Foodborne Illness Outbreak Response at Clark County Public Health

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Clark County Board of Health

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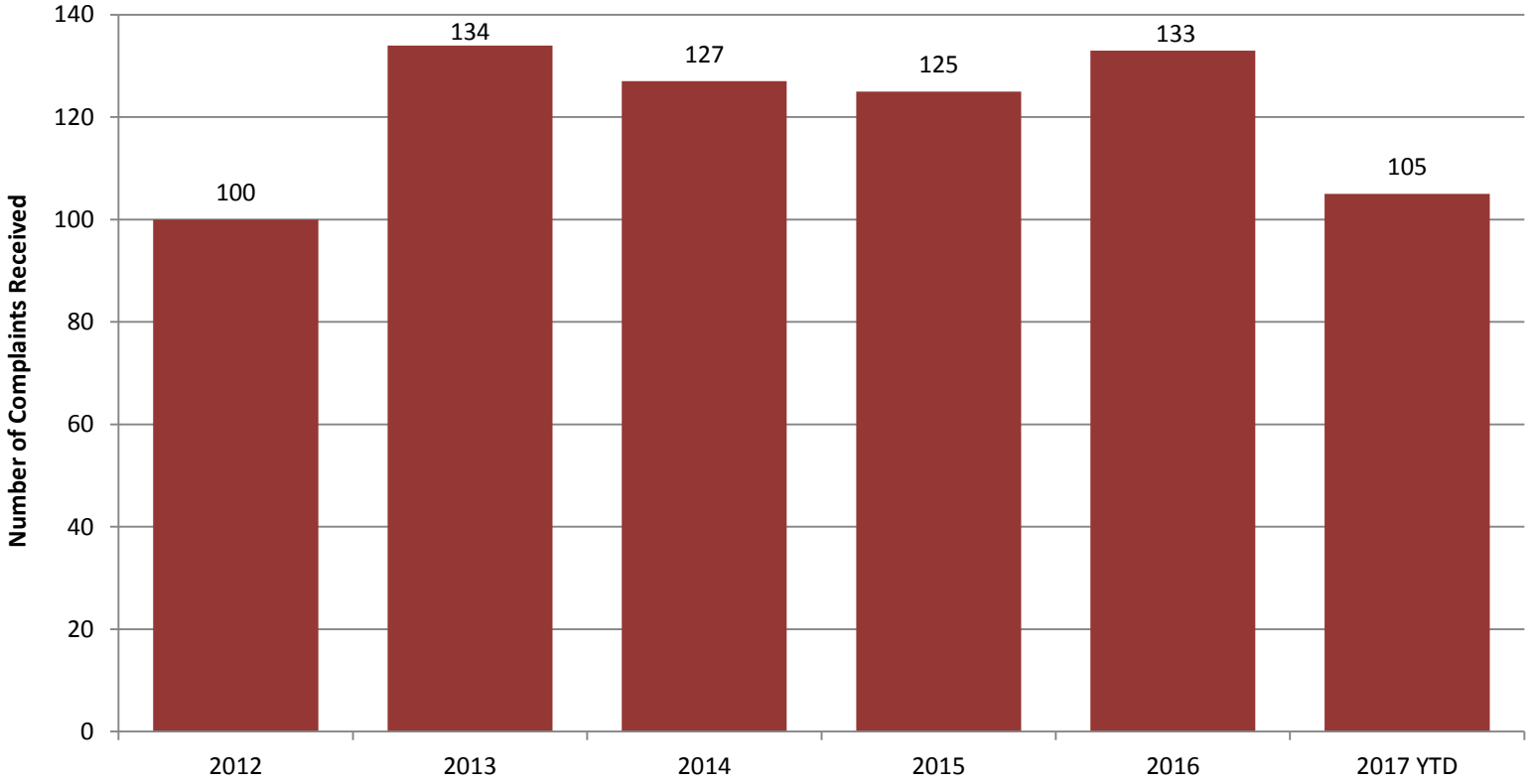
Objectives

- Outline the **importance**, **impact**, and **primary goals** of CCPH's foodborne illness investigation process, including the use of a Foodborne Illness Investigation Toolkit.
- Highlight **investigation components**, including processes and procedures, team member responsibilities, and additional tools and resources.
- Highlight CCPH's role in detecting and responding to outbreaks through a **recent investigation of *Salmonella paratyphi* associated with seafood consumption**.

Overview

The Need for Investigations

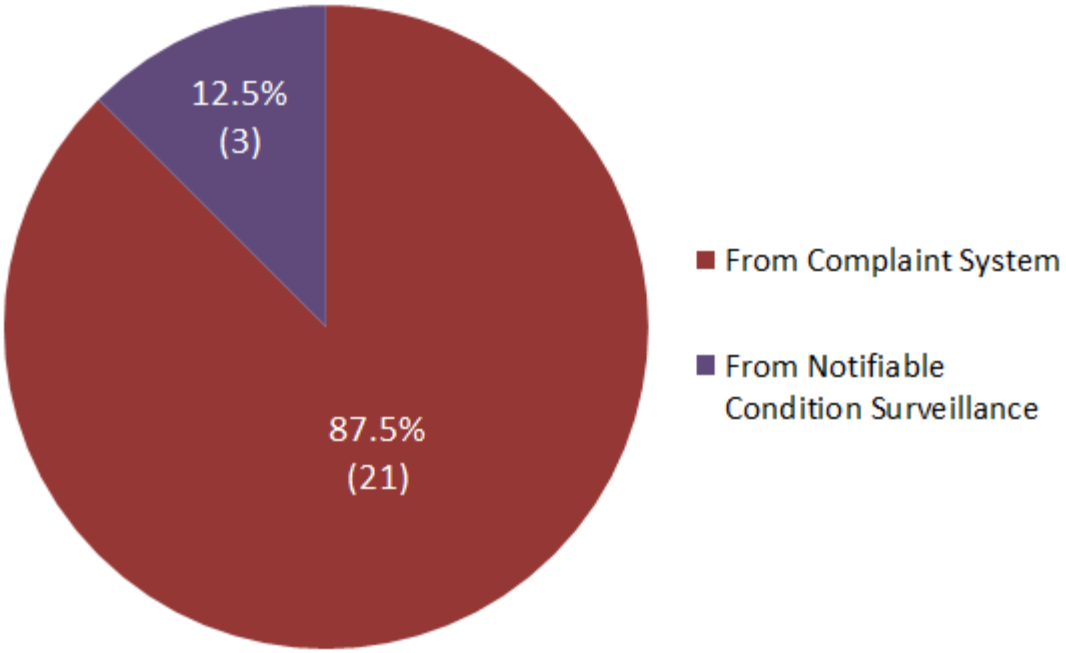
Foodborne Illness Complaints Received by Clark County Public Health, by Year



