Notification Timeline:

From Lab/Practitioner to Public Health: Immediately.
From Public Health to Ministry of Health: Within 72 hours.

Public Health Follow-up Timeline: Initiate within 24-48 hours.

Public Health Purpose for Notification of Shigellosis (adapted from Massachusetts Department of Health, 2018)

- To identify whether the case may be a source of infection for other persons (e.g., a diapered child, child care attendee, or food handler), and if so, to prevent further transmission.
- To identify transmission sources of public health concern (e.g., a restaurant or a commercially distributed food product), and to stop transmission from such sources.
- To monitor the effectiveness of prevention and control measures;
- To make timely and evidence informed actions on outbreaks; and
- To inform the public and medical community about shigellosis.

Information

Table 1. Surveillance Case Definition[1] (Public Health Agency of Canada [PHAC], December 2023)

Confirmed Case	Laboratory confirmation of infection with or without clinical illness: • isolation of *Shigella spp*. From an appropriate clinical specimen (e.g., stool, blood, rectal swab, deep tissue wounds, other sterile site, vomit, urine).
Probable Case	Clinical illness* in a person who is epidemiologically linked to a confirmed case **OR** Detection of *Shigella* spp./Enteroinvasive *E. coli* (EIEC) nucleic acid with or without clinical illness, in an appropriate clinical specimen (dependent on the test used), using a nucleic acid test (NAT), such as polymerase chain reaction (PCR). §, ◊

[1] Surveillance case definitions ensure uniform reporting to allow comparability of surveillance data. The definition is not intended to be used for clinical or laboratory diagnosis or management of cases.

*Clinical illness may be characterized by diarrhea (watery and often bloody), fever, nausea, vomiting, abdominal pain and/or tenesmus. The severity of illness may vary. While not considered a clinical illness, asymptomatic infections may occur.
§ Culture is required for public health and clinical management. Thus, culture must be performed on NAT-positive (NAT+) specimens to enable molecular typing (e.g., whole genome sequencing) for surveillance, outbreak detection and response, as per Canadian Public Health Laboratory Network (CPHLN) guidance. An isolate is required for antimicrobial susceptibility testing (AST) and/or antimicrobial resistance (AMR) predictions to guide clinical treatment and/or for AMR surveillance, which is increasingly important due to substantial multidrug resistance among *Shigella*.

◊ NAT-positive (NAT+) and culture-negative (culture–) results would still be considered a probable case.

Epidemiology and Occurrence

Global update

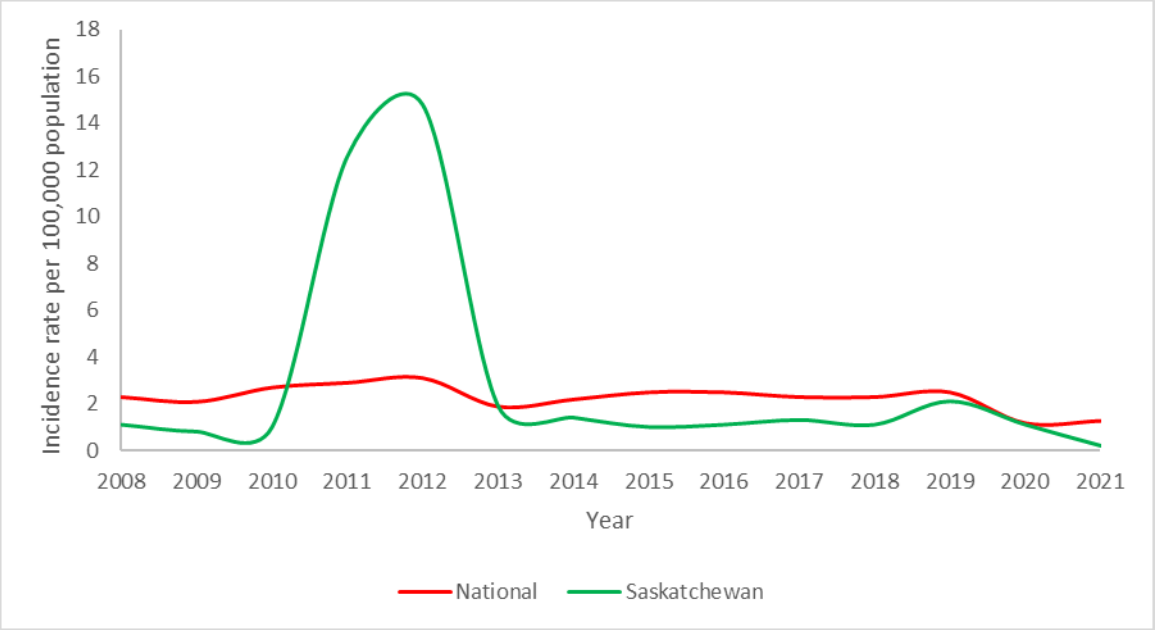
- Globally, shigellosis causes at least 80 million cases of bloody diarrhea and about 700,000 deaths (WHO, 2022).
- In endemic countries, shigellosis may be responsible for 10%-20% of enteric diseases, and up to 50% of bloody diarrhea in children below five years (Hale and Keusch, 1996).

