Effect of a Certified Food Protection Manager on Employee Food Safety Behaviors in Rural Counties

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Background

- Northeast Tri County Health District regulates the northeast corner of Washington State.
- Area includes Ferry, Stevens, and Pend Oreille counties
- Primarily rural
- Largest city, Colville, has a population of 5000
Background (continued)

• Employees required to obtain a food worker card
• Managers required to provide food safety training to employees

• Environmental Health Directors requested mandatory manager certification
• Manager certification will not be required with the adoption of 2009 FDA Code
Background (continued)

• ANSI-CFP accredited CFPM programs:
  – National Restaurant Association Solutions-ServSafe
  – Environmental Health Testing
  – Prometric Inc.

• Educates managers on:
  – Foodborne illness prevention
  – Personal hygiene
  – Temperature control
  – Cross-contamination
  – Receiving
  – Food storage
  – Facility sanitation
  – Active managerial control
  – Providing employee training
Problem Statement

• Food Worker Class:
  – Baseline food safety training
  – No specific manager training

• Employees without job specific food safety training may:
  – Make food handling errors
  – Increase the risk of unsafe food being served
  – Increase the risk of foodborne illness
Research Question

1. Does the presence of a certified food protection manager in a food establishment result in fewer violations related to employee food safety behaviors being sited during inspections?
Methodology

• Secondary Data Analysis
• Northeast Tri County Health District inspection reports 2006-2011

<table>
<thead>
<tr>
<th>Violations Related to Employee Behaviors</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Hands washed as required</td>
<td>Proper methods to prevent bare hand contact with ready to eat foods</td>
</tr>
<tr>
<td>Proper cooking temperatures</td>
<td>Raw meats stored below ready to eat foods</td>
</tr>
<tr>
<td>Proper hot holding temperatures</td>
<td>Proper cold holding temperatures</td>
</tr>
<tr>
<td>Proper cooling methods</td>
<td></td>
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</tbody>
</table>
## Study Population

<table>
<thead>
<tr>
<th>With a Certified Manager</th>
<th>Without a Certified Manager</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 – Major chain, multi-department grocery store</td>
<td>1 – Major chain, multi-department grocery store</td>
</tr>
</tbody>
</table>
| 3 – Franchise, quick serve restaurants | 2 – Franchise, quick serve restaurants  
1 – independently owned, quick serve restaurant |
| 1 – Full service restaurant | 1 – Full service restaurant |
Results

Foodborne Illness Risk Factors Out of Compliance for Establishments With a Certified Manager vs. Establishments Without a Certified Manager

- % Out of Compliance for All Establishments with a Certified Manager (n = 45)
- % Out of Compliance for All Establishments without a Certified Manager (n = 41)

n = # of inspection reports
Conclusions

• The presence of a certified food protection manager has a positive effect on the food safety behaviors of employees and results in fewer violations being observed during inspections.
Recommendations: Northeast Tri County Health District

• Explore offering manager certification locally.
• Conduct a survey of local food establishment owners to determine:
  – Knowledge of existing manager certification programs
  – Existing barriers to obtaining manager certification for employees
  – Interest in manager certification opportunities offered locally for their employees
  – Financial cost they would be willing to incur for manager certification.
Recommendations: Washington State

- Conduct studies in other counties in Washington, including both urban and rural areas.
- Educate the food industry regarding the benefits of employing a certified manager.
- Amend the Washington State Retail Food Code to require that all food establishments employ a certified food safety manager.
References

References (continued)

I would like to thank . . .

- International Food Protection Training Institute (IFPTI) instructors, and staff
- IFPTI 2011 Fellows
- Steve Steinhoff, my mentor, IFPTI
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- Joe Graham, Washington State Department of Health
- Mary Ferluga, Retired, Washington State Department of Health
Questions?

Photo courtesy of Joanie Christian