Pontiac fever*): *Healthcare investigation resources*. <https://www.cdc.gov/legionella/health-depts/healthcare-resources/index.html>

Centers for Disease Control and Prevention. (2021c, March 25). Legionella (*Legionnaires' disease and Pontiac fever*): *Things to consider: Outbreak investigations*. <https://www.cdc.gov/legionella/health-depts/epi-resources/outbreak-investigations.html>

Council of State and Territorial Epidemiologists. (2019, June 6). Revision to the case definition for national legionellosis surveillance. Position statement no. 19-ID-04. https://cdn.ymaws.com/www.cste.org/resource/resmgr/2019ps/final/19-ID-04_Legionellosis_final.pdf



Healthcare Facilities Module Selected Resources

- ASHRAE. Standard 188: Legionellosis: Risk Management for Building Water Systems (ANSI approved). Read-only access available at: <https://www.ashrae.org/technical-resources/standards-and-guidelines/read-only-versions-of-ashrae-standards>.
- ASHRAE. Guideline 12: Managing the Risk of Legionellosis Associated with Building Water Systems. Read-only access available at: <https://www.ashrae.org/technical-resources/standards-and-guidelines/read-only-versions-of-ashrae-standards>.
- CDC. *Legionella* (Legionnaires' Disease and Pontiac Fever). Healthcare Investigation Resources. Available at: <https://www.cdc.gov/legionella/health-depts/healthcare-resources/index.html>.
- CDC. Legionnaires' Disease Communication Resources. Available at: <https://www.cdc.gov/legionella/health-depts/communications-resources.html#press-releases>. (Includes sample letters for healthcare facilities.)
- CDC. Guidelines for environmental infection control in health-care facilities: Recommendations of CDC and the Healthcare Infection Control Practices Advisory Committee. *MMWR*. 2003;52(RR-10):1-42. Available at: <https://www.cdc.gov/mmwr/preview/mmwrhtml/rr5210a1.htm>.
- CDC. Guidelines for preventing health-care-associated pneumonia, 2003: Recommendations of CDC and the Healthcare Infection Control Practices Advisory Committee. *MMWR*. 2004;53(RR-3):1-36. Available at: <https://www.cdc.gov/mmwr/preview/mmwrhtml/rr5303a1.htm>.
- CDC. Guidelines for infection control in dental health-care settings. *MMWR*. 2003;52(RR-17). Available at: <https://www.cdc.gov/mmwr/PDF/rr/rr5217.pdf>.
- CMS. Requirement to Reduce *Legionella* Risk in Healthcare Facility Water Systems to Prevent Cases and Outbreaks of Legionnaires' Disease. Available at: <https://www.cms.gov/Medicare/Provider-Enrollment-and-Certification/SurveyCertificationGenInfo/Downloads/QSO17-30-HospitalCAH-NH-REVISED-.pdf>.
- CDC. Developing a Water Management Program to Reduce *Legionella* Growth and Spread in Buildings: A Practical Guide to Implementing Industry Standards. June 5, 2017. Version 1.1. Available at: <https://www.cdc.gov/legionella/downloads/toolkit.pdf>.
- CDC. The Toolkit for Controlling *Legionella* in Common Sources of Exposure (*Legionella* Control Toolkit). January 13, 2021. Version 1.1. Available at: <https://www.cdc.gov/legionella/wmp/control-toolkit/index.html>.
- CSTE. Water Management Program Template. Available at: <https://www.cste.org/general/custom.asp?page=Legionnaires>.
- OSHA. Legionellosis (Legionnaires' Disease and Pontiac Fever). Available at: <https://www.osha.gov/legionnaires-disease>.



Healthcare Facilities Messaging Tables



This section of the module contains messaging tables that address key audiences associated with a suspect or confirmed LD case(s)/outbreak at a healthcare facility. LD risk communication materials gathered from states, localities, and federal sources were used to help create the messaging tables in this module. Readers should consider the following when using the messaging tables:

- Each series of color-coded key audience tables includes one or more messaging scenarios for that audience.
 - The same colors are used across the all the modules for the same audiences (e.g., materials for the press and public are in tables with orange banners).
- Each messaging table contains an annotated template of text to include in communications about that scenario.
 - Module users are free to choose which content to use in a template and modify it according to their needs.
- ***Italicized topic headings*** introduce a series of bulleted statements with text that can be adapted into letters, handouts, or notices.
 - Topic headings are not necessarily intended to be used in messaging documents.
- [Text in brackets] can be edited or added by the user to tailor a document for the specific use.
 - For example, "The [state/local health agency] has identified..." becomes "The Anytown Health Department has identified..."
- ***[Italicized text in brackets]*** are instructions to the user and are not intended to be included in messaging documents.

The next page contains an index of the messaging tables and lists each key audience and messaging scenarios addressed. The index also lists the corresponding module page numbers for the messaging tables.

IMPORTANT NOTE:

The messaging indicated in a specific scenario or outbreak will vary with the unique facts of that event and the laws and policies of the jurisdiction where it is occurring. **For this reason, these messaging tables, templates, and samples should be used as a starting point to craft communications tailored to the user's specific needs and circumstances.**

**Index of Healthcare Facilities Module Messaging Tables**

Messaging Audience and Messaging Scenarios	Module Page
Healthcare facility owners, representatives, and infection control leads	
• Informing facility of a single case of possible healthcare-associated LD	HC-19
• Informing facility of a single case of presumptive healthcare-associated LD or multiple cases of possible healthcare-associated LD	HC-21
• Investigation at a cooperative or compliant healthcare facility	HC-23
• Investigation at an uncooperative or non-compliant healthcare facility	HC-25
• Health order to require a healthcare facility to address and remediate <i>Legionella</i> in the facility	HC-27
• Providing general information about LD risks to persons associated with a healthcare facility	HC-33
• Providing general information about LD risks, mitigation, and prevention for healthcare facility engineering and maintenance staff	HC-35
People associated with a healthcare facility, such as patients, visitors, employees, contractors, or volunteers	
• Healthcare facility notice/letter to outpatient or discharged patient about recent LD case at the facility	HC-37
• Healthcare facility notice/letter to inpatients about recent LD case at facility - Simplified	HC-39
• Healthcare facility notice/letter to inpatients about recent LD case at facility - Detailed	HC-41
• Letter or memo to staff about LD case	HC-43
Healthcare providers and other healthcare facilities in the community/jurisdiction in which the healthcare facility with the LD case(s)/outbreak is located	
• Alert to healthcare providers about LD case(s)/outbreak in a healthcare facility	HC-45
Other agencies and governments that may assist in the investigation and response, and those with authority over different aspects of a healthcare facility or over different types of healthcare facilities	
• Alert to other divisions, agencies, or units of government about identifying and investigating healthcare-associated LD case(s)/outbreak	HC-47
Media and the public	
• Press release/alert to the media and public about LD case(s)/outbreak at a healthcare facility	HC-49



Messaging Purpose:

- Informing facility of a single case of possible healthcare-associated LD

Purpose of communication:

- On [date], [state/local health agency] received a report of a person with a [confirmed/suspect/probable] case of LD that reported being at [name of healthcare facility] from [date range], during the 14 days prior to illness onset.
- This person meets the criteria for possible healthcare-associated LD (HA-LD) because they reported being at your facility during the 14 days before symptom onset.
- LD is one of the illnesses reported to the [state/local health agency] because of its potential to cause outbreaks.
- The [state/local health agency] welcomes your cooperation with the investigation of the LD case(s).

Sources of exposure:

- Nearly all individuals who develop LD were exposed to water containing *Legionella* bacteria during the 14 days before symptom onset.

