

Behavior Change Inspection Model: A Tool for Improving Food Safety

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Background

- The goal of routine regulatory inspections in retail food establishments is to ensure safe food. Long-term compliance can be used as an indicator.
- Foodborne Illness Risk Factor Violations are violations that are known to cause foodborne illness.

Background (continued)

- FDA National Voluntary Standards for Retail Food Programs.
- Colorado's 10 Winnable Battles includes safe food.

Background (continued)

- Current economic climate putting pressure on food safety specialists.
- Change in department leadership
 - Implemented a behavior change inspection model based on the Health Belief Model.

Problem Statement

Regulatory agencies strive for long-term compliance with food safety regulations through the use of routine regulatory inspections. A behavior change model was implemented in El Paso County, Colorado to reduce the prevalence of violative food safety conditions in food establishments; however, no data exists regarding the impact of this model.

Research Questions

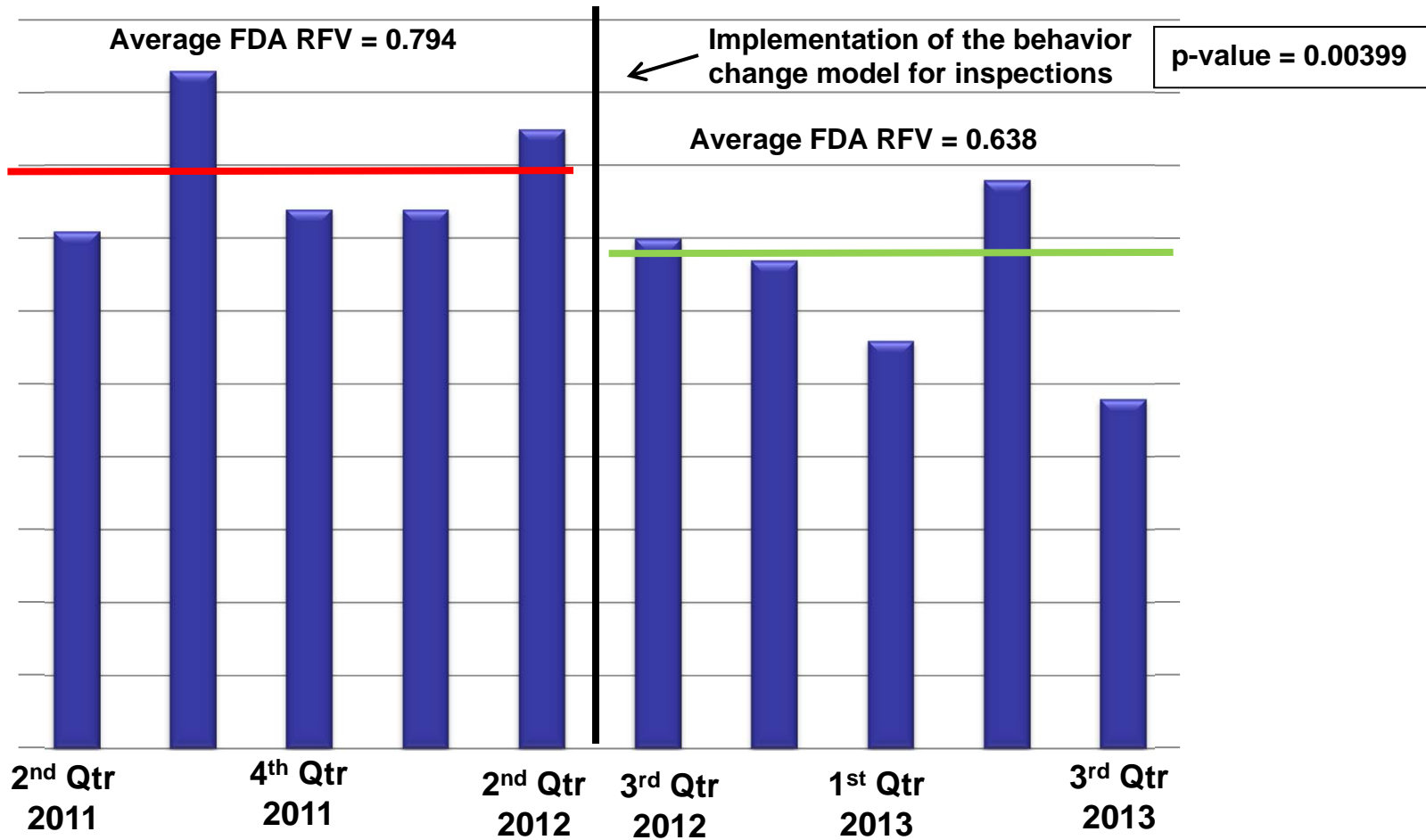
1. How did the implementation of the behavior change inspection model impact the prevalence of the FDA Risk Factor Violations (RFVs) noted during routine regulatory inspections?
2. What is the correlation between foodborne illness outbreaks and the implementation of the behavior change inspection model?
3. How did the implementation of the behavior change inspection model impact the time spent in a food service facility?

