



Environmental Health Specialists' Attitudes and Practices Concerning Food Safety in Restaurants: Preliminary Results

Laura R. Green^{1*} and Carol Selman²

¹RTI International, Atlanta, GA

²Centers for Disease Control and Prevention, Atlanta, GA

*Presenter

Environmental Health Services Branch
Centers for Disease Control and Prevention
4770 Buford Highway
Mailstop F-28
Atlanta, GA 30341

770-488-4332
lrg0@cdc.gov

Presented at the National
Environmental Health Association
Annual Meeting, Anchorage, AK
May 9-12, 2004

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Presented at Environmental Health Specialists' Attitudes and Practices Concerning Food Safety in Restaurants, 10/15/04, Atlanta, GA

Introduction

Environmental health specialists employed in public health departments are responsible for a variety of restaurant-related food safety tasks, including conducting food safety inspections. Yet some public health practitioners and researchers have argued that, due to a variety of weaknesses, routine restaurant inspections are limited in their ability to improve restaurant food safety (Liljen, 2004; Chai & Morris, 1994). Additionally, research on the relationship between food safety and restaurant inspections has been equivocal. Some studies have found a relationship between inspections and food safety (as measured by inspection scores, illness complaints, and outbreak rates) (Harty, Ballard, Grenon, & Kobayashi, 1999), while others have not (Crus, Koz, & Suarez, 2001; McFaul et al., 1994).

Environmental health specialists can provide valuable insight into the effectiveness of their restaurant inspections, the limitations of those inspections, and ways to modify inspections to improve their effectiveness. Thus, this study was designed to collect data from environmental health specialists on these topics.

Purpose

This study was designed to collect qualitative data on environmental health specialists' attitudes, perceptions, and practices concerning restaurant inspections. This information can be used to develop a better understanding of environmental health specialists' tasks, and how they can be modified to improve restaurant food safety.



Study Design

- One focus group was conducted with 6 randomly selected environmental health specialists responsible for restaurant inspections, and working in city (2), county (4), and state (2) health departments in Connecticut, Georgia, New York, and Tennessee.
- The focus group was conducted through a conference call; participants dialed a toll-free number and were connected to the group discussion by an operator.
- Participants received a six-day dollar reimbursement for their time and effort.
- Participants discussed several topics, including:
 - the effectiveness of their restaurant inspection process in identifying foodborne illness risk factors,
 - the limitations of their restaurant inspection process, and
 - the difficulties they faced when conducting inspections.
- Six more focus groups will be conducted in the spring of 2004.

Results

Effectiveness of restaurant inspection process

- Most participants felt that their inspections were fairly good, but not perfect, at identifying foodborne illness risk factors.
- Most participants said that "inspection checklists" during their inspections, and that those items on the checklists were not useful in assessing foodborne illness risk (e.g., cleanliness of dumpster lids).
- Participants felt that specific portions of their inspection process increase the effectiveness of their inspections. For example:
 - One inspection process included two parts—the first focused exclusively on foodborne illness risk factors, while the second focused on all uses that were not central to foodborne illness.
 - In one inspection process, a specialist conducted a "mini-HACCP," specifically designed to assess a foodborne illness risk, in addition to their more traditional inspection checklist.
 - In another inspection process, the focus had recently shifted from the completion of an inspection checklist to the evaluation of the foodborne illness risks associated with the establishment's food handling processes.

Results (cont'd)

Limitations of restaurant inspection process

- Participants identified the following limitations:
- Limited time in establishments to complete inspection. This limitation often causes inspectors' "spikes" (i.e., by management, makes it difficult for specialists to observe all important processes during their visit).
 - Ability to inspect establishments at a time other than between 8:00 a.m. and 5:00 p.m. Participants said that observation of food handling activities conducted in the evening, when establishments are often the busiest, can provide especially useful in identifying risk factors.
 - Focus on "floors, walls, and ceilings." So many or all parts of the specialists' inspection focus on items that seem not critical to food safety, such as whether or not brooms were touching the floor during a storage.
 - Regulators in enforce non-food safety-related regulations. Having to enforce non-food safety-related regulations, such as those pertaining to tobacco and economics, during inspections hampers a specialist's ability to fully evaluate risk factors.