Suggested actions:

- Following the identification of a possible HA-LD case associated with your facility, there is concern that the building's water system(s) may be at risk of *Legionella* growth and transmission. Please be aware of the following recommendations:
 - *Legionella* water management programs (WMPs) are now an industry standard for healthcare facilities in the United States. For more information about WMPs, visit [www.cdc.gov/legionella/wmp/toolkit/index.html].
 - CMS expects hospitals, critical access hospitals, and LTC facilities to have water management policies and procedures to reduce the risk of growth and spread of *Legionella* and other pathogens.¹
- Remind clinicians to test patients with healthcare-associated pneumonia who are at risk for LD. The preferred diagnostic tests for LD are both the *Legionella* urinary antigen test and culture or PCR of lower respiratory secretions (e.g., sputum, bronchoalveolar lavage) on media that supports growth of *Legionella*. Lower respiratory specimens should be frozen.
 - Isolation of *Legionella* by culture or PCR is important for public health investigation. Molecular techniques can be used to compare clinical isolates to environmental isolates and confirm the outbreak source.
- A fact sheet about LD is [included with this letter and] available at [www.cdc.gov/legionella/downloads/fs-legionella-clinicians.pdf].

Actions requested/required:

- If a second case of LD is identified at [facility name] within [12 months or another timeframe specified by the public health agency²] of the first case, the [state/local health agency] may request additional information or conduct an investigation to determine whether there is ongoing risk of exposure to

[Continued next page]

Healthcare—Messaging for Facilities

Messaging Purpose: Informing facility of a single case of possible HA-LD (continued)

Legionella in your facility.

- This may include the following: a request to perform a retrospective review of patients who developed pneumonia during their stay at your facility, conducting an environmental assessment, reviewing your WMP, and conducting environmental water sampling at your facility.

Communications requested:

- Thank you for your active cooperation in the [state/local health agency] investigation.
- Please contact [name, phone number, and email address of person/office] at the [state/local health agency] immediately if you learn of other potential LD cases among patients, staff, or visitors in your facility.
- Please contact [name, phone number, and email address of person/office] at the [state/local health agency] for more information or if you have questions.
- Further information is also available from the [state/local health agency and/or CDC website].

[¹ See CMS.gov at <https://www.cms.gov/Medicare/Provider-Enrollment-and-Certification/SurveyCertificationGenInfo/Policy-and-Memos-to-States-and-Regions-Items/Survey-And-Cert-Letter-17-30-.>]

[² See the Healthcare Investigation Resources section at <https://www.cdc.gov/legionella/health-depts/healthcare-resources/cases-outbreaks.html> for timeframe considerations.]

Templates & Samples

See additional samples and templates in the
LDRC Toolkit Appendix



Messaging Purpose:

- Informing facility of a single case of presumptive healthcare-associated LD
OR
- Informing facility of multiple cases of possible healthcare-associated LD

Purpose of communication:

- [For a single presumptive case:]
 - On [date], [state/local health agency] received a report of a person at [name of healthcare facility] who meets the criteria for presumptive healthcare-associated Legionnaires' disease (HA-LD).
 - This person meets the criteria for a presumptive HA-LD case because they reported being present at your facility for 10 or more days during the 14 days before onset of symptoms.
- [For two or more possible cases within 12 months:]
 - On [date], [state/local health agency] received a report of a person with a [confirmed/suspect/probable] case of LD that reported being at [name of healthcare facility] during the 14 days prior to illness onset.
 - This person meets the criteria for possible healthcare-associated LD (HA-LD) because they reported being at your facility during the 14 days before symptom onset.
 - This is the second possible HA-LD case associated with [facility name] of which [state/local health agency] is aware within 12 months. The first case was reported to have been at your facility during the 14 days prior to illness onset on [date].
- LD is one of the illnesses reported to the [state/local health agency] because of its potential to cause outbreaks.
- The [state/local health agency] welcomes your cooperation with the investigation of the LD case(s).

Sources of exposure:

- Nearly all individuals who develop LD were exposed to water containing *Legionella* bacteria during the 14 days before symptom onset.
- Identifying one presumptive HA-LD case raises concern regarding the potential for ongoing transmission within your facility.
 - OR: [Two or more possible HA-LD cases within 12 months raises concern regarding the potential for ongoing transmission within your facility.]

Actions requested/required:

- [State/local health agency] would like to begin an epidemiologic and environmental investigation, in consultation with your infection control, building maintenance engineers, and risk management staff, to help ensure that any ongoing risk for *Legionella* transmission is minimized.
- The following steps will help identify additional potentially healthcare-associated cases:
 - Perform a retrospective review of hospitalizations for the past 12 months to identify pneumonia cases that could have been healthcare-associated, and if so, determine if patients were tested for *Legionella*.

[Continued next page]

Healthcare—Messaging for Facilities

Messaging Purpose: Informing facility about a single presumptive or multiple possible HA-LD cases (continued)

- Implement active clinical surveillance for [at least 6 months¹] following onset of the last possible or presumptive HA-LD case.
 - [Specify components of active clinical surveillance to be used.¹]
- Remind clinicians to test all patients with healthcare-associated pneumonia for *Legionella*. The preferred diagnostic tests for LD are both the *Legionella* urinary antigen test and culture or PCR of lower respiratory secretions (e.g., sputum, bronchoalveolar lavage) on media that supports growth of *Legionella*. Lower respiratory specimens should be frozen.
- All patients with healthcare-associated pneumonia in the setting of an investigation such as this should be tested for *Legionella* infection.
- Isolation of *Legionella* by culture or PCR is important for public health investigation. Molecular techniques can be used to compare clinical isolates to environmental isolates and confirm the outbreak source.
- A fact sheet about LD for clinicians is [included with this letter and] available at [www.cdc.gov/legionella/downloads/fs-legionella-clinicians.pdf].

Communications requested:

- Thank you for your active cooperation in the [state/local health agency] investigation.
- Please contact [name, phone number, and email address of person/office] at the [state/local health agency] immediately if you learn of other LD diagnoses among patients, staff, or visitors in your facility.
- The [state/local health agency] [will/may] follow up with you to schedule an appointment to visit your facility.
 - The [state/local health agency] may request a summary of your retrospective review of patients who acquired pneumonia during [timeframe], a copy of your current WMP, and [other document or data].
- Please contact [name, phone number, and email address of person/office] at the [state/local health agency] for more information or if you have questions.
- Further information is also available from the [state/local health agency and/or CDC website].

¹ See the Active Clinical Surveillance section at www.cdc.gov/legionella/health-depts/healthcare-resources/cases-outbreaks.html#clinical-surv to learn more.]

Templates & Samples

See additional samples and templates in the *LDRC Toolkit Appendix*



Messaging Purpose:

- Investigation at a cooperative/compliant healthcare facility
 - Facility identified as site with single case of presumptive or multiple cases of possible healthcare-associated LD
 - Investigation is needed for public health purposes
 - Remediation is indicated per investigation findings
 - Facility is cooperative and compliant with public health requests

Purpose of communication:

- Thank you for your cooperation with the [state/local health agency] investigation of [a case(/cases)] of Legionnaires' disease (LD) in a person at your facility. [OR [State/local health agency] is investigating a case of LD in a person at your facility.]
- The [state/local public health agency] has identified [a single case of presumptive healthcare-associated LD] OR [multiple cases of possible healthcare-associated LD] in [a person/persons] diagnosed with LD who was/were at your facility from [date range].
- There is reasonable cause to believe that your property is or may be colonized with *Legionella* (the bacteria that cause LD) and that it may be a threat to public health.
- An environmental assessment of your facility by [state/local public health agency] is necessary and specific response activities may be needed based on the assessment findings.

Basics about LD:

- LD is a serious form of pneumonia (lung infection) that is spread from aerosolized water (water droplets) that contains *Legionella* bacteria.
- Symptoms of LD can include cough, muscle aches, fever, shortness of breath, and headache.
- Symptoms usually start 2 to 14 days after breathing in mist or water droplets that contain *Legionella*.
- LD can be treated with antibiotics. Most people who get LD need care in a hospital but make a full recovery. However, LD can sometimes result in lung failure or death.
- The bacteria are generally not spread from person to person.

