

Note to reviewers: The audience is familiar with food safety terminology and concepts. This is a 15–20-minute session which will be combined with other sessions on norovirus prevention.

Prevent norovirus outbreaks and sick food workers: Leveraging environmental health data into practice

Beth Wittry, MPH, REHS, CP-FS

National Center for Environmental Health

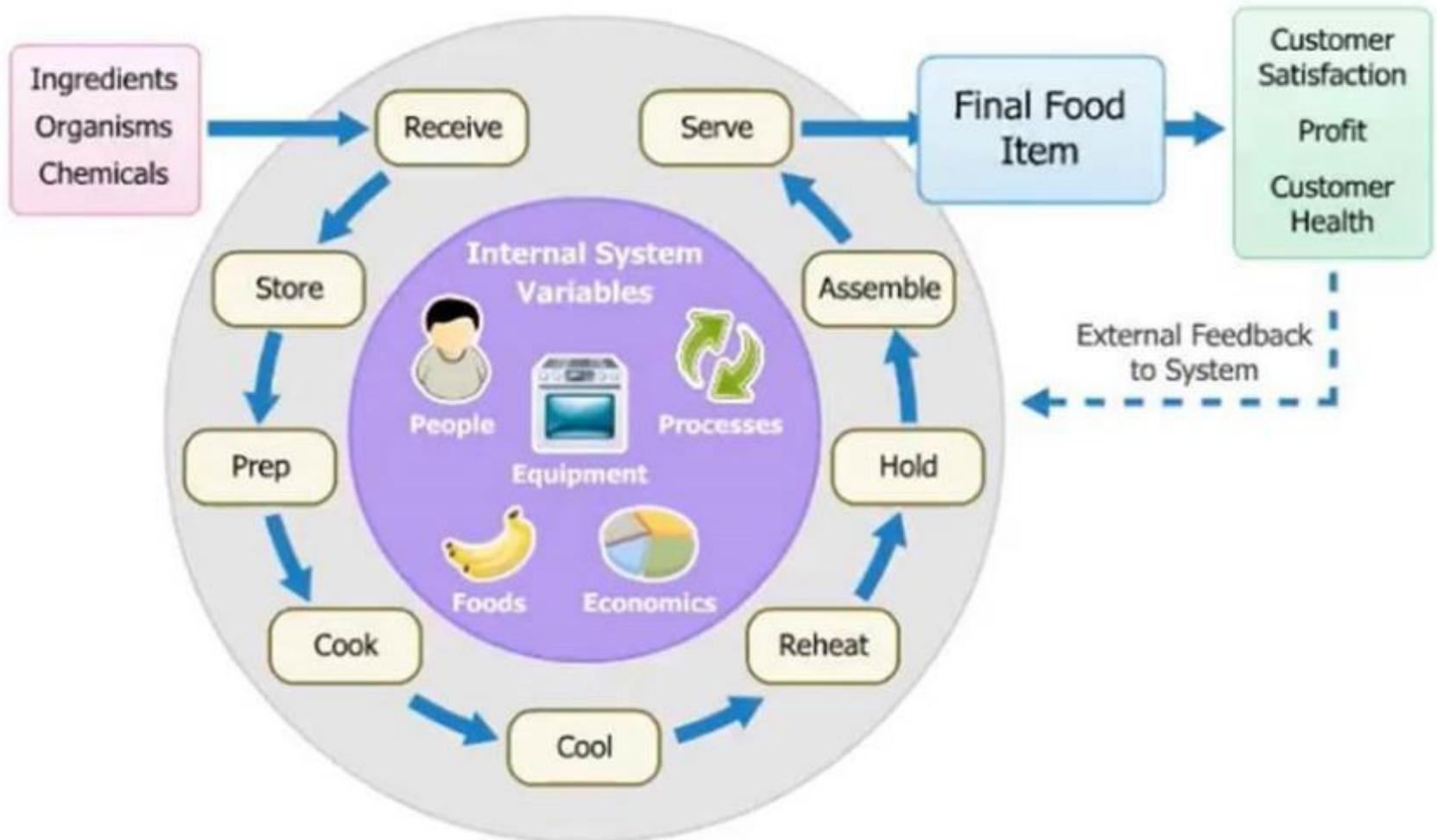
Division of Environmental Health Science & Practice

Water, Food, & Environmental Health Services Branch

AFDO Webinar

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An environmental assessment is a systematic process to inform prevention measures.