Overview

The Need for Investigations

Foodborne Illness Outbreaks Investigated by Clark County Public Health, by Means of Notification, 2012-2017 YTD



Primary Goals

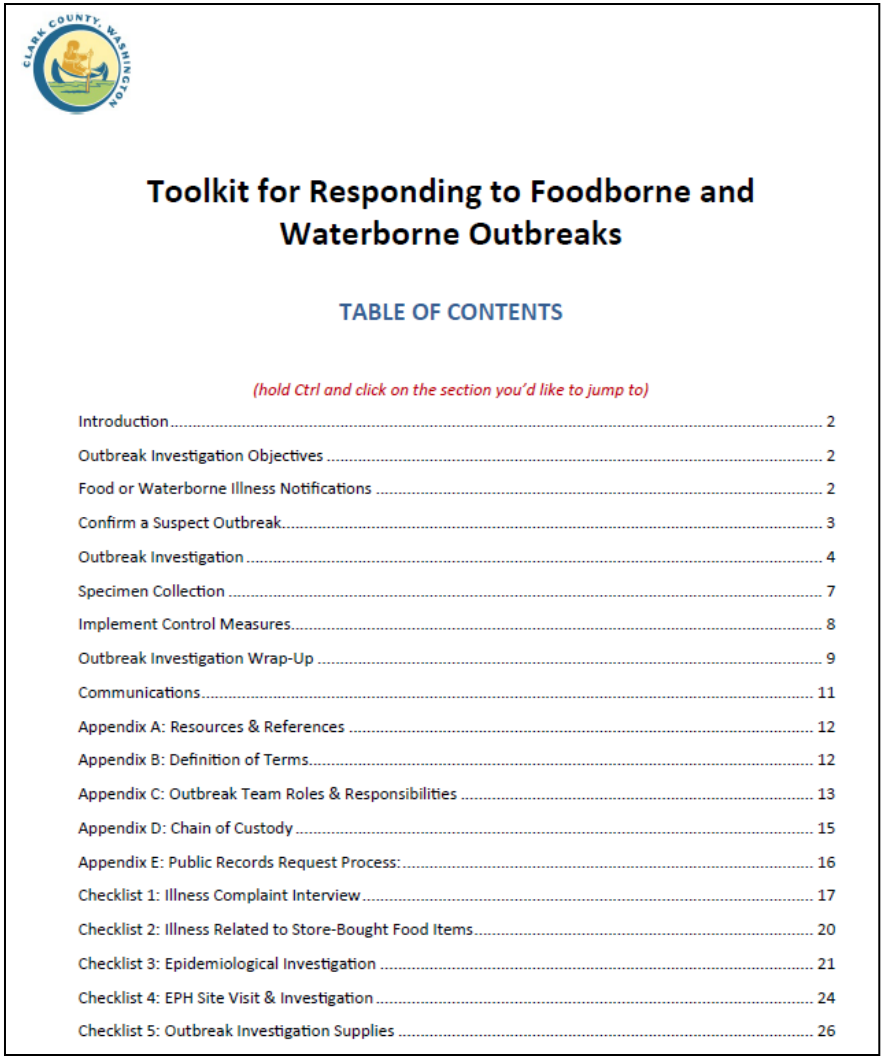
Foodborne Illness Investigations

- Design a **consistent, thorough response** to foodborne illness in the community.
- **Define response team roles** and responsibilities in conducting investigations.
- Effectively **manage and utilize** disease and environmental health data.
- Provide **training and reference resources** for staff.

Processes and Resources

Foodborne Illness Investigations

- Procedural guidance
- Investigation checklists
- Roles and responsibilities for investigation team (EPH, CD, and PIO).



