National Survey of HIV Testing in Hospitals
Supporting Statement B

0920-NEW

Contact Information

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B. Statistical Methods

1. Respondent Universe and Sampling Methods

The sampling frame for the *National Survey of HIV Testing Practices in Hospitals* consists of non-federal, short-term hospitals in the United States that provide general medical and surgical services as well as general children's services, and are included in the 2006 American Hospital Association Annual Survey. Facilities which provide highly specialized services such as acute long-term care, rehabilitation for alcoholism and other chemical dependency, physical rehabilitation or other types of specialty treatment are excluded from the sampling frame. 2006 American Hospital Association Annual Survey data were used to identify and select hospitals which meet these inclusion criteria, resulting in a total of 4,554 eligible hospitals.

For this survey, a simple random sample of 1,500 hospitals will be selected from the sampling frame. Sampling and site selection will be done by the contractor. The contractor will send the paper survey and the website address to the first 1,000 hospitals in the sample with the expectation of obtaining a minimum of 500 completed responses, or a response rate of at least 50%. We have chosen a minimum target N of 500 based upon findings from previous hospital surveys we have conducted, including a nationwide survey of hospital HIV testing practices in 2004; this sample size provides sufficient power to detect significant bivariate relationships when they exist between survey outcomes and select hospital characteristics such as teaching status, bed size, MSA, and geographic region. Previous experience also indicates that different types of hospitals tend to respond similarly to a broad range of survey topics; this obviates the need to stratify the sample and simplifies the process for taking in to account the sampling strategy in subsequent analyses (e.g. weighting).
In the event that the response rate among the first 1,000 hospitals is less than 50%, we will follow up with non-responders by mailing the survey a second time, making phone calls and working closely with our contacts at state hospital associations, APIC and SHEA to promote the survey to their members. If necessary we will also send the survey to the remaining 500 hospitals in the original sample to facilitate achieving our minimum target of 500 complete

responses. Table 1 shows the distribution of hospitals in the sampling frame by MSA, bed size and census region and teaching status. Table 2 shows the distribution of hospitals for an N of 500.

Table 1. Sampling Frame Characteristics (N=4,554)		N	%
Census Region	Northeast	601	13.2
	Midwest	1351	29.7
	South	1746	38.3
	Pacific	856	18.8
Bed Size	Less than 100 beds	2154	47.3
	100 - 300 beds	1623	35.6
	More than 300 beds	777	17.1
MSA	NonMSA	1581	34.7
	50,000 - 499,999	1218	26.7
	>500,000	1755	38.5
Teaching Status	Teaching	880	19.3
	Nonteaching	3674	80.7
	Total	*4,554*	*100.0*

Table 2. Characteristics for N=500		N	%
Census Region	Northeast	63	12.6
	Midwest	156	31.2
	South	182	36.4
	Pacific	99	19.8
Bed Size	Less than 100 beds	235	47.0
	100 - 300 beds	188	37.6
	More than 300 beds	77	15.4
MSA	NonMSA	152	30.4
	50,000 - 499,999	133	26.6
	>500,000	215	43.0
Teaching Status	Teaching	91	18.2
	Nonteaching	409	81.8
	Total	*500*	*100.0*

2. Procedures for the Collection of Information

The final survey instrument will be programmed into the American Hospital Association’s on-line survey tool and tested. This tool is the same one used by hospitals to

complete the AHA's Annual Survey. A hardcopy of the survey instrument and cover letter will be mailed to each sampled hospital's chief executive officer (CEO) and to the head of the infection control unit. The cover letter will include a description of the study and will address the importance of their hospital's participation, as well as clear instructions as to who in the hospital should complete the survey. Once surveys have been mailed to potential participating hospital sites, a representative from the contractor will work with AHA and state hospital associations to increase awareness of the survey and its importance among member hospitals. Surveys will be completed by the hospital infection control staff, in consultation with other hospital staff. In addition, during the course of data collection, the contractor will contact by telephone those potential participating sites which have not yet responded to maximize the overall response rate. No compensation will be provided for completing the survey.

3. Methods to Maximize Response Rates and Deal with Non-response

Once surveys are mailed to respondents, an HRET communications coordinator will work with AHA and state hospital association communications vehicles to increase awareness of the survey among their members. Each hardcopy survey form will have a unique log-in and password that respondents may use to complete their surveys online. Respondents may also choose to send in their completed form in the postage-paid reply envelope. Surveys that are received via mail will be entered into database via the on-line survey tool by the contractor.

To maximize the response rate, HRET will inform respondents that they will receive a summary report of findings for their participation. One month after the survey is mailed, HRET will contact all non-responding hospitals by telephone. Hospitals that indicate they have not received the survey will be sent a new form and contact information to ask questions. Two months after the initial survey is mailed, HRET will re-send the survey via express mail to any non-respondents. Three months after the initial survey is mailed HRET will contact all non-responding hospitals via telephone to encourage their participation.

4. Test of Procedures or Methods to be Undertaken

The data collection instrument was developed using input from internal and external consultants (Attachment 4). The data collection instrument will be tested using a sample of

up to 9 hospitals prior to implementation. Prior to implementation of the online survey, CDC and HRET staff will test the skip patterns and responses both electronically and using paper versions of the data collection instruments.

5. Individuals Consulted on Statistical Aspects and Individuals Collecting and/or Analyzing Data

Dr. Chris Johnson was consulted about the statistical aspects of the project, including the sampling strategy, analytic methods for examining the objectives, and sample size. Dr. Johnson is a mathematical statistician in the Division of HIV/AIDS Prevention at the Centers for Disease Control and Prevention.