Satellite Broadcast

Report of the FDA Retail Food Program Database
of Foodborne Illness Risk Factors

Friday, October 27, 2000
1:00 PM - 4:00 PM Eastern

BROADCAST MATERIAL FOR VIEWERS

PowerPoint Handouts

More information on the broadcast is available at: http://vm.cfsan.fda.gov/~dms/retrskfl.html

FDA Retail Food Program Database of Foodborne Illness Risk Factors

October 27, 2000

BACKGROUND

- FDA National Retail Food Steering Committee

- Government Performance Review Act (1993) "*performance plans … measurable indicators*"

BACKGROUND

- Baseline focus:
  - 5 CDC-identified risk factors
  - 1997 FDA Food Code as the standard

- National Team & Healthy People 2010 agency goal
  - 25% reduction in CDC risk factors

GPRA BASELINE REPORT FORMAT

- I. Background
- II. Introduction and Purpose
- III. Methodology
- IV. Data Reports and Discussion

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GPRA BASELINE REPORT FORMAT

- V. Field and Statistical Limitations
- VI. Recommendations for Regulatory & Industry Programs
- VII. Areas for Future Study

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INTRODUCTION AND PURPOSE

- Agency effort to change behaviors / practices related to foodborne illness

- Measure trends in regulatory & industry efforts to reduce the occurrence of FBI risk factors

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INTRODUCTION AND PURPOSE

- Healthy People 2010
  - Food Safety Objective 10.6

- Baseline is National in Scope

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METHODOLOGY

- Scope: <u>3 Industry segments / 9 facility types</u>**:**

  - <u>Institutions</u>
    - **Hospitals**
    - **Nursing Homes**
    - **Elementary Schools**

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METHODOLOGY

- Scope: <u>3 Industry segments / 9 facility types</u>**:**

  - <u>Restaurants</u>
    - **Fast Food**
    - **Full-Service**

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METHODOLOGY

- Scope: <u>3 Industry segments / 9 facility types</u>**:**
  - <u>Retail Food Stores</u> ---
    4 departments:
    - **Deli**
    - **Meat and Poultry**
    - **Produce**
    - **Seafood**

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METHODOLOGY

- Scope:
  - 895 Inspections
  - 17,477 Observations
  - Selection of Project Locations

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METHODOLOGY

- Standardized Specialists conducted the inspections
- Selection of Establishments (Comparison Lists)

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METHODOLOGY

– Confidentiality of Selected

Establishments

– Observational vs.

Regulatory inspections

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BASELINE DATA COLLECTION FORM

• **Foodborne Illness Risk Factors**
  – **Food from Unsafe Sources**
  – **Inadequate Cooking**
  – **Improper Holding/Time-Temp**
  – **Contaminated Equipment/ Protection from Contamination**
  – **Poor Personal Hygiene**

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BASELINE DATA COLLECTION FORM

Baseline Data Collection Form

CDC RISK FACTORS
CDC RISK FACTOR – FOODS FROM UNSAFE SOURCE

FOOD SOURCE
STATUS 1. Approved Source

_____ A. All food from Regulated Food Processing **Plants/No home prepared/canned foods.**

_____ B. All Shellfish from NSSP listed sources. No recreationally caught shellfish received or sold.

_____ C. Game wild mushrooms harvested with approval of Regulatory Authority.

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PRESENTATION OF THE DATA

- <u>TABLE 1</u> - Overall % Observable Data Items

  IN COMPLIANCE - 9 Facility Types

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TABLE 1

OVERALL PERCENT (%) of Observable
and Applicable Data Items found
IN COMPLIANCE and the FDA Improvement
Goal, by Facility Type

		1998 Baseline*	
		% IN COMPLIANCE Observable Items (rounded to nearest %)	FDA Improvement Goal** (rounded to nearest %)
Institutions	Hospital	80%	85%
	Nursing Home	82%	87%
	Elementary School	80%	85%

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PRESENTATION OF THE DATA

- <u>TABLE 2</u> - Total % IN COMPLIANCE Observations -Risk Factors - 9 Facility Types

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TABLE 2 – Total % IN COMPLIANCE Observations - Risk Factors