Toolkit for Responding to Foodborne and Waterborne Outbreaks

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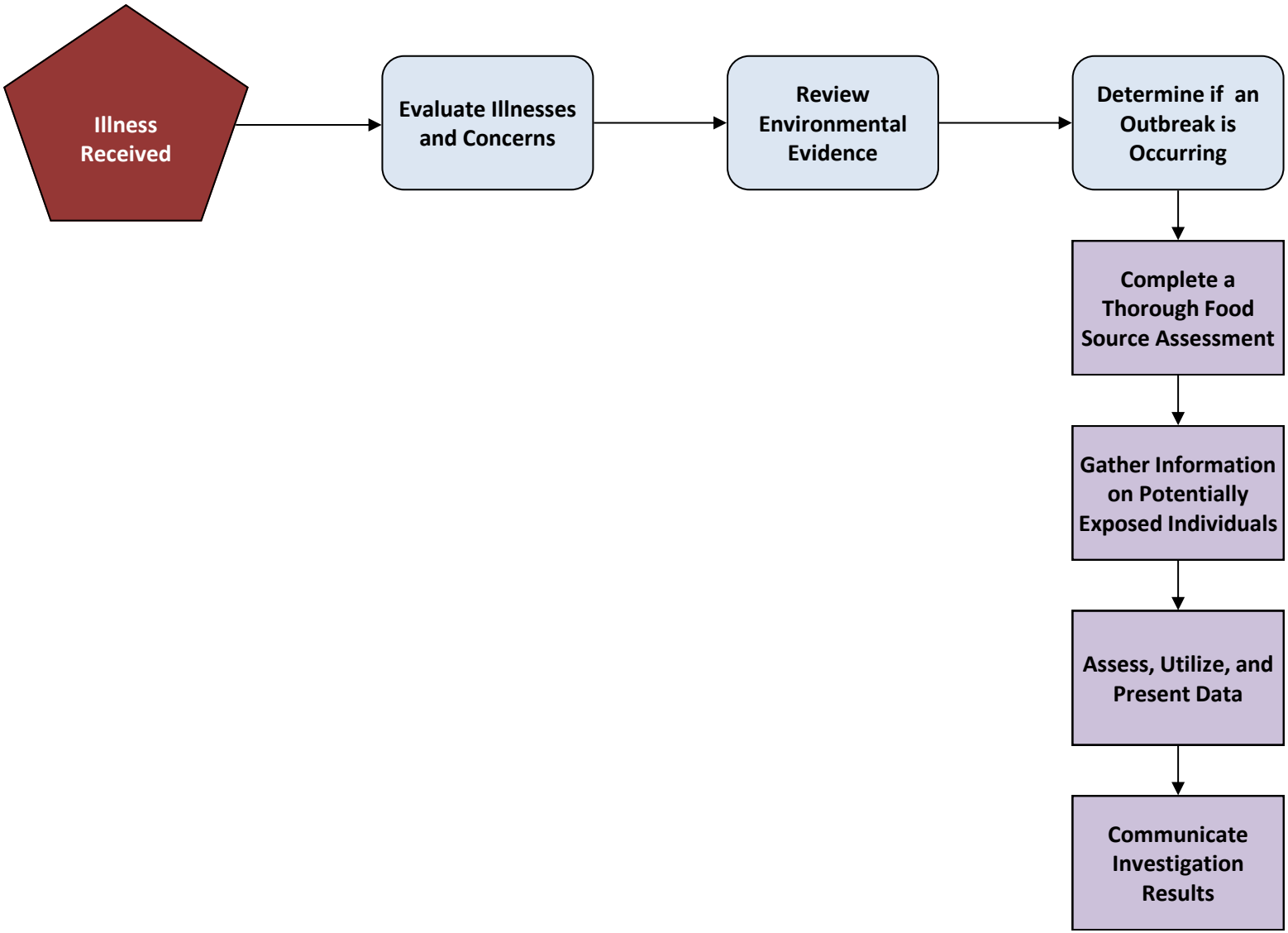
Foodborne Illness Investigations



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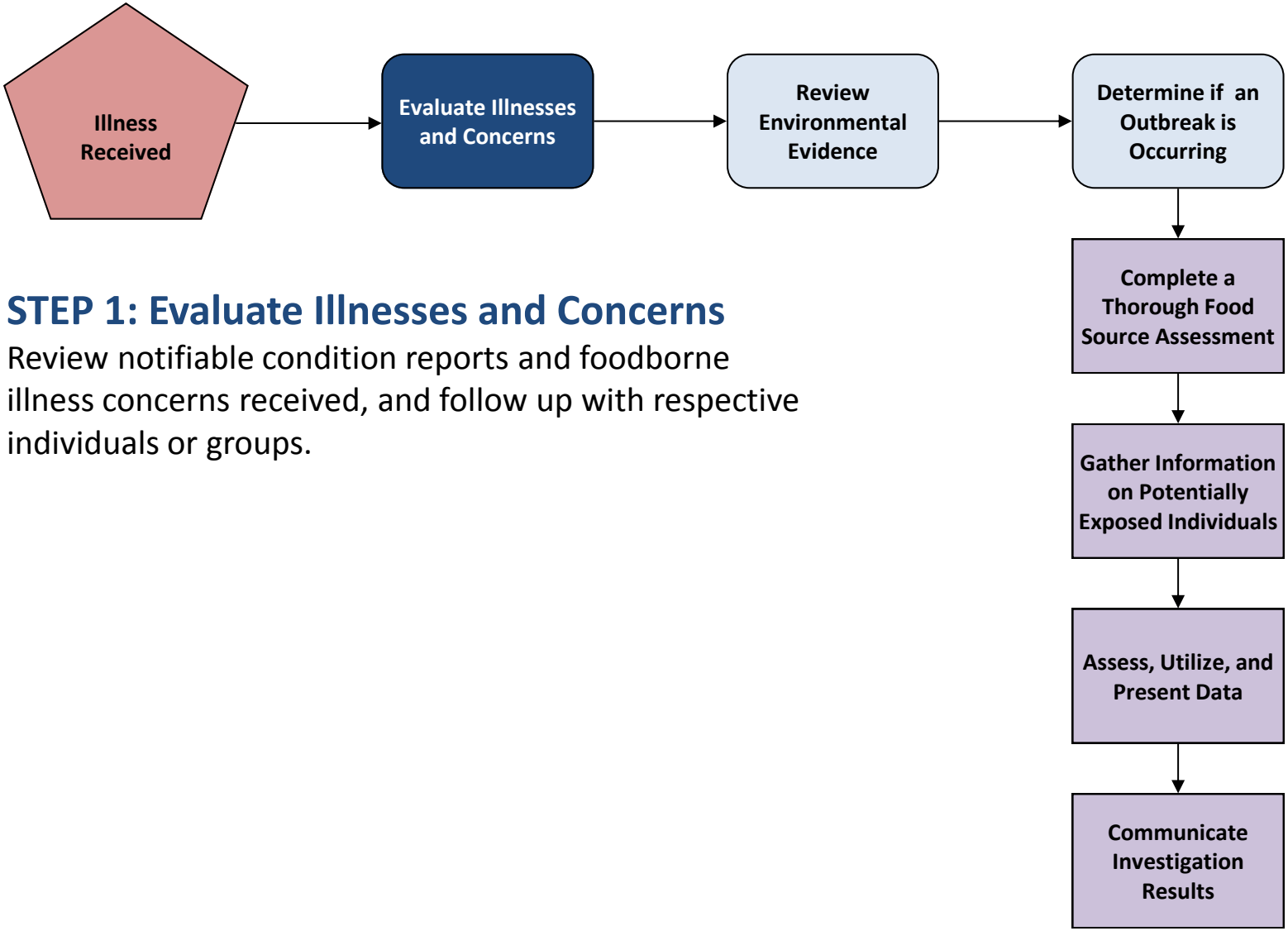
Foodborne Illness Investigations

