

Open-Ended Case Interviewing Guidelines

Public Health Agency of Canada



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Overview of Open-Ended Case Interviewing

This document is intended to be used as a guideline for those that are new to open-ended case interviewing in foodborne investigations and includes examples, templates, and additional resources. Please note that different strategies work for different people and this guideline only suggests various tools and methods that the interviewer may use. Many of the items mentioned in this document overlap with or supplement standard case interviewing skills.

What is open-ended interviewing?

Open-ended interviewing is an unstructured form of case interviewing that follows a conversational style. Rather than standard case interviewing with a questionnaire that primarily uses close-ended questions (e.g. In the 7 days prior to your illness, did you eat any mangoes?), open-ended interviewing uses prompts that cannot be answered by a simple yes or no (e.g. what kinds of fruit do you typically eat throughout the week?). This method is particularly useful for identifying exposures that are not on questionnaires and for capturing more general case behaviors and preferences.

When to use an open-ended interviewing approach

Open-ended interviewing can be used at any point during an investigation. This style of interviewing may be particularly useful when:

- A case has poor recall and/or the time between symptom onset and interview date is greater than 4-6 weeks.
- Standard case interviewing (i.e., routine follow-up, hypothesis generating questionnaires) has not resulted in a suspect source(s).

There are advantages and disadvantages to consider before deciding to use an open-ended interviewing approach. Some of these considerations are highlighted in Table 1.

Table 1. Advantages and disadvantages of open-ended interviewing

Open-Ended Interviewing	
Advantages	Disadvantage
<ul style="list-style-type: none"> • Can gather a sense of case's behaviours and preferences, which can be used to generate a profile of cases in an outbreak investigation • May identify exposures that are not asked about on standard questionnaires • Easier for cases to provide answers if poor recall is an issue 	<ul style="list-style-type: none"> • More challenging to enter and analyze than standard questionnaires, as much of the data is based on preferences. • Can be difficult to compare information between cases if they did not report the same exposures during the interview • Can be difficult for cases to describe aspects of their lifestyle without proper prompts

<ul style="list-style-type: none"> • Encourages responses with more specificity than in an interview using a standard questionnaire • Helps to build rapport between case and interviewer and is in a format that is more engaging for the case • Allows the interviewer to allocate more time for specific exposures of interest 	<ul style="list-style-type: none"> • Can be a challenge for interviewers who are not as familiar or comfortable with a less structured style
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Part I. Preparing to use an open-ended approach

Preparing to use an open-ended approach requires a similar process to that for any case interview. The key steps to focus on for an open-ended approach are:

1. Ensure you are familiar with the case by reviewing the exposure information already collected (ie. initial questionnaires, data extracts).
2. Make a list of any missing information and/or items that require clarification to follow-up on during the interview.
3. Review exposure information reported by other outbreak cases and have a discussion with the investigative team to come up with a list of specific exposures of interest to prompt about.
4. Gather necessary materials and draft an outline or a list of prompts to guide the interview. Examples of open-ended prompts are provided in Appendix A.
5. As with other case interviewing strategies, an interview calendar can also be helpful to note events, gatherings, and extra probing material to help with case recall.

Part II. Interviewing with an open-ended approach

Interviewing with an open-ended approach begins and ends the same way as any traditional case interview (introduction, administer interview, conclusion). The challenges and strategies encountered during open-ended interviews also overlaps with those seen in traditional case interviewing (i.e., poor recall, lack of specificity, etc.).

Items to consider prior to the interview:

- The interview may vary in content and length as there is no standardized questionnaire to follow
- You may develop new questions depending on the respondent's answers and the amount of information they share.
- The conversations should be kept as natural as possible, allowing the respondent's answers to steer towards new questions or topics that may be of importance.
 - If the respondent starts to get off track, the interviewer may use the list of clarification questions and prompts to re-focus the respondent.

- The typical foods template seen in Appendix B is a great resource to help you get started and collect a comprehensive food history.

Getting Started – The First Interview

Introduction:

- Inform the case of who you are, where you are calling from and why you are calling. Templates and [example scripts](#) for general case interviews may be used here.
- Ensure you inform the case that if they are tired or run out of time, the interview can be completed at a later date.

