



Outbreak Questionnaires and Interviewing Tips

Rosalie Trevejo, DVM, MPVM, PhD
Oregon Health Authority
Acute & Communicable Disease Prevention Program

Informal poll: Are you currently involved in interviewing cases for routine case investigation(s) or outbreak(s)?

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Why do we investigate outbreaks?

- Determine cause of disease
- Identify source of infection
- Determine mode of transmission
- Understand who is at risk
- Control/prevention of additional illnesses

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Objectives

1. Become familiar with **interviewing** tips
2. List **information** needed from outbreak questionnaires
3. Describe **process** for developing questionnaires
4. Describe methods for **administering** questionnaires
5. Discuss potential **concerns** of respondents
6. Consider **challenges** of outbreak investigation

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1. Interviewing Tips

30-minute Interviewing Cardinal Rules

https://www.youtube.com/watch?v=HNZm7z_JELw&feature=emb_logo

9-minute Quick Review- Do's and don'ts of outbreak interviewing

<https://www.youtube.com/watch?app=desktop&v=O6gKLQpEkfY>

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2. Purpose of Questionnaires

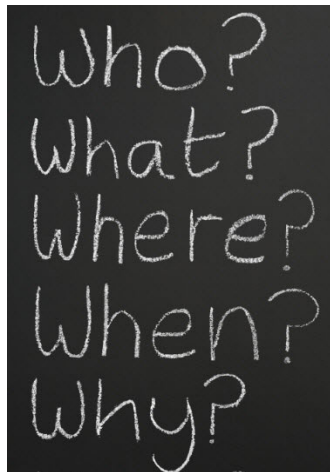
For outbreak investigations

Gather information for generating and testing **hypotheses** about cause of outbreak

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Characterize the outbreak



Who?
What?
Where?
When?
Why?

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3. Developing the questionnaire

Develop hypothesis:

- Interview a few ill people
- Use open-ended questions
- Look for common themes among responses

Test hypothesis using focused questionnaire:

- Collect facts that lead to acceptance or rejection

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Testing Your Hypotheses

Use closed-ended questions that need no interpreting

- Require yes or no answer
- Specific, without embroidered details

Examples:

- *"Did you eat the potato salad?"*
- *"Did you ride the MAX train on Thursday last week? On Friday last week?"*



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Writing the questionnaire

Customizable template questionnaires are available at OHA ACDP website

→ Foodborne outbreak investigation tools

<https://www.oregon.gov/oha/PH/DISEASES/CONDITIONS/COMMUNICABLEDISEASE/OUTBREAKS/GASTROENTERITIS/Pages/Outbreak-Investigation-Tools.aspx>

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☐ case ☐ control ☐ exclude Name / i.d. _____	Who was interviewed?																																												
██████████ WEDDING RECEPTION (2002-65)																																													
☐ check if proxy respondent _____	What was the exposure of concern (where, when)?																																												
Phone _____ Age _____ Sex ☐ M ☐ F																																													
E-mail _____ Interviewed by _____ on _____	Looking for the "why": possible risk factors																																												
Did you attend the Wedding reception? ☐ yes ☐ no <i>if no, STOP; if yes, CONTINUE</i>																																													
FOOD EXPOSURES																																													
Did you attend the rehearsal dinner? ☐ yes ☐ no																																													
Let me walk you through the food items served at the wedding reception.																																													
About what time did you eat? _____																																													
<i>For each item, give me a "yes" or "no" answer if you remember eating or even tasting it.</i>																																													
<table border="1"><thead><tr><th>Reception Food</th><th>Y</th><th>N</th><th>?</th></tr></thead><tbody><tr><td>Veg Lasagna A</td><td>☐</td><td>☐</td><td>☐</td></tr><tr><td>Garlic Chick Lasagna B</td><td>☐</td><td>☐</td><td>☐</td></tr><tr><td>Greek Salad C</td><td>☐</td><td>☐</td><td>☐</td></tr><tr><td>Italian dressing D</td><td>☐</td><td>☐</td><td>☐</td></tr><tr><td>Bread Sticks E</td><td>☐</td><td>☐</td><td>☐</td></tr><tr><td>Cake F</td><td>☐</td><td>☐</td><td>☐</td></tr><tr><td>Punch G</td><td>☐</td><td>☐</td><td>☐</td></tr><tr><td>Water H</td><td>☐</td><td>☐</td><td>☐</td></tr><tr><td>_____ I</td><td>☐</td><td>☐</td><td>☐</td></tr><tr><td>_____ J</td><td>☐</td><td>☐</td><td>☐</td></tr></tbody></table>	Reception Food	Y	N	?	Veg Lasagna A	☐	☐	☐	Garlic Chick Lasagna B	☐	☐	☐	Greek Salad C	☐	☐	☐	Italian dressing D	☐	☐	☐	Bread Sticks E	☐	☐	☐	Cake F	☐	☐	☐	Punch G	☐	☐	☐	Water H	☐	☐	☐	_____ I	☐	☐	☐	_____ J	☐	☐	☐	
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How many drinks with ice? _____																																													
Have you been sick at all since the reception? ☐ yes ☐ no <i>if no, STOP; if yes, CONTINUE</i>																																													

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What symptoms and clinical information?

☐ case ☐ control ☐ exclude

Name / i.d. _____

SIGNS AND SYMPTOMS

Let me read you a list of symptoms. For each one, give me a "yes" or "no." Did you have any...

