Managing Shigellosis Outbreaks
Among Persons Experiencing Homelessness

WASHINGTON Integrated Food Safety Center of Excellence

CDPH California Department of Public Health

KEY INFORMATION

How to Use This Toolkit

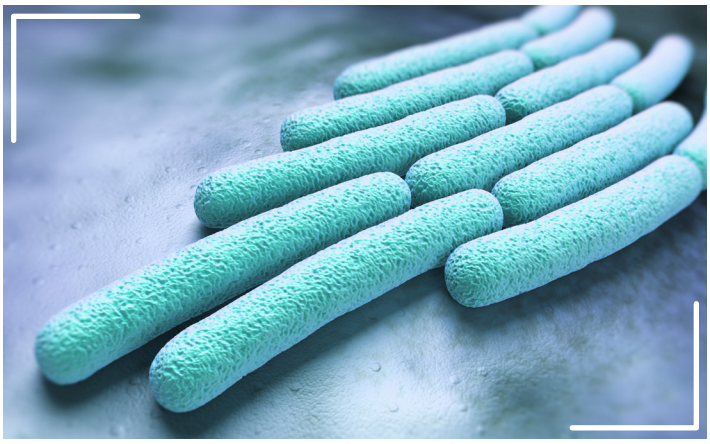
This toolkit is designed as a reference for public health departments and other stakeholders to manage shigellosis investigations and outbreaks among persons experiencing homelessness (PEH). It contains a variety of data, tools, and resources for both new and experienced investigators, including:

- Checklists and Guides
- Forms and Factsheets
- Posters and Fliers
- Web-based Resources

The toolkit is organized into the following sections:

Who Should Use This Toolkit

This toolkit is designed for use by any public health agency involved in responding to a shigellosis outbreak among PEH. Other partners involved in managing an outbreak response, such as health care facility leadership, school administrators, and those managing other regulated facilities such as shelter settings and parks & recreation sites, may also find the contents of this toolkit helpful.



Shigella sonnei

Why You Should Use This Toolkit

Controlling and preventing communicable disease outbreaks among PEH is essential for the well-being of our community. The experience of homelessness places individuals at greater risk of transmission and infection with *Shigella* bacteria due to multiple intersecting factors including, but not limited to, increased exposures, comorbid conditions, and lack of access to hygiene and healthcare facilities[1,2]. Investigating and controlling shigellosis outbreaks among PEH, particularly among unsheltered PEH can be challenging due to lack of adequate sanitation infrastructure and the low infectious dose of *Shigella* bacteria[3]. This toolkit aims to provide resources for public health professionals and partners in responding to shigellosis outbreaks in this vulnerable population.

Checklist for Responding to a Shigellosis Outbreak Among PEH

If a shigellosis outbreak is suspected among PEH, local health departments should immediately employ infection control measures to help prevent the spread of illness. To ensure a comprehensive outbreak response, we recommend that local health departments take the following steps:

- ☐ **Notify your State Health Department.**
- ☐ **Assign Staff Roles and Responsibilities:** Designate staff to handle duties related to outbreak management including the following:
  - ☐ Coordinate communications
  - ☐ Refer ill persons to medical care
  - ☐ Interview and track ills
  - ☐ Coordinate laboratory specimens
  - ☐ Provide education on cleaning and disinfection
  - ☐ Oversee implementation of control measures