Canada

- *Shigella sonnei* is the most prevalence *Shigella* species in the US and some provinces in Canada, and together with other species causes an estimated 450,000 infections annually (CDC, 2023).
- Shigellosis is a notifiable disease in Canada, and outbreaks have occurred across provinces. Several provinces have also reported increasing number of cases including cases associated with sexual transmission.

Saskatchewan

- Saskatchewan records between 10 – 20 cases of shigellosis annually and are largely attributed to travel.
- Provincial cases increased in 2011-2012 due to an outbreak that affected mainly children and spread through large gatherings with food sharing.
- Incidence rate has been below the Canada rate since 2013 to 2021. The rate of shigellosis across the province has declined and remained stable (below 2 cases per 100,000 population) since 2013.



Additional Background Information

Causative Agent (Heymann, 2022)

Shigella species are aerobic, gram-negative bacilli. There are 4 species or serogroups: *S. dysenteriae* (Group A), *S. flexneri* (Group B), *S. boydii* (Group C), *and S. sonnei* (Group D). The infectious dose for humans; can be as low as 10 to 100 bacteria.

Reservoir/Source

Humans are the only significant reservoir (Heymann, 2022). A few primates are also known reservoirs (National Collaborating Centre for Infectious Diseases [NCCID], 2022; Heymann, 2022).

Symptoms (Heymann, 2022)

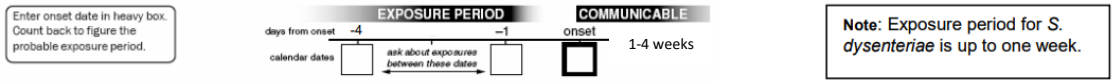
- An acute bacterial disease involving the large and distal small intestine, characterized by diarrhea which may contain blood and mucus or be watery, accompanied by fever, nausea, vomiting, abdominal pain/cramps, tenesmus and sometimes toxemia.
- Mild and asymptomatic infections occur.
- Illness is usually self-limited, lasting an average of 4 to 7 days.

- Rare complications, as outlined by the NCCID (2022), include:
    - Reiter's syndrome- reactive arthritis after infection that causes joint pain, eye irritation, and painful urination
    - Septicemia in those who are immunocompromised
    - Hemolytic uremic syndrome (HUS)
    - Convulsions, especially in young children although it is unclear if associated with fever or shigella infection itself (PHAC, 2020)
    - Rectal prolapse,
    - Toxic megacolon
    - Intestinal perforation

- Considerations based on *Shigella* subgroup:
    - *S. dysenteriae:* is often associated with serious disease and severe complications due to release of toxin. Highest risk of death with case-fatality rates being as high as 20% among hospitalized cases, even in recent years (Heymann, 2022).
    - *S. sonnei*: Causes typical clinical illness with less risk for complications (NCCID, 2022) and an almost negligible case-fatality rate, except in immune-compromised hosts (Heymann, 2022).
    - *S. flexneri*: Commonly causes Reiter's syndrome in persons who are genetically predisposed (Heymann, 2022). Is also the main cause of illness in developing countries (NCCID, 2022).
    - *S. boydii*: Causes typical clinical illness with less risk for complications (NCCID, 2022).

Incubation Period
Usually 1 to 3 days, but may range from 12 to 96 hours; up to 1 week for *S. dysenteriae* type 1 (Heymann, 2022).

Period of Communicability (Heymann, 2022)
- During acute infection and until the infectious agent is no longer present in feces, usually for 4 weeks after illness.
- Asymptomatic carriers may transmit infection; very rarely, the carrier state may persist for months or longer.
- The duration of carriage may be reduced with the use of an appropriate antibiotic.



Mode of Transmission (Heymann, 2022)
Person-to-person, fecal-oral transmission:

- direct transmission is common in children and individuals who do not thoroughly clean their hands, including under their fingernails following defecation;
- indirect transmission is usually via ingestion of contaminated food or water.
- less commonly inanimate objects and houseflies act as vectors.

Risk Factors
Risk factors are associated with individual susceptibility for severe disease and settings that create opportunities for acquisition or transmission to others. Risk factors for Shigellosis include:

- young children attending schools or daycares
- individuals practicing sexual activities that increases risk for fecal-oral transmission;
- people who are immunocompromised (NCCID], 2022)
- people experiencing homelessness (Centers for Disease Control, 2022)

Populations at risk for severe illness and death include (Heyman, 2022):

- infants and children under 10 years old (make up two-thirds of infection and most deaths);
- the elderly; and
- individuals who are immunocompromised

Specimen Collection and Transport
Refer to RRPL Compendium of Tests[2].

Lab Reports and Interpretation

- The final interpretation of a test result and how it aligns with the case definition must take into account the type of test and the clinical presentation.
- Further characterization (e.g., serotyping, whole genome sequencing [WGS]) is required for epidemiologic and public health management, including to monitor for and identify clusters or to establish linkages to known outbreaks.
- Isolates identified as Shigella will be typed and submitted for surveillance.