Difficulties faced during inspection process

- Participants identified the following difficulties:
- Language barriers. Specialists have difficulty communicating effectively with food managers and workers who speak a language different from their own.
 - Food managers and workers with a lack of food safety education. Specialists have difficulty working with establishments and workers have not had basic food safety training, and do not understand food safety risks or the importance of controlling them.
 - High employee turnover. When a specialist returns to an establishment for re-inspections, the employees with which they originally worked to correct a food safety problem are often no longer employed at the establishment, the food safety problem has re-occurred, and they have to educate the new employees.
 - Debtive managers and owners. So many managers and owners do not want to cooperate with the specialists during inspections.
 - Lack of prior knowledge about restaurant processes. A lack of prior knowledge about establishments' processes makes it difficult for specialists to fully assess the establishments' risk during inspection.



Discussion

Preliminary results indicate that while most participants believed that their restaurant inspections were fairly good at identifying foodborne illness risks, participants whose inspection process focused more on restaurant food handling processes, as opposed to more traditional inspection checklists, felt that their inspections were better at identifying risks.

Specialists identified several limitations associated with restaurant inspections, and these centered around two themes—time and concern. Specialists did not feel that they had enough time in establishments to adequately assess risks, and that they were not able to conduct their inspections at times in which risks would be highest (e.g., peak dinner hours). Specialists also indicated that the concern in their inspections was problematic—they were required to assess factors that they did not feel were important to safety.

Specialists also identified difficulties they faced during the inspection process. These included language barriers, food managers and workers' lack of food safety education, high employee turnover, debtive managers and owners, and a lack of prior knowledge as restaurant processes.

Analysis of the results from the additional 6 focus groups should provide further insight into environmental health specialists' attitudes and perceptions concerning restaurant inspections, and how inspection processes could be modified to better assess foodborne illness risk.

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Acknowledgements

The Environmental Health Specialists Network (EHS-Net), a collaborative effort of the Environmental Health Services Branch of the Centers for Disease Control and Prevention (CDC), the U.S. Food and Drug Administration, the U.S. Department of Agriculture, and eight state health departments (California, Colorado, Connecticut, Georgia, Minnesota, New York, Oregon, Tennessee) provided valuable contributions to the development of this study.

Introduction

Environmental health specialists employed in public health departments are responsible for a variety of restaurant-related food safety tasks, including conducting food safety inspections. Yet some public health practitioners and researchers have argued that, due to a variety of weaknesses, routine restaurant inspections are limited in their ability to improve restaurant food safety (Bryan, 2004; Ehiri & Morris, 1994). Additionally, research on the relationship between food safety and restaurant inspections has been equivocal. Some studies have found a relationship between inspections and food safety (as measured by inspection scores, illness complaints, and outbreak rates) (Irwin, Ballard, Grendon, & Kobayashi, 1989), while others have not (Cruz, Katz, & Suarez, 2001; Mathias et al., 1994).

Environmental health specialists can provide valuable insight into the effectiveness of their restaurant inspections, the limitations of those inspections, and ways to modify inspections to improve their effectiveness. Thus, this study was designed to collect data from environmental health specialists' on these topics.

Purpose

This study was designed to collect qualitative data on environmental health specialists' attitudes, perceptions, and practices concerning restaurant inspections. This information can be used to develop a better understanding of environmental health specialists' activities, and how they can be modified to improve restaurant food safety.



