

IOWA STATE UNIVERSITY

Hospitality Management Program

Reporting of Foodborne Illness by U.S. Consumers & Healthcare Professionals

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Presentation based on the following publication:

**Reporting of Foodborne Illness by
U.S. Consumers and Healthcare Professionals**

Susan Arendt, Lakshman Rajagopal, Catherine Strohbehn, Nathan Stokes, Janell Meyer, Steven Mandernach

as published in the

***International Journal of Environmental Research & Public Health* 2013,
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BACKGROUND

- 1,527 foodborne disease outbreaks reported by CDC (2009-10)
- Estimated 48 million foodborne illnesses contracted annually in the U.S. (Scallan *et al.* 2011)
- 57% of Americans indicate concern about food safety (NPR 2011)
- Despite availability of online resources, 62% of patients trust physicians for all health-related information (Hesse *et al.* 2004)
- Healthcare providers report being uncomfortable with their knowledge of foodborne illness, its treatment and its diagnosis (MacDonald *et al.* 2007)

PURPOSE

- **Identify barriers to the under-reporting of foodborne illness by consumers and healthcare professionals**
- **Propose solutions to overcome identified barriers**

METHODOLOGY: Qualitative Approach

Focus Groups

- Recruitment
 - Phase I: 3 groups in 3 Iowa cities - **35 consumers**
 - Phase II: 4 groups in 4 Iowa cities - **16 health care professionals**
 - Multiple methods: flyers at work sites, public areas, and networks of ISU Extension and Outreach staff
- Facilitation
 - Prior to focus group: Short assessment about attitudes toward food safety and demographic information gathered
 - Pseudonyms selected
 - Snacks provided
 - Expedited by experienced moderator and assistant moderator
 - Audio recorded and transcribed

Consumers questioned about:

- Have you ever suffered from food poisoning?
- How did you know your illness was from food and not something else?
- What did you do?
- Did you report it? If so, to whom?
- What could make it easier to report?
- How hard do you think it is to collect a usable stool sample?

Healthcare Professionals questioned about:

- Levels of concern from patients/clients about safety of our food?
- Where do you believe patients/clients have the greatest risk of acquiring a foodborne illness?
- What are the barriers to diagnosing a foodborne illness?
- Experiences with patients who had foodborne illnesses
- Reasons to suspect a foodborne illness

RESULTS:

Consumer participants' profile (n=35)

- Mostly female (74.3%)
- Age groups diverse – approximately half were 50 years or older (48.6%)
- Majority completed some level of higher education (Associate degree, Bachelor degree or Graduate degree - 51.4%)
- Largest percentage had annual income less than \$25,000 (37.1%)
- Ethnicity mainly Caucasian (85.7%)
- Healthcare plan paid by employer (39.0%)

Consumers' Attitudes:

- Believed they did not have a food allergy (80.0%)
- Past 3 months, ill from something you ate? (34.3% yes)
- Ever sick from something you ate as adult? (91.4% yes)
- Safety of food purchased to prepare at home: 40.0% concerned or very concerned
- Safety of food prepared away from home: 57.1% concerned or very concerned
- Best approach to reduce risk of foodborne illness (FBI)?
 - Better quality control (77.1%)
 - Better consumer education (62.9%)
 - More inspections/increased government oversight (62.8%)

Consumers' Focus Group Responses:

- How did you know you were suffering from a foodborne illness?
 - Themes related to severity and duration of symptoms
- Did you report illness and to whom?
 - Mostly no, because:
 - Unsure of who to contact
 - Too ill to make contact
 - Uncertainty of cause or source of illness
 - Did not think reporting would matter

Consumers' Focus Group Responses:

- What would be the best way to get information about how to report food poisoning?
 - Memorable telephone number (similar to 1-800-BETSOFF)
 - Internet
 - Restaurant postings/package materials
- What would make it easier to report an illness?
 - Education
 - Knowing someone cared
 - Knowing someone will be held accountable

Consumers' Focus Group Responses:

- How hard would it be to collect a stool sample?
 - Difficult: messy, inconvenient process, embarrassing
 - Not difficult: previous experience
- Concerned about providing a stool sample?
 - Yes: new request, scary, inconvenient
 - No: previous experience, needed for diagnosis, can benefit me

Healthcare professionals' profile (n=16)

- All female and all Caucasian
- Equally split amongst three age categories:
 - ❑ 26 – 34 years of age
 - ❑ 35 – 49 years of age
 - ❑ 50 – 64 years of age
- Majority worked in medical clinics (68.8%)
- Mostly full time employees (81.3%)
- Most listed profession of “other” (81.3%) with titles given of office nurse and medical assistant

Healthcare professionals' questionnaire

- Concern about safety of food: 68.8% concerned/very concerned
- Perceptions of patients' concern: 46.7% not at all/not very concerned
- Location for greatest risk of FBI? 68.8% said foodservice establishment
- Ever had a patient with confirmed FBI? 66.7% said No
- Frequency of patients with food related complaints?
 - 37.5% each said <1 time/month or 3-10 times/month

Barriers to diagnosing FBI as identified by healthcare professionals:

- Time between food ingestion and treatment (93.8%)
- Lack of patient knowledge (87.5%)
- Cost (50.0%)
- Unavailability of suspected food (50.0%)
- Lack of healthcare provider knowledge (43.8%)

Healthcare professionals' preferred methods of receiving new information:

- Emails (75.0%)
- Newsletters (31.3%)
- Face to face (25.0%)
- Webinar (25.0%)

Healthcare Professionals' Focus Group Themes:

- Experiences working with suspected food illness focused on treating symptoms
- Knew to suspect foodborne illness according to:
 - ❑ Severity and duration of symptoms
 - ❑ Personal experiences with FBI
 - ❑ Multiple people presenting
- Action steps if FBI suspected:
 - ❑ Make calls
 - ❑ Further questioning
 - ❑ Other diagnostic tests – blood and stool

Healthcare Professionals' Focus Group Themes:

- Issues related to diagnosing foodborne illness:
 - Cost
 - Required tests
 - Patient knowledge/HCP knowledge
 - Unavailability of suspected food
 - Time lapse
- Reasons stool samples not taken:
 - Cost
 - Lack of HCP knowledge
 - Lack of patient knowledge/reluctance
 - Challenge to collect
 - Focus on treatment
 - Symptoms mild

Healthcare Professionals' Focus Group Themes:

- Information/tools needed to help patients with suspected FBI:
 - ❑ Flyers for patients about prevention/treatment of foodborne illness (English and Spanish)
 - ❑ Public education
 - ❑ Healthcare professional in-services
 - ❑ Decision making tools (i.e. flow charts)
 - ❑ Easy stool sample collection methods
 - ❑ Web-based resources

CONCLUSIONS & IMPLICATIONS

- Barriers for reporting of FBI exist for both consumers & healthcare professionals
- Identified barriers would best be overcome through:
 - ❑ Targeted education
 - Consumers: stool sample collection resources, why it's important to report, complaint response process and potential outcomes
 - Healthcare Professionals: importance of collecting a stool sample, algorithms/flow charts for evaluating potential foodborne illnesses, in-services
 - ❑ Improved access & information regarding FBI reporting process
 - Memorable phone number (similar to 1-800-BETSOFF)
 - Reporting information listed on restaurant postings/packaging materials
 - Centralized statewide reporting

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Thank you for your attention!

QUESTIONS?

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