Set the Timeline:

- Identify the exposure period of interest (ie. 7 days prior to illness onset date).
- Ask the case if they have a calendar, planner, agenda, receipts, menu plans, food journals, bank/credit card statements, smartphone apps or other helpful items that they can refer to during the interview.
- If available, remind the case of known notable events that took place during their exposure period (ie. holidays, gatherings, trips, events, memorable meals).
- Ask the case if there are additional notable events that took place during their exposure period and note these on a calendar template while you complete the interview.

Collecting Food/Exposure History:

- Using the open-ended prompts list, begin to ask your questions to elicit free-form responses and open conversation.
 - Questions should be worded clearly using simple and informal language.
 - Ask the questions one at a time.
 - Attempt to create a natural flow of dialogue.
- Apply typical prompts and probing techniques to help improve recall and specificity.
- For each food exposure, aim to clarify if it is known if the item was consumed in the exposure period of interest.
 - If recall is poor, focus on food preferences, routines and the frequency the case purchases/consumes the item.
 - Ensure to differentiate whether the food exposure is Y/P/N/DK or “Routine/preference” when making notes.
- For each food exposure listed ask the case:
 - For the source of the food; purchase location, how was it purchased (online or in-store), frequency of purchase, date or timeframe of purchase (if known), if it is purchased using a loyalty card
 - Packaging and brand details
 - How was it prepared/consumed

- Walk the case through their typical weekday and weekend, considering also hobbies, activities, household interactions, and occupation.
 - Ask about potential food exposures in any additional settings outside of the home.
- Ensure to ask clarification questions along the way for any missed details.
- Remember that the foods the case **never** eats are just as important as the ones they do eat.

Conclusion:

- Use a conclusion script from general case interviews.
- Ask the case if it is okay to re-contact them again in the future and document their response.
- Provide the case with your contact details in the event that they think of additional information.

Subsequent Interviews

Open-ended interviewing can be used to carry forward exposures of interest and is an iterative process. After the first open-ended interview is complete, the interviewer will review their notes. The items and exposures the first interviewed case has identified are added to the list of questions for the next case. These prompts should be administered towards the end of the subsequent interview if they do not come up naturally.

Once two open-ended interviews have been completed, a list of common exposures between the two cases is created and reviewed by the investigative team. Ideally, this list should contain as much specificity and detail as possible. The common exposures list should be updated after every additional interview to help the interviewer stay organized and easily identify commonalities between cases. Cases who were interviewed earlier in the investigation may be re-contacted to be asked about new exposures items of interest.

Part III. Documentation

Documentation

Documentation for open-ended interviewing is different from standard questionnaire interviews because the data is exclusively free-form open text. It may be helpful to record the responses on blank pieces of paper during the interview and then type the notes into a more categorically organized final version that can be shared with the investigative team.

Ideally, the interviewer will review and transcribe their notes as soon as possible after the interview is complete to ensure all details are captured. The key strategy when documenting open-ended interview notes is to document **everything**, even if it might appear insignificant to the interviewer. All of the information stated during the interview has the potential to provide clues and help guide the investigation. It is essential that the documentation of the interview is as complete and detailed as possible.

Documentation Best Practices:

- Organize notes categorically, using headers (i.e.. case demographics, animal exposures, food exposures, travel, etc.).
- Clearly distinguish whether the case was reporting a routine/habit versus a firm yes/no response to exposures (i.e.. The case reported that they eat mangos routinely/the case reported yes to eating mangos).
- Record any exposures the case reported “no” to, as this can help to eliminate exposures during the hypothesis generation process.

For an example of how open-ended interview notes are documented, please see Appendix C.

Appendix A: Example of Open-Ended Interviewing Questions

Household information:

- Who lives with you in your household, anyone else ill?
- Are meals shared with others in the home? Others in the community?
 - Are there foods that you eat that others in the home do not eat?
 - Do you have weekly-shared meals with people outside of your household? (i.e. family dinner on the weekend)
- Are there others in the home that have dietary restrictions that may impact the types of foods in the home?
- Who does the grocery shopping for your household?
- Where do you or others shop for your groceries?
 - Are there places you shop at more frequently than others?
 - Do you go to different stores for specific items (ie. produce, meats)
 - How do you shop for groceries (i.e. in-store, online ordering, curbside pick up)?
 - What day do you typically go grocery shopping and at which stores?
 - Are loyalty cards used when purchasing groceries?
 - Do you use any meal delivery services?
- Who does the cooking/baking in your household?
 - How do you/they plan your meals?
- Where are you located? (general terms, i.e. city, rural)
 - Are there any possible exposures related to geographical location (i.e. manure on farm)
- Did you or a member of your household travel? Did you have visitors?