Sources of exposure:

[Edit sources as appropriate for setting:]

- *Legionella* is naturally found in freshwater environments, such as lakes and streams; however, it more commonly causes human infection when it grows and spreads in building water systems (e.g., hot water tanks and heaters, showerheads, sink faucets, large plumbing systems, hot tubs, cooling towers, other water sources like decorative fountains).

Actions required as applicable:

- The [state/local public health agency] is requesting your assistance in gathering more information about the LD case(s) who have been at the facility during [time frame].
- An environmental assessment of your facility by the [state/local public health agency] is necessary to determine if there is potential for ongoing risk of exposure to *Legionella*.

[Continued next page]

Healthcare—Messaging for Facilities

Messaging Purpose: Investigation at a cooperative healthcare facility (continued)

- *[If cases are linked to a specific device such as a medical device that aerosolizes water and there is evidence to suggest the device may be the source of the outbreak:]*
 - Remove [device] from service until [state/local public health agency] can conduct the environmental assessment.
- Upon completion of the environmental assessment, [state/local public health agency] personnel may recommend control measures as indicated by the assessment findings that your facility should undertake to mitigate any ongoing risk and prevent future *Legionella* colonization.
- You [should OR may] inform facility staff, patients, and visitors about the LD cases/outbreak. [Health agency] can assist you with [AND/OR] provide you with templates for] notifications.
- You should also review your water/facility maintenance procedures to help minimize future risk.
 - *Legionella* water management programs (WMPs) are now an industry standard for healthcare facilities in the United States. For more information about WMPs, visit [www.cdc.gov/legionella/wmp/toolkit/index.html].
 - CMS expects hospitals, critical access hospitals, and LTC facilities to have water management policies and procedures to reduce the risk of growth and spread of *Legionella* and other pathogens.¹

Communications requested:

- You [will/may] be contacted by [the state/local public health agency] to gather more information about the LD case(s) at [facility name] and schedule an environmental assessment of the facility.
- In the meantime, if you have additional information and questions, or if you learn of other cases of LD among patients, staff, or visitors, regardless of where they live, please contact [name, phone, email] at the [the state/local public health agency].

¹ See CMS.gov at <https://www.cms.gov/Medicare/Provider-Enrollment-and-Certification/SurveyCertificationGenInfo/Policy-and-Memos-to-States-and-Regions-Items/Survey-And-Cert-Letter-17-30-.>

Templates & Samples

See additional samples and templates in the
LDRC Toolkit Appendix



Messaging Purpose:

- Investigation at an uncooperative or non-compliant healthcare facility
AND/OR
- Investigation is needed for public health purposes
AND/OR
- Remediation is indicated per investigation findings
 - Facility is uncooperative/non-compliant with public health requests
 - Ordering the facility to allow assessment or investigation and take actions required by law to mitigate conditions giving rise to LD
 - Depending on the type of healthcare facility (e.g., hospital, nursing home, clinic) other agencies and regulatory bodies may also have authority to investigate and order compliance.
 - A decision may be made to send a final notice before issuing an order or combining the two.
 - *The legal requirements for notice and an order depend on a specific jurisdiction's laws and should be followed.*

Purpose of communication:

- The [state/local public health agency] has previously contacted [facility name] because there is reasonable cause to believe that the property is or may be colonized with *Legionella* (the bacteria that causes Legionnaires' disease (LD) and that it may be a threat to public health.
- The [state/local public health agency] has identified [number of people/person(s)] diagnosed with LD who report [being at/visiting] your facility from [date range], which is within the LD incubation period of 2 to 14 days.
- [Facility] has not responded to requests to [allow an environmental assessment, perform environmental sample testing for *Legionella*, and/or has not undertaken remediation measures indicated].
- This notice is a final request to [allow an environmental assessment, perform environmental sample testing for *Legionella*, and/or undertake remediation measures] before a [health order] is issued mandating compliance.
 - [OR] [[Facility] is ordered pursuant to [cite state/local law] to [allow the property to undergo an environmental assessment, perform environmental sample testing for *Legionella*, and/or take the required actions to mitigate the conditions that promote *Legionella* growth and spread].]

Sources of exposure:

[Edit sources as appropriate for setting:]

- *Legionella* is naturally found in freshwater environments, such as lakes and streams; however, it more commonly causes human infection when it grows and spreads in building water systems (e.g., hot water tanks and heaters, showerheads, sink faucets, large plumbing systems, medical devices that aerosolize water, cooling towers, other water sources like decorative fountains).

[Continued next page]

Healthcare—Messaging for Facilities

Messaging Purpose: Investigation at an uncooperative or non-compliant healthcare facility (continued)

Actions required:

[Edit actions as appropriate for setting:]

- An environmental assessment of your facility by the [state/local public health agency] is necessary to determine if there is potential for ongoing risk of exposure to *Legionella*.
- *[If cases are linked to a specific device such as a decorative fountain, therapy tub, or other device that aerosolizes water and there is evidence to suggest the device may be the source of the outbreak:]*
 - Remove [device] from service until [state/local public health agency] can conduct the environmental assessment.
- Upon completion of the environmental assessment, [state/local public health agency] personnel may recommend control measures as indicated by the assessment findings that your facility should undertake to mitigate any ongoing risk and prevent future *Legionella* colonization.
- Failure to comply with this [final notice] [and/or order] may result in further administrative, civil, and criminal penalties.

Communications requested:

- You may be contacted by [the state/local public health agency] to schedule an environmental assessment of the facility if you do not respond to this notice.
- In the meantime, if you have additional information and questions, or if you learn of other cases of LD among patients, staff, or visitors, regardless of where they live, please contact [name, phone, email] at the [the state/local public health agency].

Templates & Samples

See additional samples and templates in the
LDRC Toolkit Appendix



Messaging Purpose:

- Health order to require a healthcare facility to address and remediate *Legionella* in the facility
 - *Legal requirements for health orders will vary by jurisdiction; consult with legal counsel in drafting order*

[Note: This order may be modified with revised requirements as additional information about the condition of the healthcare facility becomes available or initial response activities are implemented. If the facility does not comply with the initial order, additional administrative, civil, or criminal proceedings may be required.]

Introduction:

- [Healthcare facility name] has been issued a [license] by the [health/other agency name] to operate a [identify type of healthcare facility, e.g., hospital, nursing home].
- Based on information and belief, you are the [facility owner, person in control, registered agent *OR* other] of [healthcare facility name and address] (the "Property").
 - If you are not the [owner, person in control, or registered agent *OR* other] of the Property, please contact [health agency contact name] at [phone number/email address] immediately.
- [Samples were taken from [several locations at] the Property by [state/local/other health agency name/ CDC] as part of a *Legionella* outbreak in [community name *OR* at the Property].]
 - [Preliminary testing by [health agency/CDC] has detected the presence of *Legionella* bacteria in the Property's [list sites, e.g., water heater, faucet heads sinks/showers, cooling towers, medical devices using water].]
- The [health agency] has identified [case(s)/an outbreak] of legionellosis among persons at or associated with the Property.
- *[If facility failed to comply with previous required actions:]* [Facility name] failed to take previously identified required actions identified by the [health agency] [include list].

