



Update: New From the FDA

Retail Food Updates and Food Safety Trends in Hospitals and Nursing Homes

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***Dietary Managers Association
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Scope of Retail Food Protection in U.S.

- Growing Retail & Foodservice Industry:
 - ~1M restaurants serving 70 billion meals/year
 - ~250,000 supermarkets, grocery stores, c-stores
 - ~100,000 schools
 - ~24,000 nursing homes and hospitals
 - Temporary events
 - Farmers markets
 - Vending operations



FDA's Role

- **National policy for retail food protection**
 - FDA *Food Code*
 - *Voluntary National Retail Food Regulatory Programs Standards*
 - *Guidance Documents on Food Safety and Disease Prevention*
 - Key Collaboration: Conference for Food Protection*
- **National Leadership**
 - Elevate attention to Food Safety at Retail
 - Investigate multi-state foodborne illness outbreaks
 - Engage Industry Organizations
 - Establish and track national performance measures
 - Research emerging hazards



FDA's Goals

- Reduction in Foodborne Illness
 - Both in overall incidence and in risk to individual
- Enhanced Consumer Trust and Confidence in Food Supply
 - Access to safe and healthful foods
- For Food Safety at Retail level, this means:

**Improved Food Safety Practices and Behaviors
in the Food Establishment**



FDA's Strategic Direction

- Promote more widespread, uniform, and complete adoption & implementation of the FDA Food Code
- Ensure prevention-oriented, science-based food safety principles are utilized at the retail level



FDA's Strategic Direction

Create an enhanced local regulatory environment for retail food operations by:

- o Wider implementation of the *Voluntary National Retail Food Regulatory Program Standards*
- o Seeking increased multi-year funding for state/local/tribal programs
- o Developing programs to ensure universal participation by state/local/tribal regulators in consistent, high-quality training



FDA's Strategic Direction for Retail

- Make the presence of certified food protection managers a common practice
- Strengthen active managerial control at the retail level and ensure better compliance
- Improve the quality of, and access to, training of retail food personnel by the industry
 - Focus on Changing Behaviors of Food Workers



Food Safety Trends in Hospitals and Nursing Homes

*Retail Food Risk Factor Studies
and
2009 Trend Report*



FDA Retail Risk Factor Study

- **Purpose**
 - Establish a national baseline on the occurrence of foodborne illness risk factors
 - Effort to collect sufficient data to measure patterns in the occurrence of foodborne illness risk factors over time
- **3 Data Collection Periods:**
 - 1998, 2003 and 2008
- **Separate Reports Issued For Each Collection**
- **10-year Trend Analysis Report**
 - Issued October 2010

- **All reports available at:**

<http://www.fda.gov/Food/FoodSafety/RetailFoodProtection/FoodborneIllnessandRiskFactorReduction/RetailFoodRiskFactorStudies/default.htm>



STUDY OBJECTIVES

- Identify food safety practices and employee behaviors that require priority attention
- Establish a national “Baseline” and then analyze trends & assess progress
- Establish a model for use by state & local partners to conduct own studies
- **42 jurisdictions** have a “Baseline” for assessing trends & progress
- **26 jurisdictions** are in the process of completing their “Baseline” data collection



Purpose of the Reports

- The [3 Stand Alone Reports](#) (2000, 2004, and 2009) provide insights into food safety practices that are most in need of priority attention
- The [Trend Analysis Report](#) provides a summary of significant improvement and/or regression trends [over the 10-year Study](#) period related to food safety practices within the retail food and foodservice industries

www.fda.gov/Food/FoodSafety/RetailFoodProtection

Under Spotlight Heading: Click on *New Retail Food Risk Factor Studies*



Nine Facility Types - Nine Studies

- **Institutional Foodservice**
 - Hospitals
 - Nursing Homes
 - Elementary Schools (K-5)
- **Restaurants**
 - Fast Food Restaurants
 - Full Service Restaurants
- **Retail Food Stores**
 - Deli Departments/Stores
 - Meat & Poultry Departments/Markets
 - Seafood Departments/Stores
 - Produce Departments/Markets



Foodborne Illness Risk Factors in Retail/Foodservice Operations

- **Food from Unsafe Sources**
- **Inadequate Cooking**
- **Improper Holding Temperatures**
- **Contaminated Equipment/Inadequate Protection of Contamination**
- **Poor Personal Hygiene**