Study Design

- One focus group was conducted with 8 randomly selected environmental health specialists responsible for restaurant inspections and working in city (2), county (4), and state (2) health departments in Connecticut, Georgia, New York, and Tennessee.
- The focus group was conducted through a conference call; participants dialed a toll-free number and were connected to the group discussion by an operator.
- Participants received a sixty dollar reimbursement for their time and effort.
- Participants discussed several topics, including:
 - the effectiveness of their restaurant inspection process at identifying foodborne illness risk factors,
 - the limitations of their restaurant inspection process, and
 - the difficulties they faced when conducting inspections.
- Six more focus groups will be conducted in the spring of 2004.

Results

Effectiveness of restaurant inspection process

- Most participants felt that their inspections were fairly good, but not perfect, at identifying foodborne illness risk factors.
- Most participants utilized “inspection checklists” during their inspections, and felt that some items on the checklists were not useful in assessing foodborne illness risk (e.g., cleanliness of dumpster lids).
- Participants felt that specific portions of their inspection process or recent changes in their inspection process increased the effectiveness of their inspections. For example:
 - One inspection process included two parts--the first focused exclusively on foodborne illness risk factors, while the second focused on issues that were less central to foodborne illness.
 - In one inspection process, specialists conducted a “mini-HACCP,” specifically designed to assess foodborne illness risk, in addition to their more traditional inspection checklist.
 - In another inspection process, the focus had recently shifted from the completion of an inspection checklist to the evaluation of the foodborne illness risks associated with the establishments’ food handling processes.

Results (Cont'd)

Limitations of restaurant inspection process

- Participants identified the following limitations:
- *Limited time in establishments to complete inspection.* This limitation, often due to inspection “quotas” set by management, makes it difficult for specialists to observe all important processes during their visit.
- *Inability to inspect establishments at times other than between 8:00 a.m. and 5:00 p.m.*
Participants said that observation of food handling activities conducted in the evening, when establishments are often the busiest, can prove especially useful in identifying risk factors.
- *Focus on “floors, walls, and ceilings.”*
Some or all parts of the specialists’ inspections focus on items that were not critical to food safety, such as whether or not brooms were touching the floor during storage.
- *Requirements to enforce non-food safety-related regulations.*
Having to enforce non-food safety-related regulations, such as those pertaining to tobacco and economics, during inspections hampers specialists’ ability to fully evaluate risk factors.

Result (Cont'd)

Difficulties faced during inspection process

Participants identified the following difficulties:

- *Language barriers.*
Specialists have difficulty communicating effectively with food managers and workers who speak a language different from their own.
- *Food managers and workers with a lack of food safety education.*
Specialists have difficulty working with establishments to correct food safety problems because food managers and workers have not had basic food safety training, and do not understand food safety risks or the importance of controlling them.
- *High employee turnover.*
When specialists return to establishments for re-inspections, the employees with which they originally worked to correct a food safety problem are often no longer employed at the establishment, the food safety problem has re-occurred, and they have to educate the new employees.
- *Defensive managers and owners.*
Some managers and owners do not want to cooperate with the specialists during inspections.
- *Lack of prior knowledge about restaurant processes.*
A lack of prior knowledge about establishments' processes makes it difficult for specialists to fully assess the establishments' risk during inspection.

Discussion

Preliminary results indicate that while most participants believed that their restaurant inspections were fairly good at identifying foodborne illness risks, participants whose inspection process focused more on restaurant food handling processes, as opposed to more traditional inspection checklist items, felt that their inspections were better at identifying risk.

Specialists identified several limitations associated with restaurant inspections, and these centered around two themes--time and content. Specialists did not feel that they had enough time in establishments to adequately assess risks, and that they were not able to conduct their inspections at times in which risks would be highest (e.g., peak dinner hours). Specialists also indicated that the content of their inspections was problematic--they were required to assess factors that they did not feel were important to safety.

Specialists also identified difficulties they faced during the inspection process. These included language barriers, food managers' and workers' lack of food safety education, high employee turnover, defensive managers and owners, and a lack of prior knowledge at restaurant processes.

Analyses of the results from the additional 6 focus groups should provide further insight into environmental health specialists' attitudes and perceptions concerning restaurant inspections, and how inspections processes could be modified to better assess foodborne illness risk.

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