  Resource: Roles and Responsibilities of Government Agencies Involved in an Outbreak of Shigellosis Among Persons Experiencing Homelessness
- ☐ **Track Ill Persons:** Track the number of ill persons using a log sheet such as the Sample Illness Line List.
- ☐ **Educate Staff/Residents/Community Partners:** Inform them about the outbreak, symptoms of shigellosis, and suggested prevention measures to use in facilities, encampments, shelters, and work settings during and after the outbreak to reduce transmission. Useful tools which could be employed together include:
  - ☐ Sanitation and Hygiene Guide for Homeless Service Providers (Public Health Seattle & King County, 2019)
  - ☐ Key Facts and FAQs
  - ☐ Facts for food workers
  - ☐ Clean up and disinfection
  - ☐ Sample outbreak notification letter (CDC Shigella toolkit, Page 13, Appendix B)
  - ☐ Sample press release
  - ☐ Post outbreak notices throughout affected facilities
  - ☐ Post handwashing signs throughout affected facilities
  - ☐ Shigella Alert palm card for distribution
- ☐ **Implement Control Measures:**
  - ☐ Cleaning, sanitation, and hygiene measures
  - ☐ Promote handwashing
  - ☐ Maintain and clean public restrooms
  - ☐ Implement and maintain portable toilets
  - ☐ Implement and maintain handwashing stations
  - ☐ Provide clean drinking water
  - ☐ Distribute hygiene kits
  - ☐ Isolation of ill persons in shelters
  - ☐ Housing considerations
- ☐ **Consult with the Local or State Health Department on** Laboratory testing.
- ☐ **Monitor the Outbreak:** Outbreaks can be prolonged, sometimes lasting months. An outbreak that begins at one shelter or encampment can spread to others and through the community by person-to-person transmission.
  Outbreaks can have multiple modes of transmission and sub-clusters, please use these resources in the event of transmission other than person-to-person:
  - ☐ If you suspect the source of transmission is waterborne, please use the CDC Waterborne Disease Toolkit.
  - ☐ If you suspect the source of transmission is foodborne, please see the CDC Foodborne Outbreaks Web Page.
- ☐ **Determine When the Outbreak is Over:** In general, an outbreak in a single setting may be over if no new illnesses have occurred after two incubation periods. However, it is important to work with the local or state health department to determine when the outbreak should be declared over.
- ☐ **Report the Outbreak to CDC via NORS:** https://www.cdc.gov/nors/about/index.html

BACKGROUND ON SHIGELLOSIS

Shigellosis Quick Facts

General

- Shigellosis is a gastrointestinal illness caused by *Shigella* bacteria. *Shigella* cause an estimated 450,000 infections in the United States each year.
- The four species of *Shigella* are:
  - *S. sonnei* - most common species in the United States
  - *S. flexneri*
  - *S. boydii* - rare in the United States
  - *S. dysenteriae* - rare in the United States
- The CSTE case definitions can be found on the CDC Surveillance Case Definitions website
- Consider using this Tool for Case Classification

Symptoms

- Diarrhea that can be bloody
- Fever
- Stomach pain
- Abdominal cramping
- Nausea

Incubation and duration

- **Incubation:** Usually 12 hours – 4 days but can be up to 7 days.
- **Duration:** Usually 5 – 7 days but can be up to 4 or more weeks.

Transmission

Shigella spread easily; it only takes a few bacteria to make someone sick and the only significant transmission reservoir is humans. *Shigella* bacteria are transmitted by the fecal-oral route through several mechanisms:

- Direct person-to-person contact
- Sexual contact, including oral-anal contact
- Contaminated food
- Contaminated water
- Contaminated surfaces or objects (environmental transmission)

Infectious Period: People with *Shigella* infection (shigellosis) can shed the bacteria in their stool while symptomatic and for up to four weeks after symptoms have gone away. Rarely, individuals can remain carriers for several months.

Risk factors

Anyone can get sick from *Shigella* infection. However, groups that may be at increased risk include children, travelers, men who have sex with men, people experiencing homelessness, and people with weakened immune systems.

Prevention quick tips

- Wash your hands frequently
- Avoid preparing food for others when sick
- Take care when changing diapers
- If you or your partner has diarrhea, do not have sex
- Avoid swallowing untreated water

Clinical management

- People with *Shigella* infection should drink plenty of fluids to prevent dehydration.
- People with bloody diarrhea should not use anti-diarrheal medication, such as loperamide (Imodium) or diphenoxylate with atropine (Lomotil). These medications may make symptoms worse.
- Most people with *Shigella* infection recover within 5–7 days without antimicrobial treatment. Healthcare providers are encouraged to use antimicrobial treatment only when clinically indicated.
- Given the increasing rate of drug-resistant *Shigella*, antimicrobial susceptibility testing should be requested if a patient requires treatment with antibiotics.

For additional information:

- *Shigella* Prevention and Control Kit (CDC)
- Diagnosis and Treatment (CDC)
- Sources of Infection and Risk Factors (CDC)
- Public Health Considerations for Shigellosis Among People Experiencing Homelessness (CDC)

Case Investigation and Interviewing

Because conducting interviews may be very difficult, here we've included best practices and alternative data collection strategies for consideration when interviewing individuals who are part of an outbreak of shigellosis among PEH.