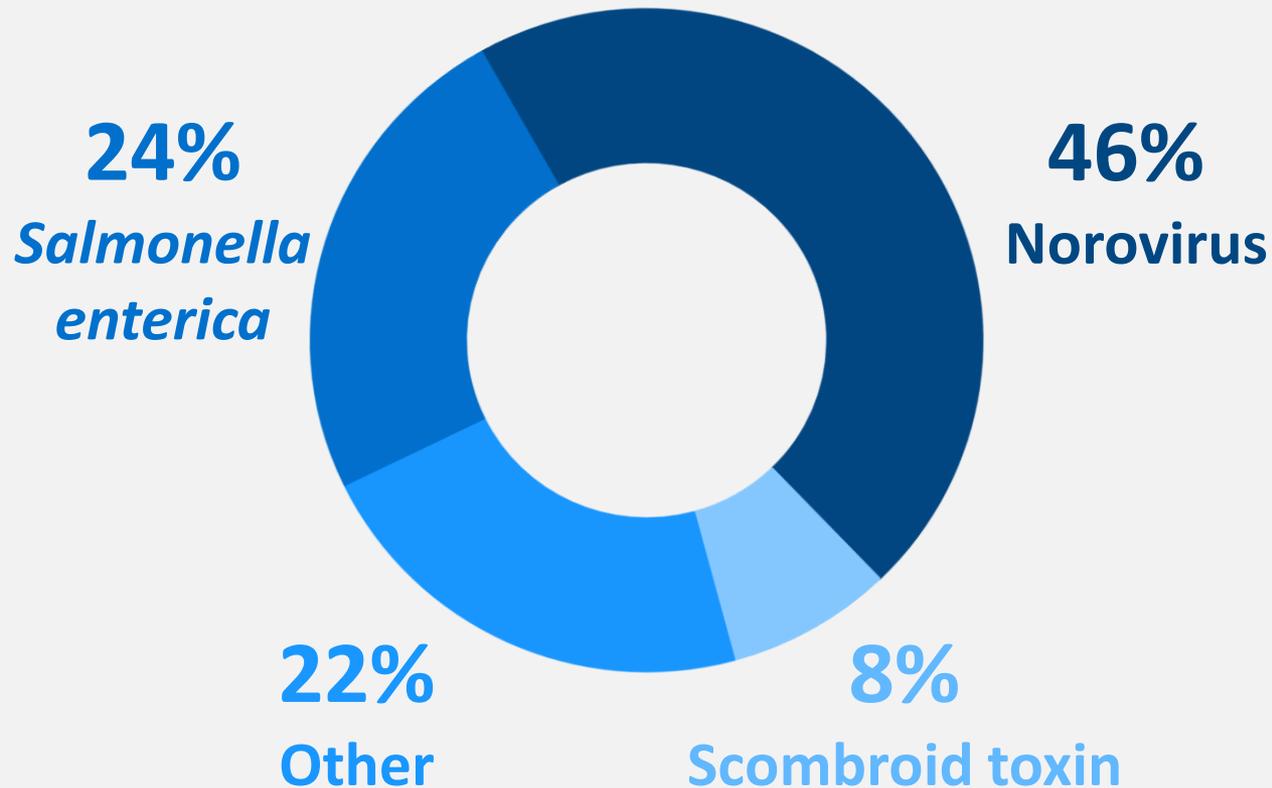


PREVENTION – UNDERSTANDING FOODBORNE OUTBREAK DATA

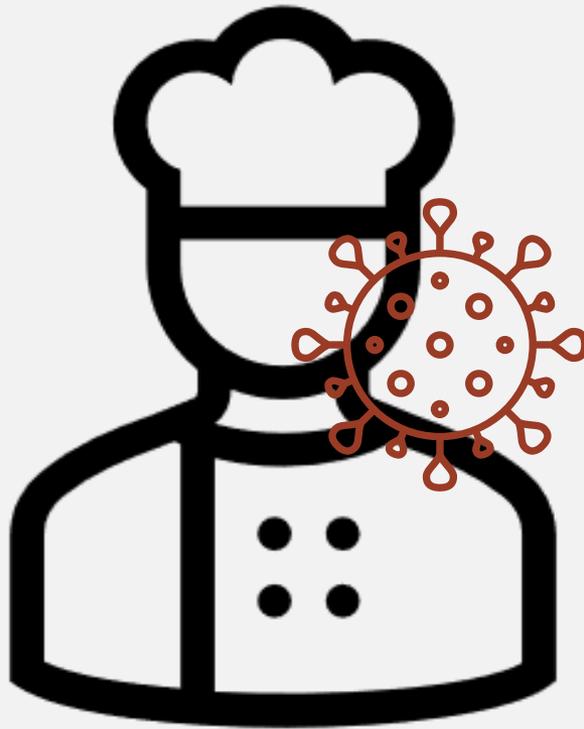
Restaurants are the most common single-setting outbreak location.