	Y	N	?			Y	N	?	
H	☐	☐	☐	headache	L	☐	☐	☐	chills
N	☐	☐	☐	nausea	D	☐	☐	☐	any diarrhea or loose stools
V	☐	☐	☐	vomiting	3	☐	☐	☐	if yes to diarrhea, did you have 3 or more loose stools in any 24-hour period?
M	☐	☐	☐	myalgia (muscle aches)	B	☐	☐	☐	any blood in stools
C	☐	☐	☐	abdominal (stomach, belly) cramps	O	☐	☐	☐	other _____
T	☐	☐	☐	unusual fatigue (feeling tired)					
F	☐	☐	☐	fever (if yes, ☐ subjective or _____ ° (max.)					

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Time factors:

- When did symptoms begin?
- How long did they last?

ONSET AND DURATION

Get precise answers for onset time. If you don't get a date and time, they won't fit on an epi curve. [Their] estimates are OK. Prompt as needed. "What is your best guess of the time?" Don't let them get away with vague stuff like "morning" or "after midnight." Be careful with times such as "midnight" or early morning hours—which day do they mean? Midnight exactly is the _____ of the day.

On what date did you first feel sick?

☐ Sat, Oct 5 ☐ Sun, Oct 6 ☐ Mon, Oct 7 ☐ Tues, Oct 8 ☐ _____

[If applicable] On what day did you first have any vomiting or diarrhea?

☐ Sat, Oct 5 ☐ Sun, Oct 6 ☐ Mon, Oct 7 ☐ Tue, Oct 8 ☐ _____

[If applicable] At what time did the vomiting or diarrhea begin? [ENTER A SPECIFIC HOUR!!!]

☐ _____ am ☐ noon ☐ _____ pm ☐ midnight (end of day)

Are you still feeling sick now? ☐ yes ☐ no

If no, how long did you feel sick? _____ hours ☐ days

Is anyone in your household ill that did not attend the reception? ☐ yes ☐ no

If so, when did they become ill? _____ day, _____ time



Helpful to refer to calendar

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How severe was illness?

MISCELLANY

Did you/Are you... (check all that apply; provide details [names, dates, phone numbers, etc.] at right.)

	Y	N	?		
W	☐	☐	☐	miss work or school?	if yes, how many days? _____
P	☐	☐	☐	see a physician/HCP?	if yes, whom?
E	☐	☐	☐	visit an ER?	if yes, specify
S	☐	☐	☐	give a stool specimen?	if yes, when/to whom
G	☐	☐	☐	already culture-positive?	if yes, specify
F	☐	☐	☐	[if not] willing to provide specimen?	
H	☐	☐	☐	get admitted to hospital overnight?	if yes, how many nights? _____

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4. Methods for administering questionnaires

Telephone = *most common and efficient* method

- Quick
- Inexpensive
- Sensitive (does problem truly exist?)
- Disadvantages:
 - Need cooperation from those called
 - Possible bias: do those who answer phone differ from those who don't?



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Administering questionnaires

In-person interview

- More accurate to obtain complex information
 - When observations important
 - May enhance data quality
- Disadvantages
 - More expensive than phone
 - Time-consuming
 - Staff intensive



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Administering questionnaires

Web based (e.g., Survey Monkey, Inquisite, Google Forms)

Advantages:

- Quickly develop and launch questionnaire
- Can reach many people quickly
- Low cost and staff time

Disadvantages:

- Can't ask clarifying questions
- Responses may be less complete
- Ensure security of confidential health information

A screenshot of a web-based survey form titled "Online: Reflections and Comments". The form has a light green background. It includes fields for "1. Name:" and "2. Date:". Below these is a question: "3. How do I rate my understanding of this topic?" with radio button options: "a) excellent", "b) very good", "c) good", and "d) need support". There is a "Comments:" text area below the options. Further down, there is a note: "If you selected 'good' or 'need support' then please complete the following questions before returning to the blog." This is followed by two more questions: "4. What did you find hard? What did you not understand?" and "5. What help do you need to achieve this learning intention?", each with a corresponding text input field. A "Next" button is at the bottom right.

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Administering questionnaires

Direct (phone or in-person)

Self-administered (mail or web-based)

Proxy

- Parent (for child <18 years old), family member, caregiver
- May get **inaccurate** information



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5. Concerns among respondents

- Feel blamed or judged because of the outbreak or disease
- Feel threatened by you
- Mental status issues
- Undocumented status
- Outbreak in setting of illegal activities
- Businesses **fear** bad publicity, loss of clients/customers
- Missed work and loss of income for self or sick child
- Obtaining health care if no health insurance or access to care



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Concerns among Respondents



Some individuals selected for interview during outbreak investigation may challenge or question your legal authority in contacting them for interview

I'M FROM THE
GOVERNMENT,
I'M HERE
TO HELP



OAR 333-019-0000
Responsibility of Public Health
Authorities to Investigate Reportable
Diseases

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6. Challenges in outbreak investigations

- Time constraints
- Reliance on a **facility** or others
- **LPHA staffing**: availability, competing priorities
- **Uncertain** how much to do, for how long, other priorities

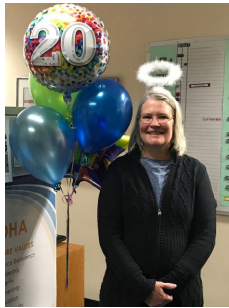
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You don't have to do this alone!

On-call ACDP epidemiologists or the Urgent Epidemiology Response Team (UERT) are available 24/7 to consult and assist with outbreaks.

ACDP: 971-673-1111



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Questions?

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