

### Introduction

- Hand contamination is often associated with pathogenic transfer and subsequent widespread infections (Lee & Greig, 2010).
- Effective handwashing is paramount to a school's health and food safety program and key to preventing illnesses.
- Simple barriers such as broken faucets or lack of hand washing supplies may inhibit hand hygiene (Master, Longe, & Dickson, 1997).
- The design of handwashing and drying equipment, such as manually-operated devices, may contribute to the spread of illnesses among children (Bright, Boone, & Gerba, 2010).



# **RESTROOM HANDWASHING FACILITIES IN PROXIMITY TO SCHOOL CAFETERIAS**

Kevin Sauer, PhD, RD, LD; Kevin R. Roberts, PhD; Jeannie Sneed, PhD, RD; Junehee Kwon, PhD, RD; Kerri Cole, Kathleen Novosel The Center of Excellence for Food Safety Research in Child Nutrition Programs Department of Hospitality Management and Dietetics, College of Human Ecology

## Purpose

The purpose of this study was to assess a national sample of handwashing facilities near school cafeterias.

## Methodology

- Six researchers observed 60 male and female bathroom facilities located in 34 school districts.
- Researchers documented the number of hand sinks, functioning soap and sanitizer dispensers, and hand drying devices.
- Soap and sanitizer dispensers with and without available product were documented, including functioning automatic vs. manually-operated air dryers and faucets.
- Running water temperatures at hand sinks were gathered at 10- and 60-second intervals.
- Visible cues and signage for handwashing were noted.
- Restroom entryways were assessed if hand contact for entry or exit was required (e.g. handles, knobs, or push plates).

- One functioning hand sink and soap dispenser was observed in all facilities.
- Most (n=55) soap dispensers contained product, while five did not.
- Only three facilities provided hand sanitizer.
- Most sinks (n=44) had manually-operated faucets.
- Ten second water temperature reading:  $56^{\circ}F$  to  $112^{\circ}F$  (M = 80.8  $^{\circ}F$  ± 14.4  $^{\circ}F$ )
- Sixty second water temperature reading:  $57^{\circ}F$  to  $135^{\circ}F$  (M = 88.4  $^{\circ}F$  ± 19.2  $^{\circ}F$ )
- Paper towels were available in 46 bathrooms and air dryers in nine. Three bathrooms had no form of hand drying available.
- Handwashing signs were observed in only 16 bathrooms.
- Opportunities exist to improve conditions in school restroom facilities to encourage handwashing.
- Directors and school personnel can use these findings to evaluate their facilities and develop possible interventions.

## Results

## Conclusions