

EHS-Net III Food Worker Study Protocol

I. Project Overview

Title

Ill Food Worker Study

Protocol Summary

Few studies have examined in detail issues concerning ill food workers in restaurants. The purpose of this study is to collect data on 1) existing ill food worker policies, including restriction and exclusion policies, 2) practices associated with ill food workers, including symptoms that prompt food workers to call in sick and symptoms that prompt managers to send food workers home, and 3) reasons why food workers work while ill. Data for this study will be collected through interviews with restaurant managers and food workers. This is an Environmental Health Specialists Network (EHS-Net) special study. EHS-Net is a collaboration involving the Centers for Disease Control and Prevention (CDC), the U.S. Food and Drug Administration (FDA), and nine EHS-Net states (California, Connecticut, Georgia, Iowa, Minnesota, New York, Oregon, Rhode Island, and Tennessee).

Investigators/collaborators/funding

Investigators include EHS-Net staff at each of the nine EHS-Net sites and CDC. Funding for this study will be provided through CDC.

II. Introduction

Literature Review/Justification

Today, more and more families are eating outside the home on a regular basis (1, 2). This increasing trend is significant because the majority of reported foodborne illness outbreaks occur outside the home in a foodservice establishment (1, 2). In food service establishments, the food worker preparing the meal is the last point of contact before the food reaches the consumer. Thus, one potential source of contamination of food is an ill food worker. Bryan found that 18% of U.S. foodborne illness outbreaks were attributable to ill food workers, and Guzewich and Ross found that 93% of foodborne illness outbreaks resulting from food workers' contamination of food involved ill food workers (3, 7).

The 2005 FDA Food Code (4) set forth the guidelines that managers should exclude all food personnel who are diagnosed with an infectious illness or who have symptoms of an infection or gastrointestinal illness. This code also requires that food workers report any symptoms of illness to their managers and comply with restrictions to exclude themselves from work. Despite these regulations, there is little documented evidence of what food workers' actual behaviors are regarding working when ill and how food service establishments address the issue of ill workers. A literature search revealed only two studies on this topic. EHS-Net found that 5% of surveyed workers reported having worked while they were ill in the past year, and Clayton et al. found that only 12% of surveyed food workers knew that reporting their illnesses to management was important to food safety (5, 6). Given the evidence indicating that ill workers cause foodborne illness and the lack of data on food workers' and food service management's practices and beliefs concerning workers' working while ill, more research is needed.

Objectives

The primary objectives of this study are to collect descriptive data on: 1) existing ill food worker policies, including restriction and exclusion policies, 2) practices associated with ill food workers, including symptoms that prompt food workers to call in sick and symptoms that prompt managers to send food workers home, and 3) reasons why food workers work while ill.

III. Procedures/Methods

Design

This study will use a cross-sectional design to collect information about ill food workers. Information will be collected through a semi-structured interview with a restaurant manager and a semi-structured interview with one or two food workers employed in each establishment. The study will be conducted by EHS-Net environmental health specialists (EHSs) who work in state and local health departments.

Study Population

The study population will include all restaurants in the EHS-Net catchment area. The catchment area for this study includes all or some of the counties in each of the following nine states: California, Connecticut, Georgia, Iowa, Minnesota, New York, Oregon, Rhode Island and Tennessee (Tennessee has two separate catchment areas). A random sample of 50 restaurants will be selected for each catchment area; a minimum of 50 restaurants per catchment area will yield a total sample of 500 restaurants. Only restaurants that meet the EHS-Net definition of a restaurant will be included in the study. Each catchment area will include only one restaurant from each regional or national chain in its sample.

Data Collection

The EHS-Net specialists will contact randomly selected restaurants by telephone to determine their interest in participating in the study (Appendix A). If the restaurant is willing to participate, the EHS-Net specialist will arrange a time to conduct the survey. The visit by the EHS-Net specialist will include an interview with the manager and then separate interviews with one or two food workers. To help ensure cooperation and participation, the food workers from which participation will be requested will be selected by the manager.

The data collection will be anonymous. Although specialists will keep a list of establishments in which they have collected data, no identifying information on restaurants will be stored with the data. Thus, it will not be possible to link the study data with specific restaurants. However, the surveys will be given a unique identifier in order to link the manager's surveys to the food workers' surveys. Additionally, any information used to schedule visits, such as call logs, will be destroyed once data collection is complete.

Informed Consent

A waiver of documentation of informed consent is requested in accordance with 45 CFR 46.117(c). The proposed research meets the criteria for waiver, as it presents no more than minimal risk of harm to subjects and involves no procedures for which written consent is normally required outside of the research context.

Before conducting the interviews, we will obtain verbal informed consent from the restaurant managers and the food workers (Appendices B and D). The worker informed consent will specify that even though their manager said the workers could participate in the study, they can choose not to and there will be no adverse consequences. The worker informed consent will also specify that we will not tell managers if the workers decide not to participate.

As part of this study, we will be collecting data about restaurants that refuse to participate in the study. During recruiting calls, managers that refuse to participate will be asked to answer three short questions about their restaurant (Appendix A). A waiver of informed consent is requested for this portion of the data collection, in accordance with 45 CFR 46.116 (d). This research portion meets the criteria for waiver of informed consent, as 1) the research involves no more than minimal risk to participants (the questions are basic questions about the restaurant, not the manager; and the data will be anonymous), 2) a waiver will not adversely affect the rights and welfare of the participants, and 3) the research could not practicably be carried out without a waiver (refusing restaurants will be unlikely to wait on the telephone to hear the informed consent before answering the questions of interest).

IRB Designation

We expect that the IRB will classify this project as exempt from IRB review, because it is research involving survey/interview procedures, and the data collected will be anonymous; thus, participants can not be identified (45 CFR 46.101 (b)).

Study Timeline

Activity	Time schedule
Conduct pilot	2 weeks after HS Administrator concurs with IRB exemption
Submit IRB amendments	1-2 months after exemption received
Conduct study	3-7 months after exemption received
Analyze data collected	8-12 months after exemption received

Study Instrument

The data collection instruments were developed by the EHS-Net specialists. They consist of a manager interview (Appendix C) and a worker interview (Appendix E).

Data Handling and Analysis

Analysis Plan

Analysis will be performed by an analytical subgroup consisting of members from the Ill Food Worker Study workgroup. The analysis of the data will proceed in several stages. The first stage of analysis will involve data cleaning, editing, and recoding. The data will be checked for accuracy and examined for inconsistencies. A frequency response will be done for each variable to examine item non-response and extraneous responses. Variables with high item non-response or of poor quality will be discarded. The second stage will involve a descriptive analysis of the data set by running univariate frequencies and cross-tabulations for selected variables by demographic variables. Tests for association will be done using chi-square and t-tests. Analysis may also involve regression modeling of the data to examine any multivariate relationships and to control for confounding.

Analysis Software

Software that will be used to analyze data may include Epi Info 2002, SAS, and SPSS.

Data Entry, Editing and Management

Data will be entered into a web-based information system designed specifically for this project. User accounts will be issued to the EHS-Net specialist in each state. Account privileges identify the data a specific user is authorized to access and the functions they are authorized to perform. Each EHS-Net specialist is responsible for the administration of the system for his or her state, and includes user administration, correction and deletion of records. Data records are owned by the state entering the data. Each state must grant permission to other states or agencies who would like to use the data.

The data entered into this system may only be analyzed presented, or published by permission of the states owning the data according to the EHS-Net publication procedures.

Study Limitations

Data will be collected in those states participating in EHS-Net. Therefore, findings may not be generalizable to the U.S. restaurant population as a whole. The data may be subject to interviewer bias, recall bias, and the social desirability bias.

Dissemination, Notification, and Reporting of Results

Results of data analysis will be published in professional journals and presented at meetings. They will also be available for state and local health departments to utilize in their efforts to identify and change certain retail food practices that may contribute to foodborne illnesses. Agencies may also disseminate reports to foodservice establishments where research was conducted.