[2] https://rrpl-testviewer.ehealthsask.ca/

Table 2. Interpretation of Test Results

Type of Specimen	Type of test	Result	Interpretation as per Case Definition (in conjunction with clinical presentation	Test Details
Stool or other clinically appropriate specimen	Culture	*Shigella* detected	Confirmed	
Stool	PCR	*Shigella* detected	Probable	All PCR positive stool samples are reflexed to culture for species ID and testing for susceptibility if required, also to allow for typing and surveillance.

Treatment/Supportive Therapy *(Heymann, 2022)*
Treatment for clinical management is at the discretion of the primary care provider. The following serves as a reference for the public health investigator:

- *Fluid and electrolyte replacement is important when diarrhea is watery or there are signs of dehydration.*
- *Antibiotic treatment may be recommended depending on the severity of the illness, age of the individual, and likelihood of further transmission.*
- *Multidrug resistance is common; therefore the choice of antibiotic will depend on the susceptibility of the isolated strain or on local antimicrobial susceptibility patterns. Use of antibiotics will shorten the duration and severity of illness and the duration of fecal excretion.*

Public Health Investigation

I. Case

Refer to Attachment – Shigellosis Data Collection Worksheet to assist in investigation.

History

- Onset of illness – to determine incubation period and period of communicability which helps to identify the possible source and contacts to be followed.
- Chronic medical condition that increases risk of acquisition. See Risk Factors.
- In the 4 days (7 days for *S. dysenteriae*) prior to onset of symptoms, inquire about:
  - History of travel (during the incubation period), especially to areas with inadequate sanitation, water and sewage treatment;
  - Contact with individuals with similar symptoms or to a confirmed case See Contact Definition;
  - Obtain a detailed food history (complete the User Defined Form);
  - Assess for safe food handling procedures (e.g., handwashing, temperature control, possible cross-contamination such as cutting boards);
  - Assess for history of similar symptoms in visitors or other members of the household.
  - Determine history of child care, institution, communal living (i.e. camps, dorms) or hospital exposure.
  - Determine history of high-risk sexual practices, particularly activities that result in contact with feces.
  - Identify exposure to contaminated drinking and recreational water sources.
- Identify others who may have been exposed to the same source, including travel companions.
- Occupational considerations for transmission exist for food handlers, health care and childcare workers.

Public Health Interventions

Assessment

- Assess for contacts paying particular attention to individuals that have had exposure to the same source, are a risk for further transmission, or are symptomatic.

Communication

- The case individual can inform contacts of the exposure, to monitor for symptoms, and to call HealthLine 811 if symptoms develop. A letter from Public Health that also includes when to seek medical attention can be used (see Sample letter).
- Letters can also be used when exclusion from childcare or work settings are required as a public health intervention.

Education

- All cases should be provided information on prevention and control measures including safe food handling and handwashing (see Appendix F) and the risk of sexual practices that permit fecal-oral contact.

Exclusion

- Food handlers, health care workers, childcare or other staff involved with personal care, children below the age of five years in childcare, and older children and adults unable to maintain adequate standards of personal hygiene (i.e., have mental or physical disabilities): exclude until diarrhea has resolved[3] **and** two consecutive negative stool cultures are obtained at least 24 hours apart and at least 48 hours after discontinuation of antibiotics.
- Use of recreational water (e.g., swimming pools, whirlpools, etc.): exclude while diarrhea present. Those who are incontinent should be excluded for 1 additional week after diarrhea resolved (American Academy of Pediatrics [AAP], 2018).

Public Health Order

- When the case poses an ongoing risk to the public, a public health order may be issued.

Referral

- Depending on the suspected source and information from the source investigation, involvement of public health inspection, local MHO, Ministry of

[3] Diarrhea is considered resolved when stools have been normal for that individual for 48 hours and antibiotics and/or antidiarrheal medication has stopped for at least 48 hours (if treatment provided).

Health, PHAC, Ministry of Agriculture, and/or Canadian Food Inspection Agency (CFIA) may be necessary.

Testing

- Two consecutive negative stool cultures are required before exclusion requirements can be removed. NAAT should not be used to confirm clearance of organism. The specimens must be taken at least 48 hours after antibiotics have stopped and at least 24 hours apart.

II. Contacts/Contact Investigation

Contact Definition

Contacts include:

- persons living in the same household;
- children and childcare workers in the same child care facility/day home;
- individuals exposed to the same source, if it is identified, including travel companions;
- individuals practicing sexual activities that increases risk for fecal-oral transmission;
- persons who have eaten food prepared by the case during the period of communicability;
- persons who have attended events where food was shared with the case (e.g., potluck); and
- Individuals who have provided personal care to the case (e.g., toileting, personal hygiene) for a case.

Public Health Interventions

- Individual follow up with contacts is generally not recommended, with the exception of a symptomatic contact as reported by the case or in the context of a group exposure, cluster or outbreak.
- The case individual can inform contacts of the exposure, to monitor for symptoms, and to call HealthLine 811 if symptoms develop. A letter from Public Health that includes when to seek medical attention can also be used (see Sample letter).

Assessment

- Assess for symptoms. Symptomatic contacts should be investigated and managed as cases. See Case Investigation.