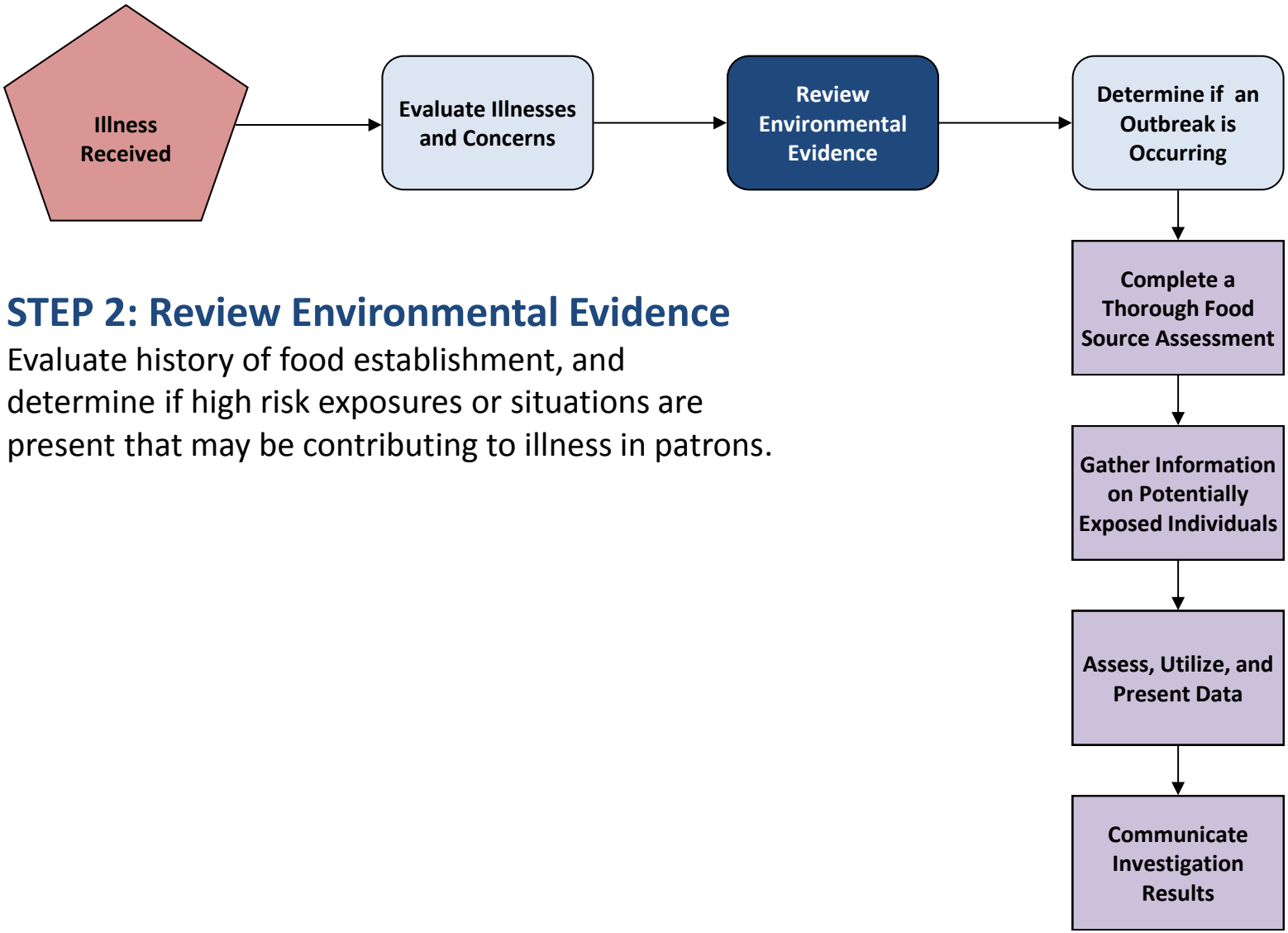


STEP 1: Evaluate Illnesses and Concerns

Review notifiable condition reports and foodborne illness concerns received, and follow up with respective individuals or groups.