IV. References

1. Altekruze, SF, Cohen, ML, and Swerdlow, DL. 1997. Emerging foodborne diseases. *Emerging Infectious Diseases* 3 (3): 285-293.
2. Collins, J. 1997. Impact of changing consumer lifestyles on the emergence/reemergence of foodborne pathogens. *Emerging Infectious Diseases* 3 (4): 471-479.
3. Bryan, F.L. 1988. Risks of practices, procedures and processes that lead to outbreaks of foodborne diseases. *Journal of Food Protection* 51:663-673.
4. U.S. Food and Drug Administration. 2005 Food Code. <http://www.cfsan.fda.gov/~dms/fc05-toc.html>
5. Green, L., Selman, C., Banerjee, A., Marcus, R., Medus, C., Angulo, F.J., Radke, V., Buchanan, S., and EHS-Net Working Group. 2005. Food service workers' self-reported food preparation practices: an EHS-Net study. *International Journal of Hygiene and Environmental Health* 208: 27-35.
6. Clayton, D.C., Griffith, C.J., Price, P., and Peters, A.C. 2002. Food handlers' beliefs and self-reported practices. *International Journal of Environmental Health Research* 12: 25-39.
7. Guzewich, J., and M. Ross. 1999. Evaluation of risks related to microbiological contamination of ready-to-eat food by food Preparation workers and the effectiveness of interventions to minimize those risks. <http://www.cfsan.fda.gov/~ear/rterisk.html>. Last accessed April 1, 2006.

Appendix A: Recruiting Script

Hello, this is _____ with _____ Health Department. We are working on a research project that focuses on staffing issues faced by restaurants, particularly ill and absent workers. We'd like to visit your restaurant as part of this research project; however, the visit would not be an inspection. Your participation would be voluntary, but we would really appreciate your participation. The study consists of a 30-35 minute interview with a manager and a 5-10 minute interview with one or two food workers. The information you can provide will be valuable in helping us understand the difficult issues faced by restaurants. Also, the data we collect will be anonymous- it will not be possible to link any of your interview answers with your restaurant.

Could we schedule a time, convenient for you, to visit your restaurant?

YES

NO

<p>Great! Keeping in mind that a manager responsible for managing the kitchen needs to be available for an interview, and one or two food workers who speak English need to be available for a short period of time, when would be a convenient time to schedule the visit?</p> <p>Date: _____</p> <p>Time: _____</p> <p>Please call me at _____ if you need to cancel or re-schedule, or if you have any questions. Thank you.</p>	<p>I understand. Would you be able to answer 3 quick questions about your restaurant before you hang up?</p> <p>NO → Thank you for your time. YES → Great.</p> <p>1. Approximately how many meals do you serve on your busiest day?</p> <ul style="list-style-type: none"> <input type="radio"/> 1-50 meals per day <input type="radio"/> 51-100 meals per day <input type="radio"/> 101-200 meals per day <input type="radio"/> 201-300 meals per day <input type="radio"/> 301-500 meals per day <input type="radio"/> More than 500 meals per day <input type="radio"/> Unsure <input type="radio"/> Refused <p>2. Which one of the following best describes your restaurant's menu—American, Asian, Mexican, Italian, or other?</p> <ul style="list-style-type: none"> <input type="radio"/> American or non-ethnic <input type="radio"/> Asian <input type="radio"/> Mexican <input type="radio"/> Italian <input type="radio"/> Other <input type="radio"/> Unsure <input type="radio"/> Refused <p>3. Does your restaurant prepare raw meat, fish or poultry?</p> <ul style="list-style-type: none"> <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Unsure <input type="radio"/> Refused <p>Thank you for your time.</p>
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Appendix B: Manager Informed Consent

Part I: Manager Informed Consent

Note time the interview began: _____

Let me give you a little background on why I'm here and what we are going to be doing. I'm working with _____ (health department) on a research project designed to help us understand the issues faced by restaurants concerning ill and absent workers. Your restaurant was picked at random to be in this project. Participation in this study is voluntary. You can choose to stop at any time. If you don't want to be part of the study or if you change your mind later, nothing will happen to you. Whether you are part of the study or not will not affect your restaurant's score on any health inspection.

Having said that, I need to let you know that if at any time during my visit I see something that is an imminent health hazard, such as no power, no water or sewage on the floor, I will need to stop the study and report the problem to your local health department.

I'm going to ask you some questions about this restaurant's policies and practices. If any of the questions make you uncomfortable you can choose not to answer them. The information I collect today will be combined with information from other restaurants in various states. Your name and your restaurant's name will not be linked in any way to the information we collect, nor will they be included in any reports.

The information you provide will be valuable in helping us understand the difficult issues restaurants face, so we ask you to be as open and honest as possible.

After our interview, I'd like to talk to one or two of your food workers for 5-10 minutes each, if possible. They can be workers of your choosing, workers that you feel you can spare for a few minutes, but they need to be workers who work in the kitchen and have food handling responsibilities. However, they need to be able to speak English fairly well.

Do you have any questions?

If you have any questions at a later time, you can contact: (Local Contact Name). (If have card) My information is on this card.

Do you agree to let me interview you? *(Check appropriate box)*

- Yes (Continue with the interview)
 No (Thank you for your time)

Okay, I'd like to interview you first and then I'll talk to a couple of food workers.

Appendix C: Manager Interview

Part II. Manager Interview

*NOTE TO INTERVIEWER: Instructions are in italics throughout document. All **bolded** text should be read aloud. Response options are not to be read aloud unless specifically noted. Circles (○) indicate that only one answer should be chosen; squares (☐) indicate that multiple answers can be chosen.*

We are going to start the interview by asking you some general questions about this restaurant and its employees.

1. Is this an independent establishment or a chain establishment?

- Independent ○ Unsure
○ Chain ○ Refused

2. Do you prepare raw meat, poultry or fish?

- Yes ○ Unsure
○ No ○ Refused

3. Which of the following best describes the menu for this establishment—American, Asian, Mexican, Italian, or other?

- American or non-ethnic ○ Other
○ Asian ○ Unsure
○ Mexican ○ Refused
○ Italian

4. Approximately how many meals are served here on your busiest day?

- 1-50 meals per day
○ 51-100 meals per day
○ 101-200 meals per day
○ 201-300 meals per day
○ 301-500 meals per day
○ More than 500 meals per day
○ Unsure
○ Refused

5. Approximately how long have you been a kitchen manager here? By kitchen manager I mean someone with responsibility for the restaurant's kitchen.

- | | |
|------------------------------|-------------------------------|
| ○ Less than 6 months | ○ 6 years- less than 8 years |
| ○ 6 months-less than a year | ○ 8 years- less than 10 years |
| ○ 1 year- less than 2 years | ○ 10 or more years |
| ○ 2 years-less than 4 years | ○ Unsure |
| ○ 4 years- less than 6 years | ○ Refused |

6. How many kitchen managers, including you, are currently employed in this establishment?

- | | |
|----------------------|--|
| ○ 1 | Go to ' <u>If only 1</u> kitchen manager' section |
| ○ More than 1: _____ | Go to ' <u>If more than 1</u> kitchen manager' section |
| ○ Unsure | Skip to #13 |
| ○ Refused | Skip to #13 |

If only 1 kitchen manager

If more than 1 kitchen manager

7. Have you received any food safety training?

- Yes
- No *Skip to # 11*
- Unsure *Skip to # 11*
- Refused *Skip to # 11*

8. Was the food safety training provided on-the-job, through a class or course, or some other way? (Check all that apply)

- On-the-job
- Class/course
- Other _____
- Unsure
- Refused

9. Are you food safety certified?

- Yes
- No *Skip to #11*
- Unsure *Skip to #11*
- Refused *Skip to #11*

10. Are you certified through any of the following—ServSafe, National Registry of Food Safety Professionals/Environmental Health Testing or Thomson Prometric?