- Assess for outbreak criteria. See Outbreak or Epidemic Measures.

Communication

- Individual follow-up of contacts in in larger child care facilities, classrooms, schools, teams, workplaces, etc., is generally not recommended. These individuals should be informed by letter from public health, advising them to call HealthLine 811 if they develop symptoms.

Education

- All contacts should be provided information on prevention and control measures including safe food handling and handwashing. See Prevention Measures.

Environmental Health

- If a common exposure is identified through the case and contact investigations, environmental health assessments may be required. See Outbreak and Epidemic Measures.

Exclusion

- Symptomatic contacts are considered a probable case and should be excluded as per the case management section.
- As a general rule, asymptomatic contacts do not need to be tested nor excluded (BCCDC, 2023).

Referral

- Depending on the suspected source, investigation/management may involve local Medical Health Officer, Ministry of Health, PHAC, Ministry of Agriculture, and/or CFIA.

Symptom monitoring

- Contacts should be asked to monitor symptoms during the incubation period and be advised on testing and exclusion if symptoms develop.

III. Environment

Child Care Centre/Schools Control Measures

- Strict enforcement of infection control measure. Refer to Saskatchewan Ministry of Health Infection Control Manual for Child Care Facilities.[4]

[4] http://publications.gov.sk.ca/documents/11/96181-infection-control-manual-child-care-centres.pdf.

- Isolated cases are managed as per case and contact management above.
- Two or more cases: If there are epidemiologically linked cases in attendees or employees, staff, attendees and food handlers should be assessed for illness. Testing is not required. See Outbreak or Epidemic Measures.
- Instruct parents and staff to watch for symptoms of diarrhea. Symptomatic individuals should be excluded as per case exclusions above.
- Educate parents and staff about shigellosis and proper handwashing.

Health Facility Control Measures

- Strict enforcement of infection control measures. Refer to your Health Authority Infection Control Manual and supporting resources (e.g., transmission-based precautions guidelines).
- Isolated cases are managed as per case and contact management above.
- Two or more cases: If there are epidemiologically linked cases of shigellosis in the institution's residents or employees, staff with direct contact and food handlers should be assessed for illness. Stool cultures may be done to identify additional cases. Investigate as an outbreak in consultation with the MHO. See Outbreak or Epidemic Measures.

Other Communal Living or Similar Environment with Higher Risk of Transmission

- This may include facilities where care may or may not be provided but the communal living and shared facilities increase risk of transmission such as group homes, private seniors residences, work camps, dormitories, etc.
- Isolated cases are managed as per case and contact management above.
- Two or more cases: See Outbreak and Epidemic Measures section.
- Residential care facilities should follow the Outbreak Management[5] toolkit
- The Health Authority Infection Control Manual and Residential Care Outbreak Management toolkit can be used to guide infection control measures in other settings.

IV. Outbreak or Epidemic Measures

- Report at once to the Chief Medical Health Officer any group of cases of acute diarrheal disorder, even in the absence of specific identification of the causal agent using the Outbreak Notification Report and Summary Form.

[5] https://www.saswh.ca/wp-content/uploads/2023/01/Outbreak_Toolkit_December_2022-compressed-1.pdf

- When cases occur among a group of individuals that are known to each other, searching for possible common exposures such as a symptomatic individual, travel or shared food sources.
- Investigate water, food, and fecal exposures, and use of general sanitation measures.
- When two or more cases are linked through genetic identification (such as whole genome sequencing), but have not named each other as contacts, the risk of a common source is heightened. In such cases, further investigation is warranted into what and where the exposure sources are. Food sampling and inspection of implicated sources, including food facilities, may be warranted. See Saskatchewan FIOIP for protocol related to foodborne illness outbreaks in Saskatchewan (expected to be available in spring 2024).
- When laboratories identify interprovincial or international linkages, a multi-jurisdictional Outbreak Incident Command Center may be activated to coordinate investigation. The CFIA would become involved with the goal to identify the implicated source and implement appropriate interventions such as product recalls to reduce further spread. See the national FIORP for foodborne illness outbreaks involving multiple provinces/territories.
- Prophylactic administration of antibiotics is not recommended.
- Publicize the importance of handwashing after defecation; provide soap and individual paper towels in public venues if otherwise not available.

Prevention Measures

Refer to the Enteric Introduction and General Considerations and Appendix F section of the manual that highlights topics for client education that should be considered as well as provides information on high-risk groups and activities.

Education

- Educate the public about the importance of personal hygiene including handwashing and safe food handling.
- Ensure water is sourced from supplies that are appropriate and properly treated (i.e. municipal water, properly treated private water, etc.).
- Provide prevention information and education to case or caregiver, child care or institution about personal hygiene and hand hygiene.
- Educate parents about the importance of keeping children with diarrheal illness home from childcare facilities or day homes.