42 Individual Data items divided among the risk factors plus Other/Chemical Category

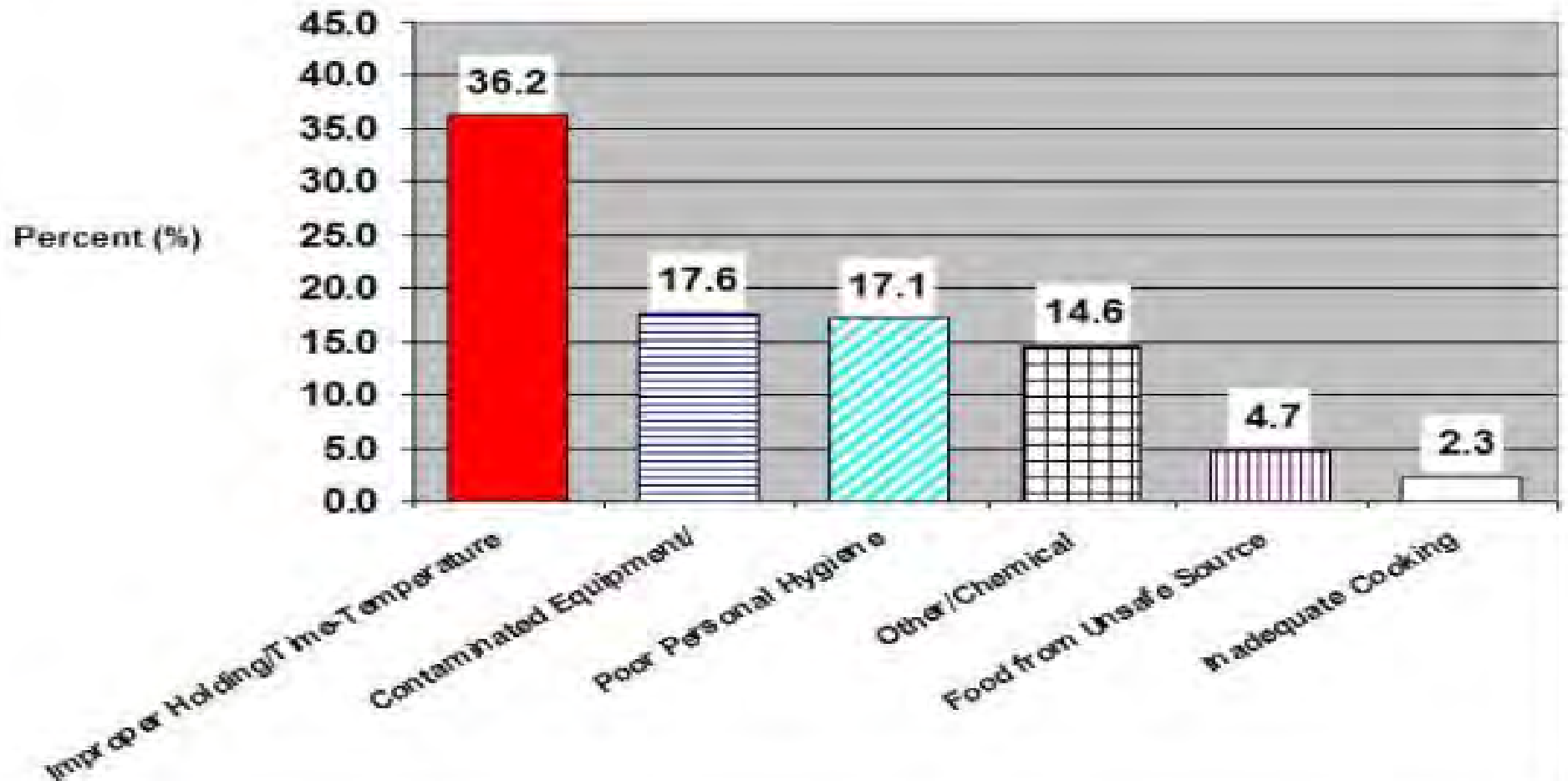


Selected Results from the 2008 Data Collection

Institutional Foodservice - HOSPITALS

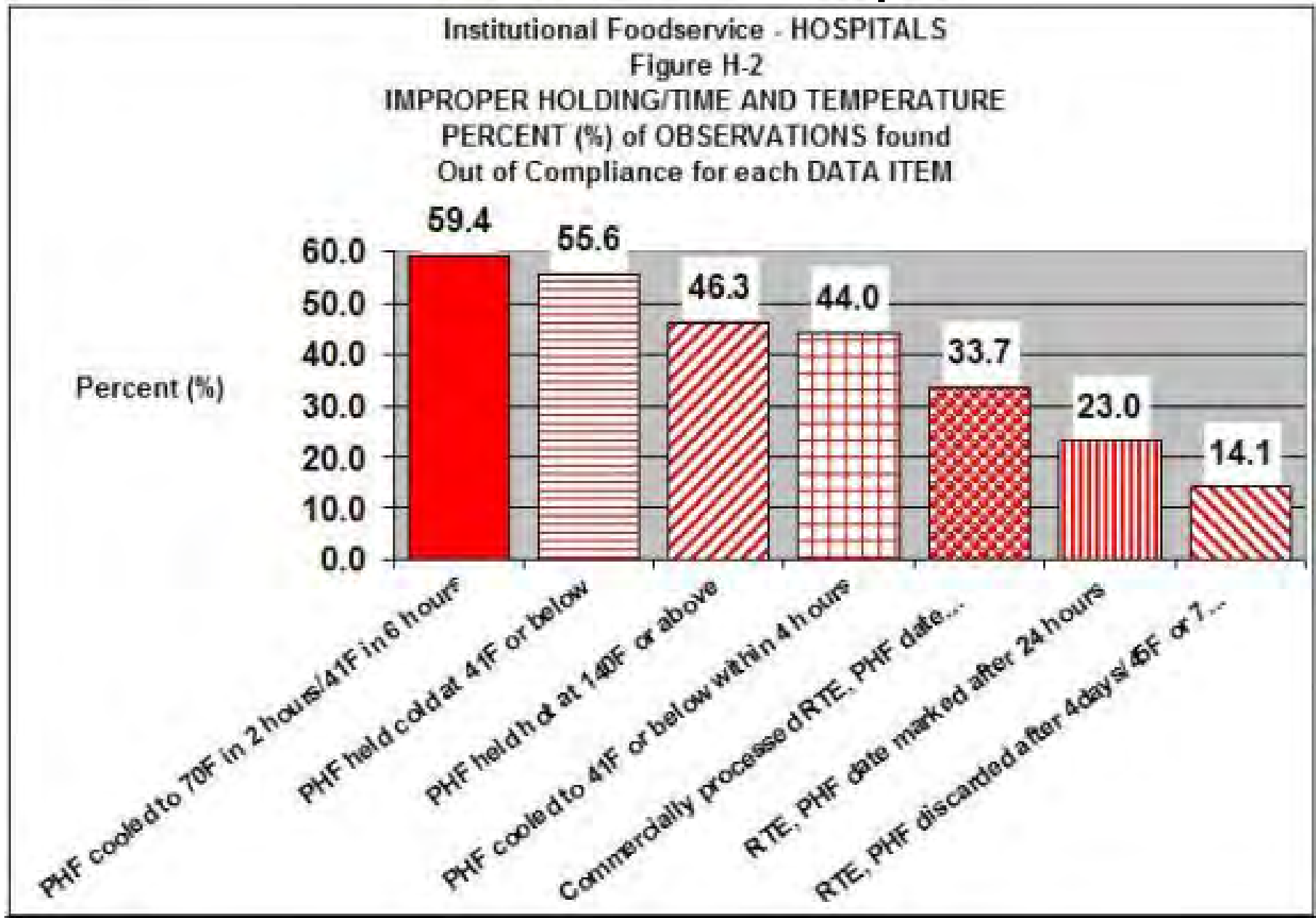
% of observations found Out of Compliance for each RISK FACTOR

Institutional Foodservice - HOSPITALS
Figure H-1
PERCENT (%) of OBSERVATIONS found
Out of Compliance for each RISK FACTOR



Institutional Foodservice - HOSPITALS

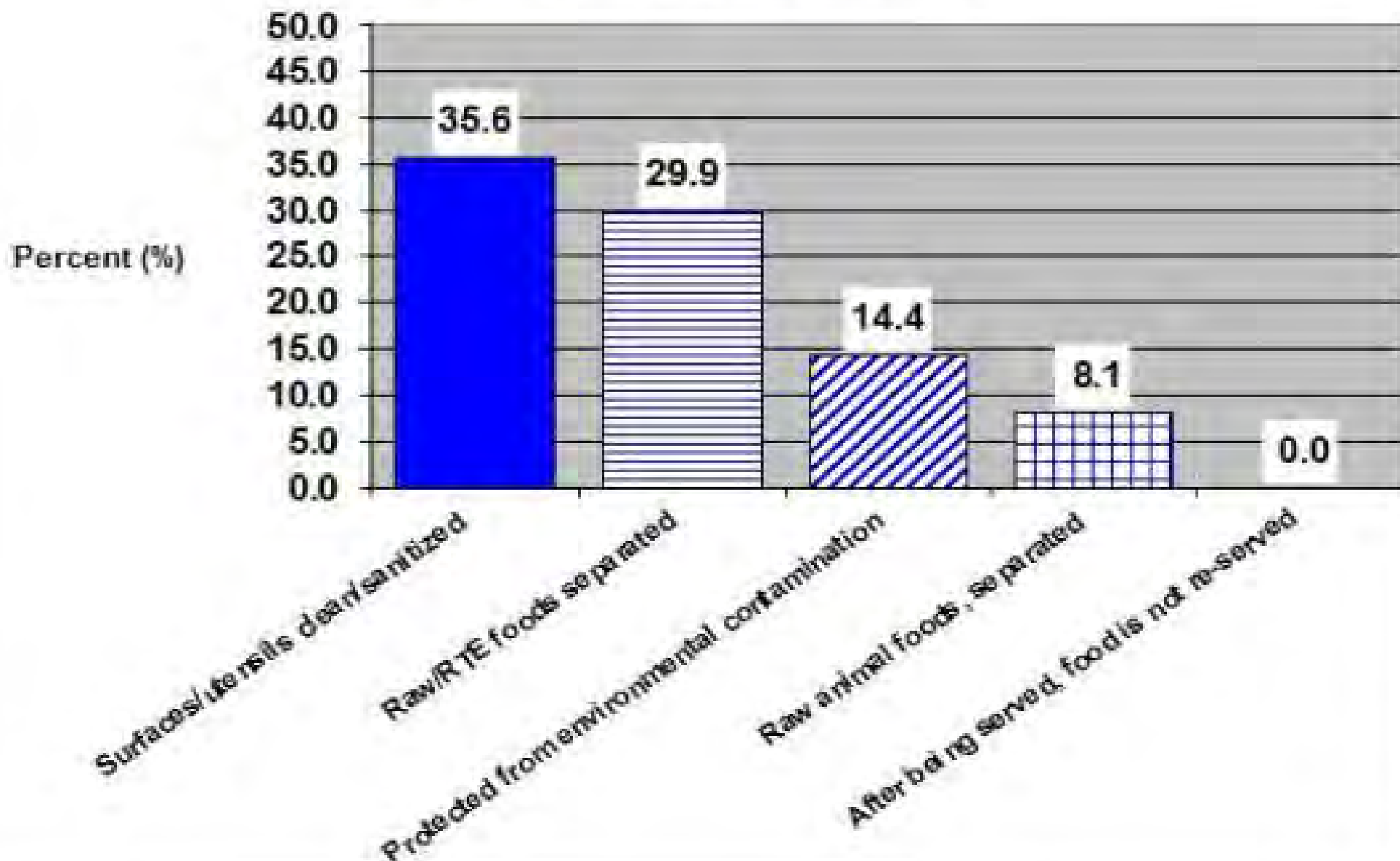
% of observations found Out of Compliance for each **INDIVIDUAL DATA ITEM** that comprises a risk factor