Norovirus is the most common restaurant outbreak pathogen.



Contamination by infectious workers is the top restaurant outbreak contributing factor.



Prevention of outbreak contributing factors is key.

Infectious workers contaminate food and environment.



Prevent infectious workers from working



Prevent bare hand contact with ready-to-eat food



Practice good hand hygiene

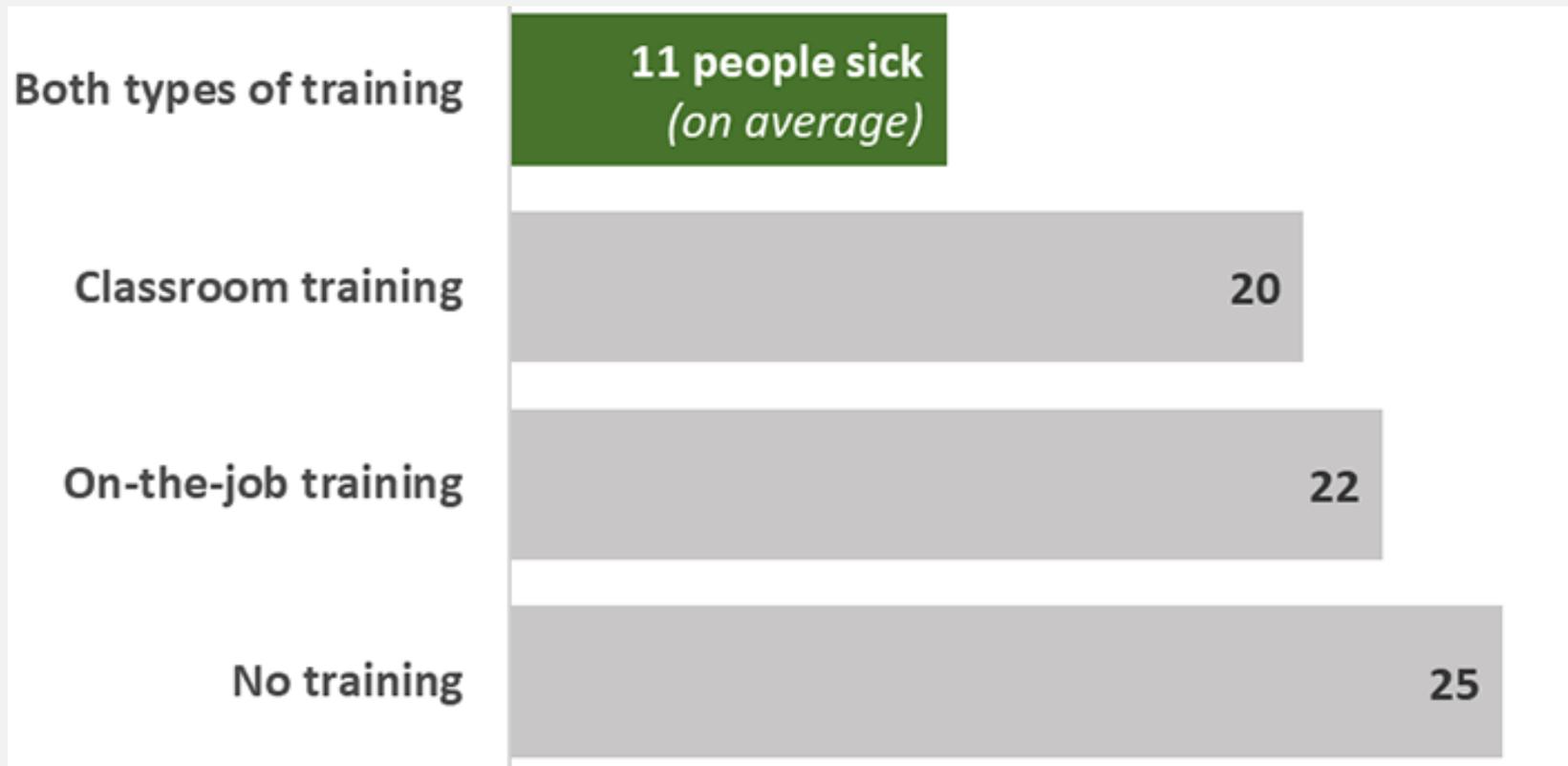


Clean and sanitize



PREVENTION – LEVERAGING EH DATA

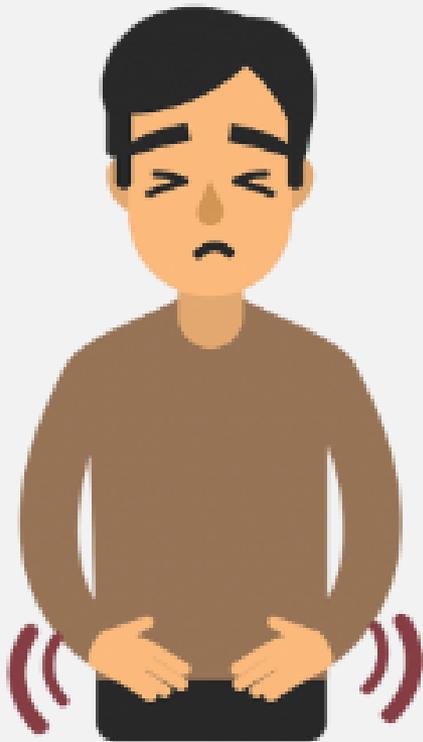
Norovirus outbreaks were smaller and shorter when restaurants had certain practices.



Workers work while sick for many reasons.