- Educate eating establishment operators regarding safe food handling and management and cleaning of equipment and to monitor practice within their establishments frequently. Ensure employees stay home when sick (workplace policy recommended).
- Educate health and care workers regarding hand hygiene, safe food handling and management, precautions with personal care, cleaning and disinfection of surfaces and equipment, and to monitor practice within their establishments frequently. Ensure employees stay home when sick (workplace policy recommended).
- Encourage breastfeeding as it may provide protection for infants and young children (AAP, 2018; Heymann, 2022).
- Educate about safer sexual practices, including use of barriers during oral-, digital-, and genital-anal contact and by washing hands and genitals with soap before and after contact to help prevent transmission (Heymann, 2022).

Revisions

Date	**Change**
June 2024	• Epidemiology and Occurrence- added section. • Reservoir/Source- added primates. • Symptoms- added list of rare complications. Updated information related to considerations based on shigella subgroup. • Risk Factors- expanded list. • Specimen Collection and Transport- removed content and added link to RRPL Compendium of Tests. • Treatment/supportive Therapy- regarding antibiotic treatment, added consideration of age of the individual and likelihood of further transmission. • Case History- added: “Chronic medical condition that increases risk of acquisition” and “In the 4 days (7 days for *S. dysenteriae*) prior to onset of symptoms, inquire about...”. Revised sub-bullets for clarity. • Case Communication- added case can inform contacts of exposure; added to call HealthLine 811 if symptoms develop. • Case Exclusion- added to definition of resolved diarrhea: “…and

	antibiotics and/or antidiarrheal medication has stopped for at least 48 hours (if treatment provided". For use of recreational water, revised to exclude while diarrhea present and those who are incontinent should be excluded for 1 additional week (previously exclusion for 2 weeks). • Referral- revised wording to align with other enteric illness chapters. • Testing- added "NAAT should not be used to confirm clearance of organism". • Contact Definition- added individuals exposed to the same source, who have eaten food prepared by the case, who have attended events where food was shared with the case, individuals practicing sexual activities that increases risk for fecal-oral transmission, and individuals who have provided personal care to the case. • Contact Public Health Interventions- added bullets to reflect individual follow up with contacts is generally not recommended and case can inform contacts of exposure. • Contact Assessment- added assess for outbreak criteria. • Contact Communication- revised to call HealthLine 811 if symptoms developed (previously was to see physician). • Contact Exclusion- for symptomatic contacts, revised to "…are considered a probable case and should be excluded as per the case management section". For asymptomatic contacts, revised to "as a general rule…do not need to be tested nor excluded" (previously for *S. flexneri*, *S. dyseneriae*, and *S. boydii*, indicated for high risk, may be excluded with MHO's discretion"). • Contact Referral- aligned wording with Case Referral revisions. • Environment- revised wording for clarity. Added section on Other Communal Living or Similar Environment with Higher Risk of Transmission. • Outbreak or Epidemic Measures- expanded information, including referencing national FIORP and provincial FIOIP. • Education- added more detailed information.
April 2024	• Surveillance Case Definition table- updated to align with PHAC December 2023 updates.

	• Lab Reports and Interpretation section completed, including Interpretation of Test Results table.
September 2018	• Clarified the purpose for notification of cases to public health • Incorporated an Epidemiology and Occurrence placeholder into the chapter. • Incorporated standardized Shigellosis Data Collection Worksheet and User Defined Form. • Rearranged and updated the style into the new format of the Manual.

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Government of Saskatchewan

Shigellosis Data Collection Worksheet

Please complete **all** sections.

PANORAMA

Panorama QA complete: ☐ **Yes** ☐ **No**
Initials:

Panorama Client ID: _____
Panorama Investigation ID: _____

A) CLIENT INFORMATION

LHN -> SUBJECT -> CLIENT DETAILS -> PERSONAL INFORMATION

Last Name:	First Name: and Middle Name:	Alternate Name (Goes by):
DOB: YYYY / MM / DD Age: _____	Health Card Province: _____ Health Card Number (PHN): _____	Preferred Communication Method: (specify - i.e. home phone, text): Email Address: ☐ Work ☐ Personal
Phone #: ☐ Primary Home: ☐ Mobile contact: ☐ Workplace:		
Place of Employment/School:	Gender: ☐ Male ☐ Female ☐ Other ☐ Unknown	
Alternate Contact: _____ Relationship: _____ Alt. Contact phone: _____	Address Type: ☐ No fixed ☐ Postal Address ☐ Primary Home ☐ Temporary ☐ Legal Land Description Mailing (Postal address): Street Address or FN Community (Primary Home): Address at time of infection if not the same:	

B) INVESTIGATION INFORMATION

LHN-> SUBJECT SUMMARY-> ENTERIC ENCOUNTER GROUP ->CREATE INVESTIGATION

Disease Summary Classification: CASE	**Date**	***Classification: CONTACT***	***Date***	***LAB TEST INFORMATION:***
☐ Confirmed	YYYY / MM / DD	☐ *Contact*	*YYYY / MM / DD*	*Date specimen collected:*
☐ Does Not Meet Case Definition	YYYY / MM / DD	☐ *Not a Contact*	*YYYY / MM / DD*	*YYYY / MM / DD*
☐ Person Under Investigation	YYYY / MM / DD	☐ *Person Under Investigation*	*YYYY / MM / DD*	*Specimen type:* ☐ *Blood* ☐ *Urine* ☐ *Stool*
☐ Probable	YYYY / MM / DD			