Legionella basics:

- *[Include basic information about Legionella as appropriate.]*
- *[Legionella* bacteria can cause Legionnaires' disease (LD) or related conditions that may adversely affect public health.]
- *[People may be exposed to *Legionella* when they inhale aerosolized water droplets containing the bacteria.]*
- *[*Legionella* can grow in a building's water systems or devices (e.g., hot water heaters, pipes, water storage tanks, cooling towers, decorative fountains, medical devices containing water).]*

[Continued next page]

Healthcare—Messaging for Facilities

Messaging Purpose: Health Order (continued)

Statement of authority:

- Pursuant to [cite statute authorizing the public health order], this Order is being issued based on [reasonable cause *OR* (other legal standard specified in authorizing statute)] to believe that the Property is or may be [colonized by *Legionella* *OR* a source of a communicable disease] that could constitute a threat to public health [*OR* other language contained in authorizing statute].
- [[Cite statute authorizing regulation of healthcare facility type, e.g., hospital, nursing home] authorizes the [health director] to require [emergency action *OR* other standard in statute] to protect the health, safety, and welfare of any [patients, residents] at [healthcare facility type].]
- In accordance with [cite statute authorizing public health investigation], the [health director] may investigate incidents of communicable disease.
 - These investigations can include assessments of buildings and conveyances and their contents and laboratory analysis of samples collected during the course of investigations [*OR* other similar language from applicable statute].
- Further, [pursuant to [cite statute authorizing public health action if different statute]], the [health agency] may take actions necessary to protect public health, including ordering that specific measures be undertaken at the Property [*OR* other similar language from applicable statute].

Actions ordered:

- You are ordered to authorize entry to and submit Property to investigation by [health agency].
- The Property at issue and water systems and devices therein may not be [moved, caused to move, or allowed to move from its current location *OR* (other language contained in authorizing statute)] until authorization is received from the [health agency].
- The [health agency] issues this Order to [identify actions required (e.g., implement water system control measures, temporarily close property)] as [identified below *OR* listed in Appendix/Exhibit ____].
 - *[Note: required actions can be listed in the text of the order instead of an in appendix.]*
- This Order will be in effect until the [health agency] determines that all components of this Order have been satisfied and there are no additional cases of legionellosis associated with the Property.
- If subsequent samples collected from the Property test positive for *Legionella* at any time, appropriate response activities should be undertaken, and this Order may be further modified or extended.
 - *[If the [health agency] receives a new report of a case of legionellosis that is epidemiologically linked to the Property, a new or amended Order may be issued.]*
- Failure to abide by this Order and further instructions from [health agency] may result in fines, criminal penalties, and/or other further legal action.

To contest or appeal order:

- If you object to this Order, you may request a hearing in the [administrative body or court name] in accordance with [statute citation].
 - *[Include information about your jurisdiction's administrative procedures and judicial processes available for contesting or appealing the order.]*

[Continued next page]

Messaging Purpose: Health Order (continued)

Contact information and signatures:

- If you have any questions, information, or concerns, please contact [health agency contact name] at [phone number/email address] immediately.
- This Order is issued under my authority as the [health director or other official's title] for the [jurisdiction or health agency] on this [date] day of [month and year].
 - [Signature block for health/other official]

Proof of service:

- [I hereby certify that this Order was served [by mail/posting/in-hand/(other)] to the above-named individual and upon the establishment listed above.]
- [Date] at [time AM/PM] by [signature and print name of person serving order].

APPENDIX OR EXHIBIT LANGUAGE

The [health agency] orders you to take the following required actions associated with the Property:

[Note: The required actions in a particular scenario will depend on the type of healthcare facility and the specific water systems/devices in which Legionella has been identified. Broadly, required actions can be identified as administrative, disease surveillance, required notifications, environmental health, and other required actions.

The required actions listed below are examples of some types of action that can be ordered. They are intended for illustrative purposes only and are not a complete list of all appropriate required actions.]

Administrative required actions:

- Immediately notify the [health agency program or contact person name] at [contact information] if you or personnel at the Property are unable to comply with any of the identified required actions.

Disease surveillance required actions:

- Immediately notify the [health agency program, contact person name, OR agency disease reporting line] at [contact information] of any probable, suspect, or confirmed cases of legionellosis and any known [patients, residents, guests, visitors, staff, contractors, or volunteers] exhibiting any symptoms compatible with legionellosis.
- [Within [two OR ____ weeks] of the date of this Order, conduct a [three-month] retrospective surveillance review to identify [patients, residents] with pneumonia of unknown etiology (pneumonia with onset more than [48] hours after admission).]

[Continued next page]

Healthcare—Messaging for Facilities

Messaging Purpose: Health Order (continued)

- Within [three *OR* ___ weeks] of the date of this Order, report findings to [health agency] at [contact information].
- [No later than [date], test all [patients, residents] for *Legionella* who are currently residing in the [healthcare facility] and have illness clinically compatible with Legionnaires' disease.
 - [Healthcare facility] shall immediately report any positive results to the [health agency].
- [Effective immediately, conduct active prospective clinical surveillance for [patients, residents] with healthcare-associated pneumonia (pneumonia with onset more than [48] hours after admission).]
- [If a suspect Legionnaires' disease case(s) is identified, collect sputum or other lower respiratory secretions for *Legionella* culture or PCR or testing via the *Legionella* urinary antigen test. [Healthcare facility] shall immediately report any positive results to the [health agency].]

Notification required actions:

Provide written notice

- Immediately provide the [attached] public health notice from the [health agency] to all [patients, residents, guests, visitors, staff, and volunteers] at the Property.
 - The information in the public health notice should be communicated to all current [patients, residents, guests, visitors, staff, and volunteers] and those who visited or occupied the Property [before [date] *OR* between dates of ___ and ___].
- Immediately notify all [patients, residents, guests, visitors, staff, and volunteers] by [identify date, time or event] using documents provided by the [health agency], of the *Legionella* outbreak occurring at the Property.

Post notice

- The public health notice or other signage provided by the [health agency] should be posted at all entries to the Property, on the front entrance, and placed within view of [patients, residents, guests, visitors, staff, and volunteers] at the [front desk, foyer, reception area, etc.] of the Property.
 - The public health notice should also be posted in staff areas of the Property.
 - A copy of the public health notice shall also be given to all [patients, residents, guests, visitors, staff, and volunteers].

Record of notice

- You are advised to retain documentation that each notification was made.
- [Records of notification shall be provided to the [health agency].]

[Continued next page]

Messaging Purpose: Health Order (continued)

Environmental health required actions:

[Note: Environmental health required actions will vary depending on the type and size of healthcare facility, the water systems/devices involved, the extent of Legionella colonization, and the regulatory authority/policies of the health agency. The items below are samples of possible environmental health required actions. **These items are examples only and not an exhaustive list of appropriate actions.**]

Retain consultant to assess water systems

- *Example 1:* Within [72, 48 OR ____] hours of this Order, hire at your own expense the services of a Legionella consultant or environmental consulting firm to assess the Property's water systems.
- *Example 2:* Retain the services of an environmental consultant who is both (1) able to develop and implement an ASHRAE 188-compliant water management program (WMP) and (2) capable of Legionella environmental testing at an ELITE member laboratory (or able to subcontract with such a laboratory).
 - The chosen consultant must be reviewed and approved by the [health agency] prior to conducting any assessments or services. The deadline for complying with this provision is [date].
 - If the Property's contract with the consultant terminates early for any reason, then the Property must immediately implement and maintain an ASHRAE 188-compliant WMP with another environmental consultant that meets the same criteria above for selection of the initial consultant.

Perform environmental assessment/develop environmental sampling plan

- *Example 1:* Within [24 OR ____] hours of hire, have an assessment performed by the consultant and provide the [health agency] with a written summary of actions taken toward remediation at least every [48 OR ____] hours.
- *Example 2:* Direct the consultant to contact [health agency contact name] at [contact information] within [24 hours OR ____] of the consultant's selection to determine the actions necessary for developing the Property's Legionella sampling plan.
 - Submit the sampling plan to [health agency contact name] at [contact information] within [7 days OR ____] of selecting the consultant.
 - Within [48 hours OR ____] of sampling plan approval by the [health agency], perform all Legionella sampling tests in accordance with the sampling plan.