Advanced interviewer trainings

Management of outbreaks of shigellosis takes a team of skilled interviewers to talk to case patients with sensitivity and care to address topics such as homelessness, disability, substance use, and sexual history. Encourage staff to take advanced interview trainings to enhance their skill sets in the following areas. The following are trainings to address these topic areas:

- Engaging with Sensitivity: Techniques for Interviewing Persons Experiencing Homelessness, Disability, and Substance Use Disorders
  - Note: This training requires signing up for a free CSTE Learn account
- Enteric Disease Sexual History Interviewing Toolkit (Colorado Food Safety CoE)
- Taking a Sexual History (CDC)

Interview outreach workers

Shelters may have a telephone available to staff. If you are unable to reach a case-patient by phone, consider speaking with staff about the routines of an individual. Shelter staff may also be able to help you connect with this person via the shelter telephone.

Data Considerations

Make sure to **track the number of ill persons** using a log sheet such as the Sample Illness Line List.

Query electronic medical records

This can provide information about individuals that may unreachable by telephone. It may provide other methods of contact such as an email or a mailing address for a shelter location the patient utilizes. Medical records from emergency department visits and hospitalizations may be abstracted for housing status, demographics, and risk factors.

Using alternative data sources

Using data from the US Department of Housing and Urban Development's (HUD) Homeless Management Information System (HMIS) or using shelter housing records in location-based investigation of contacts have been employed in past communicable disease outbreaks to provide targeted interventions.

- Additional Guidance on Using HUD HMIS Data
- For additional Data Modernization and Integration techniques related to using data for these populations review: Public Health and Homelessness Toolkit, pp. 24–29 (CDC)

Data collection considerations

Collecting data related to homelessness and disease is complex. Use the following to help define and manage data collection:

- Considerations for Defining Homelessness in Public Health Data Collection (Public Health Reports, 2024)
- Guidelines for the collection of data on housing insecurity and homelessness (Utah Department of Health and Human Services, 2024)

Leveraging other teams

Leverage teams at your health department outside traditional communicable disease groups, such as:

- **STI/HIV Programs:** These programs often have a wide variety of experience asking sensitive questions about housing status and sexual history. Partner with colleagues in STI/HIV programs to:
  - Identify inclusive, non-stigmatizing language
  - Develop sexual history questions and scripting
  - Practice interviewing
  - Develop effective education and prevention messages
  - Obtain expertise around multidrug resistant *Shigella* among men who have sex with men

- **Housing and Homelessness Programs:** This includes homeless outreach teams, street teams, and street medicine programs. Staff often have direct links to service providers, shelters, and community members that may be able to help implement control measures in many settings. They may be able to coordinate accessible care and support outreach activities.
- **Emergency Response and Preparedness Programs:** Often have experience with mass, efficient communication messaging, experience in emergency shelter planning and quarantine plans, resources for communicable disease outbreaks.

Form and leverage community partnerships

It's important to form partnerships prior to an outbreak occurring. Reaching high-risk populations requires partnerships with local organizations, to reach individuals living in less accessible locations who may lack trust in the healthcare system. Outreach to high-risk persons may often require forming foot teams and site-visits to reach those living in riverbeds, ravines, canyons, and encampments. When designing a coordinated street outreach approach, consider the following tools:

- Infectious Disease Toolkit for Continuums of Care, pages 29-30 (US Department of Housing and Urban Development, 2020)
- Infectious Disease Toolkit For CoCs - Preventing and Managing the Spead of Infectious Disease within Encampments, Appendix B (US Department of Housing and Urban Development, 2020).

Utilizing COVID-19 developed resources

The COVID-19 pandemic resulted in many new outbreak response resources such as:

- Data informatics resources for quick analysis and visualization
- Care connection services for individuals in need of isolation or quarantine
- Outbreak response teams at health departments or "strike" teams
- Hygiene kits for distribution

Apply appropriate questionnaires

The following questionnaires were designed to ask persons experiencing homelessness questions about their illness caused by *Shigella* infection. These are examples currently in use at various health departments. We encourage you to adapt these to your needs.

- Sample Shigellosis PEH Outbreak Questionnaire
  - REDCap Data Dictionary
- Questionnaires for *Shigella* infection among persons experiencing homelessness (Seattle-King County)
- Questionnaire for Shigellosis Outbreaks among PEH (Long Beach Department of Health and Human Services)
- Questionnaire for Shigellosis Outbreaks among PEH (San Francisco Department of Public Health)

How to prioritize this work

Infectious disease outbreaks may often happen concurrently. In these cases, consider the following information to address the needs of your population and identify gaps.