Disposition:

FOLLOW UP:

☐ In progress	YYYY / MM / DD	☐ Complete	YYYY / MM / DD
☐ Incomplete - Declined	YYYY / MM / DD	☐ Not required	YYYY / MM / DD
☐ Incomplete – Lost contact	YYYY / MM / DD	☐ Referred – Out of province (specify where)	YYYY / MM / DD
☐ Incomplete – Unable to locate	YYYY / MM / DD		

REPORTING NOTIFICATION Name of Attending Physician or Nurse**:**	Location:
Physician/Nurse Phone number:	Date Received (Public Health): YYYY / MM / DD

Type of Reporting Source: ☐ Health Care Facility ☐ Lab Report ☐ Nurse Practitioner ☐ Physician ☐ Other_____

C) DISEASE EVENT HISTORY

INVESTIGATION->DISEASE SUMMARY (UPDATE)->DISEASE EVENT HISTORY

Staging: ☐ Acute ☐ Carrier

Shigellosis Data Collection Worksheet

Please complete **all** sections

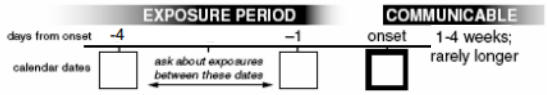
Panorama Client ID: _____
Panorama Investigation ID: _____

D) SIGNS & SYMPTOMS

INVESTIGATION->SIGNS & SYMPTOMS

Description	Yes Date of onset	Date of recovery	Description	Yes Date of onset	Date of recovery
Abdominal – cramping	YYYY / MM / DD	YYYY / MM / DD	Hemolytic uremic syndrome (HUS)	YYYY / MM / DD	YYYY / MM / DD
Asymptomatic	YYYY / MM / DD	YYYY / MM / DD	Nausea	YYYY / MM / DD	YYYY / MM / DD
Dehydration	YYYY / MM / DD	YYYY / MM / DD	Pain - abdominal	YYYY / MM / DD	YYYY / MM / DD
Diarrhea	YYYY / MM / DD	YYYY / MM / DD	Seizures	YYYY / MM / DD	YYYY / MM / DD
Diarrhea – bloody	YYYY / MM / DD	YYYY / MM / DD	Sepsis (e.g. bactremia, septicemia, etc.)	YYYY / MM / DD	YYYY / MM / DD
Diarrhea – mucousy	YYYY / MM / DD	YYYY / MM / DD	Tenesmus	YYYY / MM / DD	YYYY / MM / DD
Diarrhea – watery	YYYY / MM / DD	YYYY / MM / DD	Vomiting	YYYY / MM / DD	YYYY / MM / DD
Fever	YYYY / MM / DD	YYYY / MM / DD	Arthritis	YYYY / MM / DD	YYYY / MM / DD
Other Signs & Symptoms if applicable					

Enter onset date in heavy box. Count back to figure the probable exposure period.



Note: Exposure period for *S. dysenteriae* is up to one week.

E) INCUBATION AND COMMUNICABILITY

LHN-> INVESTIGATION->INCUBATION & COMMUNICABILITY

Incubation for Case (period for acquisition):
Earliest Possible Exposure Date: YYYY / MM / DD **Latest Possible Exposure Date**: YYYY / MM / DD

Exposure Calculation details:

Communicability for Case (period for transmission):
Earliest Possible Communicability Date: YYYY / MM / DD **Latest Possible Communicability Date**: YYYY / MM / DD

Communicability Calculation Details:

F) RISK FACTORS N—No, NA–Not asked, U–Unknown

LHN-> SUBJECT->RISK FACTORS

DESCRIPTION	Yes	N, NA, U	Start date	Add'l Info
Contact - Daycare			YYYY / MM/DD	
Contact - Persons with diarrhea/vomiting			YYYY / MM/DD	
Contact to a known case (Add'l Info)			YYYY / MM/DD	
Immunocompromised - Related to disease or treatment	TE		YYYY / MM/DD	
Occupation – Child care worker	TE		YYYY / MM/DD	
Occupation – Food handler	TE		YYYY / MM/DD	
Occupation – Health Care Worker – IOM Risk Factor	TE		YYYY / MM/DD	
Sexual Behaviour – Oral-anal				
Special Population – Homeless				
Travel - Outside of Canada (Add'l Info)	AE		YYYY / MM/DD	
Travel - Outside of Saskatchewan, but within Canada (Add'l Info)	AE		YYYY / MM/DD	
Water - Bottled water			YYYY / MM/DD	
Water - Private well or system (Add'l Info)			YYYY / MM/DD	
Water - Public water system (Add'l Info)			YYYY / MM/DD	
Water - Untreated water (Add'l Info)			YYYY / MM/DD	
Water (Recreational) - Pond, stream, lake, river, ocean			YYYY / MM/DD	
Water (Recreational) - Private (swimming pool/whirl pool)			YYYY / MM/DD	
Water (Recreational) - Public (swimming/paddling pool/whirl pool)			YYYY / MM/DD	