Risk Factor	Retail Food Store - Deli		
	%	N	Total Obs
Food from Unsafe Sources	97.1	204	210
Inadequate Cooking	89.3	218	244
Improper Holding/Time-Temperature	43.3	223	515
Contaminated Equipment/Protection from Contamination	79.4	374	471
Poor Personal Hygiene	73.6	373	507
Other/Chemical	83.1	177	213

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PRESENTATION OF THE DATA

• TABLES 3-11 –
Individual Data Items Needing Priority Attention
 (32 or more OUT OF COMPLIANCE Observations for each facility type)

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TABLE 6

RESTAURANTS – FAST FOOD
% OUT OF COMPLIANCE OBSERVATIONS

Industry Segment →Restaurants Facility Type →Fast Food	N	Total Observations	% OUT OF COMPLIANCE
Data Item			
RTE, PHF Date Marked After 24 Hr	41	58	71%
PHF Held Cold at 41°F (5°C) or Below	63	101	62%
Prevention of Hand Contamination	59	102	58%
Proper, Adequate Handwashing	55	103	53%
Surfaces/Utensils Clean/Sanitized	38	101	38%
Poisons/Toxics ID Store/Use Properly	36	103	35%
Good Hygienic Practices	34	104	33%

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PRESENTATION OF THE DATA

• <u>FIGURES 1-31</u> –
Visuals depicting the most significant OUT OF COMPLIANCE data items for each facility type and overall

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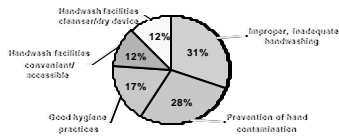
FIGURE 16

POOR PERSONAL HYGIENE
Breakdown of the OUT OF COMPLIANCE Observations, by Data Item

FIGURE 16.
Restaurants - FULL-SERVICE

Handwash facilities cleanser/dry device — 12%
Handwash facilities convenient/accessible — 12%
Good hygiene practices — 17%
28% — Prevention of hand contamination
31% — Improper, inadequate handwashing

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DATA SUMMARY

Five practices and behaviors > 40% OOC observation rate:

• **Cold Holding of Potentially Hazardous Food (PHF) at 41°F or below**

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DATA SUMMARY

**Five practices and behaviors
> 40% OOC observation rate:**

- **Ready-to-eat (RTE), PHF Date
  Marked after 24 hours
  (prepared on-site)**

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DATA SUMMARY

**Five practices and behaviors
> 40% OOC observation rate:**

- Commercially processed RTE,
  PHF Date Marked

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DATA SUMMARY

**Five practices and behaviors
> 40% OOC observation rate:**

- Surfaces/Utensils
  Cleaned/Sanitized

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DATA SUMMARY

**Five practices and behaviors
> 40% OOC observation rate:**

- Proper, Adequate
  Handwashing

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DATA SUMMARY

Three risk factors had data items with
significant OUT OF COMPLIANCE
Observations for 8 of the 9 facility types
(the exception: seafood depts.)

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Significantly Out of Compliance

- Improper Holding/Time and
  Temperature

- Poor Personal Hygiene

- Contaminated Equipment / Protection
  from Contamination

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Improper Hold/Time Temperature

Cold Holding at 41ºF

- Significant for 8 out of 9 facility types

- Responsibility for between 21% to 54% OUT OF COMPLIANCE (OOC) observations

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Improper Hold/Time Temperature

Date Marking RTE, PHF after 24 hours

- Significant for all facility types except schools and meat departments.

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Improper Hold/Time Temperature

Rapid Cooling

- Significant for full-service restaurants (56/66 = 85% OOC rate).

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Poor Personal Hygiene

Lack of Handwashing

- Significant in all 9 facility types

- 30% to 45% of the total personal hygiene OOC observations

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Poor Personal Hygiene

Bare hand contact with RTE foods

- Significant for schools and all restaurants

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Poor Personal Hygiene

Eating, Drinking, Sneezing, Coughing, Use of tobacco

- Significant for all restaurants

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Poor Personal Hygiene

Inadequate handwashing facilities

• Significant for full-service restaurants

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Contaminated Equipment

Failure to clean and sanitize utensils/surfaces

• Significant in all 9 facility types

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Contaminated Equipment

Separation of raw animal foods from RTE foods

• Significant in full-service restaurants

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Project Limitations

- Field Limitations

  -- Time of the Inspection
  -- Length of the Inspection

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Project Limitations

- Statistical Limitations

Some comparisons not supported
by statistical Design

  -- Region vs. Region, State
  vs. State

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Project Limitations

- Statistical Limitations

Some comparisons not supported
by statistical Design

  -- Subcategories of Facility
  Types (e.g., chains of
  restaurants, retail food
  stores)

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Statistical Power

• Imperfect representation of U.S.