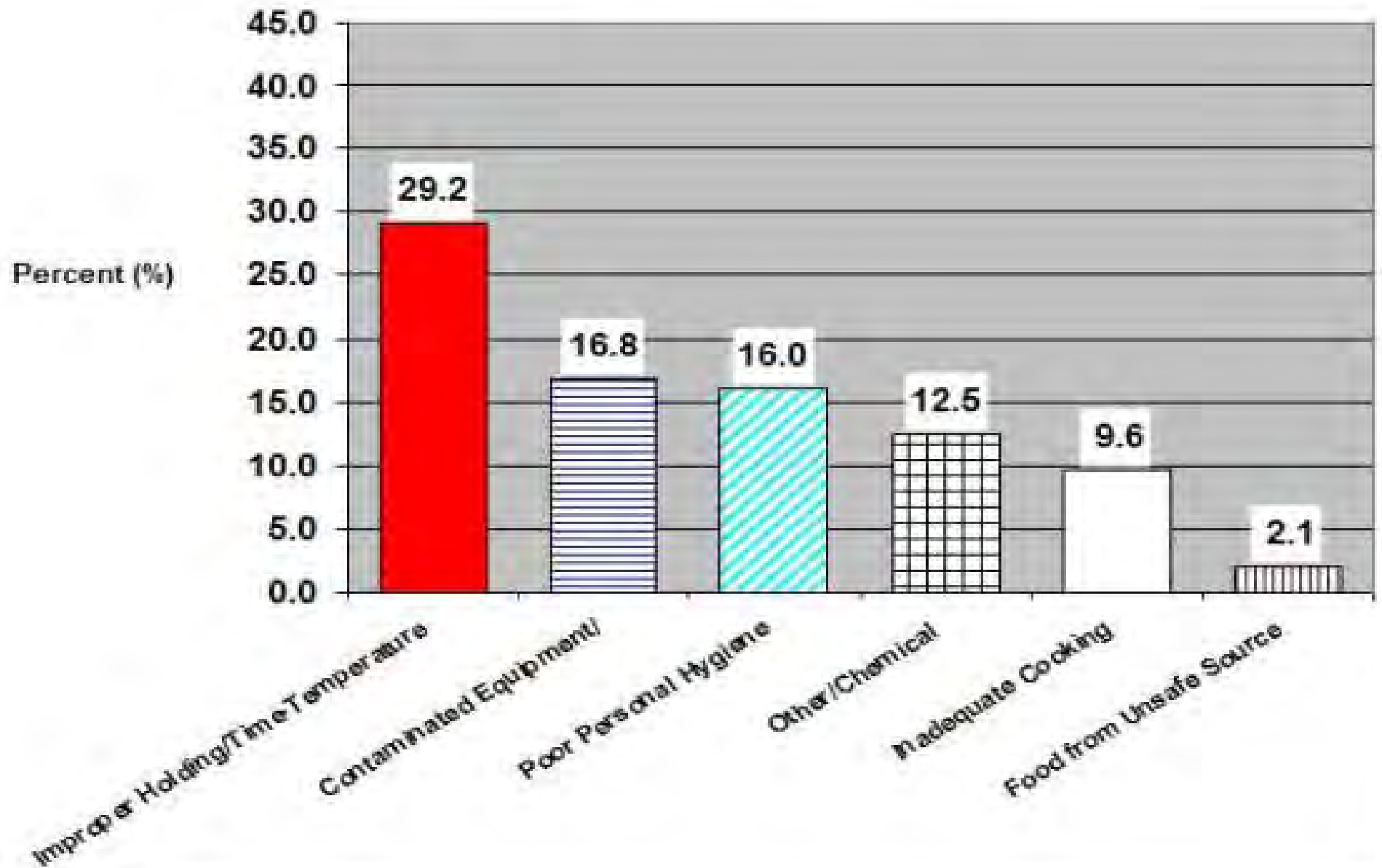
Institutional Foodservice - HOSPITALS

Figure H-3

CONTAMINATED EQUIPMENT/PROTECTION FROM CONTAMINATION
PERCENT (%) of OBSERVATIONS found
Out of Compliance for each DATA ITEM



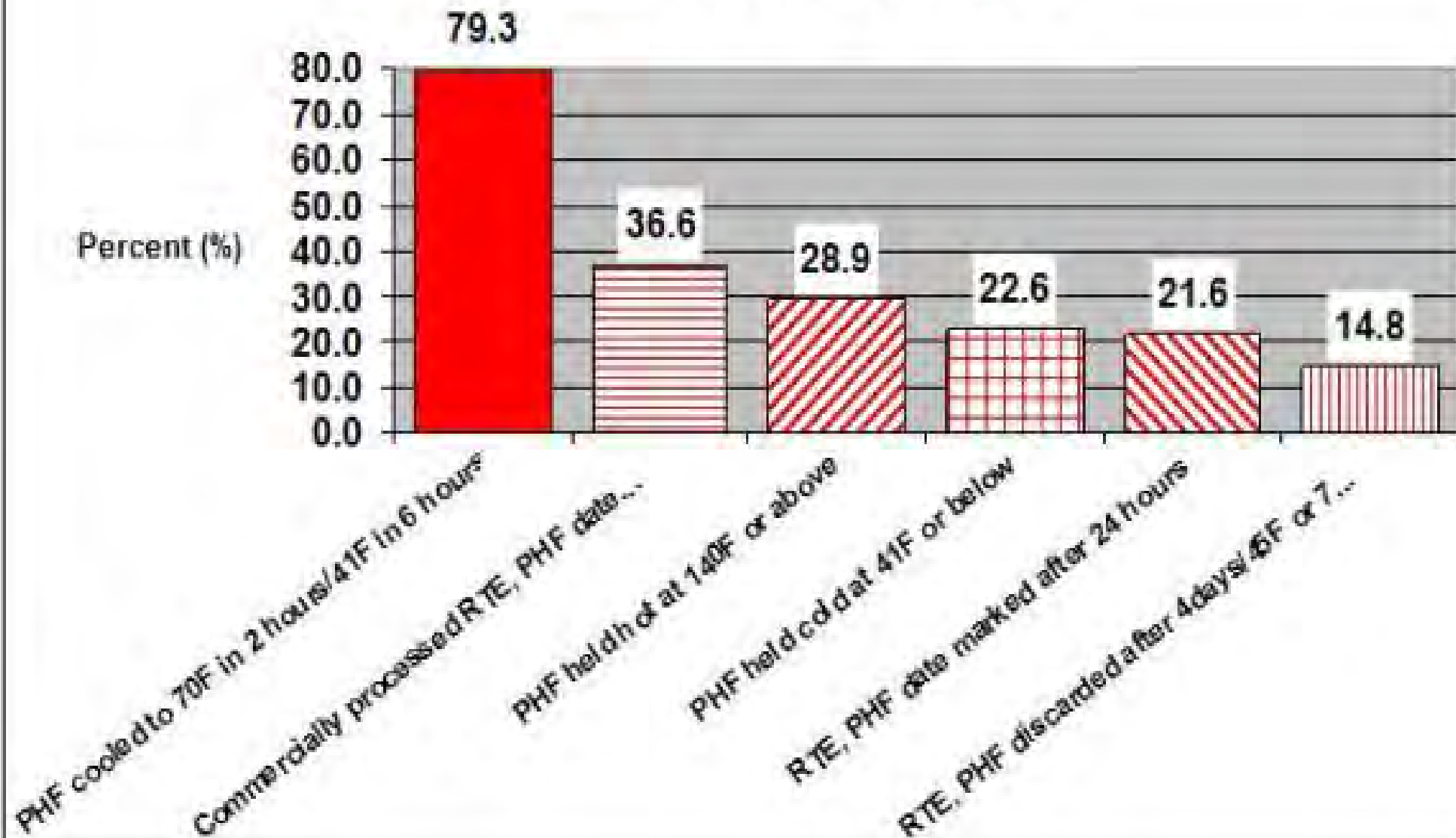
Institutional Foodservice - NURSING HOMES
Figure NH-1
PERCENT (%) of OBSERVATIONS found
OUT OF COMPLIANCE for each RISK FACTOR