CDC findings have informed significant, national food safety policy and practices guidelines.

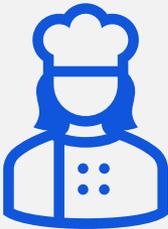


<https://www.cdc.gov/nceh/ehs/ehsnet/20-years.html>

Restaurants with food safety management systems had fewer unsafe food practices.



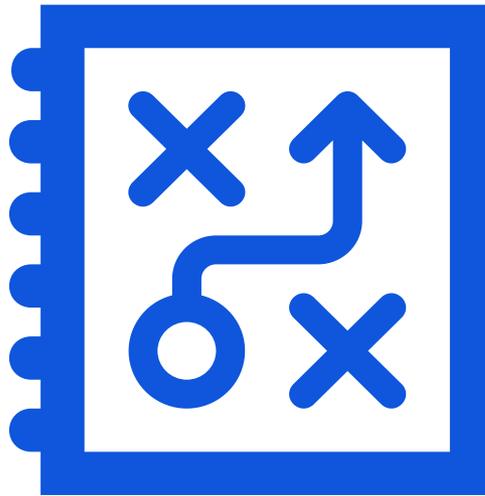
Procedures



Staff Training & Certification



Monitoring



PREVENTION – INCORPORATING ROOT CAUSE ANALYSIS (ENVIRONMENTAL ASSESSMENTS) INTO INSPECTIONS

Environmental assessment data are used to stop current outbreaks and prevent future ones.

What happened?

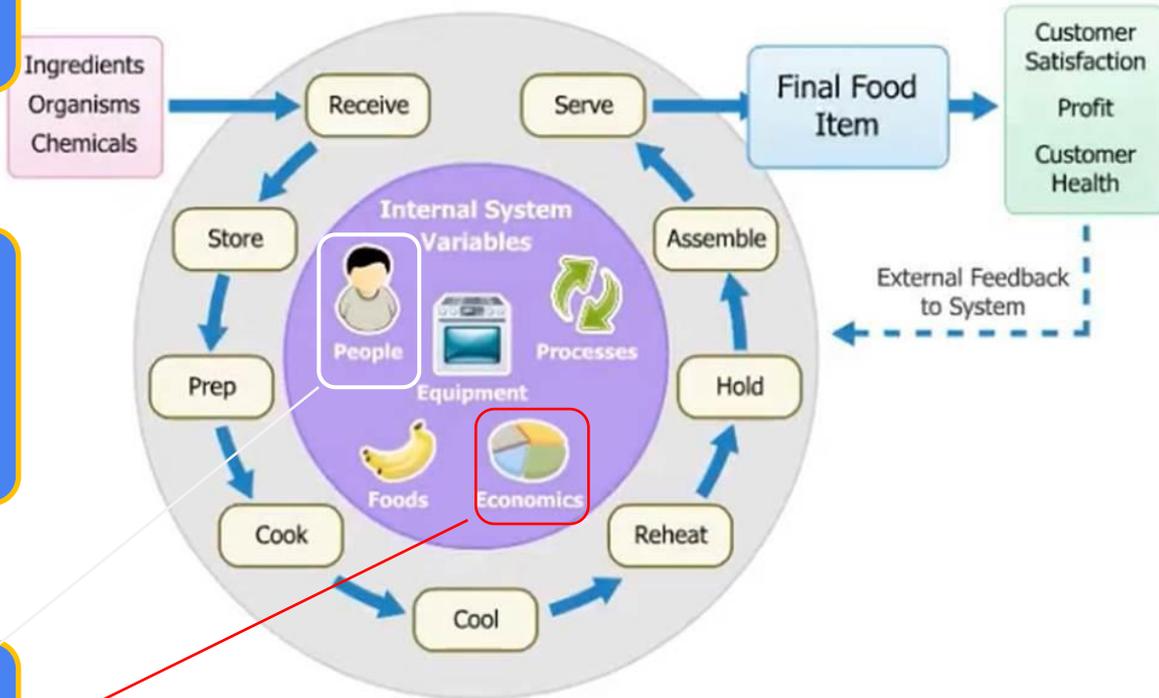
Norovirus contamination at preparation step

