IDENTIFYING FOOD SAFETY GAPS USING HEALTH INSPECTION DATA

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PURPOSE
To describe the use of health inspection data to identify food safety violations and actions needed to improve food safety practices.

METHODOLOGY DEVELOPMENT

- **Sample Collection:**
  - Publicly available health inspection reports were gathered from state health departments or through agency websites.
  - Inclusion and exclusion criteria were developed.
    - Type of inspection: Routine vs. follow up
    - Time frame
    - Cross-sectional vs. longitudinal data

- **Data Entry Forms:**
  - Different states used different inspection forms.
  - Based on multiple inspection forms used in different states, a data entry form was developed for each state using a Microsoft Access Form.

- **Data Analyses Consolidation Protocol:**
  - Based on categories used by the Kansas Department of Health and Environment, 30 violation categories were identified.
  - Each code violation on the inspection form was categorized according to:
    - Relevance to one food code violation category.
    - Critical or non-critical violation designation.
    - Behavioral or non-behavioral nature.
  - Some food code violations were classified as both behavioral or non-behavioral, due to the nature of the data.
  - Frequency of total, behavioral, and non-behavioral violations in each health inspection report were calculated using Microsoft Excel.
  - Examples of Food Code Violation Categories:
    - Person in Change
    - Employee Health
    - Handwashing & Handwash Sinks
    - Personal Cleanliness & Grooming
    - Approved Food Sources
    - Cooling
    - Reheating
    - Cooking
    - Thawing
    - Time & Temperature Control

RESULTS & DISCUSSION

- **Applications from Four Studies using this Methodology:**
  - Predetermining food code violation categories allowed researchers to develop a common form and interpret data similarly.
  - Publicly available inspection data provided useful data to identify gaps between safe food handling and violations.
  - The number of violations in each category, and total behavioral, non-behavioral, critical, and non-critical violations helped identify key risk factors and training needed.
  - The frequency of inspections presented an indicator for the seriousness of the food code violations, because poor performers tended to be inspected more frequently (e.g., follow up inspections).

- **Challenges of the Methodology:**
  - Very labor intensive.
  - Some code violations did not fit in the predetermined categories and violation types.

- **Limitations:**
  - Using secondary inspection data poses some challenges due to difficulty in determining the nature of violation at the time of inspection.
  - Due to missing items on the inspection forms, caution should be used when comparing data from state to state.

- **Advantages of the Methodology:**
  - Information from a large number of facilities was gathered and analyzed to determine common operational challenges.