Annex 6

Investigation report forms

Outline of an outbreak investigation report

Cover page

- **Title of report**

  Indicate whether this is a preliminary or a final report. Keep the title short and memorable, but include information on the type of problem under investigation, the location and date.

- **Date of report**
- **Names and affiliations of the main authors and investigators**

Abstract

The abstract should be written after the report has been completed. It should stand alone and contain the most relevant data and conclusions. All data mentioned in the abstract must also appear in the main section of the report. Sentences from the Discussion section can be used verbatim in the abstract.

Report

- **Introduction**

  Statement of the problem and its public health importance.

  Details and time frame regarding initial source of information.

  Reasons for investigating event.

  Type of investigations conducted and agencies involved.

- **Background**

  Generally available information to help the reader interpret epidemiology and data presented in the report (e.g. population size, socioeconomic status of community, ethnicity, etc.).

  If outbreak occurred in a food premises, description of premises (e.g. size of restaurant, usual practices and operations, etc.).

  Description of the problem.

  Sequence of events leading to the study or investigation.

  Brief statement of the working hypothesis.

- **Objectives**

  Specify targets to be achieved by the investigations.

  Keep objectives concise and follow a logical, sequential pattern.

  The objectives may include hypotheses, if any, to be tested.

- **Methods**

  Epidemiology:

  - description of study population
  - type of study conducted
  - case definition
  - procedures for case-ascertainment and selection of controls (if any)
  - methods of data collection, including questionnaire design, administration and contents
  - methods of data analysis.

  Medical laboratory testing:

  - methods of specimen collection and processing
  - name of laboratory carrying out tests
  - laboratory techniques employed and methods of data analysis.

  Food and food testing:

  - description of inspection process
  - methods of food and environmental sampling
  - name of laboratory carrying out tests
  - laboratory techniques employed and methods of data analysis.

- **Results**

  Present all pertinent results from clinical, laboratory, epidemiological and environmental findings.

  Present results in same order as described in the methods section.

  Do not interpret or discuss the data in this section.

  Epidemiology:

  - number of cases, overall attack rate
  - clinical details of illness (symptoms, duration, hospitalization, outcome, etc.)
  - descriptive epidemiology by time (epidemic curve), place and person (age, sex, race, specific characteristics) expressed as rates
  - risk factor exposures
  - further data analysis and data presentation depending on specific studies undertaken (e.g. cohort or case–control study).

  Laboratory (microbiology, chemical, toxicological):

  - number of specimens collected
  - findings by type of laboratory analysis.

  Food investigation and food testing:

  - findings of food inspections
  - results of laboratory tests performed on food and environmental samples.

- **Discussion**

  The discussion is the most important part of the report and should cover:

  - summary of the major findings
  - likely accuracy of the results

- conclusions with justification for those conclusion and rejection of alternative explanations
- relationship of these results to other studies and the literature
- implications of the findings
- an assessment of control measures
- needs for future research.

- **Recommendations**

  Initial recommendations and those for future prevention and control should be listed numerically.

- **References**

  Select appropriate references, including reviews in major scientific journals. Follow a standard style of referencing (e.g. Vancouver style), numbering the references in the order in which they appear in the text.

- **Appendices**

  Questionnaires and/or other survey forms
  Appropriate field reports
  Any other relevant documents, including press releases.

Sample report forms from various agencies

Example of an outbreak report form used by the WHO Surveillance Programme for Control of Foodborne Infections and Intoxications in Europe

Report of incident

1. Country:	2. Year:	3. Report no.:

4. Place of incident:

City/Town: _____ Province/District: _____

5. Causative agent/type:

Code: ☐☐☐☐☐☐

_____

Phagetype: ☐☐☐ Confirmed: ☐ Presumed: ☐

6. Number of persons:

at risk _____ ill _____ hospitalized _____ died _____

by age groups:

from 0 to 4 years	_____	_____	_____	_____
from 4 to 15 ears	_____	_____	_____	_____
from 15 to 60 years	_____	_____	_____	_____
over 60 years	_____	_____	_____	_____

7. Symptoms:

☐ Nausea ☐ Vomiting ☐ Diarrhoea ☐ Abdominal pain

☐ Fever ☐ Neurological ☐ Cardiovascular ☐ Other (_____)