- Public Health and Homelessness Toolkit for State and Local Health Departments, pages 20-23 (CDC, 2023)

SURVEILLANCE AND CONTROL

Cleaning, Sanitation, and Hygiene

Cleaning and sanitation are instrumental in preventing and controlling outbreaks of shigellosis. The following section provides a quick reference for individuals, environmental health, or facility staff to reference when trying to remove *Shigella* bacteria from surfaces, when cleaning up potentially infectious material, and on handwashing to prevent *Shigella* transmission.

Provide additional resources to staff when onsite with homeless service providers. These manuals contain additional information and printable flyers.

- Sanitation and Hygiene Guide for Homeless Service Providers (Public Health - Seattle & King County, 2019)
- Infectious Disease Toolkit for CoCs Preventing and Managing the Spread of Infectious Disease within Shelters (The U.S. Department of Housing and Urban Development, 2020)
- Gastrointestinal Illness Guidelines – Congregate Living Settings (Homeless Health Infectious Disease Program, Indiana, 2024)

The Centers for Disease Control and Prevention (CDC) Shelter Assessment Tool can assist in rapid assessment of shelter conditions and covers 14 general areas of environmental health, ranging from basic food safety and water quality to sanitation. The tool can be modified to meet local needs and has been used to assess tent cities.

Cleaning instructions

To remove and kill *Shigella* bacteria on surfaces you must first, **Clean** the surface with soap, then **Rinse** with water to physically remove dirt and contamination. Next, **Sanitize** the surface to reduce germs with a weaker solution if it's a food contact surface like dishes. On other environmental surfaces, you can **Disinfect** using a stronger concentration. Be sure to use plain unscented bleach or other EPA-approved disinfectant and follow label instructions.[4]

RECIPE FOR STRONGER BLEACH SOLUTION

For use in bathrooms, diapering areas, etc.

¼ cup of bleach + 1 gallon of cool water

OR

1 tablespoon of bleach + 1 quart of cool water

Add the bleach to the water

RECIPE FOR WEAKER BLEACH SOLUTION

For use on toys, eating utensils, etc.

1 tablespoon of bleach + 1 gallon of cool water

Add the bleach to the water

Source: *Shigella* Prevention and Control Toolkit (CDC, 2021)

Use these additional materials to assist in the cleaning process:

- Recipe for Bleach Solutions and How to Use Bleach Safely (CDC Shigella Prevention and Control Toolkit, Page 7, 2021)
- Cleaning and Disinfection with Bleach (Centers for Disease Control and Prevention, 2024)
- Learn more about EPA registered disinfectants and how to use them
- Infection Control Recommendations for Prevention of Transmission of Diarrheal Diseases in Evacuation Centers (Centers for Disease Control and Prevention, 2019)
  - While specific to temporary evacuation centers, recommendations could be applied to homeless shelters and shelter planning.

When managing shigellosis outbreaks, people may encounter feces and vomit in their facilities. These guides will walk you through the steps, materials, and personal protective equipment (PPE) necessary to safely clean up bodily fluids:

- How to Clean Up Feces (Long Beach Department of Health and Human Services, 2021)
- Vomit and Diarrhea Cleanup Plan (Public Health - Seattle & King County, 2022)
- Special Cleaning for Vomit, Diarrhea, and Blood (Public Health - Seattle & King County, 2019, Page 22)
- Daily Cleaning Best Management Practices (Long Beach Department of Health and Human Services, 2018, Page 7)

Handwashing

Handwashing reduces the spread of *Shigella* bacteria and is a critical consideration for intervention during outbreaks with multiple modes of transmission.[4]

Promotion of frequent handwashing is important. The following flyers can be given to shelters and placed in other communal settings to encourage additional handwashing during outbreaks:

- Clean Hands Poster (CDC)
- Wash Your Hands Poster (CDC)

The steps of handwashing are:[5]

1. Wet your hands with clean, running water (warm or cold), turn off the tap, and apply soap.
2. Lather your hands by rubbing them together with the soap. Lather the backs of your hands, between your fingers, and under your nails.
3. Scrub your hands for at least 20 seconds. Need a timer? Hum the "Happy Birthday" song from beginning to end twice.
4. Rinse your hands well under clean, running water.
5. Dry your hands using a clean towel or an air dryer

If clean, running water and soap are not readily available, use an alcohol-based hand sanitizer (rub) that contains at least 60% alcohol.[6,7] Hand sanitizers may not be as effective on visibly dirty or greasy hands. Using hand wipes before applying hand sanitizer will help improve effectiveness.