How it happened?

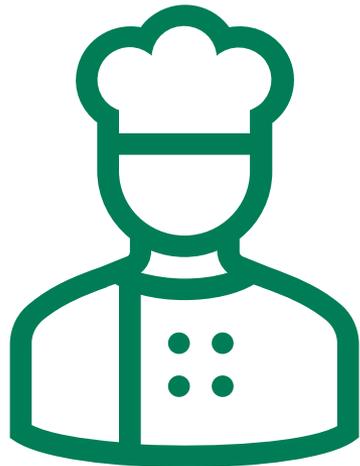
Bare hand contact by sick food worker

Why it happened?

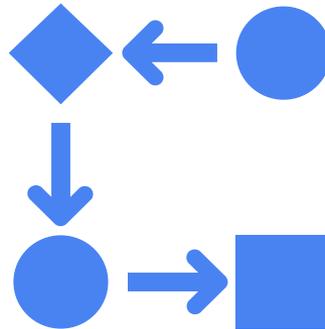
Lack of training and oversight
No sick leave



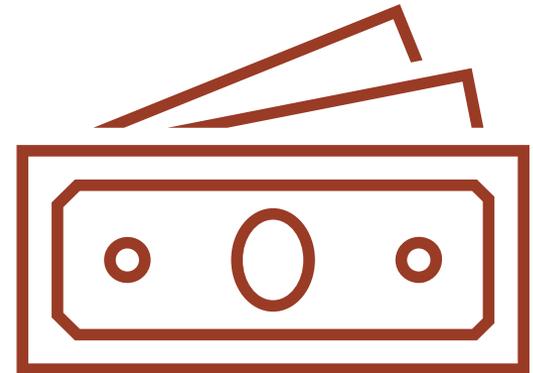
Environmental antecedents are the outbreak root causes.



People
(n=311)



Process
(n=37)



Economics
(n=35)



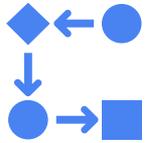
People antecedents are the top norovirus outbreak root causes.

People Antecedents

- Lack of oversight of employees/enforcement of policies
- Lack of training on specific processes
- Lack of a food safety culture/attitude towards food safety

Long-term Solutions

- Operationalize, verify, and validate *Employee Health Policy*.
- Train food workers using plain language or in their language on the public health reasoning.
- Empower managers to create a safe, healthy environment.



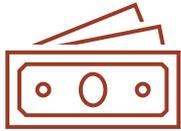
Process antecedents are common norovirus outbreak root causes.

Process Antecedents

- Employees or managers not following the facility's process

Long-term Solutions

- Implement health screens prior to work shifts.
- Incorporate reminders into operation about not working while sick.



Economic antecedents are common norovirus outbreak root causes.

Economics Antecedents

- Lack of sick leave or other financial incentives to adhere to good practices

Long-term Solutions

- Offer make-up shifts for sick time.
- Provide on-call list.
- Provide sick leave (paid or unpaid).

What can industry and food officials do?



Support and strengthen strong food safety management systems in restaurants

- Procedures, Training and certification, & Monitoring and verification



Focus on

- Preventing sick workers from working



Assess root causes to implement long-term solutions

- People, Process, & Economics



For more information, contact NCEH
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The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