Institutional Foodservice - NURSING HOMES

Figure NH-2

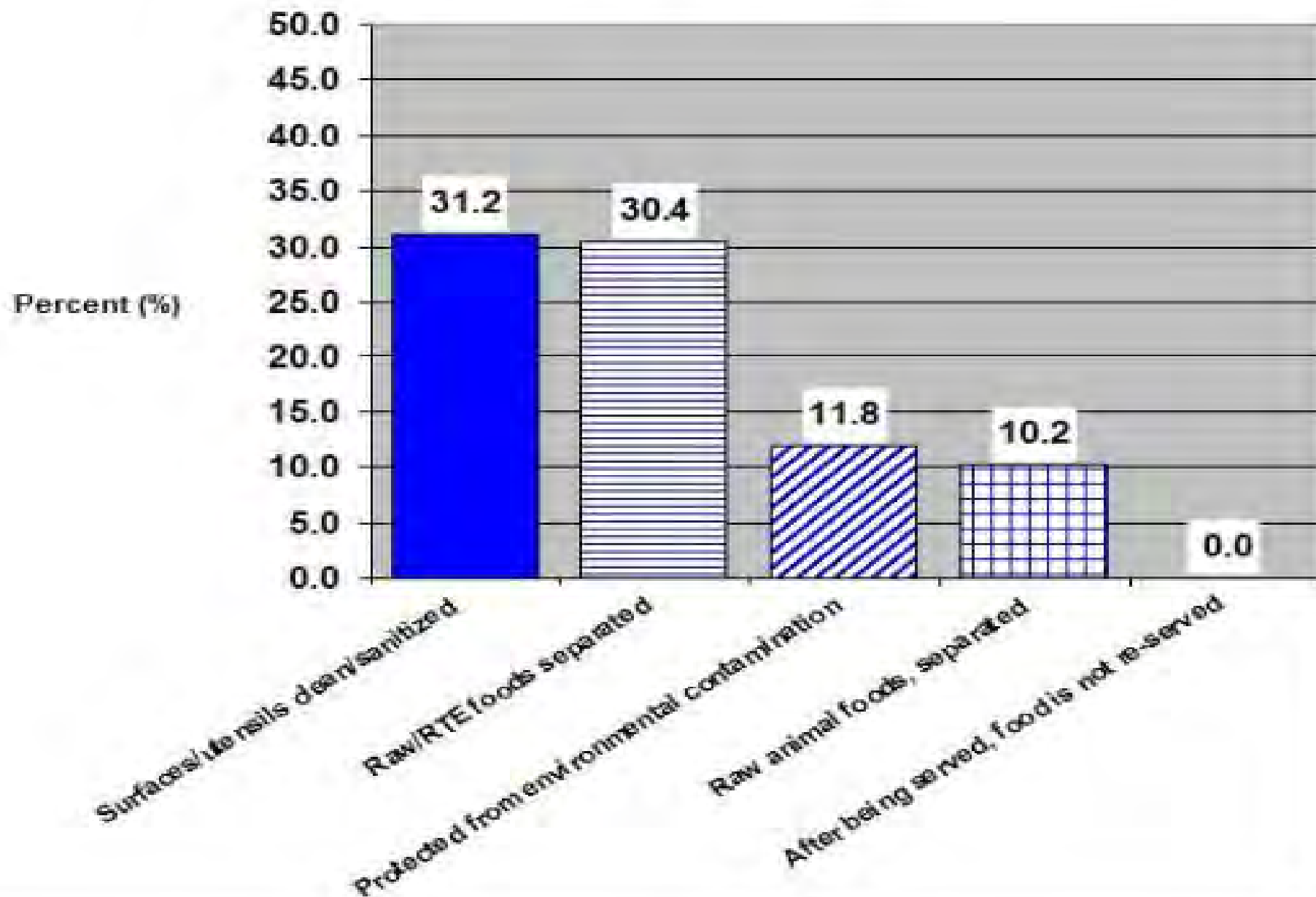
IMPROPER HOLDING/TIME AND TEMPERATURE
PERCENT (%) of OBSERVATIONS found
Out of Compliance for each DATA ITEM



Institutional Foodservice - NURSING HOMES

Figure NH-3

CONTAMINATED EQUIPMENT/PROTECTION FROM CONTAMINATION
PERCENT (%) of OBSERVATIONS found
Out of Compliance for each DATA ITEM





Trend Analysis Report (1998-2008)

- Examine improvement or regression over the 10 year period in the percent compliance observations for each facility type
- Statistical analysis of trends at the facility type level, the risk factor level, and individual data item level

Percentage of Observations found IN Compliance for ALL 42 Data Items

Industry Segment	Facility Type	1998 Baseline % IN Compliance for Observations made of ALL DATA ITEMS (rounded to nearest %)	2008 % IN Compliance for Observations made of ALL DATA ITEMS (rounded to nearest %)	2010 FDA Target Improvement Goal (rounded to nearest %)
Institutional Foodservice	Hospitals	80%	81%	85%
	Nursing Homes	82%	83%	87%
	Elementary Schools	80%	84%	85%
Restaurants	Fast Food	74%	78%	81%
	Full Service	60%	64%	70%
Retail Food Stores	Delis	73%	74%	80%
	Meat & Poultry Departments	81%	88%	86%
	Seafood Departments	83%	86%	87%
	Produce Departments	76%	83%	82%



Trends for Individual Data Items

- Proper Handwashing (4 out of the 9 facility types indicate statistically significant improvement)
- No bare hand contact with Ready-to-Eat Foods (6 out of 9 facility types indicate statistically significant improvement)
- Date Marking of Ready-to-Eat, PHF/TCS Foods prepared on site. (7 out of 9 facility types indicate statistically significant improvement)