Case's Food Preferences:

- Do you have any allergies, food intolerances or dietary restrictions?
- Are there foods you will never eat? Are there foods you always eat?
- Are you following a specific diet (ie. Kosher, halal, keto, vegan, etc.)?
- Do you like eating out or prefer home-cooked meals?
 - When eating out, are there specific places you like to go? Specific menu items you always order?
- What type of cuisine do you cook/eat? (i.e. Italian, Chinese, Indian)

Memorable meals:

Ask the case if they recall any specific events/social gatherings/holidays/trips that occurred between [specific exposure period]. Did they consume any food/meals? If so:

- Where was the food prepared? Eaten?
- Where was the food purchased?
- Was the food shared with others? Did these individuals report feeling sick afterwards?

Routine Meals:

Ask about the meals below to get an idea of what the case typically consumed between [specific exposure period]. For each item, ask: Where was this purchased? What is the brand name? Do you buy/eat the same brand? Do you purchase this frequently? Do you still have this in your freezer?

- What does the case typically eat for breakfast?
 - On weekdays
 - On weekends
- What does the case typically eat for lunch?
 - On weekdays
 - On weekends
- What does the case typically eat for snacks during the day?
 - On weekdays
 - On weekends
- What does the case typically eat for dinner?
 - On weekdays
 - On weekends
- What does the case typically drink?
 - On weekdays
 - On weekends
- What does the case typically eat for dessert?
 - On weekdays
 - On weekends

Animal Exposures:

- Do you have any household pets?
- Have you had contact with a family pet in the past ___ days? (i.e. neighbours dog, parents pet)
- Have you had contact with any pet treats/food in the past ___ days?
- Have you had contact with any animals' supplies/equipment (including dishes, bowls, cages, etc.)?
- Have you been in contact with any animals (petting zoos, farms, backyard chickens etc.)?

Typical routine/hobbies/occupation:

- What do you do for work?
 - How many hours/shifts do you work?
 - What do you do for lunch/meals while you are at work?
- What kind of activities do you do after work or school?
 - Do you consume any foods at these activities?
- What do you do on your weekends?
- What are your favourite hobbies?
- Do you have a food journal or track your shopping or eating habits?
 - (i.e. fitness apps for calorie intake, money tracking apps for budgeting)

Foods of Interest and Additional Questions to incorporate:

- Ask about the exposures reported by other cases to find any common links:
 - Did the case have exposure to [food of interest]?
 - Where was it purchased from?
 - What brand did the case buy? Describe the package size, colour, anything to help identify the brand.
 - How frequently are they eaten?

Appendix B: Templates to use During the Interview

Meal Preferences Template

Weekday Preferences:

Breakfast	Lunch	Dinner	Snacks	Beverages	Desserts/Other

Weekend Preferences:

Breakfast	Lunch	Dinner	Snacks	Beverages	Desserts/Other

7 Day Exposure and Routine Calendar

	(day of the week)	(day of the week)	(day of the week)	(day of the week)	(day of the week)	(day of the week)	(day of the week)	Onset Day
Morning								
Afternoon								
Night								

Appendix C: Example of Open Ended Interview Notes

Disclaimer: *All of the interview data shown below is fictional.*

Case Interview Notes for [event ID]: Province/Territory X-1 [case ID]

Interview Status:

- Interview Date - October 15, 2024
- Interviewer: Jackie Smith
- Respondent: Case

Case Demographics and Details around Illness:

- 58 year old, male
- Onset Date: September 2, 2025
- Hospitalized: No

Household:

- Case lives with their spouse and two daughters
 - All eat the same meals; nobody else ill
- Case does all of the cooking in the household
 - Case stated they cook often and eat out/order very rarely, maybe once a month

Shopping Locations:

