

# National Outbreak Reporting System — Food Section Training Guide

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## Introduction

This training guide provides a brief overview of how to complete the General, Contributing Factors, School, Ground Beef, and Egg tabs of a NORS foodborne disease outbreak report. These tabs are located under the Food section in the NORS interface.

You should have already completed the training for the General Section and Etiology section of NORS. For instructions on reporting non-foodborne outbreaks, refer to other training materials. **If you need clarification about what a specific question means or what data to enter, just click the “?” button next to the question for summarized guidance.** For more details on NORS reporting, refer to the [NORS Guidance Document](#).

**Information entered into each tab is automatically saved, UNLESS you log out or click on the NORS Menu links at the top of the page. To save information entered before logging out or clicking on the NORS Menu links, click “Save Report.”**

## Tab: General

- If “Food” was selected as the primary mode of transmission, click on the General tab under the Food section to enter food-specific information.
- If the food is unknown, check the box “Food Vehicle Undetermined.” **Note: do not check this box if the food vehicle is known or if there are multiple suspected food items.**
  - If the food vehicle is undetermined, enter the reason(s) why the outbreak was considered foodborne, with an undetermined vehicle.
- If a food vehicle was identified, enter all information about the food vehicle by clicking on the button “Add New Food Item.”

Food-specific data 

Food Vehicle Undetermined Archived - Total # of cases exposed to implicated food:

Reason(s) foodborne, but undetermined vehicle:

1 - Epidemiologic  
2 - Laboratory  
3 - Traceback and/or environmental investigation  
4 - Other data

+ Add New Food Item

Food 

### Name of Food (excluding any preparation)

- The first box asks for “Name of Food.” You can enter the name of the food by selecting from the list provided. If the name of the food is not on the list, you can add it as a new food.
- Some functions can help you locate the name of the food on the list:
  - 1) You can scroll through the list

- 2) You can enter the first letter of the food name, which moves the list to names starting with that letter; or
  - 3) You can type the name of the main food component and then click the “Find” button. For example, by typing in the word, “chicken,” and then clicking the “Find” button, all the foods that contain the word “chicken” appear — for example, “chicken fried rice,” “chicken salad,” “chicken pot pie,” etc.
- To return to the complete food list after searching for a specific food, delete the food keyword and click on the “Find” button again.
  - If the name of the food you want to enter is not available in the picklist, you can add a new food. **However, before you add a new food, double-check the picklist as it is fairly exhaustive.** For example, do not enter “Pastrami” because “Deli Meat, Pastrami” is already listed.
  - To add a new food, type the new food in the “Other” box. For example, to add a food called “Arepa” to the picklist, type it in the “Name of Food” box, then click “Save.” Before saving, you also have the option of cancelling the addition of a new food by clicking “Cancel” or deleting the text from the box. After a new food item is added, it cannot be deleted from the picklist.

### Add New Food Item

Name of Food (excluding any preparation)

Find

acai, bananas, strawberries, sugar cane juice

ackawi cheese

ackawi cheese, pasteurized

alcohol

alfalfa sprouts

alligator

ambrosia

american cheese

american cheese, pasteurized

american cheese, unpasteurized

american cheese, unspecified

aniline (mixed with soda)

Other:  x

This item will be added to the list. Please verify that a similar item does not exist.

### Confirmed/Suspected Vehicle and Reasons

- Choose whether the food vehicle was confirmed or suspected.
- Next, in the “Reason(s) confirmed or suspected” box, indicate why the implicated food was confirmed or suspected by selecting from the picklist. Multiple selections are permitted. If you are making more than one selection, hold the Ctrl button while selecting the reasons. If the vehicle is confirmed, do not select “Other data.”
- Refer to the [NORS Guidance Document](#) for more detailed explanations of picklist options.

Confirmed or suspected vehicle

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Reason(s) confirmed or suspected (select all that apply)

1 - Epidemiologic  
2 - Laboratory  
3 - Traceback and/or environmental investigation  
4 - Other data

### Ingredients/Contaminated Ingredients

- Next, in the “Ingredients” box, select the ingredients of the food item. If you are making more than one selection, hold the Ctrl button while selecting the ingredients. For example, if the implicated food was seafood pasta, the ingredients might be mussels, scallops, shrimp, and pasta.
- Once all the ingredients have been selected, click on the right arrow button to the right of the “Ingredients” box to populate the “Selected Ingredients” box.
- Next, in the “Selected Ingredients” box, select any ingredients that were contaminated and then click on the right arrow button to the right of the “Selected Ingredients” box to populate the “Contaminated Ingredients” box.
- To unselect ingredients from the “Selected Ingredients” box or the “Contaminated Ingredients” box, highlight the ingredient and then click on the left arrow button.