INSTITUTIONAL FOODSERVICE

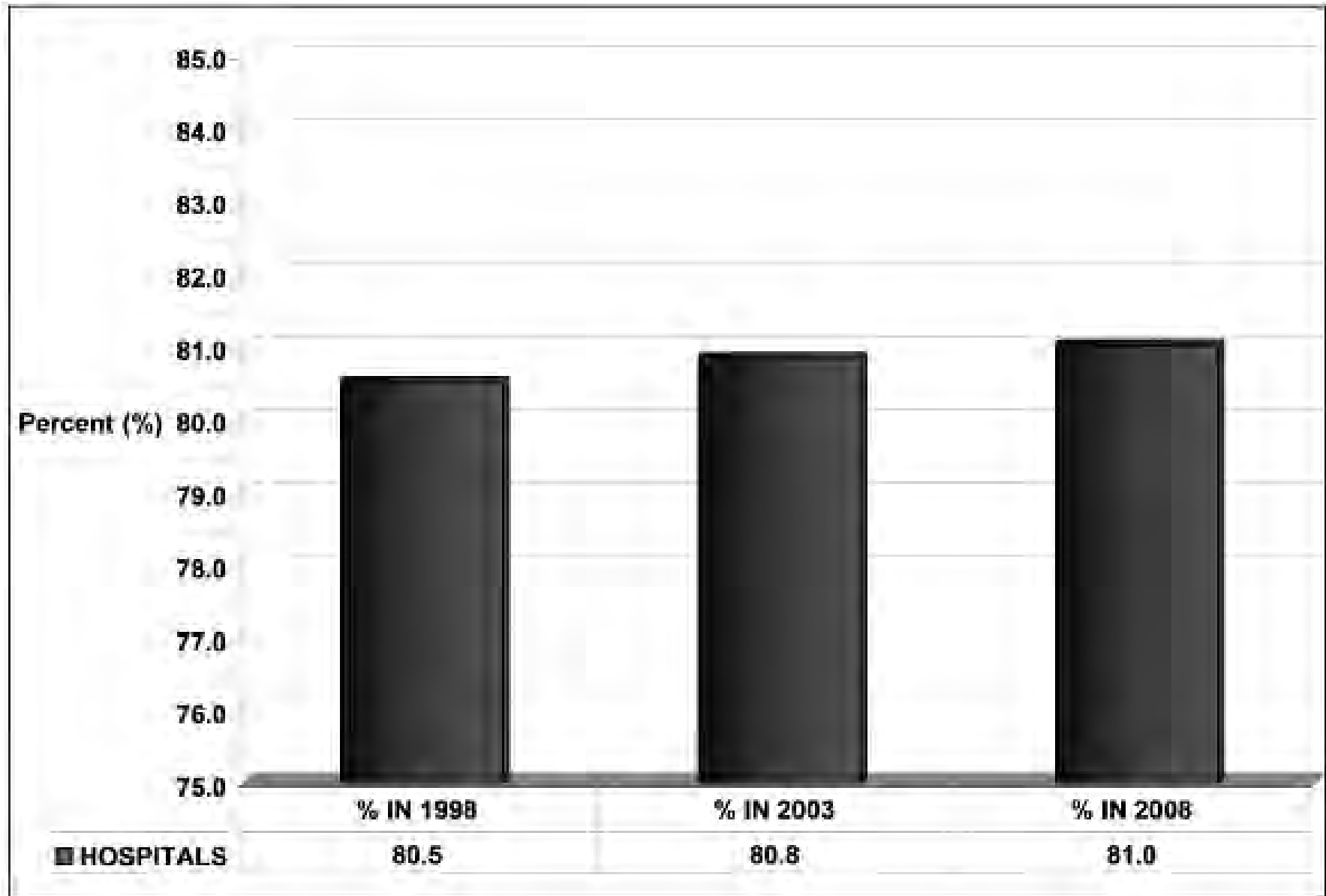
HOSPITALS

1998 – 2008 TREND ANALYSIS RESULTS AND DISCUSSION

Institutional Foodservice – HOSPITALS

Figure H-1

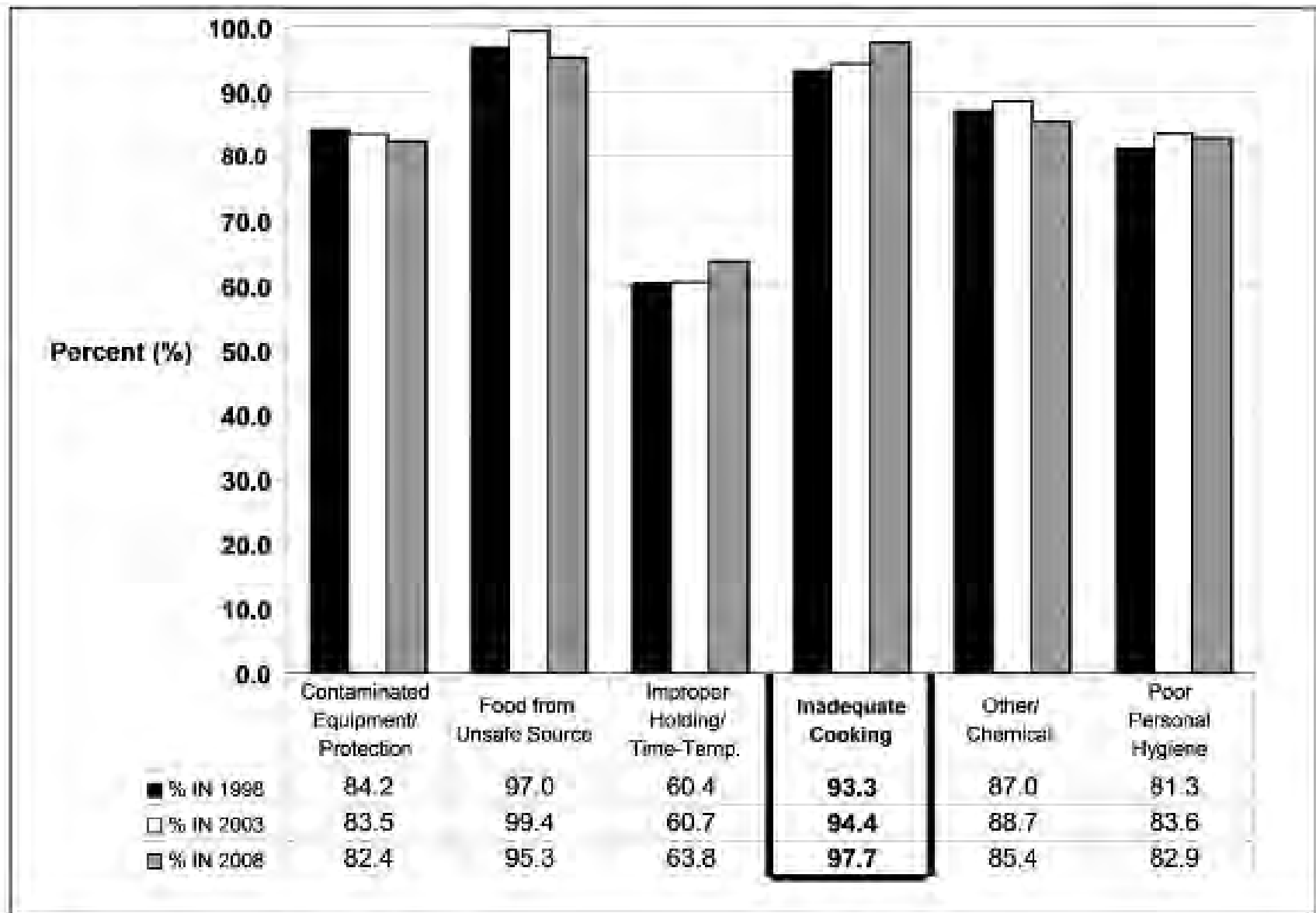
PERCENT (%) of OBSERVATIONS found IN Compliance for ALL 42 Data Items



Institutional Foodservice – HOSPITALS

Figure H-2

PERCENT (%) of OBSERVATIONS found IN Compliance for each RISK FACTOR

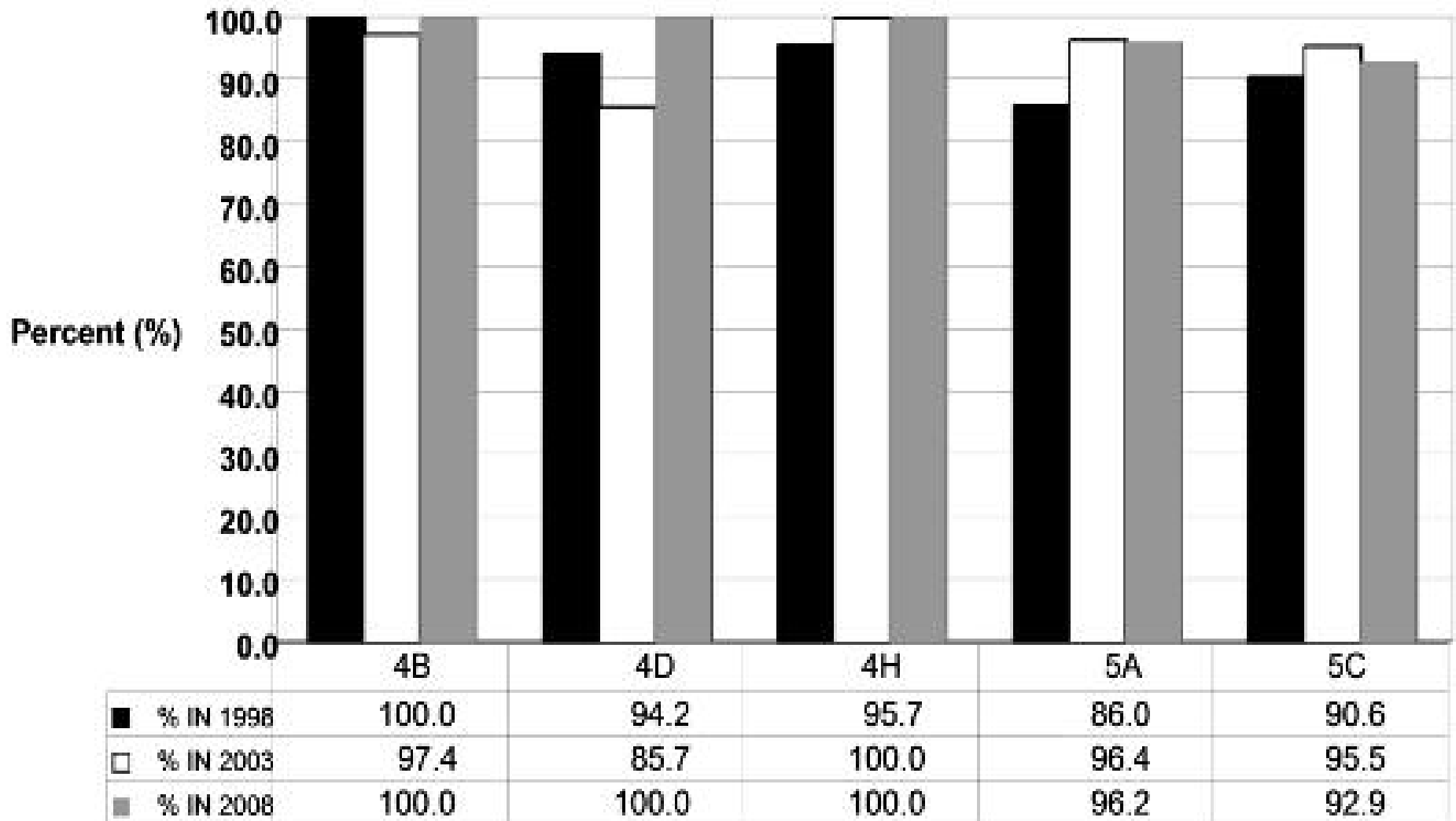


NOTE: Bold font denotes RISK FACTOR showing statistically significant improvement.