8. Date of onset of illness:

first person: _ _ / _ _ / _ _ _ _ (day / month / year) last person: _ _ / _ _ / _ _ _ _ (day / month / year)

9. Incubation time and duration of illness: (in hours): ☐ ?

Incubation time: shortest _____ longest _____ median _____

Duration of illness: shortest _____ longest _____ median _____

10. Food/vehicle involved:

Code: ☐☐☐☐☐☐ _____

Confirmation: Laboratory ☐ Epidemiological ☐

Commercial name of product: _____

Producer: _____

11. Methods of marketing, processing, serving:

Marketed: code ☐ Treatment before final preparation: code ☐

Served and eaten: code ☐

12. Place where food was contaminated:

Place: code ☐ Country: code ☐

13. Place and date where food was acquired and eaten:

Date: _ _ / _ _ / _ _ _ _ Place: code ☐
day month year

During transit:

Means of transit: code ☐ from: code ☐ to: code ☐

14. Factors contributing to incident:

(a) Code ☐☐ (b) Code ☐☐

Other

_____

_____

Note: In case more than one factor contributed, list all that are applicable but code only the two major factors.

15. Results of lab. tests:

Testing laboratory: _____

Specimens/samples	No. tested	Positive	Details/comments
Ill people*	_____	_____	_____
Well people*	_____	_____	_____
Food-handlers	_____	_____	_____
Suspect food	_____	_____	_____
Other foods	_____	_____	_____
Environment	_____	_____	_____

* Clinical samples.

Example of an outbreak form used in England and Wales for investigation of general outbreaks of infectious intestinal diseases

OUTBREAK NO. 97\.....

Name: _____ Address: _____

Position: _____ _____

Telephone: _____ LA: DHA:

Date: _____

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1. MODE OF TRANSMISSION (tick one only)

Mainly person to person ☐ Mainly foodborne ☐

Equal or unknown proportion of foodborne and person to person ☐

Other ☐ Specify water, animal contact, etc. _____

Unknown ☐

2. PLACE WHERE OUTBREAK OCCURRED, or if foodborne where food was prepared or served. Tick one only. If foodborne "PREPARED" takes precedence over "SERVED", e.g. if food was prepared in a shop but served in a house, tick "Shop/retailer", if food was prepared at a house and served elsewhere, tick "Private house".

(a) Private house	☐	
(b) House/guest house/residential pub	☐	Specify _____
(c) Restaurant/café	☐	Specify ethnicity _____
(d) Pub/bar	☐	
(e) Mobile retailer	☐	Specify market trader, chip van, etc. _____
(f) Armed services camp	☐	Specify army, navy, etc. _____
(g) Canteen	☐	Specify work, college _____
(h) Shop/retailer	☐	Specify baker, butcher, etc. _____
(i) Hospital	☐	Specify general, geriatric, EMI _____
(j) Residential institution	☐	Specify nursing/residential home _____
(k) School	☐	Specify nursery, junior, etc. _____
(l) Other	☐	Specify _____

3. NAME AND ADDRESS OF PLACE _____

_____ Postcode (if known)_____

4. WAS THE OUTBREAK AT A FUNCTION? Yes ☐ No ☐ Date of function __/__ /_____

5. WAS PATHOGEN/TOXIN IDENTIFIED? Yes ☐ No ☐

If YES give: Organism/toxin_____ Serotype_____ Phage type____

If NO: Specify organism suspected_____

6. LABORATORY where tests performed: State first and reference labs, even if microbiology was negative

☐ _____ ☐ _____

First lab Reference lab

7. TOTAL NUMBER AFFECTED (diarrhoea and/or vomiting +/– any other symptom) _____

TOTAL NUMBER AT RISK _____

Number admitted to hospital _____ Number known to have died _____

8. LABORATORY RESULTS

NUMBER OF PEOPLE	AFFECTED PEOPLE		WELL PEOPLE	
	TESTED	POSITIVE	TESTED	POSITIVE
8a. *HOSPITAL OR RESIDENTIAL OUTBREAKS ONLY categories (i) and (j) in question 2*				
Residential/patients				
Staff				
Total				
8b. *ALL OTHER OUTBREAKS*				
Non-food-handlers				
Food handlers				
Total				

9. DATE OF ONSET: First known __ / __ / _____ Last known __ / __ / _____

10. SUSPECT FOOD VEHICLE ASSOCIATED WITH ILLNESS: only list specific vehicle for which there is microbiological, statistical or other convincing association with illness.