Additional handwashing resources:

- CDC Handwashing Website
- CDC Handwashing Health promotion materials

Shigella flexneri

Survival of *Shigella* in the environment

Shigella can be transmitted through multiple routes, including foodborne, waterborne, person-to-person, direct and indirect sexual contact, and fomite transmission. With an extremely low infectious dose—as few as 10 organisms—transmission is remarkably efficient, making control difficult.[7]

Environmental contamination plays a key role in outbreak control, as studies have shown that *Shigella* bacteria can persist on surfaces for anywhere from 2 days to 5 months, increasing the risk of indirect transmission.[8] Further research confirms that *Shigella* remains viable for extended periods on various fomites (inanimate objects), including cloth, wood, plastic, aluminum, and glass—persisting for at least 5 days.[9] Given its environmental persistence and ease of spread, rigorous and repeated cleaning and sanitation efforts are essential during outbreaks to prevent further transmission.

Additional Control Measures

Beyond traditional handwashing and cleaning recommendations, additional considerations and innovative approaches may be needed to assist those who are experiencing homelessness with hygiene recommendations. The following are techniques employed during previous outbreaks that may be implemented as appropriate for the local outbreak or situation:

Maintenance and cleaning of existing public restrooms

CDC recommends increasing accessibility of public restrooms in communities with large numbers of people experiencing homelessness and ensure that public restrooms and portable sanitation services are clean and well-maintained.[3]

Improve access to existing sanitation facilities:

- Extending hours and expanding public access to sanitary facilities can provide persons experiencing homelessness with much needed places for cleaning and personal hygiene.
- Previous outbreaks of similar illness, jurisdictions opened overnight restrooms at park locations and public right of ways owned by the city/county.[10]

Businesses with public restrooms should be provided disinfection guidance, including information regarding employee health and hygiene.[10] Consider these resources:

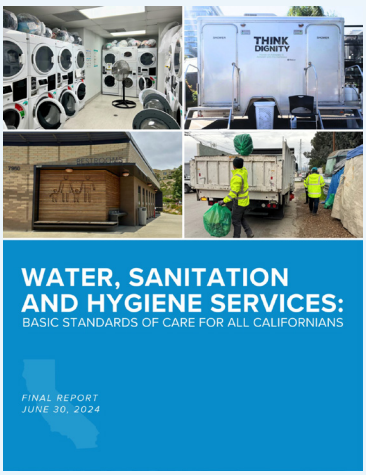
- Daily Cleaning Best Management Practices (Long Beach Department of Health and Human Services, 2018, p. 7)
- When and How to Clean and Disinfect a Facility (Centers for Disease Control and Prevention, 2024)
- Protecting Workers Who Use Cleaning Chemicals (Occupational Safety and Health Administration, 2012)

Other considerations for public restrooms include:

- Ensure soap and running water are available for patrons to wash hands.
- Ensure toilet paper is present.
- Sanitize and disinfect high touch surfaces.
- Empty waste containers.
- Remove visible feces from bathrooms as soon as possible to prevent further contamination.
- Consider contracting with organizations with experience cleaning public spaces or encampments.

Frequency of cleaning

General cleaning recommendations for public restroom facilities are to clean regularly, and at least daily or more, particularly during outbreaks.[3,11] This includes high touch areas such as door handles, flush buttons or levers, counters, sink and shower handles, and light switches.[11]



For additional Water, Sanitation, and Hygiene (WaSH) recommendations and guidelines, see Water, Sanitation, and Hygiene Services: Basic Standards of Care for All Californians.

Implementing and maintaining portable toilets

Identify priority locations for portable toilets:

1. Identify (map) locations with high concentrations of shigellosis cases or diarrheal illness among PEH.
2. Identify (map) locations of homeless encampment or high concentrations of PEH.
3. Assess size and condition of homeless encampments, unsanitary conditions, and existing access to sanitary restrooms to prioritize portable toilet locations.

This model was used in a Hepatitis A Outbreak in San Diego County.

