

**NATIONAL OUTBREAK REPORTING SYSTEM  
TRAINING GUIDE--FOOD SECTION**

**TABLE OF CONTENTS**

**INTRODUCTION ..... 2**

**TAB: GENERAL ..... 2**

    NAME OF FOOD (EXCLUDING ANY PREPARATION) ..... 3

    INGREDIENTS/CONTAMINATED INGREDIENTS ..... 6

    NUMBER OF CASES EXPOSED TO IMPLICATED FOOD ..... 6

    REASON(S) SUSPECTED ..... 6

    METHOD OF PROCESSING ..... 7

    METHOD OF PREPARATION ..... 8

    LEVEL OF PREPARATION ..... 8

    CONTAMINATED FOOD IMPORTED TO US? ..... 9

    WAS PRODUCT BOTH PRODUCED UNDER DOMESTIC REGULATORY OVERSIGHT AND SOLD? ..... 9

    LOCATION WHERE FOOD WAS PREPARED ..... 11

    LOCATION OF EXPOSURE OR WHERE FOOD WAS EATEN ..... 11

**TAB: CONTRIBUTING FACTORS ..... 13**

    CONTRIBUTING FACTORS ..... 13

    CONFIRMED OR SUSPECTED POINT OF CONTAMINATION ..... 15

    WAS FOOD-WORKER IMPLICATED AS THE SOURCE OF CONTAMINATION? ..... 15

**TAB: SCHOOL ..... 17**

**TAB: GROUND BEEF ..... 19**

**TAB: SALMONELLA ..... 21**

**TAB: EGGS ..... 22**

## Introduction

This training guide provides a brief overview of how to complete the General, Contributing Factors, School, *Salmonella*, 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 to link to the NORS Guidance Document.** Note: 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.**
- Next, enter all information about the food vehicle by clicking on the button “*Add New Food Item.*”



Step 10 : General Food

**Food-specific data**

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

[+ Add New Food Item](#)

### 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.

**NORS**  
National Outbreak Reporting System

CDC ID: 11879 - State ID: C  
Primary Mode of Transmission

General Section  
General Contributing Factors

### Add New Food Item

Name of Food (excluding any preparation)  
chicken **Find**

- biscuit, chicken
- burrito, chicken
- chicken
- chicken and noodles
- chicken and rice
- chicken and stuffing
- chicken dishes
- chicken fried rice
- chicken picata
- chicken pot pie
- chicken salad
- chicken w wine sauce

Other: please specify

Ingredients (enter all that apply)  
alfalfa sprouts  
alligator  
american cheese  
american cheese, pasteurized  
american cheese, unpasteurized

Selected Ingredients

Contaminated Ingredients

Save Cancel

Name of food (excluding any preparation)  
Ingredients (enter all that apply)

- 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 pick list, you can add a new food. **However, before you add a new food, double-check the pick list 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 hypothetical food called “Arepa” to the pick list, 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 pick list.

**NORS**  
National Outbreak Reporting System

CDC ID: 11879 - State ID: C  
Primary Mode of Transmission

General Section  
General Contributing Factors

### Add New Food Item

Name of Food (excluding any preparation)

enter a value and click Find, or select item from list Find

- alcohol
- alfalfa sprouts
- alligator
- ambrosia
- american cheese
- american cheese, pasteurized
- american cheese, unpasteurized
- american cheese, unspecified
- antipasta salad
- antipasto
- apple cider, pasteurized
- apple cider, unpasteurized

Other: Arepa

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

Ingredients (enter all that apply)

- alfalfa sprouts
- alligator
- american cheese
- american cheese, pasteurized

Selected Ingredients

Contaminated Ingredients

**Save** Cancel

## **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.

## **Number of cases exposed to implicated food**

- Enter the number of cases exposed into the box “*Number of cases exposed to implicated food.*” Note: 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.

## **Reason(s) Suspected**

- Next, in the “*Reason Suspected*” box, indicate why the implicated food was suspected by selecting from the pick list. Multiple selections are permitted. If you are making more than one selection, hold the Ctrl button while selecting the reasons. For our example, we suspected seafood pasta because of compelling supportive information; therefore, the third option (“Compelling supportive information”) is selected.
- Refer to the NORS Guidance Document for more detailed explanations of pick list options.