Shigellosis Data Collection Worksheet

Please complete **all** sections

Panorama Client ID: _____
Panorama Investigation ID: _____

DESCRIPTION	Yes	N, NA, U	Start date	Add'l Info
Other risk factor (Add'l Info)			YYYY / MM/DD	

Shigellosis Data Collection Worksheet

Please complete **all** sections

Panorama Client ID: _____
Panorama Investigation ID: _____

G) USER DEFINED FORM (SEE ATTACHED) LHN-> INVESTIGATION-> INVESTIGATION DETAILS -> LINKS AND ATTACHMENTS -> SHIGELLOSIS FORM

H) TREATMENT LHN-> INVESTIGATION-> MEDICATIONS->MEDICATIONS SUMMARY

Medication *(Panorama = Other Meds) :* _____

Prescribed by:_____ Started on: YYYY / MM / DD

I) INTERVENTIONS INVESTIGATION->TREATMENT & INTERVENTIONS->INTERVENTION SUMMARY

Intervention Type and Sub Type:

Assessment:
☐ Assessed for contacts YYYY/ MM/DD
Investigator name

Outbreak Declared YYYY / MM / DD
Investigator name

Communication:
☐ Other communication (See Investigator Notes) YYYY / MM / DD
Investigator name
☐ Letter (See Document Management) YYYY / MM / DD
Investigator name

Public Health Order:
☐ Other (specify) YYYY/ MM/DD
Investigator name

General: Investigator name
☐ Disease-Info/Prev-Control YYYY/ MM / DD
☐ Disease-Info/Prev-Cont/Assess'd for Contacts YYYY/ MM / DD

Other Investigation Findings:
☐ Investigator Notes
☐ Document Management

Education/counselling: Investigator name
☐ Prevention/Control measures YYYY/ MM/DD
☐ Disease information provided YYYY/ MM/DD

Referral: Investigator name
☐ Canadian food inspection agency YYYY/ MM/DD
☐ Primary care provider YYYY/ MM/DD

Exclusion: Investigator name
☐ Daycare YYYY/ MM/DD ☐ Preschool YYYY/ MM/DD
☐ School YYYY/ MM/DD ☐ Work YYYY/ MM/DD

Testing: Investigator name
☐ Stool testing recommended (e.g. for follow-up) YYYY/ MM/DD

Immunization:
☐ Eligible Immunization recommended YYYY/ MM/DD
Investigator name

Date	Intervention subtype	Comments	Next follow-up Date	Initials
YYYY / MM / DD			YYYY / MM / DD	
YYYY / MM / DD			YYYY / MM / DD	
YYYY / MM / DD			YYYY / MM / DD	
YYYY / MM / DD			YYYY / MM / DD	
YYYY / MM / DD			YYYY / MM / DD	
YYYY / MM / DD			YYYY / MM / DD	
YYYY / MM / DD			YYYY / MM / DD	
YYYY / MM / DD			YYYY / MM / DD	
YYYY / MM / DD			YYYY / MM / DD	
YYYY / MM / DD			YYYY / MM / DD	
YYYY / MM / DD			YYYY / MM / DD	
YYYY / MM / DD			YYYY / MM / DD	
YYYY / MM / DD			YYYY / MM / DD	
YYYY / MM / DD			YYYY / MM / DD	
YYYY / MM / DD			YYYY / MM / DD	

Shigellosis Data Collection Worksheet

Please complete **all** sections

Panorama Client ID: _____
Panorama Investigation ID: _____

J) OUTCOMES

LHN-> INVESTIGATION-> OUTCOMES

☐ Not yet recovered/recovering YYYY / MM / DD ☐ ICU/intensive medical care YYYY / MM / DD ☐ Hospitalization YYYY / MM / DD
☐ Recovered YYYY / MM / DD ☐ Intubation /ventilation YYYY / MM / DD ☐ Unknown YYYY / MM / DD
☐ Fatal YYYY / MM / DD ☐ Other _____ YYYY / MM / DD

Cause of Death: (if Fatal was selected) _____

K) EXPOSURES

Acquisition Event

LHN-> INVESTIGATION-> EXPOSURE SUMMARY-> ACQUISITION QUICK ENTRY

Acquisition Event ID:_____

Exposure Name: _____

Acquisition Start YYYY / MM / DD to **Acquisition End:** YYYY / MM / DD

Location Name: _____

Setting Type

☐ Travel ☐ Exposure or consumption of potentially contaminated food or water ☐ Most likely source

Transmission Events

LHN -> INVESTIGATION-> ESPOSURE SUMMARY -> TRANSMISSION EVENT SUMMARY -> QUICK ENTRY

Transmission Event ID	Exposure Name	Setting type	Date/Time	# of contacts
		☐ Health care setting ☐ Food service establishment ☐ Household ☐ Private Function (FOOD PREP)		
		☐ Health care setting ☐ Food service establishment ☐ Household ☐ Private Function (FOOD PREP)		
		☐ Health care setting ☐ Food service establishment ☐ Household ☐ Private Function (FOOD PREP)		
		☐ Health care setting ☐ Food service establishment ☐ Household ☐ Private Function (FOOD PREP)		
	Shigella Contacts – Inv ID# _____	☐ Multiple Settings	YYYY / MM / DD to YYYY / MM / DD	

L) TOTAL NUMBER OF CONTACTS

LHN -> INVESTIGATION-> EXPOSURE SUMMARY -> TRANSMISSION EVENT SUMMARY -> TE HYPERLINK -> UNKNOWN/ANONYMOUS CONTACTS

Anonymous contacts:_____ (total number of individuals exposed)

Initial Report completed by:		**Date initial report completed:** YYYY / MM / DD

PANORAMA

Shigellosis Routine Questionnaire - August 2018

Loading...