- Yes Unsure
- No Refused

11. Do you receive health insurance through your employer?

- Yes → a. **Who covers the cost of the health insurance?**
 - Employer Unsure
 - Employee Refused
 - Both
- No
- Unsure
- Refused

7. Have any kitchen managers received any food safety training?

- Yes → a. **How many managers have had food safety training? _____**
 - Unsure
 - Refused

- No *Skip to # 11*
- Unsure *Skip to # 11*
- Refused *Skip to # 11*

8. Was the food safety training provided on-the-job, through a class or course, or some other way? (Check all that apply)

- On-the-job
- Class/course
- Other _____
- Unsure
- Refused

9. Are any kitchen managers food safety certified?

- Yes
- No *Skip to #11*
- Unsure *Skip to #11*
- Refused *Skip to #11*

10. Are any kitchen managers certified through any of the following—ServSafe, National Registry of Food Safety Professionals/ Environmental Health Testing or Thomson Prometric?

- Yes → a. **How many kitchen managers are certified through one or more of these groups? _____**
 - Unsure
 - Refused
- No
- Unsure
- Refused

11. Do any kitchen managers receive health insurance through your employer?

- Yes → a. **Who covers the cost of the insurance?**
 - Employer Unsure
 - Employee Refused
 - Both
- b. **How many kitchen managers receive this insurance?**
 - _____
 - Unsure
 - Refused
- No
- Unsure
- Refused

If only 1 kitchen manager

If more than 1 kitchen manager

12. Do you ever get paid when you miss work because you are sick?

Yes → a. How do you get paid?
(Probe for: how many hours/days per time period, is it accumulated over time, if this is what always happens, etc.)

No
 Unsure
 Refused

Unsure
 Refused

12. Do any kitchen managers ever get paid when they miss work because they are sick?

Yes → a. How do they get paid?
(Probe for: how many hours/days per time period, is it accumulated over time, if this is always what happens, etc.)

No
 Unsure
 Refused

Unsure
 Refused

→ b. How many kitchen managers get paid when they miss work because of sickness?

 Unsure
 Refused

No
 Unsure
 Refused

This next set of questions relates to food workers. When I say food workers, I am talking about employees, not managers, who work in the kitchen and have food handling responsibilities. This does not include staff who have no food handling responsibilities or who have very limited food contact such as adding garnish to plates.

13. How many food workers are employed here?
- 1 *Go to 'If only 1 worker' section*
 - More than 1: _____ *Go to 'If more than 1 worker' section*
 - Unsure *Skip to #20*
 - Refused *Skip to #20*

If only 1 worker

If more than 1 worker

14. Has the food worker received any food safety training?

- Yes
- No *Skip to #18*
- Unsure *Skip to #18*
- Refused *Skip to #18*

14. Have any food workers received any food safety training?

Yes → a. How many food workers have had food safety training? _____

- No *Skip to #18*
- Unsure *Skip to #18*
- Refused *Skip to #18*

Unsure
 Refused

If only 1 worker

If more than 1 worker

15. Was the food safety training provided on-the-job, through a class or course, or some other way? (Check all that apply)

On-the-job
 Class/course
 Other _____
 Unsure
 Refused

16. Is the food worker food safety certified?

Yes
 No Skip to #18
 Unsure Skip to #18
 Refused Skip to #18

17. Is the food worker certified through any of the following—ServSafe, National Registry of Food Safety Professionals/Environmental Health Testing or Thomson Prometric?

Yes Unsure
 No Refused

18. Does the food worker receive health insurance through your employer?

Yes → Who covers the cost of the insurance?

Employer Unsure
 Employee Refused
 Both

No
 Unsure
 Refused

15. Was the food safety training provided on-the-job, through a class or course, or some other way? (Check all that apply)

On-the-job
 Class/course
 Other _____
 Unsure
 Refused

16. Are any of your food workers food safety certified?

Yes
 No Skip to #18
 Unsure Skip to #18
 Refused Skip to #18

17. Are any food workers certified through any of the following—ServSafe, National Registry of Food Safety Professionals/ Environmental Health Testing or Thomson Prometric?

Yes → a. How many food workers are certified through one or more of these groups? _____

Unsure
 Refused

No
 Unsure
 Refused

18. Do any food workers receive health insurance through your employer?

Yes → a. Who covers the cost of the insurance?

Employer Unsure
 Employee Refused
 Both

No
 Unsure
 Refused

If only 1 worker

If more than 1 worker

19. Does the food worker ever get paid when he or she misses work because he or she is sick?

Yes → a. How does the food worker get paid?
(Probe for: how many hours/days per time period, is it accumulated over time, if this is always what happens, etc.)

No
 Unsure
 Refused

19. Do any workers ever get paid when they miss work because they are sick?

Yes → a. How do they get paid?
(Probe for: how many hours/days per time period, is it accumulated over time, if this is always what happens, etc.)

No
 Unsure
 Refused

→ b. How many workers get paid when they miss work because of sickness?

 Unsure
 Refused

No
 Unsure
 Refused

20. Now I'm going to ask you to think about a specific situation, and then I am going to ask you some questions about that situation.

Can you think about the last time a worker with food handling responsibilities stayed home from work because they didn't feel well? We are *not* looking for instances of injuries or *chronic* illnesses for which an employee may repeatedly miss work. Instead, we are looking for instances of occasional illness.

NOT TO BE READ ALOUD: Was the manager able to think of a situation?

Yes
 No *Skip to #24*

21. Did someone cover the worker's shift?

- Yes → a. Who covered the worker's shift?
 - Another food worker
 - Management (shift leader, supervisor, etc.)
 - Owner/Operator
 - An employee who typically does not prepare food or have food contact, i.e., family member, janitor, cashier, etc.
 - Someone else → Who was this person? _____
 - Unsure
 - Refused
 - Unsure
 - Refused
- b. Who found the worker who covered the shift?
 - Worker
 - Management (shift leader, supervisor, etc.)
 - Owner/Operator
 - Other _____
 - Unsure
 - Refused
- No
- Unsure
- Refused

22. Did you know what the worker's symptoms of illness were?

- Yes → a. What were the worker's symptoms of illness? (Check all that apply)

<input type="checkbox"/> Vomiting	<input type="checkbox"/> "Yellow" eyes or skin
<input type="checkbox"/> Diarrhea	<input type="checkbox"/> Cuts
<input type="checkbox"/> Fever	<input type="checkbox"/> Skin infection/boil
<input type="checkbox"/> Cough	<input type="checkbox"/> Cold sweat
<input type="checkbox"/> Sneezing	<input type="checkbox"/> Malaise- generalized feeling of discomfort, illness, or lack of well-being
<input type="checkbox"/> Runny nose	<input type="checkbox"/> Nausea/upset stomach
<input type="checkbox"/> Sore throat	<input type="checkbox"/> Other _____
<input type="checkbox"/> "Cold"	<input type="checkbox"/> Unsure
<input type="checkbox"/> Achy (aches and pains)	<input type="checkbox"/> Refused
<input type="checkbox"/> "Flu"	
<input type="checkbox"/> "Stomach flu"	
- b. How did you find out? (Check all that apply)
 - The worker told me (If necessary, probe to determine if they asked the worker)
 - Someone else told me
 - I asked the worker
 - I observed the worker
 - Health department told me
 - Other _____
- No
- Unsure
- Refused

23. Whose decision was it for the worker not to work? (Check all that apply)

- | | |
|--|---------------------------------------|
| <input type="checkbox"/> Worker | <input type="checkbox"/> Other: _____ |
| <input type="checkbox"/> Management (shift leader, supervisor, etc.) | <input type="checkbox"/> Unsure |
| <input type="checkbox"/> Owner/Operator | <input type="checkbox"/> Refused |
| <input type="checkbox"/> Doctor/Physician | |

We know that in the food industry there are sometimes situations in which food workers and managers have to work even if they are not feeling well. I'm going to ask some questions to get a better understanding of these situations.