Remediation plan

- *Example 1:* In response to any positive Legionella sample results, [and if directed so by the [health agency],] prepare and submit for approval a remediation plan that addresses [, but is not necessarily limited to,] the following:
 - A short-term remediation plan, to be submitted within [72 hours OR ____], describing methods and corrective actions for controlling the risks of legionellosis from the Property's water system. The short-term remediation plan must be substantially implemented within [96 hours OR ____] of approval by the [health agency].

[Continued next page]

Healthcare—Messaging for Facilities

Messaging Purpose: Health Order (continued)

- A long-term prevention plan describing the water system management and the ongoing operational methods for controlling and monitoring the growth of *Legionella* within the Property's water systems and devices. A draft of the plan must be presented to the [health agency] no later than [30 days OR ____] after being directed to complete a plan.

Conduct response activities

- *Example 1:* Initiate remediation actions within [24 OR ____] hours of hiring the environmental consultant.
- *Example 2:* Increase the temperatures of water heaters on the property to a minimum of [140 OR ____] degrees Fahrenheit, while following local and state anti-scald regulations. The deadline for complying with this provision is [date].
- *Example 3:* Restrict the use of tap water at the Property and use bottled water until [facility] can provide satisfactory proof to the [health agency] that [0.2-micron biological OR ____] point of use filters are installed on all showerheads, sink and tub faucets, and other water sources intended for use in the facility.

Testing water systems/devices for *Legionella*

- *Example 1:* The Property's water system shall be tested for *Legionella* according to the investigation sampling plan devised by [Property OR consultant name] to verify the effectiveness of treatment of the Property's water system.
- *Example 2:* The WMP shall require testing according to the investigation sampling plan for *Legionella* using traditional spread-plate culture methods, that testing be performed at least quarterly, and that the investigation sampling plan shall remain in place [through the termination date of this Order].
- *Example 3:* At a minimum, each set of tests performed as part of the investigation sampling plan shall include a representative sample of the building's water system, including but not limited to the following locations: [edit as appropriate: distal, medial, and proximal locations from the water distribution system, hot water heaters, medical devices that use water, and cooling towers].
- *Example 4:* Provide results of all water testing to [health agency contact name] within [one business day OR (other timeframe)] of receipt via email [OR other method] to [email address/other].
- *Example 5:* Perform ongoing *Legionella* testing to confirm remediation and report results to the [health agency] as they become available.

Other required actions:

- [Additional information regarding feasible, required technical actions to be implemented will be provided to you in a timely manner.]

Templates & Samples

See additional samples and templates in the
LDRC Toolkit Appendix



Messaging Purpose:

- Providing general information about LD risks to persons associated with a healthcare facility
 - May be adapted into information sheets or general notices to patients, staff, visitors, and others

Overview:

- Legionnaires' disease (LD) is a form of pneumonia (lung infection) caused by *Legionella* bacteria.

Sources of exposure:

- *Legionella* can occur in nature and in water systems in built environments.
- *Legionella* grow well in warm water and can multiply in large or complex water systems, like those found in hospitals, long-term care facilities, and clinics [OR [healthcare facility name]].
- [Edit sources as appropriate for healthcare facility type.] Likely sources of exposure in a healthcare facility include water in showers (and other potable water), cooling towers, hot water heaters, and medical and therapeutic equipment.
- People can become sick when they breathe in mist from a water source (e.g., shower) that contains *Legionella*.
- LD cannot normally be spread from person to person.

Persons at risk:

- Most healthy people do not get LD after being exposed to *Legionella*.
- Being 50 years or older or having certain risk factors such as being a current or former smoker, having chronic lung disease, having a weakened immune system, or taking medication that weakens the immune system can increase the chances of getting LD.
- Many people being treated in healthcare facilities may have underlying conditions that put them at greater risk of getting sick and dying from LD.

Signs and symptoms:

- Symptoms of LD include cough, muscle aches, fever, shortness of breath, and headache.
- Symptoms usually start 2 to 14 days after breathing in mist or water droplets that contain *Legionella*.
- Symptoms of LD may be similar to those of other respiratory diseases, such as COVID-19. It is important that people discuss the potential for LD with their doctors because the treatment for LD is different than for COVID-19.
- LD is diagnosed using chest x-rays or physical exams to check for pneumonia and tests for infection with *Legionella*.

Treatment:

- LD is treated with antibiotics (drugs that kill bacteria in the body).
- Most people who get LD need care in a hospital but make a full recovery. However, LD can sometimes result in lung failure or death.

[Continued next page]

Healthcare—Messaging for Facilities

Messaging Purpose: General information about LD risks for persons with a healthcare facility (*continued*)

Contact information:

- Please contact [name, phone number, and email address of person/office] at the [healthcare facility] for more information or if you have questions.
- Further information is also available from the [state/local health agency and/or CDC website].

Templates & Samples

See additional samples and templates in the
LDRC Toolkit Appendix



Messaging Purpose:

- Providing general information about LD risks, mitigation, and prevention for healthcare facility engineering and maintenance staff
 - Can be adapted into messages for facility engineering, maintenance, and environmental health staff

Basics about LD:

- Legionnaires' disease (LD) is a serious form of pneumonia (lung infection) that is spread from aerosolized water (water droplets) that contains *Legionella* bacteria.
- Symptoms of LD can include cough, muscle aches, fever, shortness of breath, and headache.
 - Symptoms usually start 2 to 14 days after breathing in water droplets that contain *Legionella*.
- Most healthy people do not get LD after being exposed to *Legionella*.
 - Being 50 years or older or having certain risk factors such as being a current or former smoker, having chronic lung disease, having a weakened immune system, and taking medication that weakens the immune system can increase the chances of getting LD.
- LD can be treated with antibiotics. Most people who get LD need care in a hospital but make a full recovery. However, LD can sometimes result in lung failure or death.
- The bacteria are generally not spread from person to person.

Sources of exposure:

- *Legionella* can be found in freshwater environments and in water systems in built environments.
- *Legionella* grow well in warm water and can multiply in large or complex water systems, like those found in hospitals, long term care facilities, and clinics.
 - Likely sources of exposure in a facility include water in sinks and showers, cooling towers, hot water heaters, medical and therapeutic equipment, hot tubs, and decorative fountains [edit sources as appropriate for setting].
- *Legionella* bacteria are common in the environment and can persist unless proper steps are taken to control it.

Investigation:

- An environmental assessment can help determine if there are conditions and devices that could promote *Legionella* growth and spread.
- Testing environmental samples from the facility's water systems for *Legionella* can help to determine if a facility is [potentially] colonized with the bacteria.

Mitigation:

- Water systems that are suspected to be colonized with *Legionella* should undergo response activities.
 - [Cleaning and other response activities may be [requested/required] by [state/local health agency] to address an [ongoing community-associated] LD outbreak even if a source of infection has not yet been determined.]

[Continued next page]

Healthcare—Messaging for Facilities

Messaging Purpose: General information to engineering staff (continued)

- Recommended mitigation measures may include:
 - Flushing of the facility's water systems.
 - Installation of point-of-use filters on water fixtures in patient rooms, staff, and public areas.
 - Restricting use of water that cannot be filtered.
 - Determining adherence to the facility's water management program (WMP).
 - Ensuring that routine or investigative environmental sampling is conducted and reviewing results.
 - Working with facility to optimize the WMP and reduce the risk of [and control] *Legionella* growth.
 - Installation of supplemental disinfection systems in water systems throughout the facility.
 - Working with facility to address identified deficiencies.
 - Determining if the deficiencies have been properly addressed.

Prevention:

- To prevent *Legionella* growth, building water systems should be properly monitored and maintained.
- You should also review your water/facility maintenance procedures to help minimize future risk.
 - *Legionella* water management programs (WMPs) are now an industry standard for healthcare facilities in the United States. For more information about WMPs, visit (www.cdc.gov/legionella/wmp/toolkit/index.html).
 - CMS expects hospitals, critical access hospitals, and LTC facilities to have water management policies and procedures to reduce the risk of growth and spread of *Legionella* and other pathogens.¹
 - Resource documents include the CDC Water Management Program Toolkit (www.cdc.gov/legionella/wmp/toolkit/index.html) and the CSTE Water Management Program template (<https://www.cste.org/general/custom.asp?page=Legionnaires>).

