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The Center of Excellence for FOOD SAFETY RESEARCH IN CHILD NUTRITION PROGRAMS

## Introduction

- Alternative models of service are used to increase participation in the USDA School Breakfast Program including:
- Delivery and service in the classroom
- "Grab and go" from the cafeteria or from mobile carts
- "Second chance" breakfast served from mobile carts consumed after first period.
- Due to transportation of breakfast items especially fluid milk, quality and food safety can issues arise with these alternative service models.


## Purpose

This study determined which common fluid milk service practices are currently used in alternative breakfast service models.
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USDA

## Delivery and Holding Methods of Milk Served Outside of the Cafeteria: Current School Breakfast Program Practices

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Methods
Sample

A total of 110 School Nutrition Directors were contacted:

- Serving Up Science participants (n=40)
- A random sample based on district size was chosen from each USDA, FNS region ( $\mathrm{n}=70$ )


## Data Collection

- A 31-item survey was developed that included questions about the following:
- Milk handling procedures,
- Service styles,
- Demographics, and
- Future research opportunities.
- Telephone interviews were conducted to obtain survey responses.
- Two follow-up reminders were sent.

> Data Analysis

- Descriptive statistics were calculated including:
- Frequency
- Mean Value


## Results

- A total of 31 useable surveys were completed. Each USDA, FNS region was represented in the responses.
- The two most commonly used containers for transporting milk were a soft-sided cooler or insulated bag ( $57 \%$ ) and non-insulated containers (43\%).
- Of those using containers, $61 \%$ added ice to help maintain proper temperature.
- The majority ( $82 \%$ ) of the participants reported that milk was packed less than one hour before service. Milk was reported out of primary milk coolers less than one hour ( $83 \%$ ).
- Many participants ( $80 \%$ ) reported that unconsumed milk was returned to the cafeteria and typically the temperature was checked immediately ( $44 \%$ ) or within one hour (7\%).


## Application to Child Nutrition

- Milk must be kept below $40^{\circ} \mathrm{F}$ to ensure quality and safety and reduce waste.
- Results from this baseline study will be used to develop simulations to determine the most effective transportation and holding methods to maintain safe milk temperatures and ensure the quality of the product.