Institutional Foodservice – HOSPITALS

Figure H-3: Inadequate Cooking

PERCENT (%) of OBSERVATIONS found IN Compliance for each DATA ITEM





INSTITUTIONAL FOODSERVICE

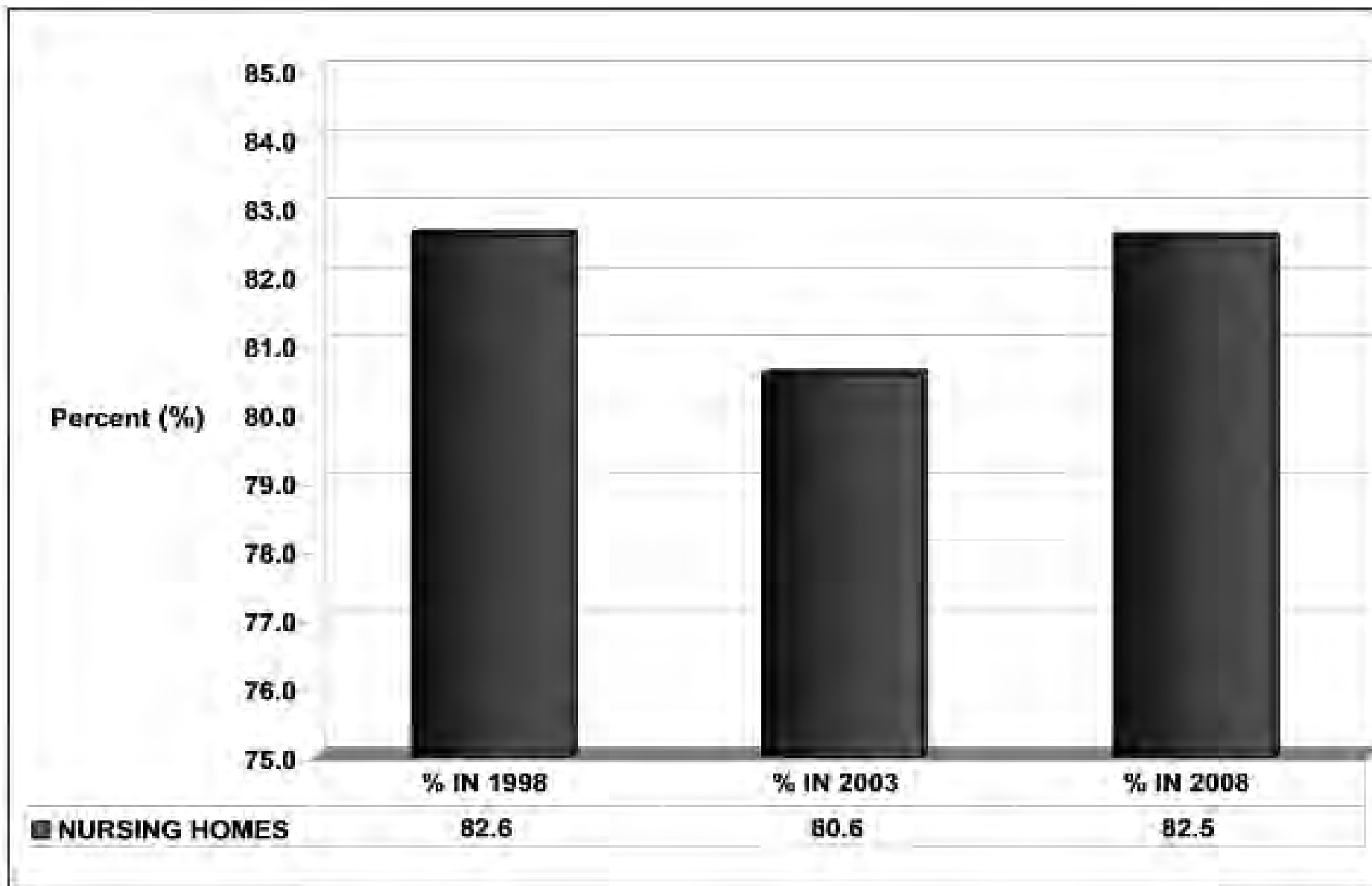
NURSING HOMES

1998 – 2008 TREND ANALYSIS RESULTS AND DISCUSSION

Institutional Foodservice – NURSING HOMES

Figure NH-1

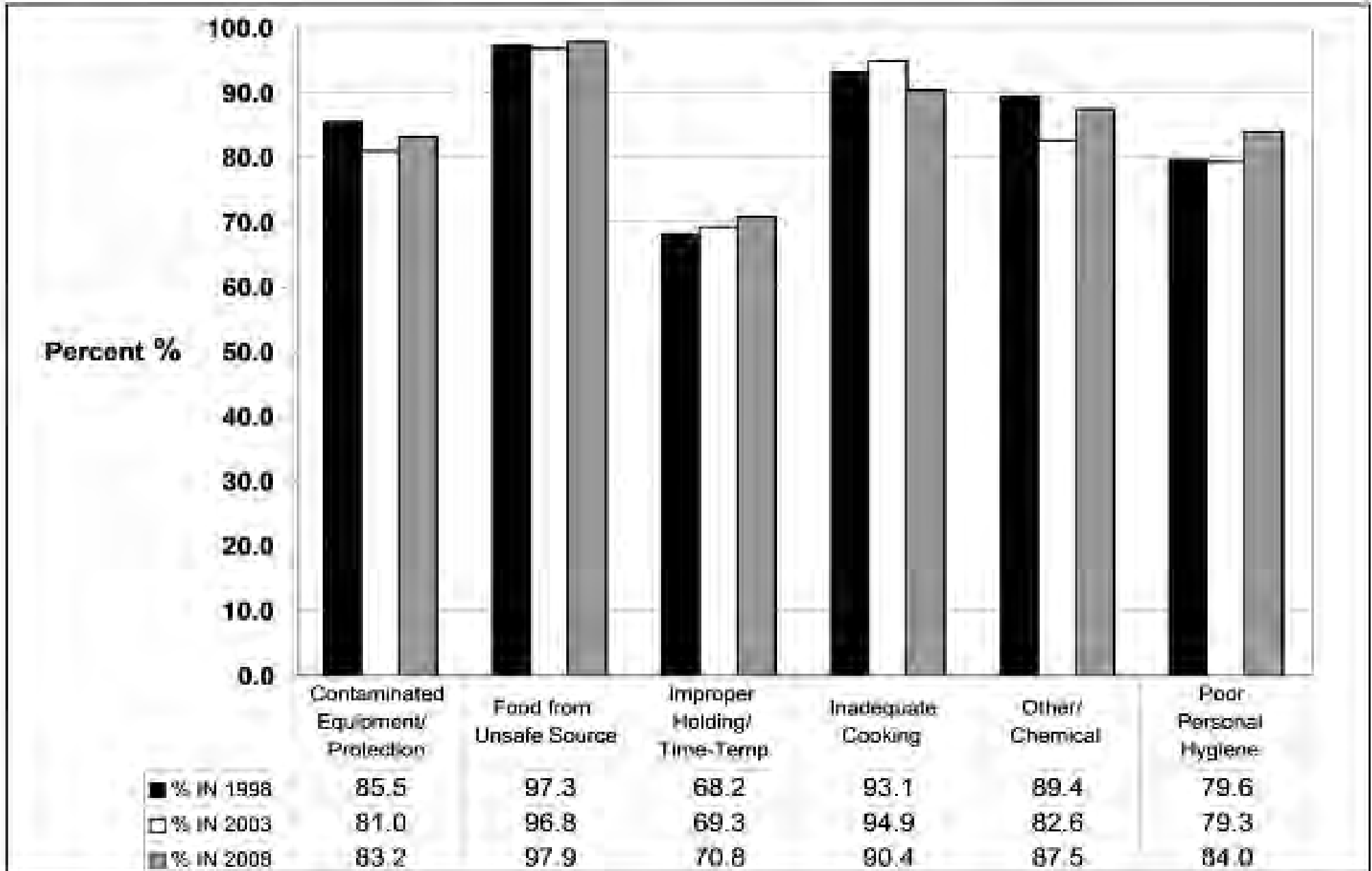
PERCENT (%) of OBSERVATIONS found IN Compliance for ALL 42 DATA ITEMS



Institutional Foodservice – NURSING HOMES

Figure NH-2

PERCENT (%) of OBSERVATIONS found IN Compliance for each RISK FACTOR





Impact of a Certified Food Protection Manager

- The results of the 2003 and 2008 studies indicate the presence of a Certified Food Protection Manager is positively correlated to Overall IN Compliance percentages in some facility types - **2008- Full Service Rest.; Delis; Seafood: Produce**
- No risk factor for which the IN Compliance % for establishments without a certified manager exceeded the % for establishments with a certified manager in a statistically significant manner



Takeaways from Trend Analysis

- **Significant Gains made over 10-year span**
 - Biggest gains made in areas that were most in need of improvement
 - Efforts on part of industry and regulatory appear to be having impact
- **Significant Improvement still needed**
- **Primary compliance challenges**
 - Hand Hygiene
 - Cold Holding & Cooling of Foods
 - Cleaning and Sanitizing Equipment & Surfaces



Statistically Significant Improvement 10-year span - Risk Factor Control

One or more Foodborne Illness Risk Factors

- 8 of 9 Facility Types

Poor Personal Hygiene Risk Factor

- 7 of 9 Facility Types

Improper Holding/Time-Temperature Risk Factor

- 5 of 9 Facility Types



Considerations for Next Risk Factor Study

- Streamline the data collection - fewer data items
- Examine impact of different interventions and regulatory strategies on specific risk factor occurrence
- Establish a performance metric based on percent of establishments with different levels of control
- More in-depth study of practices of greatest public health interest and impact
- Attempt to correlate performance metric with other indicators and industry demographics



Where Do We Go From Here?