Contact information:

- Please contact [name, phone number, and email address of person/office] at the [state/local health agency or other agency] if your facility tests positive for *Legionella*, you learn of [any/other] cases of LD, or for more information or questions.

[¹ See CMS.gov at <https://www.cms.gov/Medicare/Provider-Enrollment-and-Certification/SurveyCertificationGenInfo/Policy-and-Memos-to-States-and-Regions-Items/Survey-And-Cert-Letter-17-30-.>]

Templates & Samples

See additional samples and templates in the
LDRC Toolkit Appendix



Messaging Purpose:

- Healthcare facility notice/letter to a discharged patient or outpatient about recent LD case at the facility

Purpose of communication:

- We are writing to inform you that a person was recently diagnosed with Legionnaires' disease (LD) after being [at/hospitalized/treated/other] for several days at [healthcare facility's name] where you [are/have been] a patient.
- LD is a serious form of pneumonia (lung infection) that is spread from aerosolized water (water droplets) that contains *Legionella* bacteria.
- We are working with the [state/local health agency [and CDC] (*if applicable*)] to investigate the source of exposure and determine the risk for ongoing spread.

Sources of exposure:

- *Legionella* can occur in freshwater environments and in water systems in built environments.
- *Legionella* grow well in warm water and can multiply in large or complex water systems, like those found in [hospitals, long-term care facilities, clinics] like [healthcare facility's name].
- Sources of exposure can include water used for showering, washing hands, or in medical equipment that uses water.
- People can become sick when they breathe in mist from a water source (e.g., shower) containing *Legionella*.
- LD cannot normally be spread from person to person.

Persons at risk:

- Most healthy people do not get LD after being exposed to *Legionella*.
- Being 50 years or older or having certain risk factors such as being a current or former smoker, having chronic lung disease, having a weakened immune system, or taking medication that weakens your immune system can increase the chances of getting LD.

Signs and symptoms:

- Symptoms of LD can include cough, muscle aches, fever, shortness of breath, and headache.
- Symptoms usually start 2 to 14 days after breathing in water droplets that contain *Legionella*.
- Symptoms of LD may be similar to those of other respiratory diseases, such as COVID-19. It is important to discuss the potential for LD with your doctor because the treatment for LD is different than for COVID-19.

Action requested:

- If you develop the symptoms of LD within two weeks (14 days) of staying at [healthcare facility's name], please seek medical attention right away.
- Please also show this letter to your doctor so that they know to test you for LD if indicated by your symptoms.

[Continued next page]

Healthcare—Messaging for Persons

Messaging Purpose: Letter to a discharged patient or outpatient about recent LD case at the facility (continued)

- LD is diagnosed using chest x-rays or physical exams to check for pneumonia and tests for infection with *Legionella*.
- If your doctor determines that testing is appropriate, ask to be tested with both a urine test and a respiratory (sputum/phlegm) culture or PCR before antibiotics are administered.
- If you test positive, ask your doctor to report your illness to [state/local health agency] as soon as possible.
- Speak with your doctor about any other precautions they may recommend.

Treatment:

- Your doctor should prescribe you an antibiotic for treatment if you develop symptoms and are diagnosed with LD.
- Most people who get LD need care in a hospital but make a full recovery. However, LD can sometimes lead to lung failure or death.

Action being taken:

- [Edit response as applicable:] In addition to monitoring our water system, water in our patient areas is being repeatedly flushed and tested for *Legionella*.
 - We have also installed extra water treatments in various water systems throughout our facility and are installing water filters on the showerheads and sinks.

Contact information:

- Please contact [name, phone number, and email address of person/office] at the [healthcare facility] for more information or if you have questions.
- Further information is also available from the [state/local health agency and/or CDC website].

Templates & Samples

See additional samples and templates in the
LDRC Toolkit Appendix



Messaging Purpose:

- Healthcare facility notice/letter to inpatients about recent LD case at the facility—Simplified

Purpose of communication:

- We are writing to inform you that a person was recently diagnosed with Legionnaires' disease (LD) after being [at/hospitalized/treated/other] for several days at [healthcare facility's name].
- We are working with the [state/local health agency [and CDC] (*if applicable*)] to investigate the source of exposure and determine the risk for ongoing spread.

About LD and sources of exposure:

- LD is a serious form of pneumonia (lung infection) that is spread from aerosolized water (water droplets) that contains *Legionella* bacteria.
- Sources of exposure can include water used for showering, washing hands, or in medical equipment that uses water.
- People can become sick when they breathe in mist from a water source (e.g., shower) containing *Legionella*.
- LD cannot normally be spread from person to person.

Signs and symptoms:

- Symptoms of LD can include cough, muscle aches, fever, shortness of breath, and headache.
- Symptoms of LD may be similar to those of other respiratory diseases, such as COVID-19. It is important to discuss the potential for LD with your doctor because the treatment for LD is different than for COVID-19.

Action requested:

- Please talk to your physician or caregiver as soon as possible if you experience any of these symptoms.

Actions being taken:

- Out of an abundance of caution we are instituting the following guidelines for water use, effective [date]: [edit below as applicable:]
 - No showers are permitted in patient rooms that do not have a filter attachment. If a shower is necessary, your caregiver will arrange for in-room bathing.
 - Your care team will provide water for drinking, brushing teeth, face washing and other hygienic needs.
 - The cold water in ice machines and drinking water fountains [may/should not] be used.
- [Edit as applicable:] Our water system has been tested and flushed, and we have installed extra water treatments in various water systems throughout our facility.
 - We are also in the process of installing filters on showerheads and faucets.
 - Please do not remove filters installed on any water fixture.

[Continued next page]

Healthcare—Messaging for Persons

Messaging Purpose: Letter to inpatients about recent LD case at facility—Simplified (*continued*)

- You will be informed if your room currently has filters or when they may be installed, and how to inform the care team about problems with the filters.

Contact information:

- Your safety and well-being are our top priorities at [healthcare facility name], and we apologize for the inconvenience these safety measures may cause during your stay.
- If you have further questions, please talk to your physician or caregiver.

Templates & Samples

See additional samples and templates in the
LDRC Toolkit Appendix



Messaging Purpose:

- Healthcare facility notice/letter to inpatients about recent LD case at facility—Detailed

Purpose of communication:

- We are writing to inform you that a person was recently diagnosed with Legionnaires' disease (LD) after being [hospitalized/other] for several days at [healthcare facility's name].
- LD is a serious form of pneumonia (lung infection) that is spread from aerosolized water (water droplets) that contains *Legionella* bacteria.
- We are working with the [state/local health agency [and CDC] (*if applicable*)] to investigate the source of exposure and determine the risk for ongoing transmission.

Sources of exposure:

- *Legionella* can occur in freshwater environments and in water systems in built environments.
- *Legionella* grow well in warm water and can multiply in large or complex water systems, like those found in [hospitals, long-term care facilities, clinics] like [healthcare facility's name].
- Sources of exposure can include water used for showering, washing hands, or in medical equipment that uses water.
- People can become sick when they breathe in mist from a water source (e.g., shower) containing *Legionella*.
- LD cannot normally be spread from person to person.

Persons at risk:

- Most healthy people do not get LD after being exposed to *Legionella*.
- Being 50 years or older or having certain risk factors such as being a current or former smoker, having chronic lung disease, having a weakened immune system, or taking medication that weakens your immune system can increase the chances of getting LD.