Process Overview

Foodborne Illness Investigations

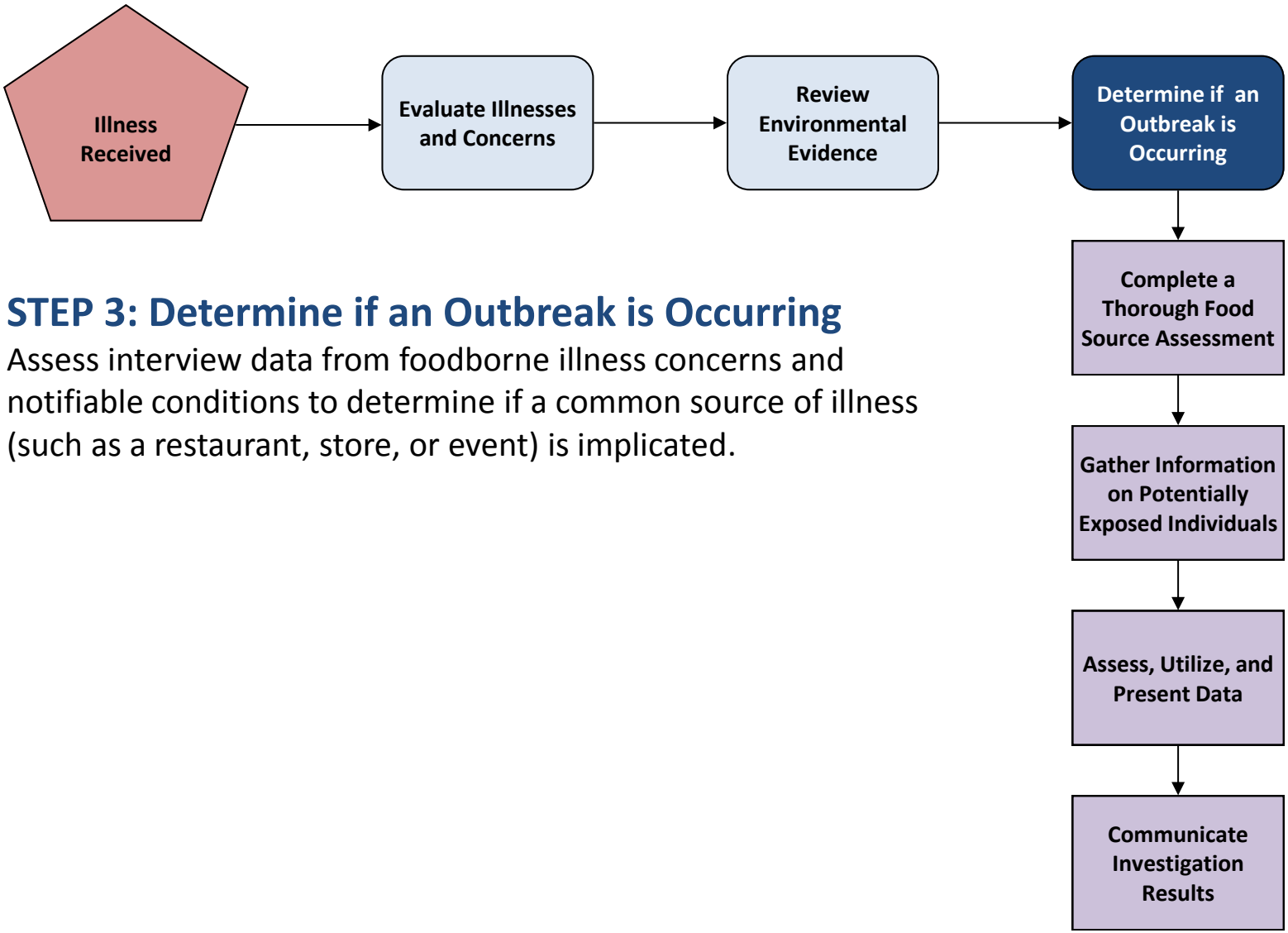


STEP 2: Review Environmental Evidence

Evaluate history of food establishment, and determine if high risk exposures or situations are present that may be contributing to illness in patrons.

