

## Case Definition

### Confirmed Case:

Laboratory confirmation of infection with or without clinical illness<sup>1</sup>:

- Isolation of *Salmonella* spp. (excluding *Salmonella* Typhi) from an appropriate clinical specimen (e.g., stool, blood, cerebrospinal fluid, rectal swab, deep tissue wounds, other sterile site, vomit, urine).

### Probable Case<sup>2</sup>:

- Clinical illness<sup>1</sup> in a person who is epidemiologically linked to a confirmed case;  
**OR**
- Detection of *Salmonella* spp. 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 a polymerase chain reaction (PCR).

## Clinical Evidence

Clinical Evidence may be characterized by the following signs or symptoms: diarrhea, chills, headache, abdominal pain, nausea, fever and/or vomiting. The severity of illness may vary. While not considered clinical illness, asymptomatic infections may occur.

## Reporting Requirements

Report confirmed and probable cases to DHW Surveillance via Panorama.

## Additional Forms

None.

## Data Entry

Complete Generic Food Questionnaire form in the User Defined Forms section in Panorama.

## Additional Comments

- Includes *S.Paratyphi* (paratyphoid fever).
- NAT-positive (NAT+) and culture-negative (culture-) results would still be considered a probable case.
- It is best practice to culture the NAT positive specimen as soon as possible, such as performing culture in the laboratory that generated the NAT positive signal. When a specimen is positive using a

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<sup>1</sup> See Clinical Evidence section.

<sup>2</sup> 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 may also be required for antimicrobial susceptibility testing (AST) and/or antimicrobial resistance (AMR) predictions to guide clinical treatment and/or for AMR surveillance.

NAT, it is strongly advised to collect and document information on all culture results for the specimen (i.e., NAT+/culture+ **vs** NAT+/culture– **vs** NAT+/culture not done).

- As the current *Salmonella* NATs cannot distinguish by serotype, a NAT positive result for *Salmonella* requires further tests to confirm the case as salmonellosis, typhoid fever, or (if applicable) paratyphoid fever.
- If more than one target is positive on the gastrointestinal NAT panel, it may be indicative of a cross-reaction, co-infection and/or a single organism harbouring these genes. Reflex culture should be performed to confirm all suspect bacterial NAT signals and to meet requirements for epidemiologic, public health, and clinical management of that organism.