Signs and symptoms:

- Symptoms of LD can include cough, muscle aches, fever, shortness of breath, and headache.
- Symptoms usually start 2 to 14 days after breathing in mist or water droplets that contain *Legionella*.
- Symptoms of LD may be similar to those of other respiratory diseases, such as COVID-19. It is important to discuss the potential for LD with your doctor because the treatment for LD is different than for COVID-19.

Action requested:

- If you currently have or develop the symptoms of LD within two weeks (14 days) of staying at [facility name], please tell your doctor [nurse or staff member] immediately.

Diagnosis and treatment:

- LD is diagnosed using chest x-rays or physical exams to check for pneumonia and tests for infection with *Legionella*.

[Continued next page]

Healthcare—Messaging for Persons

Messaging Purpose: Letter to inpatients about recent LD case at facility—Detailed (continued)

- Your doctor may test you with a urine test and a respiratory (sputum/phlegm) culture or PCR.
- If you test positive, your doctor should report your illness to the [state/local health agency] as soon as possible.
- Your doctor will prescribe an antibiotic for treatment if you develop symptoms and are diagnosed with LD.
- Speak with your doctor about any other precautions they may recommend.
- Most people who get LD need care in a hospital but make a full recovery. However, LD can sometimes lead to lung failure or death.

Action being taken:

- *[Edit response as applicable:]* In addition to monitoring our water system, water in our patient areas is being repeatedly flushed and tested for *Legionella*.
 - We have also installed extra water treatments in various water systems throughout our facility and are installing water filters on the showerheads and sinks.
 - No showers are permitted in patient rooms that do not have a filter attachment. If a shower is necessary, your caregiver will arrange for in-room bathing. Your care team will provide water for drinking, brushing teeth, face washing and other hygienic needs.
 - The cold water in ice machines and drinking water fountains [may/should not] be used.

Contact information:

- If you have further questions, please talk to your physician or caregiver.
 - [You can also contact [name, phone number, and email address of person/office] at the [healthcare facility].]
- Further information is also available from the [state/local health agency and/or CDC website].

Templates & Samples

See additional samples and templates in the
LDRC Toolkit Appendix



Messaging Purpose:

- Healthcare facility letter or memo to staff about LD case
 - Staff can include employees, volunteers, and contractors

Purpose of communication:

- We are writing to inform you that a person was recently diagnosed with Legionnaires' disease (LD) after being [at/hospitalized/treated/other] for several days at [healthcare facility's name].
- LD is a serious form of pneumonia (lung infection) that is spread from aerosolized water (water droplets) that contains *Legionella* bacteria.
- We are working with the [state/local health agency [and CDC] (if applicable)] to investigate the source of exposure and determine the risk for ongoing transmission.

Sources of exposure:

- *Legionella* can occur in freshwater environments and in water systems in built environments.
- *Legionella* grow well in warm water and can multiply in large or complex water systems, like those found in [hospitals, long-term care facilities, clinics] like [healthcare facility's name].
- Sources of exposure can include water used for showering, washing hands, or in medical equipment that uses water.
- People can become sick when they breathe in mist from a water source containing *Legionella*.
- LD cannot normally be spread from person to person.

Persons at risk:

- Most healthy people do not get LD after being exposed to *Legionella*.
- Being 50 years or older or having certain risk factors such as being a current or former smoker, having chronic lung disease, having a weakened immune system, or taking medication that weakens your immune system can increase the chances of getting LD.

Signs, symptoms, and treatment:

- Symptoms of LD can include cough, muscle aches, fever, shortness of breath, and headache.
- Symptoms usually start 2 to 14 days after breathing in mist or droplets that contain *Legionella*.
- Symptoms of LD may be similar to those of other respiratory diseases, such as COVID-19. It is important to discuss the potential for LD with your doctor because the treatment for LD is different than for COVID-19.
- LD is treated with antibiotics (drugs that kill bacteria in the body).
- Most people who get LD need care in a hospital but make a full recovery. However, LD can sometimes result in lung failure or death.

Action being taken:

- [Edit response as applicable:] To ensure that staff and [patients/residents] are protected, we are

[Continued next page]

Healthcare—Messaging for Persons

Messaging Purpose: Healthcare facility letter or memo to staff about LD case (continued)

monitoring our water system. Water in our [staff/patient] areas is being repeatedly flushed and tested for *Legionella*.

- We have also installed supplemental water treatments in hot water systems throughout our facility and are installing water filters on the showerheads and sinks.
- No showers are allowed in [staff/patient areas] that do not have a filter attachment.
- The cold water in ice machines and drinking water fountains [may/should not] be used.
- *[Edit response as applicable:]* Staff (employees, volunteers, and contractors) who have or are experiencing symptoms of LD during [timeframe] should seek medical attention immediately.
 - [Facility name] will also contact staff who took sick leave during this time.
 - [We are also offering staff [counseling and] information services. If you would like to use these services or want more information, contact [your manager/name].]

Action requested:

- If you are not sick, there is no need for you to see a doctor.
- If you are at increased risk for getting LD based on the risk factors listed above and are concerned about getting sick, or if you are currently or become sick with a cough, muscle aches, fever, shortness of breath, or headache, see your private healthcare provider right away or contact [name/office] to arrange to see a doctor.
 - Tell the doctor that you work in a healthcare facility where there has been a [case/outbreak] of LD so they can test you for LD if indicated by your symptoms.
 - If you test positive, ask your doctor to report your illness to [health agency] immediately.
 - Speak with your doctor about any other precautions they may recommend.
- If you see a doctor, notify [name/office] so our [facility] can track your illness.
- If you have any concerns or questions, please discuss them with [your manager/name].

Contact information:

- Please contact [name, phone number, and email address of person/office] at the [state/local health agency] for more information or if you have questions.

Templates & Samples

See additional samples and templates in the
LDRC Toolkit Appendix



Messaging Purpose:

- Alert to healthcare providers about LD case(s)/outbreak in a specific healthcare facility

Purpose of communication:

- [State/local public health agency] has confirmed [number] person[s] with Legionnaires' disease (LD) associated with [healthcare facility name].
- The person[s] with LD were likely exposed to *Legionella* bacteria during [timeframe] based on clinical symptoms and the incubation period of LD.
- The [state/local public health agency] is working the [healthcare facility name], [in conjunction with the CDC,] to identify potential sources of exposure and mitigate risk of additional cases.

Action required:

- Healthcare providers should report probable, suspect, and confirmed cases of LD to the [state/local public health agency].
- [Include jurisdiction-specific notifiable disease reporting requirements and processes for Legionella/legionellosis.]

Action requested:

- Healthcare providers should consider LD when evaluating patients with community-acquired pneumonia:
 - Ask patients about healthcare facility stays/visits to [healthcare facility] or any other healthcare facility within the 14 days prior to symptom onset.
 - Also ask patients about any travel (including local travel) or possible exposure to other community sources of *Legionella* in the 14 days prior to symptom onset.
 - Keep in mind that the initial presentation of LD may be similar to other respiratory diseases, such as COVID-19, and prompt identification of *Legionella* infection can inform antibiotic treatment.
- Diagnostic testing for LD should include both urinary antigen and culture or PCR of lower respiratory secretions before treatment is administered. Lower respiratory specimens should be collected even if antibiotic therapy has been initiated.
 - Lower respiratory specimens (e.g., sputum, bronchoalveolar lavage) should be collected and frozen. [It may be possible to perform additional *Legionella* testing on lower respiratory specimens even if they do not test positive by culture or PCR.]
 - Isolation of *Legionella* by culture or PCR is important for public health investigation.
 - Molecular techniques can be used to compare clinical isolates to environmental isolates and confirm the outbreak source.
 - [Cultured specimens from patients who reported exposure to the facility under investigation should be retained for potential additional testing at [the state public health laboratory].]
- [Note if state PH laboratory is available to support testing (may not be applicable in some jurisdictions).]
- See [state/local public health agency] at [website] and CDC at <https://www.cdc.gov/legionella/clinicians.html> for information about LD for clinicians.