24. I'd like you to think about the last time a food worker in this establishment worked his or her shift even though they did not feel well, and I'm going to ask you a few questions about this specific situation.

NOT TO BE READ ALOUD: Was the manager able to think of a situation?

- Yes
 No *Skip to #29*

25. In your opinion, why did the worker work? (Check all that apply)

- The establishment was understaffed
 Management (shift leader, owner/operator, etc) couldn't find a replacement
 The worker couldn't find a replacement
 Management (shift leader, owner/operator, etc) didn't believe the worker was really sick
 The symptoms didn't seem contagious to other people in the establishment
 The worker felt an obligation/didn't want to leave their coworkers in a bind
 The worker was afraid of losing his or her job
 The worker wouldn't get paid if he or she didn't work
 The worker didn't want other consequences of not working (e.g., lose place in rotation, lose shifts, etc.)
 We don't have a sick leave policy
 There was non-food handling work available
 Other: _____
 Unsure
 Refused

26. Did you know what the worker's symptoms of illness were?

Yes → a. **What were the worker's symptoms of illness? (Check all that apply)**

- | | |
|---|---|
| <input type="checkbox"/> Vomiting | <input type="checkbox"/> "Yellow" eyes or skin |
| <input type="checkbox"/> Diarrhea | <input type="checkbox"/> Cuts |
| <input type="checkbox"/> Fever | <input type="checkbox"/> Skin infection/boil |
| <input type="checkbox"/> Cough | <input type="checkbox"/> Cold sweat |
| <input type="checkbox"/> Sneezing | <input type="checkbox"/> Malaise- generalized feeling of discomfort, illness, or lack of well-being |
| <input type="checkbox"/> Runny nose | <input type="checkbox"/> Nausea/upset stomach |
| <input type="checkbox"/> Sore Throat | <input type="checkbox"/> Other _____ |
| <input type="checkbox"/> "Cold" | <input type="checkbox"/> Unsure |
| <input type="checkbox"/> Achy (aches and pains) | <input type="checkbox"/> Refused |
| <input type="checkbox"/> "Flu" | |
| <input type="checkbox"/> "Stomach flu" | |

→ b. **How did you find out? (Check all that apply)**

- The worker told me *(If necessary, probe to determine if they asked the worker)*
 Someone else told me
 I asked the worker
 I observed the worker
 Health department told me
 Other _____

- No
 Unsure
 Refused

27. Whose decision was it for the worker to come to work? (Check all that apply)

- Worker
- Management (shift leader, supervisor, etc.)
- Owner/Operator
- Doctor/Physician
- Other: _____
- Unsure
- Refused

28. Did the worker do anything differently at work because they didn't feel well?

(If the manager seems confused or asks what you mean ask this probe: **For example, did the worker work a shorter shift or have different work responsibilities?**)

- Yes → What did they do differently? (Check all that apply)
 - They worked shorter hours
 - They didn't handle food
 - They wore gloves
 - They washed their hands more often
 - Other: _____
- No
- Unsure
- Refused

 29. Now I'd like you to think about the last time you worked in this establishment when you didn't feel well, and I'm going to ask you a few questions about this specific situation.

NOT TO BE READ ALOUD: Was the manager able to think of a situation?

- Yes
- No → Skip to #34

30. Why did you work? (Check all that apply)

- The establishment was understaffed
- Management (shift leader, owner/operator, etc) couldn't find a replacement
- I couldn't find anyone to replace me
- Management (shift leader, owner/operator, etc) didn't believe I was really sick
- The symptoms didn't seem contagious to other people in the establishment
- I felt an obligation/didn't want to leave my coworkers in a bind
- I was afraid of losing my job
- I wouldn't get paid if I didn't work
- I didn't want other consequences of not working (e.g., lose place in rotation, lose shifts, etc.)
- We don't have a sick leave policy
- There was non-food handling work available
- Other: _____
- Unsure
- Refused

31. **What were the symptoms of your illness?** *(Check all that apply)*

- | | |
|---|---|
| <input type="checkbox"/> Vomiting | <input type="checkbox"/> “Yellow” eyes or skin |
| <input type="checkbox"/> Diarrhea | <input type="checkbox"/> Cuts |
| <input type="checkbox"/> Fever | <input type="checkbox"/> Skin infection/boil |
| <input type="checkbox"/> Cough | <input type="checkbox"/> Cold sweat |
| <input type="checkbox"/> Sneezing | <input type="checkbox"/> Malaise- generalized feeling of discomfort, illness, or lack of well-being |
| <input type="checkbox"/> Runny nose | <input type="checkbox"/> Nausea/upset stomach |
| <input type="checkbox"/> Sore throat | <input type="checkbox"/> Other_____ |
| <input type="checkbox"/> “Cold” | <input type="checkbox"/> Unsure |
| <input type="checkbox"/> Achy (aches and pains) | <input type="checkbox"/> Refused |
| <input type="checkbox"/> “Flu” | |
| <input type="checkbox"/> “Stomach flu” | |

32. **Whose decision was it for you to work?** *(Check all that apply)*

- Mine (manager)
- Management (shift leader, supervisor, etc.)
- Owner/Operator
- Doctor/Physician
- Other _____
- Unsure
- Refused

33. **Did you do anything differently at work because of your illness?**

(If the manager seems confused or asks what you mean ask this probe: For example, did you work a shorter shift or have different work responsibilities?)

Yes → **What did you do differently?** *(Check all that apply)*

- I worked shorter hours
- I didn’t handle food
- I wore gloves
- I washed my hands more often
- Other:_____
- Unsure
- Refused

- No
- Unsure
- Refused

Now I’m going to ask you some questions for which you’ll need to use a rating scale. *(Show rating scale)*

34. **How often does this establishment have a food worker on call or available in case a scheduled worker can’t come in—never, rarely, sometimes, often, or always?**

- Never Rarely Sometimes Often Always Unsure Refused

35. **How often is the kitchen adequately staffed, meaning that each assigned kitchen position is filled by a worker trained in that position?**

- Never Rarely Sometimes Often Always Unsure Refused

36. In situations in which food workers call in to say they don't feel well and don't want to come to work, how often do they end up working?

- Never
 Rarely
 Sometimes
 Often
 Always
 Unsure
 Refused

37. How often do you think food workers call in sick when they aren't really sick?

- Never
 Rarely
 Sometimes
 Often
 Always
 Unsure
 Refused

38. What are the two factors that most influence whether you allow food workers who say they don't feel well and want to stay home from work to stay home from work?

1. _____

2. _____

- Unsure
 Refused

39. Now I'm going to ask a set of questions that use a different scale. (Show scale)

a. On a scale of 1 to 5, with **1 being not likely** and **5 being very likely**, how likely would you be to tell a food worker with a *frequent cough* to come to work, but not work with food?

Not likely					Very likely	
<input type="radio"/>						
1	2	3	4	5	Unsure	Refused

b. How likely would you be to tell a food worker with *repeated episodes of vomiting* to come to work, but not work with food?

Not likely					Very likely	
<input type="radio"/>						
1	2	3	4	5	Unsure	Refused

c. How likely would you be to tell a food worker with a *sore throat and fever* to come to work, but not work with food?

Not likely					Very likely	
<input type="radio"/>						
1	2	3	4	5	Unsure	Refused

d. How likely would you be to tell a food worker with *repeated episodes of diarrhea* to come to work, but not work with food?

Not likely					Very likely	
<input type="radio"/>						
1	2	3	4	5	Unsure	Refused

e. How likely would you be to tell a food worker with *jaundice, including yellow eyes and skin*, to come to work, but not work with food?