VEHICLE	EVIDENCE (tick)		
	Microbiological	Statistical association	

11. FAULTS THOUGHT TO HAVE CONTRIBUTED TO OUTBREAK:

Infected food-handler ☐ Give details _____

Inadequate heat treatment ☐ Give details _____

Cross contamination ☐ Give details _____

Storage too long/too warm ☐ Give details _____

Other ☐ Give details _____

Environmental Health Department's inspection rating of premises (if available) (A–F): _____

Foodborne disease outbreak report form from Centers for Disease Control and Prevention, USA

Electronic
Foodborne
Outbreak
Reporting
System

Investigation of a foodborne outbreak

This form is used to report foodborne disease outbreak investigations to CDC. It is also used to report *Salmonella enteritidis* and *E. coli* O157:H7 outbreak investigations involving any mode of transmission. A foodborne outbreak is defined as the occurrence of two or more cases of a similar illness resulting from the ingestion of a common food in the United States. This form has 6 parts. Part 1 asks for the minimum or basic information needed and must be completed for the investigation to be counted in the CDC annual summary. Part 2 asks for additional information for any foodborne outbreak, while Parts 3–6 ask for information concerning specific vehicles or etiologies. Please complete as much of all parts as possible.

CDC Use Only
__-_____

State Use Only
_____

Part 1: Basic information

1. Report type

A.
☐ Please check if this is a final report

B.
☐ Please check if data does not support a FOODBORNE outbreak

2. Number of cases

Lab-confirmed cases_____(A)
Including _____ secondary cases

Probable cases_____(B)
Including _____ secondary cases

Estimated total ill_____
(if greater than sum A + B)

3. Dates

Please enter as many dates as possible

Date first case became ill
__ __/__ __/__ __ __ __
Month Day Year

Date last case became ill
__ __/__ __/__ __ __ __
Month Day Year

Date first known exposure
__ __/__ __/__ __ ____
Month Day Year

Date last known exposure
__ __/__ __/__ __ __ __
Month Day Year

4. Location of exposure

Reporting state _____

If multiple states involved:
☐ Exposure occurred in multiple states
☐ Exposure occurred in single state, but cases resided in multiple states
Other states: _____
_____
_____

Reporting county_____

If multiple counties involved:
☐ Exposure occurred in multiple counties
☐ Exposure occurred in one county, but cases resided in multiple counties
Other counties: _____
_____
_____

5. Approximate percentage of cases in each age group

<1 year _____% 20–49 yrs _____%
1–4 yrs _____% 50 yrs _____%
5–19 yrs _____% Unknown _____%

6. Sex
(estimated percentage of the total cases)

Male _____%

Female _____%

7. Investigation methods (check all that apply)

☐ Interviews of only cases
☐ Food preparation review
☐ Investigation at factory or production plant
☐ Investigation at original source (farm, marine estuary, etc.)
☐ Environment / food sample cultures
☐ Food product traceback
☐ Case–control study
☐ Cohort study

8. Implicated food(s) (please provide known information)

Name of food e.g. lasagne	**Main ingredient(s)** e.g. pasta, sauce, eggs, beef	**Contaminated ingredient(s)** e.g. eggs	**Reason(s) suspected** (see codes just below) e.g. 4	**Method of preparation** (see attached codes) e.g. M1
1)				
2)				
3)				

☐ Food vehicle undetermined

Reason suspected (list above all that apply)

1. Statistical evidence from epidemiological investigation
2. Laboratory evidence (e.g. identification of agent in food)
3. Compelling supportive information
4. Other data (e.g. same phage type found on farm that supplied eggs)
5. Specific evidence lacking but prior experience makes it likely source

9. Etiology (Name the bacteria, virus, parasite, or toxin. If available, include the serotype and other characteristics such as phage type, virulence factors, and metabolic profile. Confirmation criteria available at http//www.cdc.gov/ncidod/dbmd/outbreak/ or MMWR2000/Vol. 49/SS-1/App. B)

Etiology		Serotype	Other characteristics (e.g. phage type)	Detected in (see codes just below)
1)	☐ Confirmed			
2)	☐ Confirmed			
3)	☐ Confirmed			

☐ Etiology undetermined

Detected in (list above all that apply)