Recommended number of toilets:

The UNHCR WASH Framework (p. 6) and the Sphere Handbook (pp. 113-120) establish guidelines for excreta management in refugee camps and humanitarian response, which can be adapted to PEH encampments:

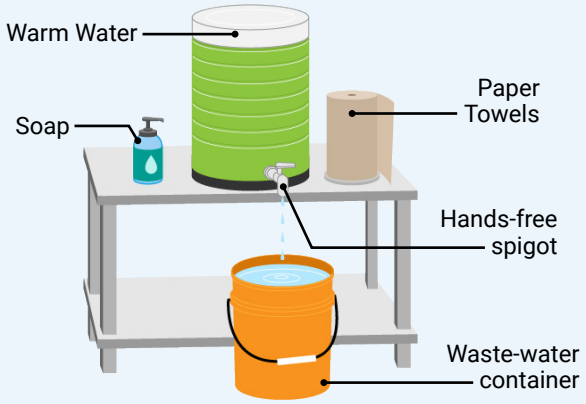
1. Minimum of 1 toilet per 50 persons in emergency settings.
2. Medium term goal of 1 toilet per 20 persons.
3. Ensure supplies are stocked and toilets are able to be cleaned.

At remote locations without running water, provide alcohol-based sanitizers. At remote restrooms that cannot be cleaned and disinfected regularly, post signs to that effect and remind people to wash their hands thoroughly.[12]

Implementing and maintaining portable handwashing stations

CDC recommends increasing the availability of handwashing sinks in homeless shelters and encampments or other locations where people experiencing homelessness spend time.[3]

An option for temporary handwashing stations when hard-plumbed or rentals are unavailable:



Supplies needed:

- ☐ Warm potable water (100–108° F) using:
  - ☐ 5 gallon or larger gravity flow, insulated container that keeps water warm
  - ☐ A hands-free spigot that stays open and flowing during hand washing
- ☐ Liquid hand soap
- ☐ Single-use paper towels
- ☐ Waste-water container (five-gallon capacity)
- ☐ Garbage can

Note that these types of hand washing stations require frequent monitoring and maintenance if used for longer periods of time.

Source: https://www.sf.gov/information--set-handwashing-station-temporary-food-booth

Recommended number of handwashing stations:

The UNHCR WASH Framework (p. 6) establishes guidelines for refugee camps dependent on the phase of emergency. These can be adapted to encampments of PEH. **A target listed for emergencies is one hand wash device/station per toilet block with daily maintenance.** Previous outbreak responses established over 100 hand washing stations (in a county with over 7000 persons experiencing homelessness) in areas with high concentrations of at-risk homeless populations and evaluated usage of each new handwashing station to indicate when more may be needed.[10,13-15]

Distribution of Hygiene Kits

Hygiene kits can provide accessible guidance and care to those living unhoused. Previous outbreaks in counties with over 7000 persons experiencing homelessness have distributed up to 1000 per week.[15] Here is a sample checklist of items for inclusion in these kits:

- ☐ Alcohol-based hand sanitizer (at least 60% alcohol)
- ☐ Soap (liquid or paper soap sheets)
- ☐ Disinfecting wipes
- ☐ Bottled water
- ☐ Oral rehydration packets
- ☐ Shigellosis information flyers such as this Palm Card

Other items for consideration:

- ☐ Narcan and instructions for use
- ☐ Condoms
- ☐ Disposable chucks pads
- ☐ Trash bags

Providing clean drinking water

Infection with *Shigella* can often lead to dehydration. Access to clean drinking water is limited in unhoused populations, especially at night time. Providing clean drinking water is a key intervention in disease management.[16,17] Use this resource for dehydration education:

- Dehydration When Sick: Prevention and Recognition

To continuously provide clean drinking water during an outbreak among PEH, consider the following:

1. Establish and develop contacts for drinking water, including who manages water fountains for facilities and parks.
2. Expanding access to drinking water and drinking fountains.
3. Increasing access to bottled water through hygiene kits.
4. Partner with day centers for water distribution.

One method used in previous outbreaks is distribution of oral rehydration packets in combination with bottled water to address rehydration needs.[10]

Messaging on recreational water

During outbreaks of shigellosis, it's important to emphasize avoiding untreated recreational water use to prevent transmission.

The following are examples of messaging to include in communications:

1. Do not use untreated recreational water (such as from rivers, creeks near encampments) to bathe, drink, defecate, or prepare food
2. Avoid swallowing water from rivers, ponds, lakes, or untreated swimming pools

This outbreak resource includes this message:

- *Shigella*: A Highly Contagious Diarrheal Illness (Long Beach Department of Health and Human Services, 2018, pp 4-5)

If applicable, signage for the general public at untreated recreational water locations to avoid swimming in or swallowing untreated recreational water may be considered.