Not likely					Very likely	
<input type="radio"/>						
1	2	3	4	5	Unsure	Refused

40. Now I'm going to ask a slightly different set of questions.

- a. On a scale of 1 to 5, with 1 being not likely and 5 being very likely, how likely would you be to tell a food worker with a frequent cough to stay home from work?

Not likely			Very likely			
<input type="radio"/>						
1	2	3	4	5	Unsure	Refused

- b. How likely would you be to tell a food worker with repeated episodes of vomiting to stay home from work?

Not likely			Very likely			
<input type="radio"/>						
1	2	3	4	5	Unsure	Refused

- c. How likely would you be to tell a food worker with a sore throat and fever to stay home from work?

Not likely			Very likely			
<input type="radio"/>						
1	2	3	4	5	Unsure	Refused

- d. How likely would you be to tell a food worker with repeated episodes of diarrhea to stay home from work?

Not likely			Very likely			
<input type="radio"/>						
1	2	3	4	5	Unsure	Refused

- e. How likely would you be to tell a food worker with jaundice, including yellow eyes and skin, to stay home from work?

Not likely			Very likely			
<input type="radio"/>						
1	2	3	4	5	Unsure	Refused

Okay, we are done with the rating scales.

41. In the past 3 months, approximately how many food workers do you think have missed a shift because they didn't feel well? _____

- Unsure
 Refused

42. In the past 3 months, approximately how many food workers do you think have worked a shift when they didn't feel well? _____

- Unsure
 Refused

43. Does this establishment have a policy concerning what to do when you have ill workers? By policy I mean a set of guidelines or rules you follow to make decisions about ill workers.

- Yes Unsure *Skip to #47*
 No *Skip to #47* Refused *Skip to #47*

44. Is this policy written? For example, is there a manual containing the policy?

- Yes Unsure
 No Refused

45. Are food workers informed of this policy when they are hired?
- Yes Unsure
 No Refused
46. Does the policy require workers to tell a manager when they are ill?
- Yes Unsure
 No Refused
47. If a food worker tells you he or she is ill, do you typically ask if their symptoms specifically include diarrhea?
- Yes Unsure
 No Refused
48. If a food worker tells you he or she is ill, do you typically ask if their symptoms specifically include vomiting?
- Yes Unsure
 No Refused
49. Are food workers who have missed work because of illness ever required to bring a doctor's note upon returning to work?
- Yes Unsure
 No Refused
50. Have you ever contacted the health department about an ill food worker?
- Yes Unsure
 No Refused
51. Is there a regulation in your county or state that requires you to report certain illnesses to the agency responsible for inspecting your establishment?
- Yes Unsure
 No Refused
52. Is there a company or management policy that restricts ill food workers? By restrict I mean that the worker is restricted from preparing food.
- Yes
 No *Skip to #54*
 Unsure *Skip to #54*
 Refused *Skip to #54*
53. Does the policy identify specific symptoms that require ill food workers to be restricted from food preparation activities?
- Yes
 No *Skip to b.*
 Unsure *Skip to b.*
 Refused *Skip to b.*

a. **What are the illness symptoms?** *(Check all that apply)*

- | | |
|---|---|
| <input type="checkbox"/> Vomiting | <input type="checkbox"/> "Yellow" eyes or skin |
| <input type="checkbox"/> Diarrhea | <input type="checkbox"/> Cuts |
| <input type="checkbox"/> Fever | <input type="checkbox"/> Skin infection/boil |
| <input type="checkbox"/> Cough | <input type="checkbox"/> Cold sweat |
| <input type="checkbox"/> Sneezing | <input type="checkbox"/> Malaise- generalized feeling of discomfort, illness, or lack of well-being |
| <input type="checkbox"/> Runny nose | <input type="checkbox"/> Nausea/upset stomach |
| <input type="checkbox"/> Sore throat | <input type="checkbox"/> Other _____ |
| <input type="checkbox"/> "Cold" | <input type="checkbox"/> Unsure |
| <input type="checkbox"/> Achy (aches and pains) | <input type="checkbox"/> Refused |
| <input type="checkbox"/> "Flu" | |
| <input type="checkbox"/> "Stomach flu" | |

b. **Does the policy indicate how long ill food workers should be restricted from food preparation activities?**

- Yes Unsure
 No Refused

c. **Does this policy require notifying a local *regulatory agency* or *authority* if a food worker has been diagnosed with a disease that may be transmissible through handling food? By "regulatory" I mean a local, state or federal agency or person that has enforcement jurisdiction over food establishments.**

- Yes Unsure
 No Refused
 Sometimes

d. **Who do you notify?** *(Check all that apply)*

- The local Health Officer
 The local environmental health agency or representative (e.g. "health inspector")
 The local Public Health Department
 The State Health Department
 Other _____
 Unsure
 Refused

e. **Does this policy require that a food worker who has been diagnosed with a disease that may be transmissible through handling food receive approval from a regulatory authority or agency in order to return to working with food?**

- Yes Unsure
 No Refused
 Sometimes

54. **Is there a company or management policy that excludes ill food workers? By exclude, I mean that the worker is prevented from working at all.**

- Yes
 No *Skip to End Interview statement*
 Unsure *Skip to End Interview statement*
 Refused *Skip to End Interview statement*

55. Does the policy identify specific symptoms that require ill food workers to be excluded, or prevented from working?

- Yes
 No *Skip to b.*
 Unsure *Skip to b.*
 Refused *Skip to b.*

a. What are the illness symptoms? (Check all that apply)

- | | |
|---|---|
| <input type="checkbox"/> Vomiting | <input type="checkbox"/> "Yellow" eyes or skin |
| <input type="checkbox"/> Diarrhea | <input type="checkbox"/> Cuts |
| <input type="checkbox"/> Fever | <input type="checkbox"/> Skin infection/boil |
| <input type="checkbox"/> Cough | <input type="checkbox"/> Cold sweat |
| <input type="checkbox"/> Sneezing | <input type="checkbox"/> Malaise- generalized feeling of discomfort, illness, or lack of well-being |
| <input type="checkbox"/> Runny nose | <input type="checkbox"/> Nausea/Upset stomach |
| <input type="checkbox"/> Sore throat | <input type="checkbox"/> Other _____ |
| <input type="checkbox"/> "Cold" | <input type="checkbox"/> Unsure |
| <input type="checkbox"/> Achy (aches and pains) | <input type="checkbox"/> Refused |
| <input type="checkbox"/> "Flu" | |
| <input type="checkbox"/> "Stomach flu" | |

b. Does the policy indicate how long ill food workers should be prevented from working?

- Yes Unsure
 No Refused

c. Does this policy require notifying a local *regulatory agency* or *authority* if a food worker has been diagnosed with a disease that may be transmissible through handling food? By "regulatory" I mean a local, state or federal agency or person that has enforcement jurisdiction over food establishments.

- Yes Unsure
 No Refused
 Sometimes

d. Who do you notify? (Check all that apply)

- The local Health Officer
 The local environmental health agency or representative (e.g. "health inspector")
 The local Public Health Department
 The State Health Department
 Other _____
 Unsure
 Refused

e. Does this policy require that a food worker who has been diagnosed with a disease that may be transmissible through handling food receive approval from a regulatory authority or agency in order to return to work?

- Yes Unsure
 No Refused
 Sometimes

This is the end of the interview. Thank you for your time. I'd also like to conduct a 5-10 minute interview with two of your food workers. Can you identify two food workers that I could talk to that work in the kitchen, have food handling responsibilities, and speak English?

Note time the interview ended: _____

Part III. Establishment Characteristics: This section is to be completed by the specialist after a review of the menu and interview with the manager.

1. Establishment Type:

- Prep Serve- An establishment where all food items are prepared and served without a kill step. Some food on the menu that is a commercially prepared, ready-to-eat food, may be heated for service.
- Cook Serve- An establishment where at least one food item is prepared for same day service and involves a kill step. The menu may include prep serve items or have some food on the menu that is commercially prepared and heated for service.
- Complex- An establishment where at least one food item requires a kill step and holding beyond same day service or a kill step and some combination of holding, cooling, re-heating, and freezing. The menu may include any combination of prep serve, cook serve, and complex food items.