1. Patient specimen(s) **2.** Food specimen(s) **3.** Environment specimen(s) **4.** Food worker specimen(s)

10. Isolate subtype	**State Lab. ID**	**PFGE (PulseNet designation)**	**PFGE (PulseNet designation)**
1)			
2)			
3)			

11. Contributing factors (check all that apply: see attached codes and explanations)

☐ **Contributing factors unknown**

Contamination factor

☐C1 ☐C2 ☐C3 ☐C4 ☐C5 ☐C6 ☐C7 ☐C8 ☐C9 ☐C10 ☐C11 ☐C12 ☐C13 ☐C14 ☐C15 (*describe in Comments)* ☐ N/A

Proliferation/amplification factor (bacterial outbreaks only)

☐P1 ☐P2 ☐P3 ☐P4 ☐P5 ☐P6 ☐P7 ☐P8 ☐P9 ☐P10 ☐P11 ☐P12 (*describe in Comments)* ☐N/A

Survival factor (microbial outbreaks only)

☐S1 ☐S2 ☐S3 ☐S4 ☐S5 (*describe in Comments)* ☐N/A

Was food-worker implicated as the source of contamination? ☐ Yes ☐ No

If yes, please check **only one** of following:

☐ laboratory *and* epidemiologic evidence
☐ epidemiologic evidence (w/o lab confirmation)
☐ lab evidence (w/o epidemiologic evidence)
☐ prior experience makes this the likely source (*please explain in Comments*)

Part 2: Additional information

12. Symptoms, signs and outcomes

Feature	**Cases** with outcome/ feature	**Total cases** for whom you have information available
Healthcare provider visit		
Hospitalization		
Death		
Vomiting		
Diarrhoea		
Bloody stools		
Fever		
Abdominal cramps		
HUS or TTP		
Asymptomatic		
*		
*		
*		

13. Incubation period
(circle appropriate units)

Shortest_____(hours, days)
Longest_____(hours, days)
Median _____(hours, days)

☐ Unknown

14. Duration of Illness (among those who recovered)
(circle appropriate units)

Shortest_____(hours, days)
Longest_____(hours, days)
Median _____(hours, days)

☐ Unknown

* Use the following terms, if appropriate, to describe other common characteristics of cases:

Anaphylaxis	Headache	Tachycardia
Arthralgia	Hypotension	Temperature reversal
Bradycardia	Itching	Thrombocytopenia
Bullous skin lesions	Jaundice	Urticaria
Coma	Lethargy	Wheezing
Cough	Myalgia	
Descending paralysis	Paraesthesia	
Diplopia	Septicaemia	
Flushing	Sore throat	

15. If cohort investigation conducted:

Attack rate* = _____ / _____ x 100 = _____%
Exposed and ill Total number exposed for whom you have illness information

* The attack rate is applied to persons in a cohort who were exposed to the implicated vehicle. The numerator is the number of persons who were exposed and became ill; the denominator is the total number of persons exposed to the implicated vehicle. If the vehicle is unknown, then the attack rate should not be calculated.

16. Location where food was prepared
(check all that apply)

- ☐ Restaurant or deli
- ☐ Day care center
- ☐ School
- ☐ Office setting
- ☐ Workplace cafeteria
- ☐ Banquet facility
- ☐ Picnic
- ☐ Caterer
- ☐ Grocery store
- ☐ Nursing home
- ☐ Prison, jail
- ☐ Private home
- ☐ Workplace, not cafeteria
- ☐ Wedding reception
- ☐ Church, temple, etc.
- ☐ Camp
- ☐ Contaminated food imported into U.S.
- ☐ Hospital
- ☐ Fair, festival, other temporary/ mobile services
- ☐ Commercial product, served without further preparation
- ☐ Unknown or undetermined
- ☐ Other (describe) _____

17. Location of exposure or where food was eaten
(check all that apply)

- ☐ Restaurant or deli
- ☐ Day care center
- ☐ School
- ☐ Office setting
- ☐ Workplace cafeteria
- ☐ Banquet facility
- ☐ Picnic
- ☐ Grocery store
- ☐ Nursing home
- ☐ Prison, jail
- ☐ Private home
- ☐ Workplace, not cafeteria
- ☐ Wedding reception
- ☐ Church, temple, etc.
- ☐ Camp
- ☐ Hospital
- ☐ Fair, festival, temporary/ mobile service
- ☐ Unknown or undetermined
- ☐ Other (describe) _____

18. Trace back

☐ Please check if trace back conducted.