Ingredients (select all that apply)	Selected Ingredients	Contaminated Ingredients
<ul style="list-style-type: none"><li>Alcohol</li><li>alfalfa sprout seeds</li><li>alfalfa sprouts</li><li>alligator</li><li>american cheese</li><li>american cheese, pasteurized</li><li>american cheese, unpasteurized</li><li>apple</li><li>apple cider</li><li>apple cider, pasteurized</li><li>apple cider, unpasteurized</li><li>apple juice</li><li>apple juice, pasteurized</li><li>apple juice, unpasteurized</li></ul>	<ul style="list-style-type: none"><li>alfalfa sprouts</li><li>lettuce</li><li>spinach</li><li>cucumber</li><li>tomato</li><li>vinegar</li></ul>	<ul style="list-style-type: none"><li>alfalfa sprouts</li></ul>

### Number of cases exposed to implicated food

- Enter the number of cases exposed into the box “Number of cases exposed to implicated food.” Please note that this field is different from “Total # of cases exposed to implicated food,” which is a NORS field used between January 2009 and May 2011. This field is no longer used for reporting, but those data have been archived.

Number of cases exposed to implicated food <input type="text"/>
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### Method of Processing

- Next, in the “Method of Processing” box, indicate the method of processing for the implicated food by selecting from the picklist. Multiple selections are permitted. To make more than one selection, hold the Ctrl button while selecting the methods.
- “Method of Processing” is intended to capture any modifications to the implicated food before food preparation. For our example, the method of processing for the seafood pasta was unknown, so we will choose “11 — Unknown.”
- Please refer to the [NORS Guidance Document](#) for more detailed explanations of picklist options.

### Method of Preparation

- Next, in the “Method of Preparation” box, indicate the method of preparation for the implicated food by selecting from the picklist.
- “Method of Preparation” is intended to capture any modifications to the implicated food during food preparation. That is, how was the implicated food handled before it was served?
- Choose only one method of preparation from the picklist; multiple selections are **NOT** permitted. For our example, the seafood pasta was cooked and hot held before service, so we will choose “5 — Cook and hot hold prior to service.”
- Refer to the [NORS Guidance Document](#) for more detailed explanations of picklist options.

### Level of Preparation

- Next, in the “Level of Preparation” box, indicate the level of preparation for the implicated food by selecting from the picklist. Multiple selections are **NOT** permitted.
- Refer to the [NORS Guidance Document](#) for more detailed explanations of picklist options.

Method of processing (select all that apply)

- 1 - Pasteurized
- 2 - Unpasteurized
- 3 - Shredded or diced produce
- 4 - Pre-packaged
- 5 - Irradiation

Method of preparation (select one from list)

- 1 - Prepared in the home
- 2 - Ready to eat food - No manual preparation, No cook step.
- 3 - Ready to eat food - Manual preparation, No cook step.
- 4 - Cook and Serve Foods: Immediate service.
- 5 - Cook and hot hold prior to service

Level of preparation (select one from list)

- 1 - Foods eaten raw with minimal or no processing.
- 2 - Foods eaten raw with some processing.
- 3 - Foods eaten heat processed

**Contaminated food imported to US?**

- Next, indicate if the implicated food was imported into the United States. Check “No” if the contaminated food was not imported. Check “Yes, Unknown Country” if the contaminated food was imported but the name of the country is unknown. If the contaminated food was imported and the name of the country is known, then select the name of country from the picklist.

**Was product both produced under domestic regulatory oversight and sold?**

- Next, answer the following question, “Was product *both* produced under domestic regulatory oversight *and* sold?” by selecting “Yes,” “No,” or “Unknown.”

Contaminated food imported to US?

Yes, Country:

Yes, Unknown Country

No

Unknown

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Was product both produced under domestic regulatory oversight and sold?

Yes

After entering all the relevant information regarding the food vehicle, click on the “Save” button at the bottom of the box, which will populate the Food table with the information just entered. If you need to edit or delete the food information you entered, hover your mouse over the food information box. A pencil and an “X” will show up in the upper right corner of the box. To edit, click the pencil. To delete, click the “X.”