2. Is this establishment

a. ...a sit down establishment?

- Yes
- No
- Unsure

b. ...a buffet establishment?

- Yes
- No
- Unsure

c. ...a quick-service or fast-food establishment?

- Yes
- No
- Unsure

d. ...a caterer?

- Yes
- No
- Unsure

e. ...a banquet hall?

- Yes
- No
- Unsure

3. Who is collecting the data in this establishment? (*Check all that apply*)

- An EHS-Net state person not responsible for inspections in the establishment
- An EHS-Net state person responsible for inspections in the establishment
- A local person not responsible for inspections in the establishment
- A local person responsible for inspections in the establishment
- Other (*Describe*): _____

Appendix D: Worker Informed Consent

Part IV: Worker Informed Consent

Note time the interview began: _____

Let me give you a little background on why I'm here. I'm working with _____ (health department) on a research project designed to help us understand the issues faced by restaurants concerning ill and absent workers. Your restaurant was picked at random to be in this project, and your manager said that it would be okay for you to talk to me for a few minutes. However, your participation is voluntary—you don't have to talk to me if you don't want to. I won't tell your manager, and nothing bad will happen to you. If you do talk with me, I won't tell your manager anything that you say.

I'm going to ask you some questions about your work behavior and this restaurant's policies and practices. This should only take 5 or 10 minutes. If any of the questions make you uncomfortable you can choose not to answer them. The information we collect today will be combined with information from other restaurants in various states. Your name and your restaurant's name will not be linked in any way to the information we collect, nor will they be included in any reports.

The information you provide will be valuable to helping us understand the difficult issues restaurant workers face, so we ask you to be as open and honest as possible.

Do you have any questions?

If you have any questions at a later time, you can contact: (Local Contact Name). (If have card) My information is on this card.

Do you agree to let me interview you? *(Check appropriate box)*

- Yes (Continue with the interview)
 No (Thank you for your time)

Appendix E: Food Worker Interview

Part V: Food Worker Interview

*NOTE TO INTERVIEWER: Instructions are in italics throughout document. All **bolded** text should be read aloud. Response options are not to be read aloud unless specifically noted. Circles (○) indicate that only one answer should be chosen; squares (☐) indicate that multiple answers can be chosen.*

1. What are your primary job responsibilities here? *(Check all that apply)*

- Preparation
- Cooking
- Food storage
- Washing dishes
- Cleaning
- Other _____
- Unsure
- Refused

2. How many years of experience do you have working in food service kitchens?

- Less than 6 months
- 6 months-less than a year
- 1 year- less than 2 years
- 2 years-less than 4 years
- 4 years- less than 6 years
- 6 years- less than 8 years
- 8 years- less than 10 years
- 10 or more years
- Unsure
- Refused

3. Now I'm going to ask you to think about a specific situation, and then I am going to ask you some questions about that situation.

Can you think about the last time you stayed home from work because you didn't feel well? We are *not* looking for instances of injuries or *chronic* illnesses for which you may repeatedly miss work. Instead, we are looking for instances of occasional illness.

NOT TO BE READ ALOUD: Was the worker able to think of a situation?

- Yes
- No *Skip to #9*

4. Whose decision was it for you not to work? *(Check all that apply)*

- Mine (worker)
- Management (shift leader, supervisor, etc.)
- Owner/Operator
- Doctor/Physician
- Other _____
- Unsure
- Refused

5. Did someone cover your shift?

- Yes → a. **Who covered your shift?**
 - Another food worker
 - Management (shift leader, supervisor, etc.)
 - Owner/Operator
 - An employee who typically does not prepare food or have food contact, i.e., family member, janitor, cashier, etc.
 - Someone else → **Who was this person?** _____
 - Unsure
 - Refused
- Unsure
- Refused

10. Whose decision was it for you to work? (Check all that apply)

- Mine (worker)
- Management (shift leader, supervisor, etc.)
- Owner/Operator
- Doctor/Physician
- Other _____
- Unsure
- Refused

11. Why did you work? (Check all that apply)

- The establishment was understaffed
- Management (shift leader, owner/operator, etc) couldn't find anyone to cover my shift
- I couldn't find anyone to cover my shift
- Management (shift leader, owner/operator, etc) didn't believe I was really sick
- My symptoms didn't seem contagious to other people in the establishment
- I felt an obligation/didn't want to leave my coworkers in a bind
- I was afraid of losing my job
- I wouldn't get paid if I didn't work
- I didn't want other consequences of not working (e.g., lose place in rotation, lose shifts, etc.)
- We don't have a sick leave policy
- There was non-food handling work available
- Other: _____
- Unsure
- Refused

12. What were your symptoms of illness? (Check all that apply)

- | | |
|---|---|
| <input type="checkbox"/> Vomiting | <input type="checkbox"/> "Yellow" eyes or skin |
| <input type="checkbox"/> Diarrhea | <input type="checkbox"/> Cuts |
| <input type="checkbox"/> Fever | <input type="checkbox"/> Skin infection/boil |
| <input type="checkbox"/> Cough | <input type="checkbox"/> Cold sweat |
| <input type="checkbox"/> Sneezing | <input type="checkbox"/> Malaise- generalized feeling of discomfort, illness, or lack of well-being |
| <input type="checkbox"/> Runny nose | <input type="checkbox"/> Nausea/Upset stomach |
| <input type="checkbox"/> Sore throat | <input type="checkbox"/> Other _____ |
| <input type="checkbox"/> "Cold" | <input type="checkbox"/> Unsure |
| <input type="checkbox"/> Achy (aches and pains) | <input type="checkbox"/> Refused |
| <input type="checkbox"/> "Flu" | |
| <input type="checkbox"/> "Stomach flu" | |

13. What do you think caused you to feel ill?

- I was hungover
- I was pregnant
- I was sick (cold, flu, etc.)
- Other: _____
- Unsure/don't know
- Refused

14. Did a manager know what your symptoms of illness were?

- Yes → a. How did they find out? (Check all that apply)
 - I told them (If necessary, probe to determine if the manager asked the worker)
 - Someone else told them
 - Management asked
 - Management observed
 - Other _____
- No
- Unsure
- Refused

15. **Did you do anything differently at work because of your illness?**

(If the worker seems confused or asks what you mean, ask this probe: For example, did you work a shorter shift or have different work responsibilities?)

Yes → **What did you do differently?** *(Check all that apply)*

- I worked shorter hours
- I didn't handle food
- I wore gloves
- I washed my hands more often
- Other: _____
- Unsure
- Refused

- No
- Unsure
- Refused

16. **Now I am going to ask you some questions for which you'll have to use a rating scale.** *(Show rating scales as appropriate).*

a. **On a scale of 1 to 5, with 1 being not at all and 5 being a great deal, how much does *not getting paid if you don't work* influence whether you come to work when you don't feel well?**

Not at all					A great deal	
<input type="radio"/>						
1	2	3	4	5	Unsure	Refused

b. **How much does *not wanting to leave your coworkers short-staffed* influence whether you come to work when you don't feel well?**

Not at all					A great deal	
<input type="radio"/>						
1	2	3	4	5	Unsure	Refused

c. **How much does *fear of losing your job* influence whether you come to work when you don't feel well?**

Not at all					A great deal	
<input type="radio"/>						
1	2	3	4	5	Unsure	Refused

d. **How much does *fear of other consequences, such as losing shifts*, influence whether you come to work when you don't feel well?**

Not at all					A great deal	
<input type="radio"/>						
1	2	3	4	5	Unsure	Refused

e. **How much does the *severity of your illness symptoms* influence whether you come to work when you don't feel well?**

Not at all					A great deal	
<input type="radio"/>						
1	2	3	4	5	Unsure	Refused

- f. How much does *the kind of illness symptoms you have* influence whether you come to work when you don't feel well?