Source to which trace back led: _____

Source (e.g. chicken farm, tomato processing plant)	**Location of source** **State**	**County**	**Comments**

19. Recall

☐ Please check if any food product recalled.

Recall comments

_____
_____
_____
_____

20. Available reports (please attach)

- ☐ Unpublished agency report
- ☐ Epi-Aid report
- ☐ Publication (please reference if not attached)

_____
_____

21. Agency reporting this outbreak

_____

Contact person:

Name _____
Title _____
Phone _____
Fax _____
E-mail _____

22. Remarks

Briefly describe important aspects of the outbreak not covered above (e.g. restaurant closure, immunoglobin administration, economic impact, etc.)

_____
_____
_____
_____
_____

Part 3: School questions

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

☐ Single
☐ Multiple (*if yes*, number of schools ____)

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

a) Total approximate enrolment
_____ (number of students)
☐ Unknown or undetermined

b) Grade level(s) (please check all grades affected)
☐ Preschool
☐ Grade school (grades K–12)
Please check all grades affected: ☐ K ☐ 1st ☐ 2nd ☐ 3rd ☐ 4th ☐ 5th ☐ 6th ☐ 7th ☐ 8th ☐ 9th ☐ 10th ☐ 11th ☐ 12th
☐ College/university/technical school
☐ Unknown or undetermined

c) Primary funding of involved school(s)
☐ Public ☐ Private ☐ Unknown or undetermined

3. Describe the preparation of the implicated item:

☐ Heat and serve (item mostly prepared or cooked off-site, reheated on-site)
☐ Served a-la-carte
☐ Serve only (preheated or served cold)
☐ Cooked on-site using primary ingredients
☐ Provided by a food service management company
☐ Provided by a fast food vendor
☐ Provided by a pre-plate company
☐ Part of a club/fundraising event
☐ Made in the classroom
☐ Brought by a student/teacher/parent
☐ Other _____
☐ Unknown or undetermined

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 there are multiple schools involved, please answer according to the most affected school.

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

☐ Yes
☐ No
☐ Unknown or undetermined

*If there are multiple schools 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?

☐ Yes
☐ No
☐ Unknown or undetermined

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

☐ USDA through the Commodity Distribution Program
☐ Purchased commercially by the state/school authority
☐ Other_____
☐ Unknown or undetermined

Part 4: 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? (Ground beef that comes from a manufacturer packaged for sale and not altered or repackaged by the retailer)

☐ Yes
☐ No
☐ Unknown or undetermined

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

☐ Yes
☐ No
☐ Unknown or undetermined

If yes, was anything added to the beef during grinding (e.g. shop trim or any product to alter the fat content)?

_____

Part 5: Mode of transmission
(enterohaemorrhagic *E. coli* or *Salmonella* enteritidis only)

1. Mode of transmission (for greater than 50% of cases)

Select one:

☐ Food
☐ Person to person
☐ Swimming or recreational water
☐ Drinking water
☐ Contact with animals or their environment
☐ Unknown or undetermined

Part 6: Additional egg questions

1. Were eggs (check all that apply):

☐ in-shell, un-pasteurized?
☐ in-shell, pasteurized?
☐ liquid or dry egg product?
☐ stored with inadequate refrigeration during or after sale?
☐ consumed raw?
☐ consumed undercooked?
☐ pooled?

2. If eggs traced back to farm, was *Salmonella* enteritidis found on the farm?

☐ Yes
☐ No
☐ Unknown or undetermined

Comment:_____
_____

Contamination factors:[1]

