



INTERNATIONAL  
FOOD PROTECTION  
TRAINING INSTITUTE



# IFPTI Fellowship Cohort V: Research Presentation

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# ***Retail Food Establishment Risk Factors: Virginia vs. U.S. 2012-2013***

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Virginia Department of Agriculture and  
Consumer Services (VDACS)

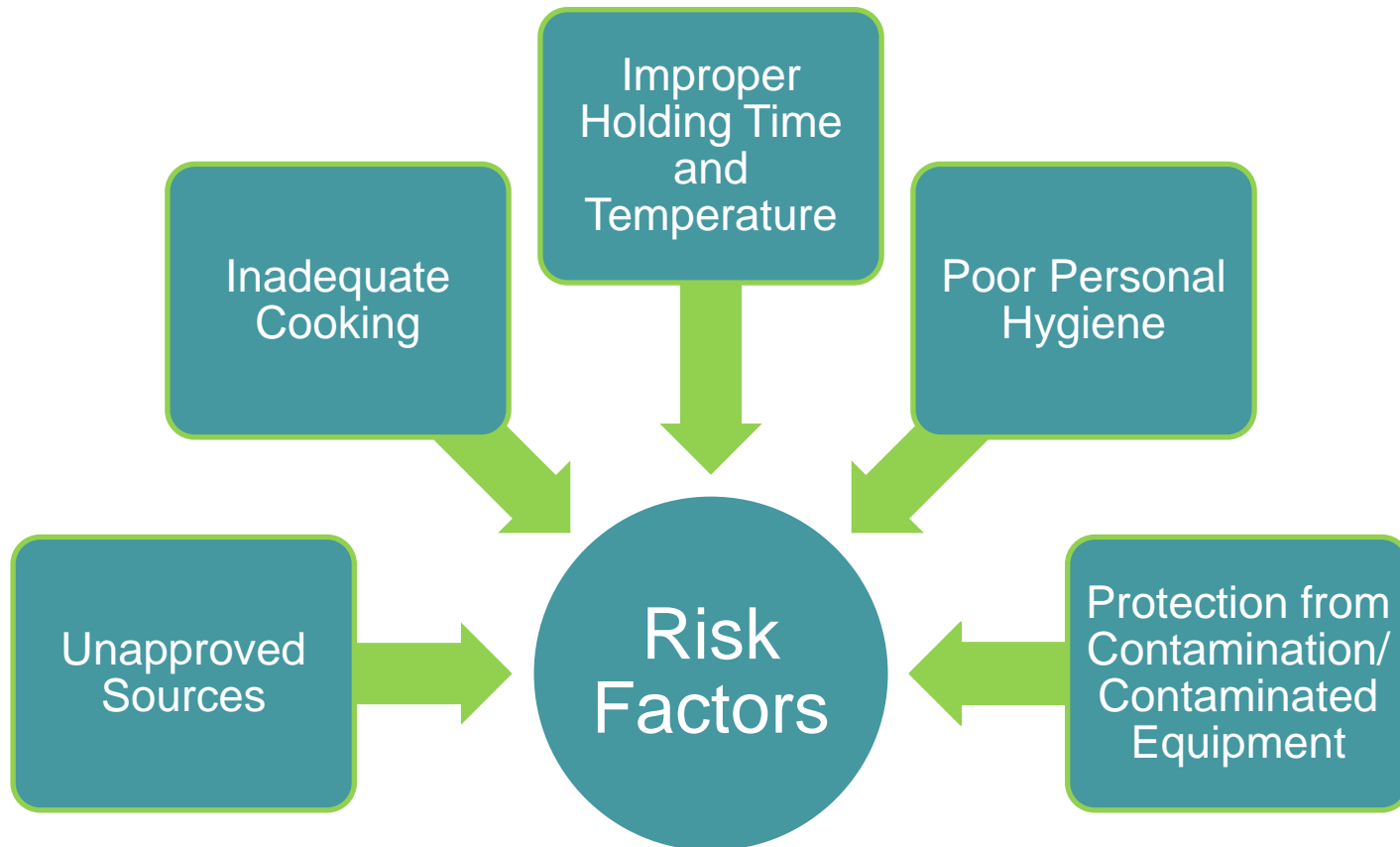
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**National Performance Review Report (1996):** Identified foodborne illness as a significant health problem.



Image source: <http://www.seattleorganicrestaurants.com/vegan-whole-food/images/foodborne-illnesses.jpg>

## Centers for Disease Control and Prevention (CDC) Risk Factors



### **U. S. Food and Drug Administration (FDA): Risk Factor Study**

- Objective:
  - Improve food preparation practices.
  - Improve food employee behaviors in retail food establishments.

- Virginia
  - Standardized inspection reports.
  - Updated reporting system to capture risk factor data.