Methodology

- Question 1: Gathered inspectional data from El Paso County Colorado and analyzed the data for Foodborne Illness risk factor violations occurring before and after implementing a behavior change inspection model.
- Question 2: Gathered and analyzed trends of Foodborne Illness data from El Paso County before and after implementing a behavior change inspection model.
- Question 3: Gathered time data of inspections from El Paso County before and after implementation of a behavior change inspection model.

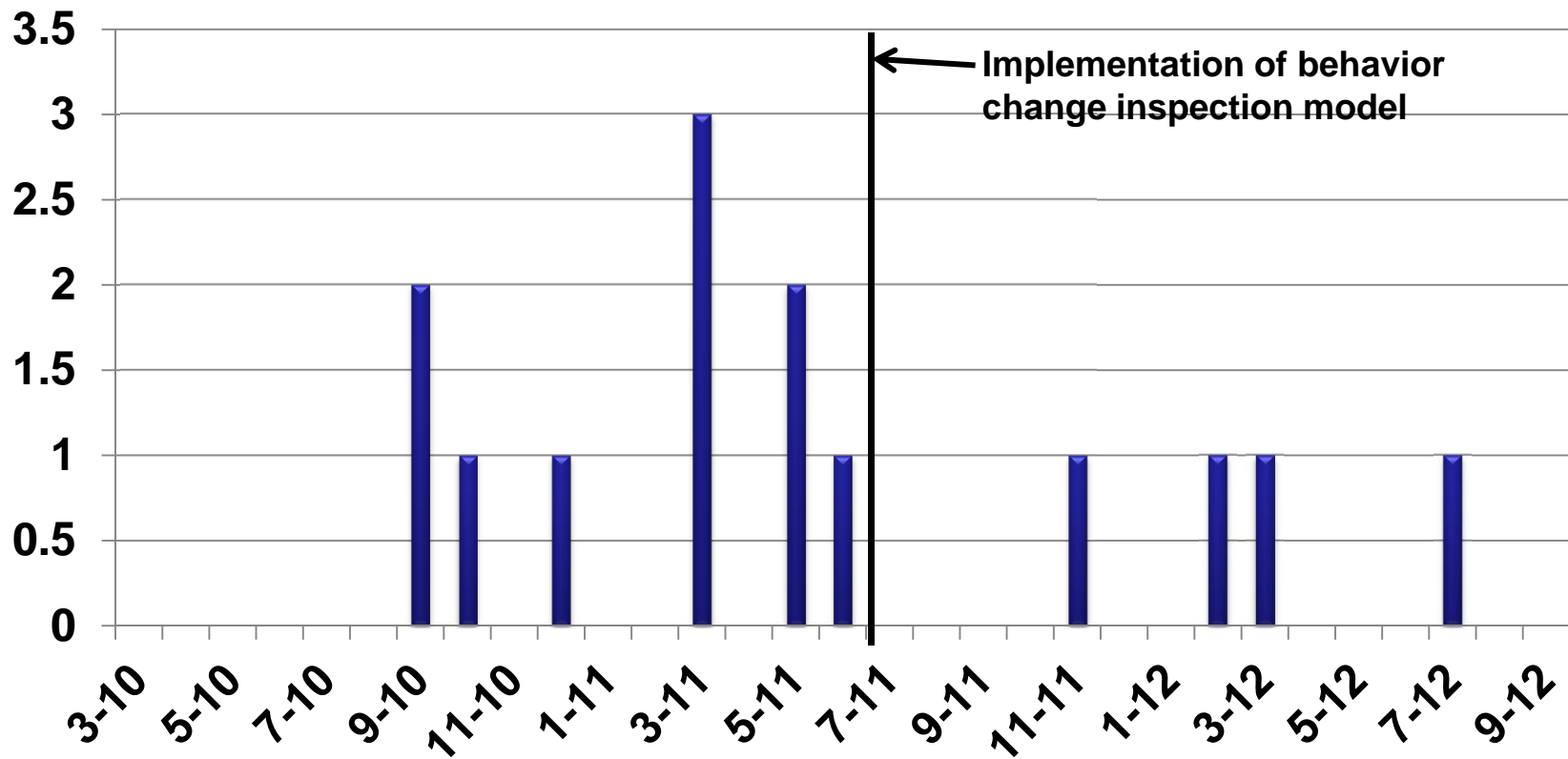
Results

Average Number of FDA Risk Factor Violations per Inspection Per Quarter



Results

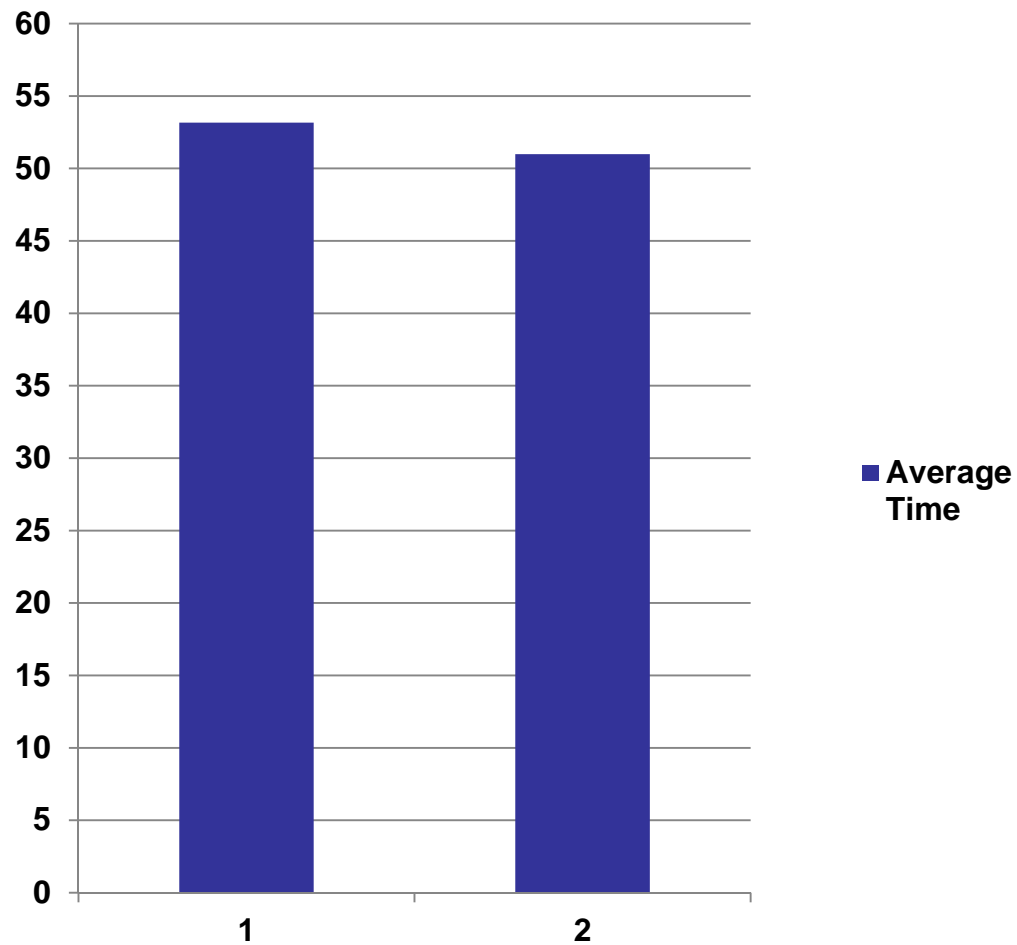
Foodborne Illness Information from EL Paso County Colorado March 2010 to September 2012 Confirmed Outbreaks



Results

- 1. Time before the implementation
- 2. Time after the implementation

Average Time Spent in a Food Facility



Conclusions

- Significant compliance with the FDA RFVs was achieved in EPC. Seen in the reduction of FDA RFVs cited over time.
- Fewer foodborne illness outbreaks in EPC after implementation of the model.
- Approximately the same time commitment by the health specialists to inspect establishments.

Recommendations

- Based upon the results of this study, the following actions are recommended:
 - Departments with a food safety inspection program adopt and implement a behavior change inspection model based on the HBM.
 - Start an internal quality control meeting with food safety specialists to ensure consistency of violation marking.
 - Create or obtain educational materials that are appealing to operators.

References

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Questions?