Process Overview

Foodborne Illness Investigations

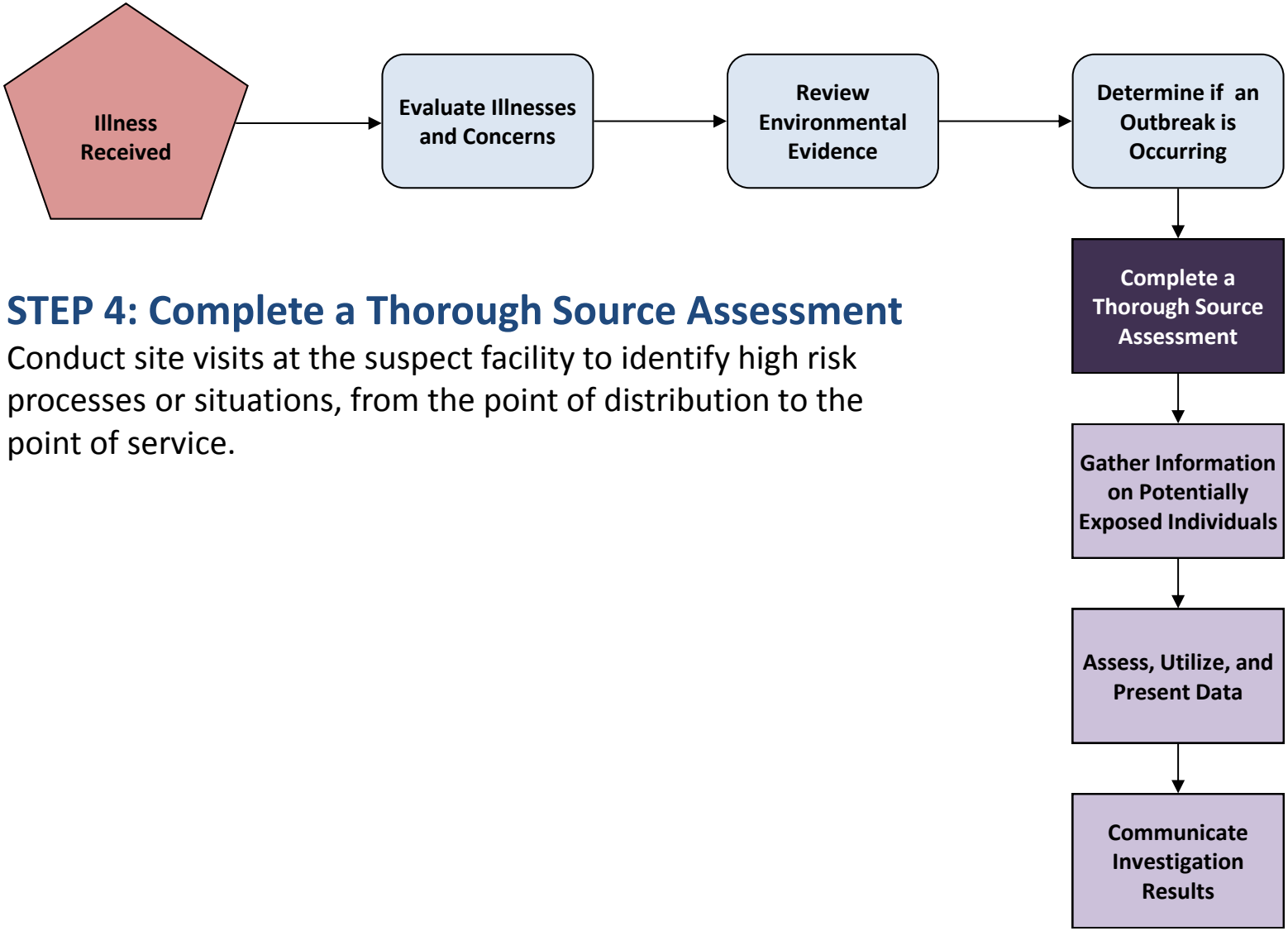


STEP 3: Determine if an Outbreak is Occurring

Assess interview data from foodborne illness concerns and notifiable conditions to determine if a common source of illness (such as a restaurant, store, or event) is implicated.

Process Overview

Foodborne Illness Investigations

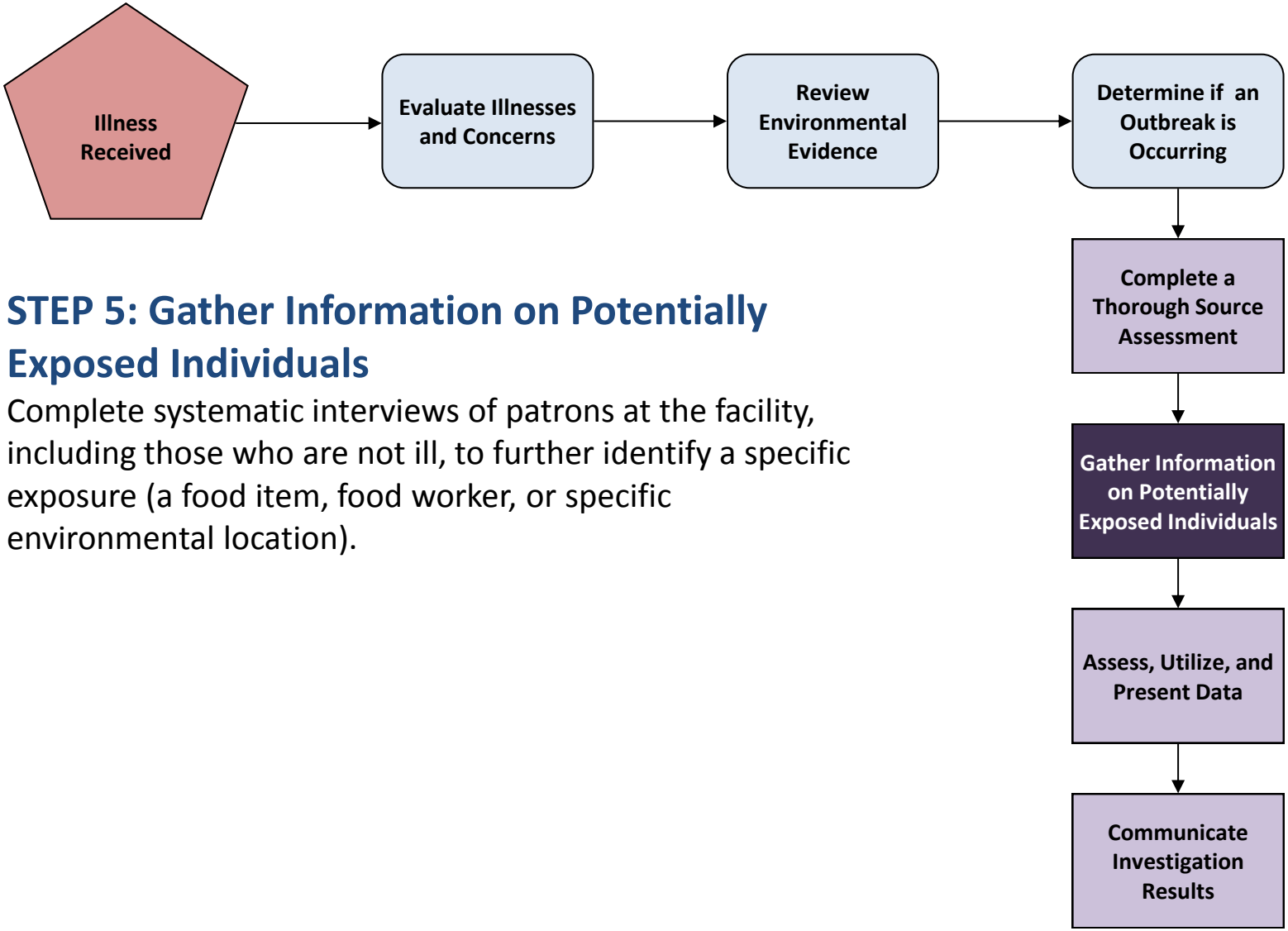


STEP 4: Complete a Thorough Source Assessment

Conduct site visits at the suspect facility to identify high risk processes or situations, from the point of distribution to the point of service.