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Statistical Power

• Precision of percentages for each facility type

(the more observaitons, the greater the reliability in the data)

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Precision of Percentages

Table 1. +/-2 to 3 percentage points

• 4200 Possible Compliance Observations

--2420 Obs. Made - Full-Service Restaurants

--1540 Obs. Made - Meat & Poultry Departments

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Precision of Percentages

Table 2. +/-4 to 8 percentage points

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STATISTICAL POWER

- Good for trends, e.g. GPRA

- Good for relative importance of changes for each facility type

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RECOMMENDATIONS for REGULATORY

- Self-Assess Program effectiveness *FDA's Recommended National Retail Food Program Standards*

- Adopt uniform regulatory standard - FDA Food Code

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RECOMMENDATIONS for REGULATORY

- Use risk-based inspection methodology

- Provide flexible work schedules

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RECOMMENDATIONS for REGULATORY

- Properly train and equip field personnel

- Document compliance determination (IN; OUT; N.O.; N.A.)

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RECOMMENDATIONS for REGULATORY

- Take appropriate corrective action (Risk Control Plans)

- Establish own jurisdictional baseline

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RECOMMENDATIONS for INDUSTRY

- Develop and implement Standard Operating Procedures (SOPs) to address FBI risk factors

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RECOMMENDATIONS for INDUSTRY

- Provide employees with specific training and equipment to implement the SOPs

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RECOMMENDATIONS for INDUSTRY

- Incorporate critical limits and measurable standards for control of FBI risk factors in SOPs

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**RECOMMENDATIONS
for INDUSTRY**

- Establish monitoring procedures that focus on critical processes and practices

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**RECOMMENDATIONS
for INDUSTRY**

- Identify methods to routinely assess the effectiveness of the SOPs

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**RECOMMENDATIONS
for INDUSTRY**

**ACTIVE MANAGERIAL
CONTROL OF FOODBORNE
ILLNESS RISK FACTORS**

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FDA Intervention Strategies

- Support implementation of *FDA's Recommended National Retail Food Regulatory Program Standards* (*Standards*)

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FDA Intervention Strategies

- State Food Safety Task Forces Forces

    -- Implement & participate in

    -- Includes regulators, industry, consumers, academia, and others

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FDA Intervention Strategies

- Expand standardization of local health jurisdiction personnel through work with States

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FDA Intervention Strategies

- Support regulatory agencies in adopting the FDA Food Code

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FDA Intervention Strategies

- Complete risk-based standardization of regulatory officials in application of the FDA Food Code

(2 Officials / Agency / Jurisdiction by end of FY 2002)

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FDA Intervention Strategies

- Review Report with industry and consumer groups

- Develop strategies for addressing areas of noncompliance and consumer protection

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FDA Intervention Strategies

- Continue to educate consumers through the Agency's hotline and the Fight BAC! ™ campaign.

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FDA Intervention Strategies

- Assess need for Food Code standardization for personnel in agencies serving highly susceptible populations.

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FDA Intervention Strategies

- Develop work plan initiatives to meet this need (Federal Food Safety Coalition).

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FDA Intervention Strategies

- Provide technical support for regulatory initiatives designed to enhance the application of the principles of HACCP at the retail level (Standard #3 - Risk Control Plans and HACCP Principles at Retail Manual)

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FDA Intervention Strategies

- Assess retail food processes and procedures related to targeted high priority items (e.g., egg safety; Listeria risk assessment; raw seed sprouts; unpasteurized juice)

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FDA Intervention Strategies

- Expand to other Industry segments or sub-categories (e.g., day care; secondary schools; temporary food establishments)

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AREAS FOR FUTURE STUDY

- Examine more closely items that had a high OOC% , but low number of observations (e.g., cooking, cooling)

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AREAS FOR FUTURE STUDY

- Assess the impact of retail food initiatives (e.g., egg safety; Listeria risk management; raw seed sprouts)

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