Not at all			A great deal			
<input type="radio"/>						
1	2	3	4	5	Unsure	Refused

- g. How much does your *dedication to your job* influence whether you come to work when you don't feel well?

Not at all			A great deal			
<input type="radio"/>						
1	2	3	4	5	Unsure	Refused

- h. How much does whether you *think you could make other people sick* influence whether you come to work when you don't feel well?

Not at all			A great deal			
<input type="radio"/>						
1	2	3	4	5	Unsure	Refused

17. Are there any other factors that I have not asked about that influence whether you come to work when you don't feel well?

- Yes → What are those factors?

- No
 Unsure
 Refused

18. Now I'm going to ask a slightly different set of questions, with a different scale. (*Show scale*)

- a. On a scale of 1 to 5, with **1 being not likely** and **5 being very likely**, how likely would you be to come to work with a *frequent cough*?

Not likely			Very likely			
<input type="radio"/>						
1	2	3	4	5	Unsure	Refused

- b. How likely would you be to come to work with *repeated episodes of vomiting*?

Not likely			Very likely			
<input type="radio"/>						
1	2	3	4	5	Unsure	Refused

- c. How likely would you be to come to work with a *sore throat and fever*?

Not likely			Very likely			
<input type="radio"/>						
1	2	3	4	5	Unsure	Refused

- d. How likely would you be to come to work with *repeated episodes of diarrhea*?

Not likely			Very likely			
<input type="radio"/>						
1	2	3	4	5	Unsure	Refused

e. **How likely would you be to come to work with jaundice, including yellow eyes and skin?**

Not likely			Very likely			
<input type="radio"/>						
1	2	3	4	5	Unsure	Refused

19. **Do you ever get paid when you don't work a scheduled shift because you didn't feel well?**

- Yes
- No
- Unsure
- Refused

Now I am going to ask you a few demographic questions.

20. **What is the highest level of formal education you have completed?**

- 8th grade or less
- Some high school
- High school diploma
- Some community college or associate work
- Community college or associate degree
- Some college
- College degree
- Some graduate work
- Graduate degree
- Other _____
- Unsure
- Refused

21. **Please indicate which of the following categories best describes your age—15 to 20 years of age, 21 to 30 years of age, 31 to 40 years of age, 41 to 50 years of age, 51 to 60 years of age, or older than 60?**

- 15 to 20 years of age
- 21 to 30 years of age
- 31 to 40 years of age
- 41 to 50 years of age
- 51 to 60 years of age
- Older than 60
- Unsure
- Refused

22. **What is your primary language?** (If respondent needs clarification—primary language is the language you speak best)

- English
- Spanish
- Russian
- An Asian language
- Other _____
- Unsure
- Refused

23. **In the past year, approximately how many shifts have you worked while experiencing diarrhea or vomiting?**

- _____
- None
- Unsure
- Refused

24. **NOT TO BE READ ALOUD:** Note the interviewee's gender here:

- Male
- Female

That's the end of the interview. Thank you for your time.

Note time the interview ended: _____

Scales to be shown to respondents are on the next page.

III Food Worker Study Manual

I. Background

A. Problem/Purpose Statement

Ill food workers are a significant cause of foodborne illness outbreaks. However, few studies have examined in detail issues concerning ill food workers in restaurants.

B. Objective/Goal

The purpose of this study is to collect data on 1) existing ill food worker policies, including restriction and exclusion policies, 2) practices associated with ill food workers, including symptoms that prompt food workers to call in sick and symptoms that prompt managers to send food workers home, and 3) reasons why food workers work while ill.

C. Study Design

- Study design will be cross-sectional.
- Study will include a manager interview and worker interview.
- Data collection will be independent of an inspection.
- Restaurants will be randomly selected from a list supplied by the EHS.
- Data will be collected in 50 restaurants in each catchment area.
- Data will be anonymous.
- EHS and local partners will collect the data.
- An appointment will be made with the establishment to interview managers and food workers.

II. Recruitment

A. Recruiting Procedure

We expect each state to collect data for this study in 50 restaurants. Each state will receive a list of randomly selected restaurants from the CDC and will use this list to obtain restaurant participants for this study. The number of restaurants on this list will be inflated by state refusal and ineligible rates (as determined by previous studies) to ensure that each state will be able to meet the target of 50 restaurants. For example, if 25% of restaurants in a state refused or were ineligible (e.g., they were shut down, didn't meet the EHS-Net definition of a restaurant), we will provide that state with a list of 67 restaurants, expecting that approximately 25% (17) of the 67 would refuse to participate or would be ineligible to participate, and 50 would agree to participate.

WHEN RECRUITING, PLEASE ADHERE TO THE GUIDELINES DESCRIBED BELOW.

1. Make multiple attempts to contact restaurants.

Recruiters need to make a concerted effort to establish contact with any restaurant that they initially try to contact. This is important because there may be systematic differences between easy-to-contact restaurants and hard-to-contact restaurants. For example, easy-to-contact restaurants may be less busy, better staffed, or better run than hard-to-contact restaurants. As these systematic differences could impact practices in the restaurant, we want to be sure that hard-to-contact restaurants are represented in our sample as well as easy-to-contact restaurants. To ensure that every effort is made to contact all restaurants in the sample, please do the following:

- **Unanswered calls:** For unanswered calls make a minimum of 10 attempts over 5 days to reach an establishment.
- **Answered calls:** For an answered call where no response was given (i.e. call back later) a minimum of 5 attempts over a minimum of 4 days should be made to the establishment to attempt to get a response.

You should make your call attempts at different times during the day.

2. Record all call attempts in the provided Call Tracking Log. A Call Tracking Log designed to assist in keeping track of your calls can be found in back of this manual. Please fill out the Call Log with the following information:

- Call Date
- Call Time
- Establishment Information
- Attempt Number: The number of the attempt to call a particular restaurant
- Results or Disposition of Call: No answer, Nonworking number, Told to call back, etc.

If you wish, you can use another method for keeping track of your calls. The CDC will not be requesting these logs.

3. Record the final disposition of all restaurants in the Participation Log. The Excel file called *III Worker Participation Log* should be used to keep track of the responses of the restaurants. Once you have made a final determination about a restaurant, fill out the Participation Log with the following information. *Please note that drop-down menus are provided in the spreadsheet to assist you in data entry.* When you click on a cell, a boxed arrow will appear to the right of the cell. Click on it, and your response options will appear. **This completed Participation Log will be given to the CDC at the end of data collection, and used to calculate refusal and participation rates and to examine differences between refusing and participating restaurants.**

For all restaurants you attempt to contact, enter in the appropriate spaces:

- **Participation code:** Indicate the response you received from the restaurant using the following codes.
 - **UNABLE TO CONTACT (U):** Use this response code if you followed the protocol above for unanswered calls and do not ever make contact with a restaurant. Also use this code if you cannot find a working number for a restaurant.
 - **PARTICIPATING (P):** Use this code if you are able to contact a restaurant, it meets the EHS-Net definition, it is not part of an already participating chain, it is eligible to participate, and the restaurant agrees to participate.
 - **REFUSED (R):** Use this code if you followed the protocol above for answered calls and make contact with a restaurant, but do not ever get a definitive response on participation. You will also use this code if you do make contact but the manager/owner declines to participate.
 - **CLOSED (CL):** Use this code if you determine that the restaurant is closed.
 - **CHAIN (C):** Use this code if a restaurant on your list is part of chain, and you have already collected data (or you are scheduled to collect data) from a restaurant in that chain.
 - **INELIGIBLE RESTAURANT- NOT EHS-NET (I1):** Use this code if you determine that the restaurant does not meet the EHS-Net definition of a restaurant. The following is the EHS-Net definition of a restaurant: An establishment that prepares and serves food to customers; institutions, food carts, mobile food units, temporary food stands, restaurants in supermarkets, and establishments that *only* cater are *not* included.
 - **INELIGIBLE RESTAURANT-SIZE (I2):** Use this code if you are able to contact a restaurant, it meets the EHS-Net definition, and it is not part of an already participating chain but it does not have at least one manager and one food worker you can interview. Note that this code is to be used when there are no managers/workers to interview; *not* when the manager won't allow you to interview workers.
 - **INELIGIBLE RESTAURANT- LANGUAGE (I3):** Use this code if you are able to contact a restaurant, it meets the EHS-Net definition, and it is not part of an already participating chain but there are no managers/workers who speak English.
 - **OTHER (O):** Something that does not fall into any of the other categories.