Process Overview

Foodborne Illness Investigations

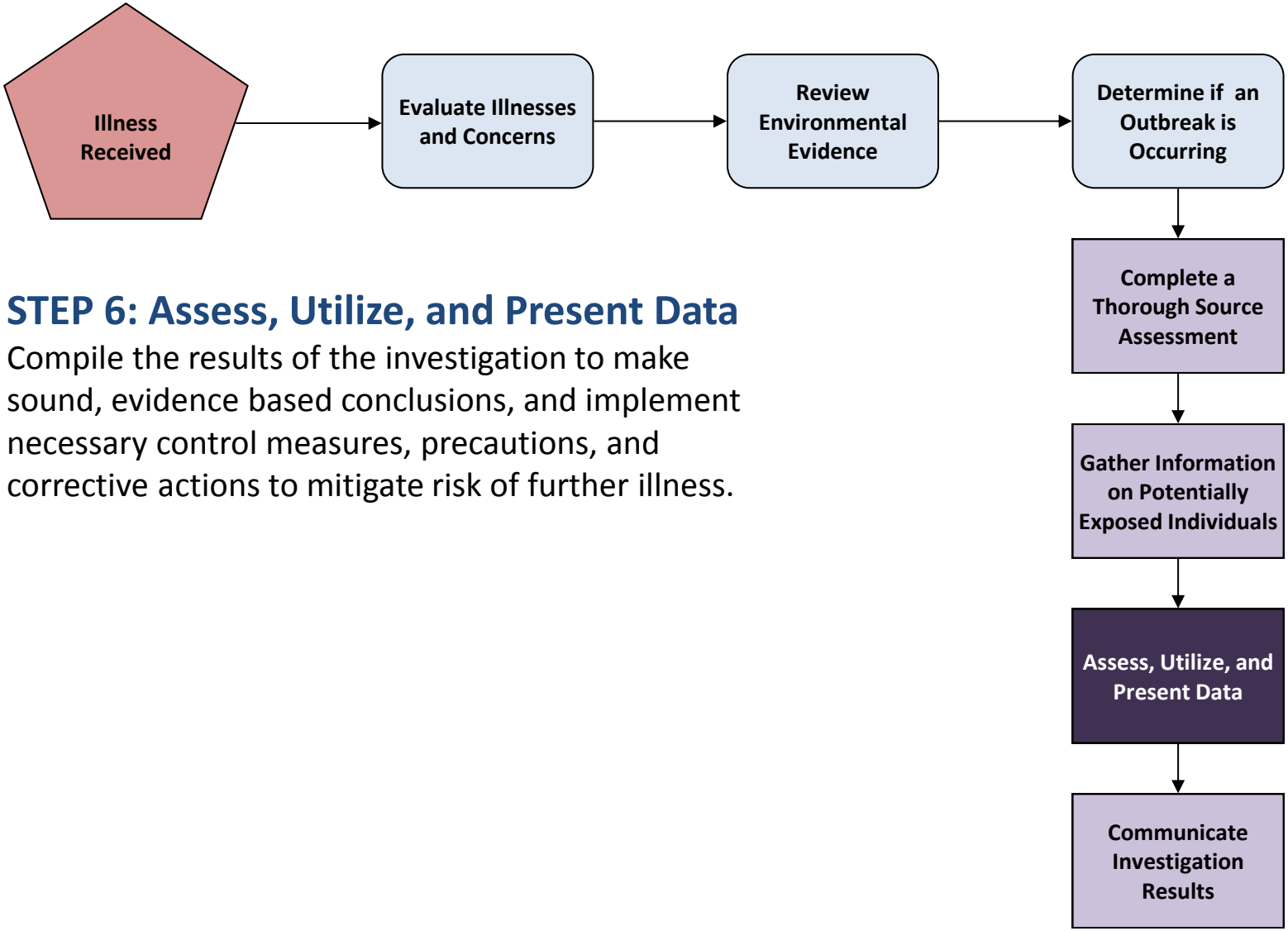


STEP 5: Gather Information on Potentially Exposed Individuals

Complete systematic interviews of patrons at the facility, including those who are not ill, to further identify a specific exposure (a food item, food worker, or specific environmental location).