To add another food vehicle, click “Add New Food Item” and follow the previous steps.

Food 	
<b>Name of food</b>	ground beef, meatballs
<b>Confirmed or suspected vehicle</b>	Confirmed
<b>Reason(s) confirmed or suspected</b>	1 - Epidemiologic, 2 - Laboratory
<b>Ingredients</b>	bread, white, egg, ground beef
<b>Contaminated ingredients</b>	
<b>Number of cases exposed to implicated food</b>	
<b>Method of processing</b>	12 - Other
<b>Method of preparation</b>	5 - Cook and hot hold prior to service.
<b>Level of preparation</b>	3 - Foods eaten heat processed.
<b>Contaminated food imported to US?</b>	No
<b>Was product both produced under domestic regulatory oversight and sold?</b>	Yes

### **Location Where Food Was Prepared**

- After the food information box, indicate the “Location Where Food Was Prepared” by selecting from the picklist. Select any and all preparation locations that apply; multiple selections are permitted. If you are making more than one selection, hold the Ctrl button while selecting the locations.
  - Note: If “School” is selected as a location where food was prepared, be sure to fill out the “School” tab.
- If there is any additional information regarding the location where food was prepared (e.g., explanation of why multiple settings were selected or important characteristics of the setting(s) selected), add that information in the “Remarks” box located directly below the picklist.
- For our example, the seafood pasta was prepared at a sit-down restaurant so the selection “Restaurant — Sit-down dining” was highlighted.
- Refer to the [NORS Guidance Document](#) for more detailed explanations of picklist options.

### **Location of Exposure or Where Food Was Eaten**

- Next, indicate the “Location of Exposure or Where Food Was Eaten” by selecting from the picklist. Select any and all exposure locations that apply; multiple selections are permitted. If you are making more than one selection, hold the Ctrl button while selecting the locations.
  - Note: If “School” is selected as a location where food was prepared, please fill out the “School” tab.
- If there is any additional information regarding the location where food was eaten (e.g., explanation of why multiple settings were selected or important characteristics of the setting(s) selected), add that information in the “Remarks” box located directly below the picklist.
- For our example, the implicated food was eaten at a private home and at a school, so both selections are highlighted.
- Refer to the [NORS Guidance Document](#) for more detailed explanations of picklist options.

Location where food was prepared	Location of exposure (where food was eaten)
<ul style="list-style-type: none"> <li>Banquet Facility (food prepared and served on-site)</li> <li>Camp</li> <li>Caterer (food prepared off-site from where served)</li> <li>Child day care</li> <li>Fair, festival, other temp or mobile services</li> <li>Farm/dairy</li> <li>Grocery store</li> </ul>	<ul style="list-style-type: none"> <li>Banquet Facility (food prepared and served on-site)</li> <li>Camp</li> <li>Caterer (food prepared off-site from where served)</li> <li>Child day care</li> <li>Fair, festival, other temp or mobile services</li> <li>Farm/dairy</li> <li>Grocery store</li> </ul>
Remarks	Remarks
<input style="width: 100%; height: 65px;" type="text"/>	<input style="width: 100%; height: 65px;" type="text"/>
<i>characters left: 5000</i>	<i>characters left: 5000</i>

**Was there a kitchen manager certified in food safety at the location of preparation?**

- Next, select “Yes,” “No,” or “Unknown” regarding whether there was a kitchen manager certified in food safety (e.g., ServSafe) at the location of preparation.

**Kitchen Manager Certification**

Was there a kitchen manager certified in food safety at the location of preparation?

No

## Tab: Contributing Factors

- Click on the Contributing Factors tab.

### Contributing Factors

- Consult [Appendix D](#) of the NORS Guidance Document for more detailed definitions, explanations, and examples of each contributing factor.
- After consideration of all epidemiological, laboratory, and environmental assessment information available, if the contributing factors for this outbreak could not be determined, check the “Contributing Factors Unknown” box at the top of the section. If this box is checked, then the remainder of the contributing factors section will be locked.
- However, if contributing factors are known, then select all factors that are causally associated with the outbreak. Multiple selections are permitted. If you are making more than one selection, hold the Ctrl button while selecting the factors.
- Contributing factors are classified into three categories: Contamination, Proliferation/Amplification, and Survival factors. For our seafood pasta example:
  - Bare-handed contact with the food was determined to be a contributing factor, so we will select “C10 — Bare-hand contact by a food handler/worker/preparer who is suspected to be infectious.”
  - No proliferation/amplification factors were involved, so we will select “P-N/A — Proliferation/Amplification Factors — Not Applicable.”
  - No proliferation/amplification factors were involved, so we will select “S-N/A — Survival Factors — Not Applicable.”