Current and Future Challenges

- Increased Expectations for Facility Management & Persons-in-Charge
 - Food Protection Manager Certification
 - Implementation of SOPs and Risk Control Plans
- Excluding Ill Food Workers
 - Norovirus leading cause of foodborne illness
- Safe Sourcing of Produce and other Ready-to -Eat Foods
 - Role of Supplier Certification
 - Locally grown / Home Made
- Hand Hygiene and Role of Hand Antiseptics
- Validation of on-site generation of sanitizers
- Food Allergens – FDA Guide under development



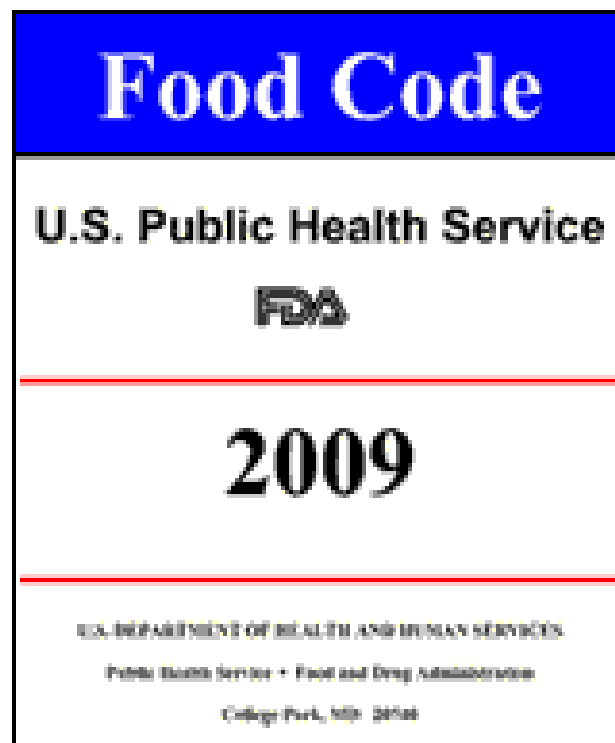
FDA Retail Food Updates

- 2011 Food Code Supplement and 2009 Food Code
- Educational Materials and Campaigns
 - Employee Health and Hygiene
 - FDA Oral Culture Learner Project
 - Commercial Deli Slicer Campaign
- *Listeria monocytogenes* Control



Food Code & Supplement

- 2011 – Supplement to the 2009 Food Code
- 2009 Food Code (*Published – November 5, 2009*)



Available online at:

www.fda.gov/retailfoodprotection

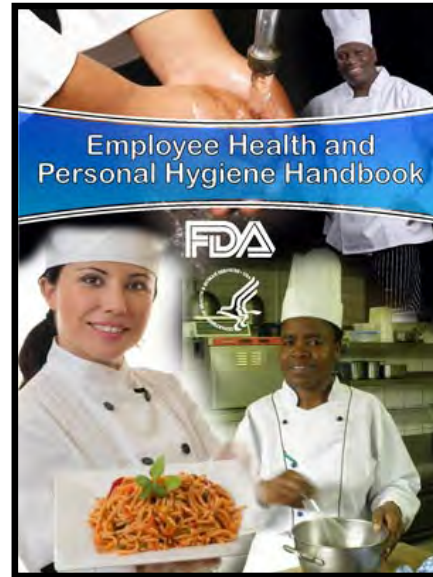
To order the 2009 FDA Food Code please go to:

<http://www.ntis.gov/products/food-code.aspx>

Employee Health and Personal Hygiene Initiatives

Employee Health and Personal Hygiene Handbook

Coming Soon!!!

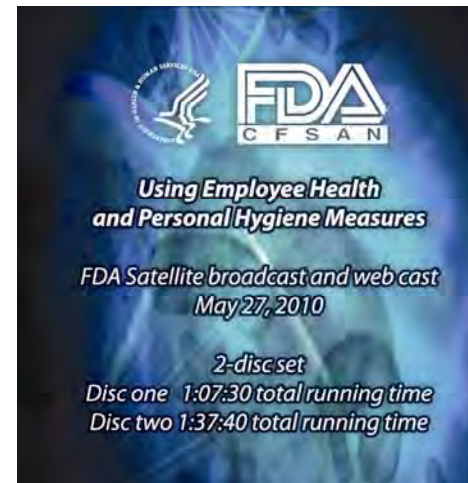


Now Available!!!

Employee Health and Personal Hygiene Interactive Resource Disk

-An electronic program designed to follow the decision trees and the tables as outlined in the Employee Health and Personal Hygiene Handbook

Employee Health and Personal Hygiene Satellite Broadcast



Disc 1 of 2

- Chapter 1: Opening
- Chapter 2: Science Background: Kathryn Kennedy
- Chapter 3: Legal Liabilities of Food Borne Illness: Patti Waller
- Chapter 4: EEOC & ADA Requirements: Kerry Leibig
- Chapter 5: CDC on Food Borne Outbreaks: Dr. Laura Brown
- Chapter 6: Communication Techniques in Retail Food: Dr. Donna Beegle
- Chapter 7: Hand Washing Program: Scripps Memorial Hospital
- Chapter 8: Hand Washing Program: Portland Oregon Legends Project

Disc 2 of 2

- Chapter 1: Hand Washing Program: Clyde's Restaurant
- Chapter 2: NBHC Example: Chick-fil-A* Colored Glove Initiative
- Chapter 3: NBHC Example: Seattle, WA Dept. of Public Health
- Chapter 4: Employee Health Example: FDA Atlanta District, FDA National Retail Food Team Oral Culture Learner
- Chapter 5: Employee Health Example: CT. State Dept. of Public Health
- Chapter 6: Question and Answer Session
- Chapter 7: Credits
- Chapter 8: Jurisdictions Enrolled in the Voluntary National Retail Food Regulatory Program Standards

FDA Oral Culture Learner Project – Educational Materials

Don't Let What Happened to Me, Happen to You



My name is David. One day, while at work, I started feeling sick and ran for the bathroom.



I felt better, so I returned to finish my shift. I needed the money. An order came in for a salad. I forgot to wash my hands or wear gloves.



I did not know I had germs on my hands. I passed my germs to the tomatoes.



and to the cucumbers...



and to the entire salad.



and to a little girl named Ashley who ate the salad that I prepared.



The next day, Ashley got so sick with stomach cramps and vomiting. In fact, dozens of people got sick because I continued to prepare food that day.



I could have prevented this from happening.

Protect People Everywhere: Wash Your Hands, Use Gloves or Utensils, and Never Work When You Are Sick.



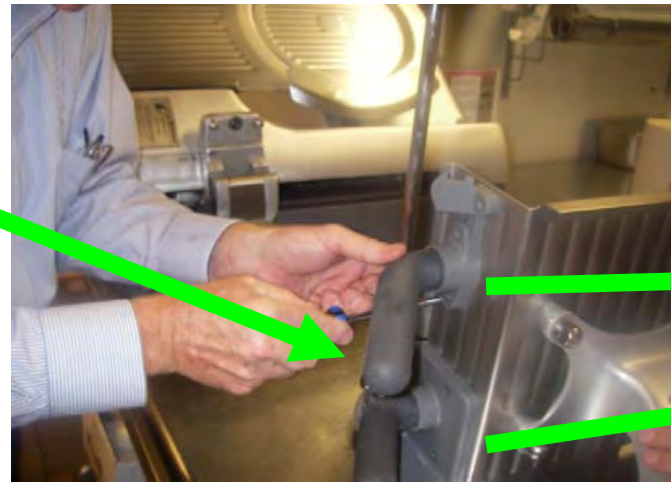
NOW AVAILABLE ON-LINE!!

<http://www.fda.gov/Food/FoodSafety/RetailFoodProtection/IndustryandRegulatoryAssistanceandTrainingResources/ucm212661.htm>

Commercial Deli Slicers

- **Foodborne Outbreaks resulted in Slicer Concerns**
 - *Salmonella* Outbreak - 2007
 - Listeriosis Outbreak - 2008
 - *Salmonella* Outbreak – 2010
- **Current Slicer Design**
 - Difficult to properly clean and sanitize
 - Adjoining parts and components with sealants and gaskets
- **NSF/ANSI Standard 8, *Commercial Powered Food Preparation Equipment***
 - Currently being revised
- **Educational Campaign**
 - Target audience specific to:
 - Food Safety Professionals (FLYER)
 - Food Establishment Personnel (POSTER)