Image source: <http://productivedentist.com/wp-content/uploads/2015/03/Kari-Miller-3-Reports.jpg>

The differences between national and Virginia rates of the five risk factors found in high risk retail food establishments is unknown.

1. What are the differences between the rates of occurrence of CDC risk factors in Virginia and those documented in the 2009 national survey by the FDA?
2. What are the differences among the CDC risk factors in the three VDACS regions (Northern Virginia, Southwest, and Tidewater) as compared with the Virginia average?



- Criteria
  - Inspection reports from VDACS database
  - High risk retail establishments
  - Full inspections completed in 2012 – 2013

- 774 inspections reports met the criteria
- Reviewed 50% (387) of the reports



Source: <https://www.adelantelive.com/wp-content/uploads/Recap-Reporting-Adelante-Live-Blog.jpg>

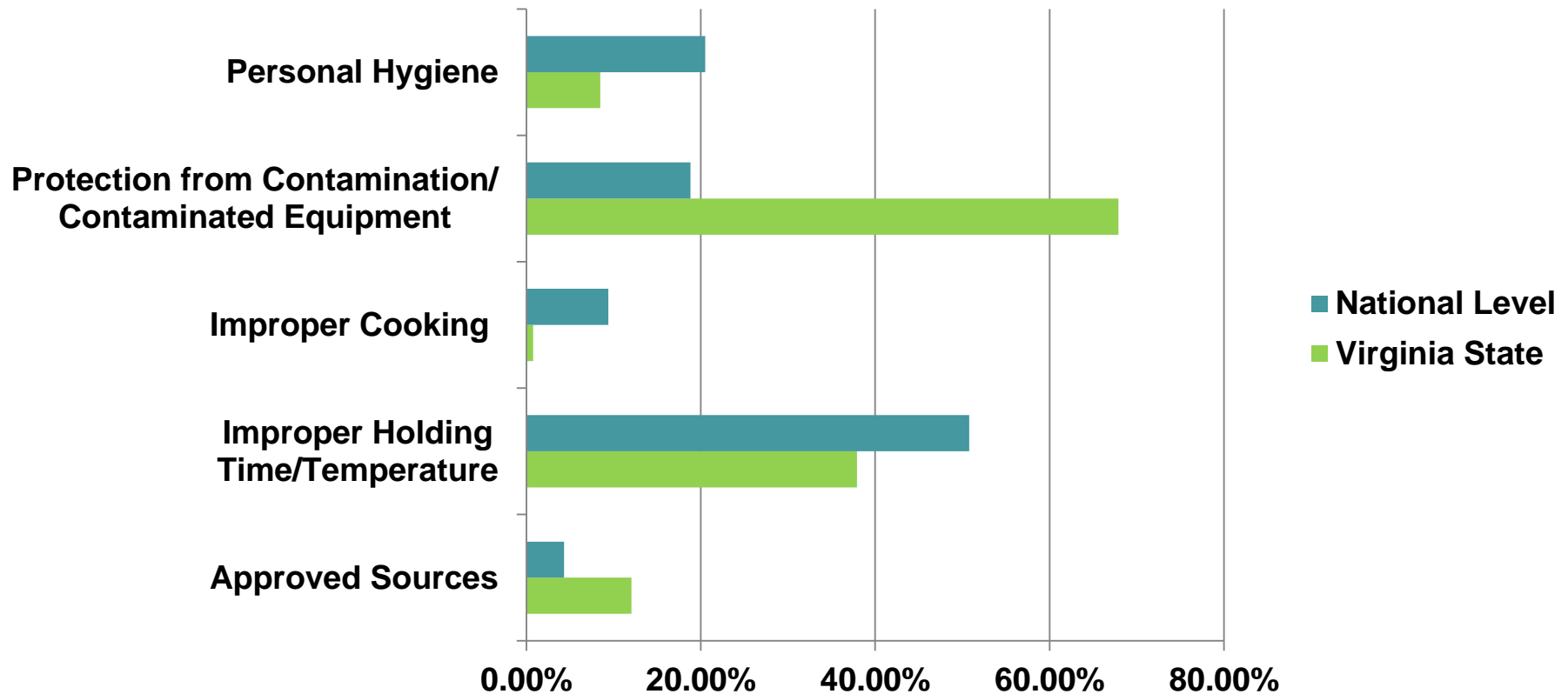
## Comparison Study

- The national level completed by FDA vs. Virginia
- Three VDACS regions (Tidewater, Southwest, Northern Virginia) vs. Virginia's state wide average