C1 – Toxic substance part of tissue (e.g. ciguatera)
C2 – Poisonous substance intentionally added (e.g. cyanide or phenolphthalein added to cause illness)
C3 – Poisonous or physical substance accidentally/incidentally added (e.g. sanitizer or cleaning compound)
C4 – Addition of excessive quantities of ingredients that are toxic under these situations (e.g. niacin poisoning in bread)
C5 – Toxic container or pipelines (e.g. galvanized containers with acid food, copper pipe with carbonated beverages)
C6 – Raw product/ingredient contaminated by pathogens from animal or environment (e.g. *Salmonella* enteriditis in egg, norovirus in shellfish, *E. coli* in sprouts)
C7 – Ingestion of contaminated raw products (e.g. raw shellfish, produce, eggs)
C8 – Obtaining foods from polluted sources (e.g. shellfish)
C9 – Cross-contamination from raw ingredient of animal origin (e.g. raw poultry on the cutting board)
C10 – Bare-handed contact by handler/worker/preparer (e.g. with ready-to-eat food)
C11 – Glove-handed contact by handler/worker/preparer (e.g. with ready-to-eat food)
C12 – Handling by an infected person or carrier of pathogen (e.g. *Staphylococcus*, *Salmonella*, norovirus
C13 – Inadequate cleaning of processing/preparation equipment/utensils leads to contamination of vehicle (e.g. cutting boards)
C14 – Storage in contaminated environment leads to contamination of vehicle (e.g. store room, refrigerator)
C15 – Other source of contamination (*please describe in Comments*)

Proliferation/amplification factors:[1]

P1 – Allowing foods to remain at room or warm outdoor temperature for several hours (e.g. during preparation or holding for service)
P2 – Slow cooling (e.g. deep containers or large roasts)
P3 – Inadequate cold-holding temperatures (e.g. refrigerator inadequate/not working, iced holding inadequate)
P4 – Preparing foods a half day or more before serving (e.g. banquet preparation a day in advance)
P5 – Prolonged cold storage for several weeks (e.g. permits slow growth of psychrophilic pathogens)
P6 – Insufficient time and/or temperature during hot holding (e.g. malfunctioning equipment, too large a mass of food)
P7 – Insufficient acidification (e.g. home canned foods)
P8 – Insufficiently low water activity (e.g. smoked/salted fish)
P9 – Inadequate thawing of frozen products (e.g. room thawing)
P10 – Anaerobic packaging/modified atmosphere (e.g. vacuum packed fish, salad in gas flushed bag)
P11 – Inadequate fermentation (e.g. processed meat, cheese)
P12 – Other situations that promote or allow microbial growth or toxic production (*please describe in Comments*)

Survival factors:[1]

S1 – Insufficient time and/or temperature during initial cooking/heat processing (e.g. roasted meats/poultry, canned foods, pasteurization)
S2 – Insufficient time and/or temperature during reheating (e.g. sauces, roasts)
S3 – Inadequate acidification (e.g. mayonnaise, tomatoes canned)
S4 – Insufficient thawing, followed by insufficient cooking (e.g. frozen turkey)
S5 – Other process failures that permit the agent to survive (*please describe in Comments*)

Method of preparation:[2]

M1 – Foods eaten raw or lightly cooked (e.g. hard shell clams, sunny side up eggs)
M2 – Solid masses of potentially hazardous foods (e.g. casseroles, lasagna, stuffing)
M3 – Multiple foods (e.g. smorgasbord, buffet)
M4 – Cook/serve foods (e.g. steak, fish fillet)
M5 – Natural toxicant (e.g. poisonous mushrooms, paralytic shellfish poisoning)
M6 – Roasted meat/poultry (e.g. roast beef, roast turkey)
M7 – Salads prepared with one or more cooked ingredients (e.g. macaroni, potato, tuna)
M8 – Liquid or semi-solid mixtures of potentially hazardous foods (e.g. gravy, chili, sauce)
M9 – Chemical contamination (e.g. heavy metal, pesticide)
M10 – Baked goods (e.g. pies, eclairs)
M11 – Commercially processed foods (e.g. canned fruits and vegetables, ice cream)
M12 – Sandwiches (e.g. hot dog, hamburger, Monte Cristo)
M13 – Beverages (e.g. carbonated and non-carbonated, milk)
M14 – Salads with raw ingredients (e.g. green salad, fruit salad)
M15 – Other, does not fit into above categories *(please describe in Comments)*
M16 – Unknown, vehicle was not identified

[1] Bryan FL, Guzewich JJ, Todd ECD. Surveillance of foodborne disease. III. Summary and presentation of data on vehicles and contributory factors: their value and limitations. *Journal of Food Protection*, 1997, 60(6):701–714.
[2] Weingold SE, Guzewich JJ, Fudala JK. Use of foodborne disease data for HACCP risk assessment. *Journal of Food Protection*, 1994, 57(9):820–830.