Contributing Factors



Contributing factors unknown

Contamination Factor

- C7-Contaminated raw product-food was intended to be consumed raw or undercooked/under-processed
- C8-Foods originating from sources shown to be contaminated or polluted (such as a growing field or harvest area)
- C9-Cross-contamination of ingredients (cross-contamination does not include ill food workers)
- C10- Bare-hand contact by a food handler/worker/preparer who is suspected to be infectious**
- C11-Glove-hand contact by a food handler/worker/preparer who is suspected to be infectious
- C12-Other mode of contamination (excluding cross-contamination) by a food handler/worker/preparer who is suspected to be infectious
- C13- Foods contaminated by non-food handler/worker/preparer who is suspected to be infectious

Proliferation / Amplification Factor (bacterial outbreaks only)

- P7-Improper hot holding due to improper procedure or protocol
- P8-Improper/slow cooling
- P9-Prolonged cold storage
- P10-Inadequate modified atmosphere packaging
- P11-Inadequate processing (acidification, water activity, fermentation)
- P12-Other situations that promoted or allowed microbial growth or toxic production
- P-N/A- Proliferation/Amplification Factors-Not Applicable**

Survival Factor

- S1-Insufficient time and/or temperature control during initial cooking/meat processing
- S2-Insufficient time and/or temperature during reheating
- S3-Insufficient time and/or temperature control during freezing
- S4-Insufficient or improper use of chemical processes designed for pathogen destruction
- S5-Other process failures that permit pathogen survival
- S-N/A-Survival Factors-Not Applicable**

### Confirmed or Suspected Point of Contamination

- Indicate if the confirmed or suspected point of contamination occurred “Before preparation,” at “Preparation,” or “Unknown.” If the confirmed or suspected point of contamination occurred “Before preparation,” then indicate if it occurred at “Pre-Harvest,” “Processing,” or “Unknown.” For our example, the point of contamination occurred during preparation.
- Next, indicate the reason why the confirmed or suspected point of contamination was selected. Select any and all reasons that apply; multiple selections are permitted. If you are making more than one selection, hold the Ctrl button while selecting the reasons. For our example, the reason suspected was “Environmental Evidence.”
- Refer to the [NORS Guidance Document](#) for more detailed explanations of answer options.

### Was a food worker implicated as the source of contamination?

- Indicate if a food worker was implicated as the source of contamination by selecting “Yes,” “No,” or “Unknown.”
- If “Yes,” indicate the type of evidence that implicated the food worker. Multiple selections are **NOT** permitted. For our example, a food worker was implicated as the source of contamination due to laboratory evidence; the food worker’s stool culture yielded *Shigella*.
- Refer to the [NORS Guidance Document](#) for more detailed explanations of answer options.

The confirmed or suspected point of contamination (choose one)

Preparation

if 'before preparation':

Pre-Harvest  
Processing  
Unknown

Reason suspected (check all that apply)

Environmental Evidence  
Epidemiologic evidence  
Lab evidence  
Prior experience makes this a likely source

Was food-worker implicated as the source of contamination?

Yes

If yes, please check one of the following:

Laboratory and epidemiologic evidence  
Epidemiologic evidence  
Laboratory evidence  
prior experience make this a likely source