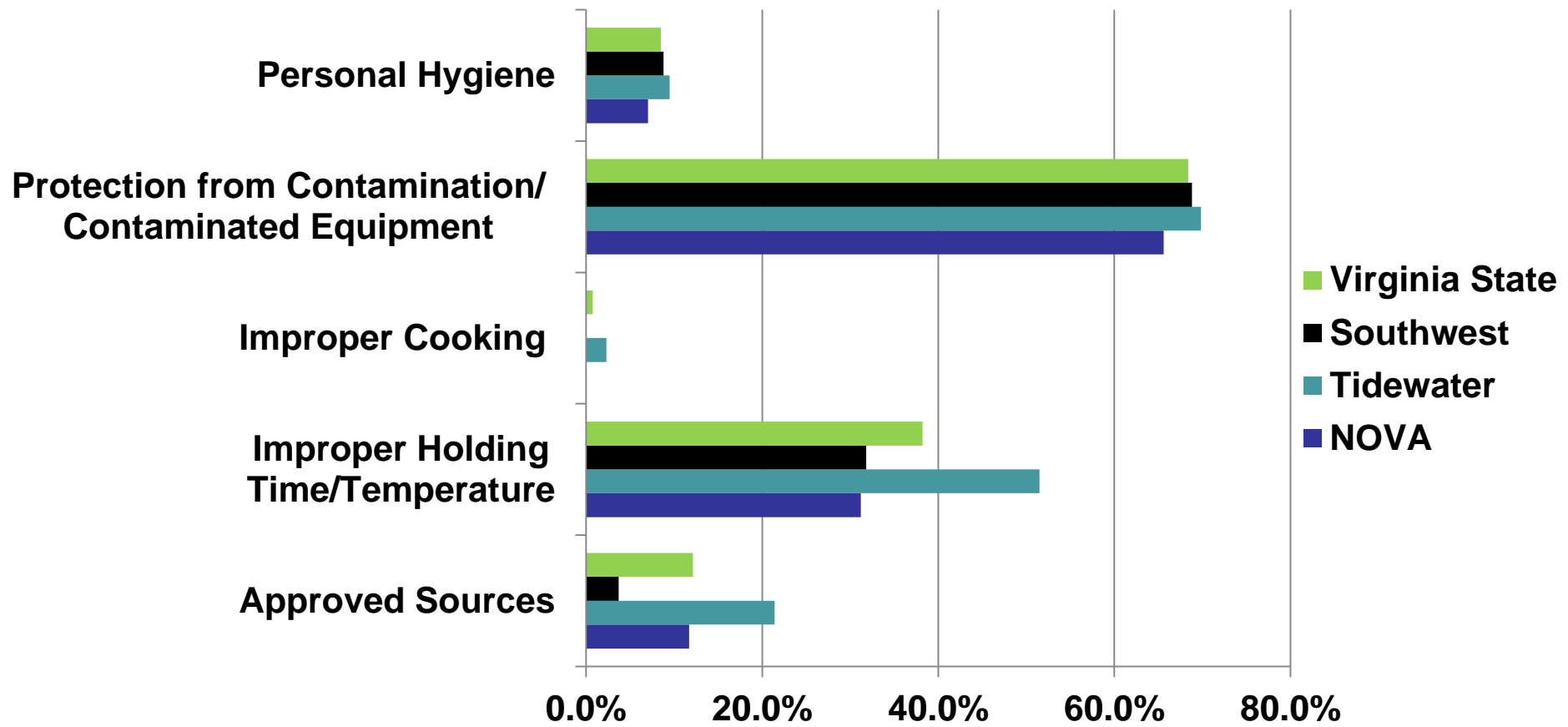
Image source: [www.vdacs.virginia.gov/](http://www.vdacs.virginia.gov/)

## Percentage of Risk Factors VA vs. National



Risk Factors	Virginia	National
Approved Sources	12.05%	4.30%
Improper Holding Time/Temperature	37.09%	50.80%
Improper Cooking	.80%	9.00%
Protection from Contamination/ Contaminated Equipment	67.90%	18.80%
Personal Hygiene	8.46%	20.50%

## Percentage of Risk Factor Occurrences



## National (FDA) vs. Virginia

- Differences:
  - Improper holding time and temperature
    - Virginia 20% higher than national
  - Protection from contamination
    - Virginia is 50% higher than national

### Virginia Regions vs. Virginia State

- Differences:
  - Improper holding time and temperature
    - Tidewater region at a rate nearly 15% greater than the Virginia average
  - Approved sources
    - Tidewater region at a rate of 9.35% greater than Virginia average



1. Further research needs to be completed to find the cause of the differences among risk factors improper holding time and temperature and protection from contamination in Virginia and the national level.
2. Further research needs to be completed to ensure VDACS and FDA categorize and identify violations related to foodborne illness risk factors in the same way.

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  - Steve Steinhoff, Mentor
  - Paul Dezendorf, Research Project Subject Matter Expert
  - Cohort V Fellows

# Questions?

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1. [Example: Contaminated Equipment](#)
2. [Example: Improper Holding Time/Temperature](#)
3. [Example: Protection from Contamination](#)



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