

Data Collection Methods

Using purposive sampling, 40 licensed child care facilities in North Carolina (18) and South Carolina (22) were recruited for the study. Site visits were conducted from January 2010 to February 2011. One or two data collectors visited each child care facility for 2 to 3 hours. Site visits were conducted at 31 centers and 9 homes. Data were collected in two classrooms at 17 centers; thus, the sample size for classroom-level data was 57 (48 rooms for centers and 9 homes). Data collection methods included a director survey, environmental audits, classroom observations, and microbiological analysis.

Director Survey

Directors of the child care facilities completed a self-administered questionnaire to collect information on management and employee experience; meal preparation; food safety, hygiene, and sanitation training; facility policies, and facility characteristics.

Environmental Audits

Data collectors conducted environmental audits in the facility's food preparation area and one to two classrooms (infant and/or toddler). The audit forms were designed to assess sanitary conditions and were developed based on North Carolina's and South Carolina's environmental health regulations for child care centers. The forms consisted of a checklist in which data collectors recorded "Yes" for compliance, "No" for deviation, or "NA" for "Not applicable." Data collectors measured the air temperature inside refrigerators located in the kitchen and classrooms. Additionally, a sketch of the classroom floor plan was prepared on-site.

Classroom Observations

Data collectors observed one childcare provider in an infant and/or toddler room and recorded types of surfaces touched and hand washing and diaper-changing procedures. Data collectors used iPods to audibly record this information for a 45-minute observation period. The data were coded for analysis.

Microbiological Analysis

Environmental samples (8-12 samples per facility) were collected from common surfaces (faucets, toys, refrigerators, diaper changing areas) and provider and food worker hands. The samples were analyzed for total aerobic bacteria (APC), coliforms, and generic *Escherichia coli*, as well as for *Shigella*, *Salmonella*, *E. coli* O157:H7 and *Campylobacter jejuni*. The presence of RNA derived from noroviruses and group A rotaviruses was evaluated.