Isolation of ill persons in shelter settings

Diarrheal infections can spread quickly in homeless shelters and other congregate settings due to the close living quarters. Public health recommendations may include advice to isolate ills to keep others healthy.[18]

Typical isolation verbiage may include: Isolate anyone with diarrhea symptoms from the general population until they are symptom-free for at least 48 hours and consider providing separate bathroom facilities for those with diarrhea symptoms.

However, screening program participants for signs and symptoms of illness should not be a barrier to accessing essential housing services.[19,20]

Isolation in shelter settings is often challenging or not feasible. Alternatives to isolation may include interventions such as:

- **Cohorting:** the grouping of program participants, often based on the presence or absence of a certain condition. Cohorts may also be determined based on sleeping arrangements.[21] HUD's "Isolate-in-place" was used during COVID-19 as an example of this practice.

  Examples of implementation include:

  - Prioritize individual rooms to the extent possible
  - If more than one person has tested positive, these program participants can stay in the same area
  - Designate a separate bathroom for these program participants

- The Good-Better-Best Framework (HUD, 2022) was used during COVID-19 and provides alternatives to isolation and quarantine that may be adapted.

Housing

Temporary private lodging in hotels provided by the jurisdiction, is often needed during infectious periods to prevent transmission in congregate settings such as shelters or camps. In combination with other interventions, this has been shown to decrease cases to expected frequencies.[15]

Programs often use a "voucher" program to establish a means of payment for lodging and partner with hotels in the area. Although funding for these programs varies, multiple cities have prioritized this during outbreaks as a key intervention. See the following examples and resources on building these programs:

- Supportive Housing Services for Communicable Disease Clients (Multnomah County, 2025)
- Supportive Housing Services Program Quarter 4 Update (Multnomah County, 2022)

Other considerations

Some additional considerations for control and prevention of *Shigella* include:

- Access to **laundry services** to decrease fomite transmission. Expansion of access to these services for persons experiencing homelessness.
- **The role of precipitation in Shigella transmission:** Increasing precipitation has been associated with increases in shigellosis cases among homeless persons. Proactive measures should be taken to mitigate spread of enteric infections among PEH when heavy precipitation is forecast. Heavy precipitation as a risk factor for shigellosis among homeless persons during an outbreak — Oregon, 2015–2016
- **Street sanitation**: Survival of *Shigella* in the environment can contribute to fomite transmission. Consider cleaning and disinfection of public right-of-ways - e.g. sidewalks, streets in places of active *Shigella* transmission.
  - Hepatitis A After Action Report (San Diego County, 2018)
  - Shigellosis Outbreak Among Persons Experiencing Homelessness—San Diego County, California, October–December 2021

Laboratory Testing

Methods

Laboratory methods used for diagnosis of shigellosis include:

- Culture
- Culture-independent diagnostic testing (CIDT) such as Polymerase Chain Reaction (PCR)
- Note: If *Shigella* is detected in a sample other than stool, the diagnosis should be confirmed by a reference laboratory or Public Health Laboratory (PHL). Some states require clinical laboratories to submit PCR+ stool and *Shigella* isolates to a Public Health Laboratory for culture and confirmation. Please check your state's requirements.
- Whole genome sequencing (WGS or cgMLST) is not a diagnostic method but may be used to link individual cases in an outbreak or confirm a common source. Epidemiologic evidence should be used in tandem with sequencing data to examine the most likely outbreak etiology.

Specimens

Stool collection and testing may be recommended for the following reasons. Depending on your health jurisdiction and outbreak situation, testing may be conducted at commercial laboratories or a public health laboratory.

- A symptomatic person has no access to healthcare.
- A symptomatic person requires clearance testing based on food code or healthcare requirements to return to work.
- A symptomatic child requires clearance testing to return to daycare or school.
- A symptomatic person is part of an outbreak and agrees to submit stool for outbreak confirmation.

Specimen Collection in the Field

In some outbreak situations, specimen collection may need to occur in the field. Stool collection kits may be distributed to persons and a plan made to arrange pickup or drop off the next day. Some options include:

- Arrange pickup at the residence or tent: Collect GPS coordinates, residence description, and client information to aid pickup the next day.
- Designate a specimen pickup location at or near an outbreak location or encampment. Include flyers with pickup day/time and map in the kit.
- Designate a drop-off site near an outbreak location or encampment. Work with local partners or public health sites to identify existing sites that can collect kits. Include flyers with drop-off day(s)/time(s) and map in the kit.

When considering these options, ensure there is sufficient staff to complete the pickup on the designated day(s).