Process Overview

Foodborne Illness Investigations

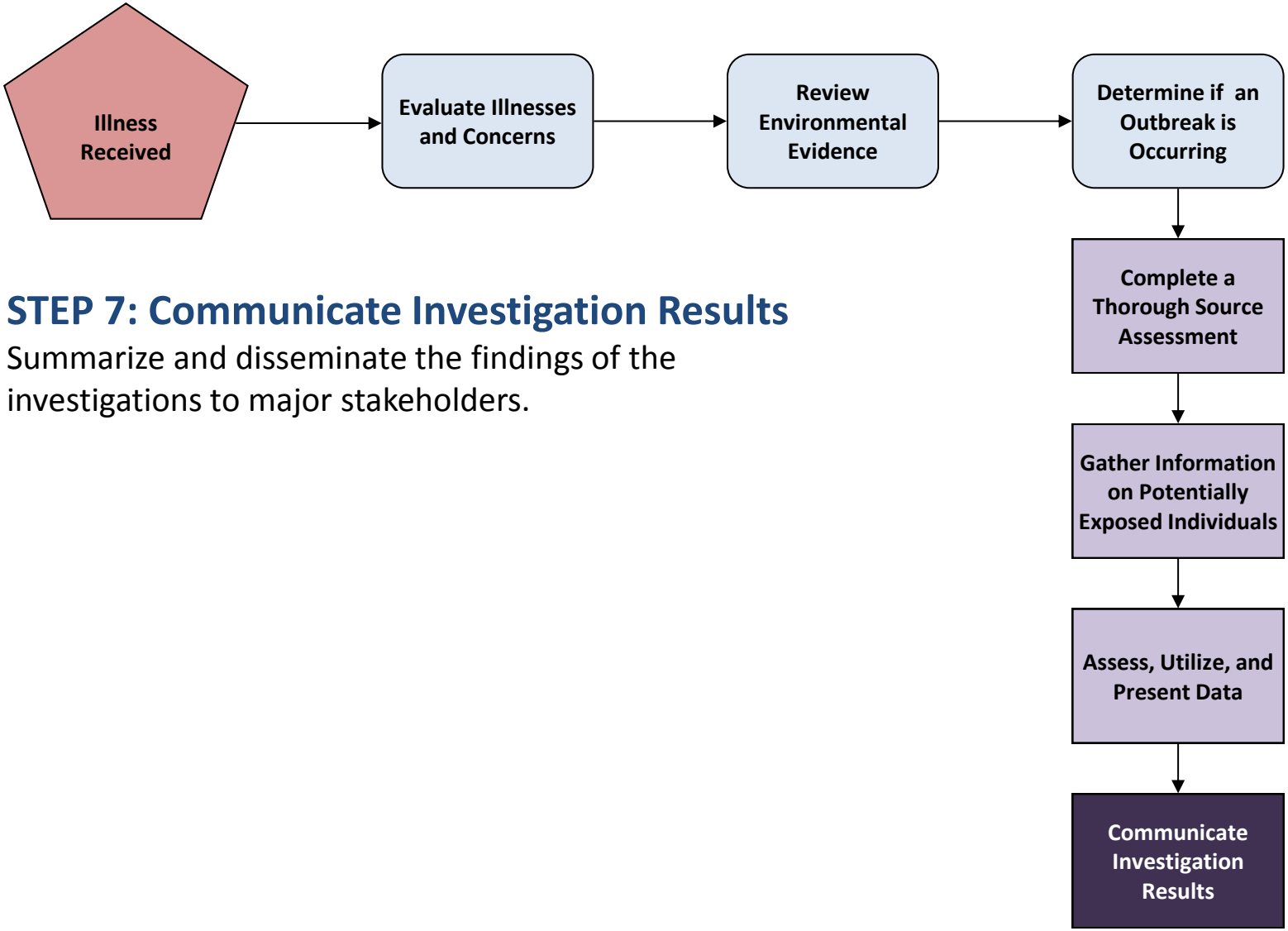


STEP 6: Assess, Utilize, and Present Data

Compile the results of the investigation to make sound, evidence based conclusions, and implement necessary control measures, precautions, and corrective actions to mitigate risk of further illness.

Process Overview

Foodborne Illness Investigations



STEP 7: Communicate Investigation Results

Summarize and disseminate the findings of the investigations to major stakeholders.

Salmonella paratyphi Investigation

Disclaimer

The following information reflects specific points in time during this investigation process. As other agencies continue this investigation, new or updated information may become available. Therefore, data presented is subject to change.

Salmonella paratyphi Investigation

Evaluate Illnesses

- **5 cases of *Salmonella*** reported to CCPH's Communicable Disease team by Clark County labs/providers.
- Within 1 week of report, **3/5 cases were interviewed**; no common or high risk exposures were identified.

Salmonella paratyphi Investigation

Review Environmental Evidence;
Determine if Outbreak is Occurring

- WA Public Health Lab: *Salmonella* DNA from all **5 cases** "match".
- Oregon Health Authority: **12 additional *Salmonella* cases** with "matching" DNA.
- 14 cases are able to be interviewed; 11 report eating seafood before falling ill, **specifically sushi**.
- **Environmental Health Specialists** (EHS) conduct inspections; gather information; collect samples.
- **Case Count: 17**

Salmonella paratyphi Investigation

Complete a Thorough Food Source Assessment

- **Samples organized, packaged, and shipped** to WA Public Health Lab for *Salmonella* testing.
- Epidemiologists assess data; determine **raw salmon and raw tuna** are primary food items of interest.
- Oregon Department of Agriculture (ODA) begins **investigation of Seafood Company X**.
- **Case Count: 22**

Salmonella paratyphi Investigation

Complete a Thorough Food Source Assessment;
Gather Information on Potentially Exposed Individuals

- 3 cases identified outside of Washington and Oregon* ~~(2 HI; 1 NJ)~~
- Tuna sample collected during investigation **tests positive for *Salmonella.***
- ODA recommends **restaurants hold tuna sourced from Seafood Company X**.
- **Case Count: 25**

**Initial reports indicated that cases in states other than Oregon and Washington may have been identified; however, these reports are preliminary and may not include information on final residency status. As a result, state-level data is subject to change.*

Salmonella paratyphi Investigation

Gather Information on Potentially Exposed Individuals; Assess, Utilize, and Present Data

- *Salmonella* from tuna **does not match** *Salmonella* from ill patrons.
- 4 additional cases identified* ~~in three new states (**TX, FL, CA**).~~
- **Centers for Disease Control and Prevention** (CDC), **U.S. Food and Drug Administration** (FDA) begin outbreak investigation.
- **Case Count: 30**

**Initial reports indicated that cases in states other than Oregon and Washington may have been identified; however, these reports are preliminary and may not include information on final residency status. As a result, state-level data is subject to change.*

Salmonella paratyphi Investigation

Current Status

- Investigation continues at national level including **advanced lab testing**, **sample collection**, and **trace back**.
- FDA issues recall on tuna loins from **Seafood Company X.**
- No local media inquiries or publications.
- **Case Count: 30**

Summary

- Identification of and response to foodborne illnesses is a foundational task for local health jurisdictions.
- Detecting and addressing outbreaks can be challenging, and requires a dedicated team with various specialists.
- Clear, timely communication and collaboration between partners is vital in responding to an interjurisdictional outbreak.

Contact Information

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