For all participating and refusing restaurants, also enter in the appropriate spaces:

- **The answers to the following 5 questions:**
 1. Is this an independent or chain establishment?
 2. How much difficulty did you have communicating with the person who gave you your answer on participation?

None	A little	Some	A lot
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 3. How many calls did you make before receiving an answer?
 4. What day of the week did you receive your answer?
 5. What time of day did you receive your answer? (*Please choose the half hour segment that best matches the time.*)

The above questions should be answered by you, *not* the respondent.

For all refusing restaurants, also enter in the appropriate spaces:

- **Refusal reason:** Any information they may provide on the reasons for refusal
- **Whether they agreed to answer the 3 refuser questions.**
- **If so, the respondent's answers to the 3 refuser questions:**
 1. Approximately how many meals do you serve on your busiest day?
 - 1-50 meals per day
 - 51-100 meals per day

- 101-200 meals per day
 - 201-300 meals per day
 - 301-500 meals per day
 - More than 500 meals per day
 - Unsure
 - Refused
2. Which one of the following best describes your restaurant's menu—American, Asian, Italian, Mexican, or other?
- American
 - Asian
 - Mexican
 - Italian
 - Other
 - Unsure
 - Refused
3. Does your restaurant prepare raw meat, fish or poultry?
- Yes
 - No
 - Unsure
 - Refused

4. Stop collecting data once you have collected data in 50 restaurants. When you have collected data in 50 restaurants, you do not have to collect any more data, even if you have restaurants on the list that you have not yet contacted.

B. Recruiting Script

A suggested recruiting script for calls to managers is included in the protocol.

III. Data Collection

Organizing Forms. We are keeping the data collected in this study anonymous, meaning that we do not want to be able to link any data collected to the restaurant from which the data came. Thus, once you complete your data collection, you will need to separate any identifying information on the restaurant from the restaurant's data. However, to ensure that we can link the manager and worker interviews for each establishment, you should consider giving each data collection packet a unique identification number.

Use of Locals. You can involve locals in data collection. However, please ensure that they observe you conduct the interviews several times, and that you observe them (and provide feedback) conduct the interviews several times before they collect data on their own.

Part I. Manager Informed Consent

Once at the restaurant, you will meet with the manager and obtain their informed consent. This script is included in the protocol.

Note: Throughout the data collection instrument, boxes (☐) indicate that there could be multiple answers to the question, while circles (○) indicate that there should be only one answer to the question. Additionally, instructions to the interviewers are in italics.

Part II. Manager Interview

After obtaining informed consent, you will interview a *manager with authority over the kitchen*. Please use the following guidelines.

1. General Guidelines

- For each survey question, you will read each question aloud and mark the appropriate response. Note that words that should be read aloud are in bold, while words you should not read aloud are not bolded.
- Answer choices are not read aloud unless bolded and included in the question text.
- You should attempt to obtain an answer to each question in the interview; however, if you believe that the establishment manager is unaware or unsure of the answer to a question, the response should be recorded as "Unsure," and if the manager refuses to answer a question, the response should be recorded as "Refused."

2. Specific Questions

- Please note and follow skip patterns present in questions 6, 7, 9, 11, 12, 13, 14, 16, 18, 19, 20, 21, 22, 24, 26, 28, 29, 33, 43, 52, 53, 54 and 55.
- Note that there are two sets of questions 7-12 and questions 14-19, set side-by-side in grids. You will ask the questions on the left-hand side of the grids if there is only one manager (questions 7-12) or only one worker (questions 14-19). You will ask the questions on the right-hand side of the grids if there is more than one manager (questions 7-12) or more than one worker (questions 14-19).
- *Semi-open-ended questions:* Semi-open-ended questions are those which could generate a variety of responses from participants, but for which we have still provided response options that we *think* will cover most of the responses you will hear from participants (note that you will *not* read these response options to participants). However, as we aren't sure if all the responses you get from respondents will fall in these response categories, you will need to write down answers that don't fit in the provided categories, and you may need to do some probing to ensure you are getting the kinds of answers we are looking for. Questions 21, 22, 23, 25, 26, 27, 28, 30, 31, 32, 33, and 53 are semi-open-ended questions
- *Open-ended questions:* Open-ended questions are those for which we have not provided any response options at all, because we just don't know what they might be. These questions could potentially generate a lot of responses- just write down what is said. You may also need to probe to get more information. Questions 12a, 19a, and 38 are open-ended questions.
- *Scale questions:* Questions 34, 35, 36, 37, 39, and 40 use response scales. We have provided copies of these scales at the end of this manual. You will need to show these to respondents to assist them in answering these questions.

3. End of Interview

- At the end of the interview, ask the manager to identify two food workers who speak English and who are available to talk to you. If the manager can not identify two food workers you can talk with, ask him or her if you can speak with one food worker.

Part III. Questions To Be Answered By Data Collector

This section contains several questions that the data collector should answer. The data collector should determine the EHS-Net establishment type (Question 1), and describe the establishment (Question 2) through a survey of the restaurant and the menu. Also note who is collecting the data (Question 3). These questions can be answered at any point during the restaurant visit.

Part IV. Worker Informed Consent

Once the manager has introduced you to the food worker, attempt to find a place to interview him or her out of the sight and hearing of the manager. This may require that you ask the manager for some privacy. Then read the informed consent script to the food worker. If you are interviewing two food workers, you will need to interview them separately.

Part V. Worker Interview

1. General Guidelines

- Take two copies of the worker interview protocol, for both worker interviews.
- For each survey question, you will read each question aloud and mark the appropriate response. Note that words that should be read aloud are in bold, while words you should not read aloud are not bolded.
- Answer choices are not read aloud unless bolded and included in the question text.
- You should attempt to obtain an answer to each question in the interview; however, if you believe that the worker is unaware or unsure of the answer to a question, the response should be recorded as "Unsure," and if the worker refuses to answer a question, the response should be recorded as "Refused."

3. Specific Questions

- Please note and follow skip patterns present in questions 3, 5, 7, 9, 14, and 15.
- *Semi-open-ended questions:* Questions 4, 5, 6, 7, 10, 11, 12, 13, 14, and 15 are semi-open ended. As we aren't sure if all the responses you get from respondents will fall in the response categories provided for these questions, you will need to write down answers that don't fit in the provided categories, and you may need to do some probing to ensure you are getting the kinds of answers we are looking for.
- *Open-ended questions:* Question 17 is open-ended and could potentially generate a lot of responses- just write down what is said. You may also need to probe to get more information.

- *Scale questions:* Questions 16 and 18 use response scales. We have provided copies of these scales at the end of this manual. You will need to show these to respondents to assist them in answering these questions.

IV. Other

A. Interview Order

- When you arrive at the restaurant, you may wish to offer to interview the food workers first, if that is easier for the manager.

B. Answers to Possible Questions

- “Why are you asking me these questions?”
- “What are you looking for?”

We are trying to learn more about how restaurants deal with ill food workers.

- “Why?”

In the long run, we hope to figure out how to make it easier for food workers to not work when they don't feel well.

- “What are you going to do with your notes?”

They will be entered into a computer and analyzed along with other responses. We are not collecting any information that might identify you in any way.