**Add New Food Item**

**Ingredients (enter all that apply)**

- alfalfa sprouts
- alligator
- american cheese
- american cheese, pasteurized
- american cheese, unpasteurized

**Selected Ingredients**

- mussels
- scallops
- shrimp

**Contaminated Ingredients**

- mussels

**Number of cases exposed to implicated food**

6

**Reason(s) suspected (enter all that apply from list in appendix)**

- 1-Statistical evidence from epidemiological investigation
- 2-Laboratory evidence (e.g., identification of agent in food)
- 3-Compelling supportive information
- 4-Other data (eg same phage type found on farm that supplied eggs)

## Method of Processing

- Next, in the “*Method of Processing*” box, indicate the method of processing for the implicated food by selecting from the pick list. 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 chose #11 “None or Unknown.”
- Again, refer to the NORS Guidance Document for more detailed explanations of pick list options.

## Method of Preparation

- Next, in the “*Method of Preparation*” box, indicate the method of preparation for the implicated food by selecting from the pick list.
- “*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 pick list; multiple selections are **NOT** permitted. For our example, the seafood pasta was cooked and hot held before service, so we chose #5 “Cook and hot hold prior to service.”
- Refer to the NORS Guidance Document for more detailed explanations of pick list options.

## Level of Preparation

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

**Add New Food Item**

**Method of processing (enter all that apply from list in appendix)**

- 6 - Pre-washed
- 7 - Frozen
- 8 - Canned
- 9 - Acid treatment
- 10 - Pressure treated
- 11 - None or Unknown

**Method of preparation (select one from list in appendix)**

- 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.
- 6 - Advance preparation: Cook, cool, serve.
- 7 - Advance preparation: Cook, cool, reheat, serve.

**Level of preparation (Select one from list in appendix)**

- 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 pick list.

### 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

---

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

Yes

**Save** [Cancel](#)

(enter all that apply from list

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”.

**Food-specific data**

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

[+ Add New Food Item](#)

Food	
<b>Name of food (excluding any preparation)</b> seafood pasta	 
<b>Ingredients (enter all that apply)</b> mussels, scallops, shrimp	

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

## **Location Where Food Was Prepared**

- After the food information box, indicate the “*Location Where Food Was Prepared*” by selecting from the pick list. Select any and all the preparation locations that apply; multiple selections are permitted. If you are making more than one selection, hold the Ctrl button while selecting the locations.
- 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 pick list.
- Note: If school is selected as a location where food was prepared, be sure to fill out the “School” tab.
- 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 pick list options.

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

- Next, indicate the “*Location of Exposure or Where Food Was Eaten*” by selecting from the pick list. Select any and all the exposure locations that apply; multiple selections are permitted. If you are making more than one selection, hold the Ctrl button while selecting the locations.
- 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 pick list.
- Note: If school is selected as a location where food was prepared, make sure to fill out the “School” tab.
- 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 pick list options.

**Location where food was prepared** 

Restaurant - "Fast-food"(drive up service or pay at counter)  
**Restaurant - Sit-down dining**  
 Restaurant - other or unknown type  
 Private Home  
 banquet Facility (food prepared and served on-site)  
 Caterer (food prepared off-site from where served)  
 Fair, festival, other temp or mobile services

**Remarks**

characters left:5000

**Location of exposure (where food was eaten)** 

Restaurant - Sit-down dining  
 Restaurant - other or unknown type  
**Private Home**  
 banquet Facility (food prepared and served on-site)  
 Caterer (food prepared off-site from where served)  
 Fair, festival, other temp or mobile services  
 grocery store

**Remarks**

characters left:5000

## Tab: Contributing Factors

- Click on the “Contributing Factors” tab.

### Contributing Factors

- Consult 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 then check the box at the top of the contributing factors section “*Contributing Factors Unknown.*” If this box is checked, then the remainder of the contributing factors section should be left completely blank.
- 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.”