Example resources for sample submission instructions can be found here:

- Stool Collection Kit Instructions
- How to collect a stool specimen for the health department (Oregon Health Authority)

Environmental sampling

In some instances, it may be appropriate to consider environmental sampling. If sampling, contact your Public Health Laboratory for specific collection instructions. Use the following tools from the New York Food Safety CoE for reminders before going out into the field to sample:

- Quick Train Video: Assembling Tools for Sampling
- Quick Train Video: Basics of Swabbing

Education

Many factors are involved in shigellosis outbreaks. Specific actions and roles, such as food handlers and shelter staff, can make a big difference in the effectiveness of outbreak control and prevention efforts. Use these educational tools for outreach before or during an outbreak. These tools are organized based on audience:

General

Posters:

- Handwashing: Steps (CDC)
- Handwashing, Key Times (CDC)

Web:

- Social Media Handwashing Messaging (CDC)

For outreach workers and homeless service providers

Handouts and Flyers:

- Dehydration When Sick: Prevention and Recognition
- Guidelines for Cleaning Public Restrooms (Long Beach Department of Health and Human Services)
- *Shigella* Cleaning Protocol (Long Beach Department of Health and Human Services)
- *Shigella* Cleaning Guidance (Santa Clara County) EN
- *Shigella* Cleaning Guidance (Santa Clara County) SP
- *Shigella*: Information for Food Service Workers and Managers (CDC) EN
- *Shigella*: Information for Food Service Workers and Managers (CDC) SP
- *Shigella* Infection among Gay, Bisexual, and MSM (CDC)
- *Shigella* Diarrhea and Children (CDC)
- Stop *Shigella* (Los Angeles County) EN
- Stop *Shigella* (Los Angeles County) SP

Web:

- Preventing *Shigella* Among Sexually Active People (CDC)

For persons experiencing homelessness

Palm Cards:

- *Shigella* Alert
- Have Diarrhea? (Multnomah County)

Flyers:

- *Shigella*: Highly Contagious Diarrheal Illness (Public Health - Seattle & King County) EN
- *Shigella*: Highly Contagious Diarrheal Illness (Public Health - Seattle & King County) SP
- Shigellosis Fact Sheet (Santa Clara County) EN
- Shigellosis Fact Sheet (Santa Clara County) SP
- Shigellosis Fact Sheet (Santa Clara County) VN
- *Shigella* Alert (Santa Clara County) EN
- *Shigella* Alert (Santa Clara County) SP
- *Shigella*: Do you have diarrhea, Adults (CDC) EN
- *Shigella*: Do you have diarrhea, Adults (CDC) SP
- What to Know About *Shigella* (Multnomah County)

For sexually active people

Palm Cards:

- Experienced diarrhea recently (CDC)
- MSM sexual activity (CDC)
- Sexual Activity (CDC)

Flyers:

- *Shigella* and Safer Sex (Santa Clara County) EN
- *Shigella* and Safer Sex (Santa Clara County) SP
- Are you or your partner sick with diarrhea factsheet (CDC) EN
- Are you or your partner sick with diarrhea factsheet (CDC) SP

Posters:

- Sexual Health (CDC) EN
- Sexual Health (CDC) SP
- Wash to prevent *Shigella* (CDC) EN
- Wash to prevent *Shigella* (CDC) SP

Communication

During an outbreak, clear communication with all parties involved is key. Use these communication tools to communicate with others involved in the investigation and with those impacted by the outbreak:

- Sample Press Release (San Diego County)
- Sample Press Release (Santa Cruz County)
- Sample Provider Alert (San Diego County, CAHAN)
- Sample Outbreak Notification Letter (CDC Shigella Prevention and Control Toolkit, p 13, Appendix B, 2021)
- Communications Framework for suspected or confirmed enteric disease outbreak

Antibiotic resistant *Shigella*

Due to the rise of antibiotic resistant bacteria, communication to providers and the public often needs to include messaging about antibiotic resistant *Shigella* bacteria. The following are examples of past communications:

- Health Alert: Suspected Transmission of XDR Shigellosis in King County (Seattle-King County)
- HAN - CDC Recommendations for Managing and Reporting *Shigella* Infections with Possible Reduced Susceptibility to Ciprofloxacin (CDC)
- HAN - Increase in Extensively Drug-Resistant Shigellosis in the United States (CDC)
- Infographic: Antibiotic-Resistant *Shigella* (CDC)

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- New York Food Safety Center of Excellence
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