## Tab: School

- If “School” was selected as a “Location where food was prepared” or “Location of exposure (where food was eaten)” in the Food section, then click on the School tab to view the supplemental questions.
- For question #1 — Did the outbreak involve a single or multiple schools? Select one of these answers: “Single” or “Multiple.” If the outbreak involved multiple schools, indicate the number of schools involved in the next text box.
- For question #2 — School characteristics (for all involved students in all involved schools):
  - In the text box for 2a, enter the total approximate enrollment (number of students). If enrollment is unknown, then check the box, “Unknown or Undetermined.”
  - In 2b, enter the grade level(s) for all involved students.
  - In 2c, select the primary funding source for the school(s): public, private, or unknown/undetermined.
- For question #3 — Describe the preparation of the implicated item. Select any and all preparation methods from the list provided. If you are making more than one selection, hold the Ctrl button while selecting the methods.
- For question #4 — How many times did the state, county, or local health department inspect this school cafeteria or kitchen in the 12 months before the outbreak? If multiple schools are involved, answer for the school with the most cases. Select one answer from the list provided.
- For question #5 — Does the school have a HACCP (Hazard Analysis & Critical Control Points) plan in place for the school feeding program? If multiple schools are involved, answer for the school with the most cases. Select one answer: No, Yes, or Unknown or Undetermined.
- For question #6 — Was the implicated food item provided to the school through the National School Lunch/Breakfast Program? Select one answer: No, Yes, or Unknown or Undetermined.
  - If you selected “Yes,” select the agency that donated or purchased the implicated food item from the list provided.

School Questions



1. Did the outbreak involve a single or multiple schools?

Single

if multiple, number of schools:

2. School characteristics (for all involved students in all involved schools)

a. Total approximate enrollment

50 (number of students)

Unknown or undetermined

b. Grade level(s)

3rd  
4th  
5th  
6th

c. Primary funding of involved schools

Public  
Private  
Unknown or Undetermined

3. Describe the preparation of the implicated item: (check all that apply)

Heat and Server(item mostly prepared or cooked offsite, reheated onsite)  
Served a la cart  
Cooked on site using primary ingredients  
Serve only (preheated or served cold)  
Provided by a food service management company  
Provided by a fast food vendor

4. How many times has the state, county or local health department inspected this school cafeteria or kitchen in the 12 months before the outbreak?\*

Once  
Twice  
More than two times  
Not Inspected  
Unknown or Undetermined

*\*If multiple schools are involved, please answer for the school with the most cases.*

5. Does the school have a HACCP plan in place for the school feeding program?\*

Yes

*\*If multiple schools are involved, please answer for the school with the most cases.*

6. Was implicated food item provided to the school through the National School Lunch/Breakfast Program?

Yes

If yes, was the implicated food item donated/purchased by:

USDA (through the Commodity Distribution Program)  
State/school authority  
Other  
Unknown or Undetermined

## Tab: Ground Beef

- If ground beef was selected as a food vehicle or as an ingredient in the Food section, click on the Ground Beef tab to view the supplemental questions.
- For question #1 — What percentage of ill persons (for whom information is available) ate ground beef raw or undercooked?
- For question #2 — Was ground beef case-ready? Select one answer: “No,” “Yes,” or “Unknown.”
  - Case-ready ground beef is meat that comes from a manufacturer already packaged for sale. It is not altered, reground, or repackaged by the retailer.
- For question #3 — Was the beef ground or reground by the retailer? Select one answer: “No,” “Yes,” or “Unknown.”
  - If you selected “Yes,” indicate if anything (such as shop trim [meat obtained by trimming cuts of meat at the retailer] or any product to alter the fat content) was added during grinding at the retail location.

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Ground Beef 

1. What percentage of ill persons (for whom information is available) ate ground beef raw or undercooked?

%

2. Was ground beef case-ready?

*(Case-ready ground beef is meat that comes from a manufacturer packaged for sale that is not altered or repackaged by the retailer)*

▼

3. Was the beef ground or reground by the retailer?

▼

If yes, was anything added to the beef during grinding (such as shop trim or any product to alter the fat content)?:

characters left: 291

## Tab: Eggs

- If eggs were selected as a food vehicle or an ingredient in the Food section, click on the Eggs tab to view the supplemental questions.
- For question #1 — Provide information about the type of eggs and the preparation/cooking methods of the implicated eggs. Select all options that apply. If you are making more than one selection, hold the Ctrl button while selecting the options.
- For question #2 — If the implicated eggs were traced back to a specific farm, was *Salmonella* Enteritidis found on the farm? Select one answer: “No,” “Yes,” or “Unknown.”
- Add any additional comments in the text box.

### Step 14 : Eggs

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#### Eggs

1. Were Eggs (check all that apply)

- in shell, un-pasteurized
- in shell, pasteurized
- liquid or dry eggs products
- stored with inadequate refrigeration during or after consumed raw
- consumed undercooked
- pooled

2. Was Salmonella enteritidis found on the farm?

No

Eggs Comments

Chopped egg in salad

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