

**Supplemental Materials (requested in the OMB Notification of Approval)  
EHS-Net Program OMB Generic Information Collection Clearance Request  
Food Service Establishment Cooling Practices Study**

**A. Study Goals**

Improper cooling of food contributed to 44% of 1,918 foodborne illness outbreaks occurring in the U.S. over a 20-year period (Bryan, 1988). Indeed, improper cooling is the most frequent contributing factor to foodborne illness outbreaks. These data clearly indicate that improper cooling is a significant source of foodborne illness and needs to be the focus of prevention and intervention efforts. However, little data exists on current food service establishment cooling practices, policies and environments. As this information is essential to the development of effective prevention and intervention efforts, this study will focus on collecting these data (See Attachment 1 for the data collection instrument).

The primary purpose of this study is to collect descriptive data on food service establishments' food cooling practices. Specifically, the study will collect data on:

- types of foods being cooled,
- types of cooling procedures and equipment used, and
- food temperatures and the beginning and end of cooling.

A secondary purpose of this study is to determine whether establishment characteristics and policies, such as number of employees, kitchen manager certification, and the existence of cooling policies, are related to cooling practices.

**B. Study Design**

The study design is discussed in Supporting Statement, Part B: Statistical Methods in the section titled B.2. Procedures for the Collection of Information (Study Design).

**C. Sampling Approach**

The sampling approach is discussed in Supporting Statement, Part B: Statistical Methods, under the section titled B.1. Respondent Universe and Sampling Methods.

**D. Data Analysis Plan**

The first stage of analysis will be descriptive and will involve conducting univariate frequencies and other descriptive analyses (means, medians, standard deviations, etc.) on the variables in the dataset. This univariate analysis will allow a determination of the data quality of each variable. Specifically, we will examine response variability, non-response, and extraneous responses. Once any identified quality issues have been handled, this univariate analysis will be used to identify appropriate and inappropriate food service establishment food cooling practices. The second stage of analysis will involve tests for association (chi-squares and t-tests) to identify relationships between establishment characteristics and cooling practices. Because there will be

multiple observations of the same processes in each establishment, the SUDAAN analysis package will be used to account for this dependency in the data. The third stage of analysis will involve regression modeling to examine any multivariate relationships among establishment characteristics and outcome variables and to control for confounding. SUDAAN will also be used to conduct these analyses. The expected sample size for this study is 450 establishments. Power analysis indicates that this sample size should be adequate to detect medium sized effects.