- Grocery Store 1: *[store address]*
 - Case has a loyalty card and has verbally consented to sharing information. Email was provided to the interviewer to follow-up with consent form.
 - Case only buys groceries in-store, no receipts available
- Grocery Store 2: *[store address]*
 - Loyalty card information is not available
 - Case does in-store shopping and does not have receipts
- Case does not shop elsewhere, no food from meal delivery services, online, or other stores/farmer's markets
- Food had not been received from visitors or friends in the exposure window

Food Preferences:

- Case does not have any food allergies, intolerances or dietary restrictions
- Case never eats seafood and stated that they do not like it
 - Nobody in the household eats seafood
- Case loves cooking, prefers home-cooked meals to take-out/eating out

Memorable Meals:

- Case recalls that on September 1 they ate a spaghetti dinner (entire household ate the dish)
 - Ground beef cooked in a frying pan, purchased from Grocery Store 1
 - Spices included Brand X brand Italian Seasoning and Garlic Plus from Grocery Store 1
 - Noodles are Brand X brand Spaghetti noodles from Grocery Store 1
 - Baby spinach purchased in a plastic container from Grocery Store 1, brand unknown, consumed cooked
 - Red and Green Bell peppers purchased loose from Grocery Store 1, consumed cooked
 - Brand X garlic tomato sauce from Grocery Store 1

Routine Meals:

- Routinely, the case consumes breakfast, lunch, dinner and occasionally after dinner snacks for both weekdays and weekends.
- Breakfast:
 - Weekdays: Brand X vanilla yogurt from Grocery Store 1 and Red Delicious Apple from Grocery Store 1; case noted that they do not add anything to their yogurt
 - Weekends: Brand X bread (toasted) - Grocery Store 1, Brand X peanut butter - Grocery Store 1, and Brand X 1% Milk, bag of 3 pouches – Grocery Store 1
- Lunch:
 - Weekdays -usually brings a sandwich to work
 - Bun comes in bag from Grocery Store 1 bakery, contains sunflower and flax.
 - Pre-packaged ham or turkey deli meat from Grocery Store 2, does not recall brand
 - Cheese could be Brand X block cheese or Brand X slices (cannot remember) from Grocery Store 2
 - Usually adds iceberg lettuce from Grocery Store 1, but not other vegetables
 - Weekends
 - Leftovers from dinner
- Dinner: usually has pasta, tacos, or chicken (weekdays or weekends)
 - Tacos: ground beef from Grocery Store 1, iceberg lettuce from Grocery Store 1, cherry tomatoes, onions, hot sauce, Brand X taco seasoning and hard shell tacos all from Grocery Store 1
 - Chicken: fresh chicken breast club pack from Grocery Store 1, Brand X bottled BBQ sauce and roasted vegetables (broccoli florets in bag from Grocery Store 1, Yukon potato gems from Grocery Store 1, onion from Grocery Store 1)
- Snacks: may have had BBQ peanuts from Grocery Store 2; assorted chocolate/blueberry muffins from Grocery Store 1; Brand X granola bars or Brand X bars; Brand X potato chips
- Drinks: Case only drinks water or milk
- Desserts: Case does not bake, does not recall consuming any desserts in a long time

Animal Exposures:

- Case has a pet dog – 6 years old, has not exhibited any symptoms
- Case's spouse primarily feeds the dog – uses Brand X dry kibble, Chicken flavor from Grocery Store 1 (buys biggest bag available)
- Dog treats are Brand X original from Grocery Store 3 [store address]
- No other contact with animals or other people's pets

Typical Routines/Hobbies/Occupation:

- Case is an accountant, works in an office
 - Packs their own lunch, does not recall any food consumed in the office in their exposure period
- Case likes to stay active, goes for a morning jog before breakfast during the weekdays
- On weekends, the case typically does grocery shopping (usually on Saturday morning) – no grocery lists or menu plans available

Food Exposures of Interest:

- Case reported "No" to eating any pork
- Case reported "No" to eating any fresh strawberries, raspberries or blackberries
- Case reported "P" to eating fresh watermelon (purchased pre-cut from Grocery Store 1)

Can the case be re-contacted for follow-up interviews (if needed)?

- Yes, the case has agreed to being re-contacted
- Case is available during the week, after 5pm