Salmonella
Outbreak in
2007

Salmonella Outbreak 2010

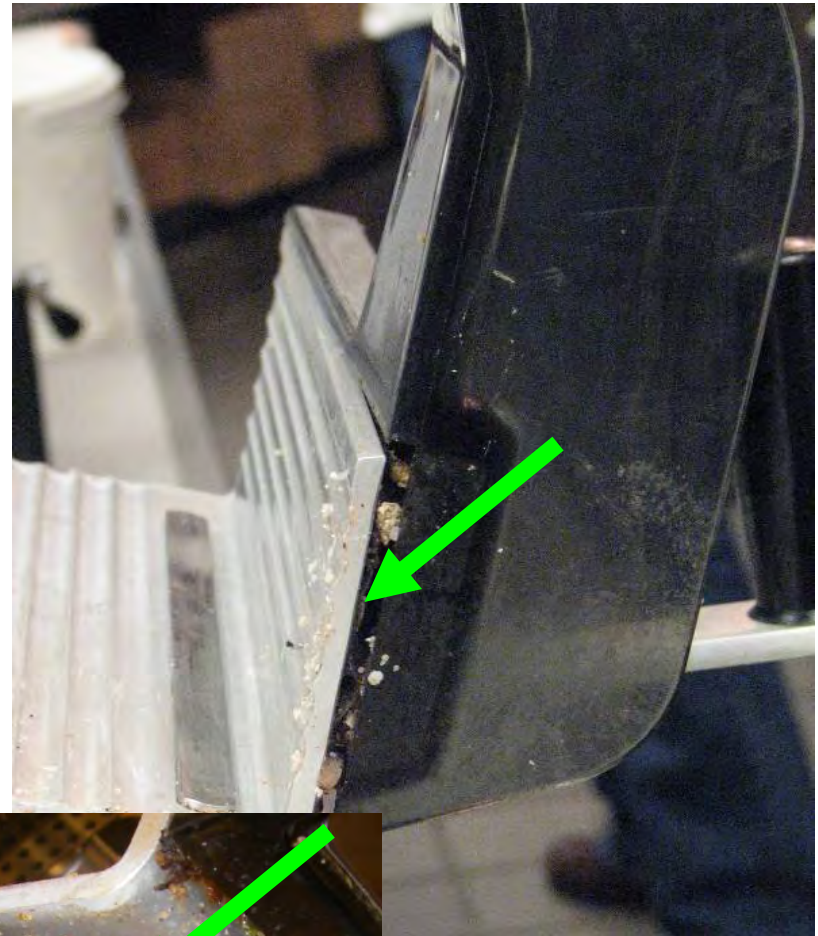
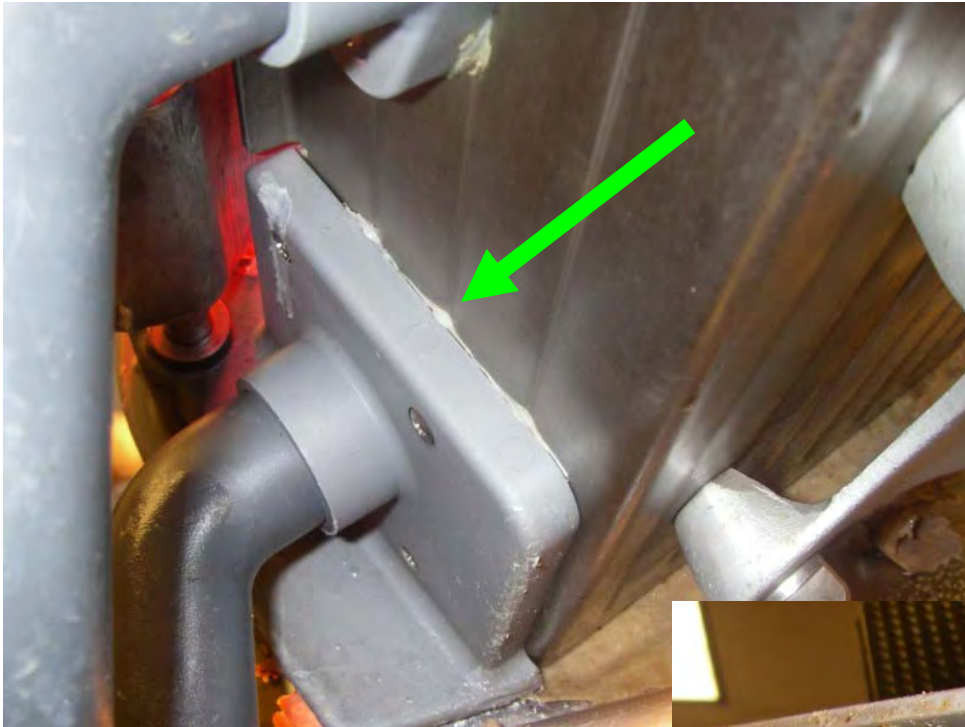


Blade side view of slicer blade guard



Non-removable, non-cleanable white plastic on inside of blade guard was Salmonella + PFGE match to outbreak

Other Concerns...





New FDA Materials on Sanitation Concerns with Commercial Deli Slicers

- **Keep Commercial Deli Slicers Safe** – Poster targeted to food establishment personnel
- **Commercial Deli Slicer Inspection Tips for Food Safety Professionals** – Flyer targeted to food regulatory professionals

- The new poster and flyer are available in both English and Spanish at no charge and can be ordered at: <http://www.fda.gov/downloads/Food/ResourcesForYou/UCM222258.pdf>.
- For orders greater than 500, contact Shirley Turpin at shirley.turpin@fda.hhs.gov.



Interagency *Listeria monocytogenes* Studies & Retail Risk Assessments

- FSIS released the comparative LM risk assessment
- New Studies – New Approach: retail cross-contamination model
 - Determine how contamination of deli meat, cheese, and salad occurs
 - Observational study of deli workers completed for real world data
 - Evaluate the impact of various mitigations
- Other Projects
 - FDA & FSIS to update the 2003 risk assessment on the relationship between foodborne LM in selected categories of ready-to-eat foods
 - FR Notice (April 7, 2011) – request for comments and scientific data
 - Collaborative study on the prevalence and level of LM in retail (FDA, USDA/ARS, Drexel Univ.)



Listeriosis in Healthcare Facilities

- **Associated foods** – cold ready-to-eat foods not heated before consumption, e.g., deli meats; unpasteurized milk, soft cheeses
- **Onset of illness** – 9 to 48 hours for GI symptoms; 2-6 weeks for invasive disease
- **Symptoms** – fever, muscle aches, and Nausea or Diarrhea; **in elderly or immunocompromised patients may develop bacteremia or meningitis**
- Very young, elderly, immunocompromised, and pregnant women especially at risk



Hospital-acquired cases of *Listeriosis*

- May 2003 – 2 cases in an oncology unit associated with sandwiches consumed in hospital¹
- Feb 2011, Midlands, England² – 3 cases with common exposure to pre-packaged sandwiches and salads; breach in cold chain and shelf life controls at hospital were key contributors
- Aug – Oct 2008 in NYC Hospital³ – 5 cases with LM outbreak strain isolated from tuna salad prepared in the hospital

References: ¹Journal of Hospital Infection (2009) 72, 332-336. A.Shetty et al

²Coetzee N, Laza-Stanca V, Orendi JM, Harvey S, Elviss NC, Grant KA. A cluster of *Listeria monocytogenes* infections in hospitalised adults, Midlands, England,, February 2011.

³Cokes C, France AM, Reddy V, Hanson H, Lee L, Kornstein L, Stavinsky F and Balter S. Serving High-Risk Foods in a High-Risk Setting: Survey of Hospital Food Service Practices after an Outbreak of *Listeriosis* in a Hospital. Vol. 32, No. 4. April 2011.



Listeria Control for Retail

- **WHY** is *Listeria* such a problem?
 - Low infectious doses and high death rates with high risk, vulnerable populations
 - RTE foods (no CCP) involved in outbreaks
 - There are few Lm outbreaks – listeriosis is more often sporadic
 - *Listeria* is very resistant to heat, cold, salt, vacuum



Listeria Control for Retail

- **WHY** is *Listeria* such a problem?
 - Cross-contamination is likely with frequently used equipment
 - Extended shelf life foods allow growth even under refrigeration
 - There are many sources of *Listeria* in delis
 - *Listeria* persists in the environment once established (forms biofilms)



Food Code Controls for *Listeria*

- Demonstration of Knowledge
- Duties of the person in charge
- Employee Health and Hygiene
- Time Controls
- Temperature controls
- Preventing Cross Contamination
 - From Hands
 - From equipment and utensils
 - From other food products
 - From the environment
- Cleaning and sanitizing food contact and non-food contact surfaces



Listeria Control

- Do you have a *Listeria* Control Plan?
 - An employee training program that focuses specifically on *Listeria* control?
 - Written SSOPs that specifically consider *Listeria*?
 - Expectations, monitoring, verification
 - Addresses persistence in the environment
 - Verified time and temperature control?
 - Verified cleaning and sanitizing procedures?
 - Other considerations
 - Equipment design, process flow to prevent cross-contamination, precautions during remodeling, construction, use of used equipment



Any Questions?

Please visit the Retail Food Protection Team website at:

<http://www.fda.gov/RetailFoodProtection>

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