[Continued next page]

Healthcare—Messaging for Healthcare Providers and Facilities

Messaging Purpose: Alert to healthcare providers about LD case(s)/outbreak in a healthcare facility (*continued*)

Contact information:

- Please contact [name, phone number, and email address of person/office] at the [state/local health agency] for more information or to answer questions.

Templates & Samples

See additional samples and templates in the
LDRC Toolkit Appendix



Messaging Purpose:

- Alert to other divisions, agencies, or units of government about identifying and investigating healthcare-associated LD case(s)/outbreak

Overview:

- [State/local public health agency] is investigating [number] confirmed case[s] of Legionnaires' disease (LD).
- Persons with LD were likely exposed to *Legionella* [during/since timeframe] at [healthcare facility].
- The [state/local public health agency] is working with [healthcare facility] to inform current and former [patients, residents, employees, volunteers, and contractors] who are known to have stayed at or visited [suspected source facility] during/since [timeframe] based on [facility's] records.
- Investigation of any suspected illness identified through this notification will be communicated and coordinated with the respective state [or local] health department[s].
- Additional potential cases [are/may be] under investigation.

Potential sources and dates of exposure:

- The [number] confirmed case[s] of LD report [identify potential source of exposure at healthcare facility].
- Illness onset dates range from [date] to [date].
- The [state/local public health agency] is currently working to identify the source of these infections and mitigate the risk of additional cases.

Clinical and laboratory:

- All persons' illnesses were diagnosed by [identify diagnostic methods such as *Legionella* urinary antigen testing and culture or PCR of lower respiratory specimens (sputum/phlegm)].
- [Number] cases were hospitalized and [no/number] deaths have been reported [as of/since] [date].

Environmental investigation:

- The [state/local health agency] is working with [healthcare facility] to ensure [*include applicable*]:
 - Environmental assessment of the facility's water systems to identify conditions favorable for *Legionella* growth and spread.
 - Testing of the facility's water systems for *Legionella*.
 - Flushing of the facility's water systems.
 - Installation of point-of-use filters on water fixtures in patient/resident rooms.
 - Restricting use of water that cannot be filtered.
 - Determining adherence to the facility's water management program (WMP).
 - Ensuring that routine or investigative environmental sampling is conducted and reviewing results.
 - Working with the facility to optimize the WMP and reduce and control *Legionella* growth.
 - Installation of supplemental disinfection systems in various water systems throughout the facility.

[Continued next page]

Healthcare—Messaging for Other Agencies and Governments

Messaging Purpose: Alert other divisions, agencies, units of government about HA-LD cases/outbreak (continued)

- Working with the facility to remediate identified deficiencies.
- Determining if any identified deficiencies have been properly addressed.

Action requested:

- Whenever possible, diagnostic testing of patients, residents, visitors, and staff at [healthcare facility] with community-acquired pneumonia should include collection of urine for antigen testing and lower respiratory specimens for culture or PCR of *Legionella* before antibiotics are administered.
 - Lower respiratory specimen should be collected even if antibiotic therapy has been initiated.
 - Lower respiratory specimens (e.g., sputum, bronchoalveolar lavage) should be collected and frozen. [It may be possible to perform additional *Legionella* testing on lower respiratory specimens even if they do not test positive by culture or PCR.]
 - Isolation of *Legionella* by culture or PCR is important for public health investigation. Molecular techniques can be used to compare clinical isolates to environmental isolates and confirm the outbreak source.
 - [If possible, isolates obtained should be saved/stored appropriately (rather than discarded) to allow [public health agency/laboratory] to conduct molecular comparisons if needed.] [OR [If isolates are obtained, the [public health agency/laboratory] should be consulted for coordination of/next steps related to molecular comparisons.]
- The [state/local public health agency] is requesting that state and local health departments examine reports of suspect or confirmed cases of legionellosis to determine whether any could be associated with contact to [healthcare facility] as an inpatient, outpatient, resident, staff member, or visitor since [date/timeframe].

Contact information:

- Public health/agency officials who identify cases of LD among persons with a history of contact to [healthcare facility] and illness onsets within 14 days of exposure are asked to contact [name, phone number, email address of person/office] at the [state/local health agency].

Templates & Samples

See additional samples and templates in the
LDRC Toolkit Appendix



Messaging Purpose:

- Press release/alert to the media and public about LD case(s)/outbreak at a healthcare facility

Overview:

- The [state/local public health agency] is investigating [number] case[s] of Legionnaires' disease (LD) among people who were [patients/other] at [healthcare facility] in [timeframe].
- LD is a potentially serious pneumonia (lung infection) that people can get when exposed to *Legionella* bacteria.
- Based on when they first had symptoms of LD, the people were at the [healthcare facility] for [all/part] of the time when they could have been exposed to the bacteria. They likely were exposed to *Legionella* during [timeframe] at [facility].
- *[If applicable:]* [Facility] is cooperating with the [state/local health agency] investigation of the potential sources of exposure to *Legionella*.]

Actions being taken:

- The [state/local public health agency] is working with the [healthcare facility] to collect information and further investigate these cases.
- The [state/local public health agency] has been on site to collect samples of the facility's water and test it for *Legionella*.
 - *[OR if health agency not involved in sampling:]* [Water samples have been collected and are being tested for *Legionella*.]
- [Previous water samples collected at [healthcare facility] tested positive for *Legionella*.]
- The [healthcare facility] has reported to public health officials that it [routinely conducts water testing and] has already taken steps to reduce the chances that anyone is exposed to *Legionella*, such as adding disinfectant to the water, flushing pipes, and installing point-of-use filters.
 - The facility is also conducting surveillance to identify other potential cases of LD and to ensure the appropriate testing and medical treatment of [patients/others].

Potential sources of exposure:

- *Legionella* occurs naturally in the environment and is generally not passed from person-to-person.
- The bacteria can become a health concern when they grow and spread in building water systems, like cooling towers, hot water tanks, large plumbing systems, and decorative fountains.
- People can become sick when they breathe in mist from a water source (e.g., shower) containing *Legionella*.
- Outbreaks are most commonly associated with facilities that have complex water systems like hospitals, hotels, or large apartment buildings.

[Continued next page]

Healthcare—Messaging for Media and the Public

Messaging Purpose: Press release/alert about LD case(s)/outbreak at a healthcare facility (continued)

Persons at risk:

- Most healthy people do not get LD after being exposed to *Legionella*.
- Being 50 years or older or having certain risk factors such as being a current or former smoker, having chronic lung disease, having a weakened immune system, or taking medication that weakens your immune system can increase the chances of getting LD.

Signs, symptoms, and treatment:

- The symptoms of LD include cough, muscle aches, fever, shortness of breath, and headache.
- Symptoms usually start 2 to 14 days after breathing in mist or water droplets that contain *Legionella*.
- Symptoms of LD may be similar to those of other respiratory diseases, such as COVID-19. It is important that people discuss the potential for LD with their doctors because the treatment for LD is different than for COVID-19.
- LD can be treated with antibiotics; however, it can cause severe illness requiring hospitalization and sometimes results in lung failure or death.

Action requested:

- If an individual visited [healthcare facility] and developed symptoms of LD within 14 days of their visit, they should contact their healthcare provider and seek medical attention as soon as possible.
- [Add one or more quotes from PH agency staff:]
 - *Sample quote from PH official:* ["Legionnaires' disease is a serious infection. We want to make sure the public is aware of the potential risk of this disease so that each person can work with their healthcare provider to get tested and treated if necessary."

Contact information:

- If you have information or questions, please contact [name, phone number, and email address of person/office] at the [state/local health agency].
- For further information on Legionnaires' disease, please visit the [state health agency website and/or] CDC webpage at www.cdc.gov/legionella/.

Templates & Samples

See additional samples and templates in the
LDRC Toolkit Appendix