Step 11 : Food Contributing Factors

[Previous](#)

[Next](#)

**Contributing Factors**



Contributing factors unknown

**Contamination Factor**

- C4-Addition of excessive quantities of ingredients that are toxic in large amounts
- C5-Toxic container
- C6-Contaminated raw product- food was intended to be consumed after a kill step
- 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**

**Proliferation / Amplification Factor (bacterial outbreaks only)**

- ~~P6-Improper hot holding due to malfunctioning equipment~~
- 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/heat 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” or at “Preparation.” 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 the 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 Food worker Implicated as the Source of Contamination?**

- Indicate if a food worker was implicated as the source of contamination by selecting “Yes” or “No.”
- If “Yes,” indicate the type of evidence that implicated the foodworker. Multiple selections are **NOT** permitted. For our example, a food worker was implicated as the source of contamination due to laboratory evidence that the foodworker’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 (check 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)” under 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 regarding the 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 inspected this school cafeteria or kitchen in the 12 months before the outbreak? (If multiple schools are involved, answer for the most affected school) – 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 most affected school) - 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.

Step 12 : School [Previous](#) [Next](#)

### 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  
 (number of students)  
 Unknown or undetermined  
b. Grade level(s)  
  
  
  
  
  
c. Primary funding of involved schools

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

**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?**

**5. Does the school have a HACCP plan in place for the school feeding program?\***  
  
\*If multiple schools are involved, please answer according to the most affected school

**6. Was implicated food item provided to the school through the National School Lunch/Breakfast Program?**  
  
If yes, was the implicated food item donated/purchased by:

## 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, enter the percentage of ill persons who ate ground beef that was raw or undercooked.
- For question #2 – Was the 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 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.

CDC ID: 11879 - State ID: CDCTest\_AN - Status: Active - Author: anisler - Date Created: Monday, 11/19/2012

Primary Mode of Transmission:  Food | [Change](#) [Save Report](#)

General Section Etiology Food Attachments

General Contributing Factors School **Ground Beef** Salmonella Eggs

Step 13 : Ground Beef [Previous](#) [Next](#)

**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: *Salmonella*

- If *Salmonella* was selected as an etiology in the “Etiology” section, go to the “Food” section and click on the “*Salmonella*” tab to view the supplemental questions.
- Enter the phage type or types of patient isolates if available. If the isolate yielded RDNC (Reacts Does Not Conform) results, then enter the number of isolates that were RDNC. Information on PFGE patterns should be entered in the Isolates section in the interface.

The screenshot displays the NORS National Outbreak Reporting System interface. At the top left is the NORS logo. On the top right, it says "Welcome, anisler" and has a "NORS Menu" button. Below the logo, it shows "CDC ID: 11879 - State ID: CDCTest\_AN - Status: Active - Author: anisler - Date Created: Monday, 11/19/2012". The "Primary Mode of Transmission" is set to "Food" with a hamburger icon and a "Change" link, and there is a "Save Report" button. A navigation bar shows "General Section", "Etiology", "Food" (highlighted), and "Attachments". Below this, a breadcrumb trail includes "General", "Contributing Factors", "School", "Ground Beef", "Salmonella" (highlighted), and "Eggs".

Step 14 : Salmonella [Previous](#) [Next](#)

**Additional Salmonella Questions (Complete this section for Salmonella outbreaks)** ⓘ

**1. Phage type(s) of patient isolates:**

<input type="text" value="JCPA26.0001"/>	if RDNC* then include #	<input type="text"/>
<input type="text" value="JCPX01.0060"/>	if RDNC* then include #	<input type="text"/>
<input type="text"/>	if RDNC* then include #	<input type="text"/>
<input type="text"/>	if RDNC* then include #	<input type="text"/>

\*Reacts, Does Not Conform

## 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 15 : Eggs [Previous](#) [Next](#)

**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 sale  
 consumed raw  
 consumed undercooked  
 pooled

**2. Was Salmonella enteritidis found on the farm?**

No

**Eggs Comments**

Chopped egg in salad

characters left:4980