Record type:
Record ID:
Record Name:

In this form the answers (Yes, Probably, No, and Don't know) are from the perspective of the person being interviewed. "Probably" can be used if the client thinks he/she may have eaten this food or usually eats this food, but is unsure if it was eaten during the period in question.

Diet and Allergies

Show/Hide

Are you a vegetarian?
- ○ Yes
- ○ No
- ○ Don't know
- ○ Not asked

Do you have any food Allergies / avoidances / special diet?
- ○ Yes
- ○ No
- ○ Don't know
- ○ Not asked

If yes, specify details

Food Exposures

Show/Hide

In the 4 days (7 days for S. dysenteriae) prior to onset, did you eat…

Any raw oysters or shellfish?
- ○ Yes
- ○ Probably
- ○ No
- ○ Don't know
- ○ None of the Above

If yes, specify details (E.g., where consumed, type, brand, location)

Any fresh herbs?
- ○ Yes
- ○ Probably
- ○ No
- ○ Don't know
- ○ None of the Above

If yes, specify details (E.g., where consumed, type, brand, location)

Any raw vegetables?
- ○ Yes
- ○ Probably
- ○ No
- ○ Don't know

	○ None of the Above
If yes, specify details (E.g., where consumed, type, brand, location)	
Any lettuce or salad?	○ Yes ○ Probably ○ No ○ Don't know ○ None of the Above
If yes, specify details (E.g., where consumed, type, brand, location)	
Unpasteurized soft cheese?	○ Yes ○ Probably ○ No ○ Don't know ○ None of the Above
If yes, specify details (E.g., where consumed, type, brand, location)	

4 Day Food History Show/Hide

Please try to remember what you have eaten in the 4-day period before you started feeling sick. We will start with the day (or day before) you got sick and work backwards. (If a meal was eaten out, specify where they ate and what was eaten)

Please ask about: prepared in-home or eaten out; if in-home - variety/brand, how prepared, where bought/eaten, routine meals

Day 1

Day 1 date?	9/25/2018
Breakfast	
Home or out?	○ Home ○ Out
Details	
Lunch	
home or out?	○ Home ○ Out
Details	

Dinner

home or out?
- ○ Home
- ○ Out

Details

Snacks

home or out?
- ○ Home
- ○ Out

Details

Day 2

Day 2 date? 9/25/2018

Breakfast

home or out?
- ○ Home
- ○ Out

Details

Lunch

home or out?
- ○ Home
- ○ Out

Details

Dinner

home or out?
- ○ Home
- ○ Out

Details

Snacks

home or out?
- ○ Home
- ○ Out

Details

Day 3

Day 3 date? 9/25/2018

Breakfast

home or out? ○ Home ○ Out

Details

Lunch

home or out? ○ Home ○ Out

Details

Dinner

home or out? ○ Home ○ Out

Details

Snacks

home or out? ○ Home ○ Out

Details

Day 4

Day 4 date? 9/25/2018

Breakfast

home or out? ○ Home ○ Out

Details

Lunch

home or out? ○ Home

PANORAMA

○ Out

Details

Dinner

home or out?

○ Home
○ Out

Details

Snacks

home or out?

○ Home
○ Out

Details

Social Functions Show/Hide

In the 4 days (7 days for S. dysenteriae) prior to onset, did you attend any social functions (e.g. parties, weddings, showers, potlucks, community events)?

○ Yes
○ No
○ Don't know
○ Not asked

Click the Add button to add social event/function details

Add

Restaurants Show/Hide

In the 4 days (7 days for S. dysenteriae) prior to onset, did you attend any restaurants (including take-out, cafeteria, bakery, deli, kiosk)?

○ Yes
○ No
○ Don't know
○ Not asked

Click the Add button to add restaurant details

Add

Grocery Stores Show/Hide

In the past 4 days (7 days for S. dysenteriae) prior to onset, did you visit grocery stores for foods consumed during the incubation period?

○ Yes
○ No
○ Don't know
○ Not asked

Click the Add button to add grocery store details

Add

Loyalty card/store issued card (for outbreak investigation only) Show/Hide

This section is only for use in some specific outbreak situations, with client consent. It is not a routine question for sporadic cases.

Has the client given consent (written or verbal)?
- ○ Yes
- ○ No
- ○ Not applicable

Loyalty card details (names and numbers)

Interviewer Details and Notes Show/Hide

Interviewer Name

Interview date: 9/25/2018

Any special notes regarding this interview

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