

## Local Health Department Job Losses and Program Cuts: Technical Documentation from January/February 2011 Survey



### Sampling

The National Association of County and City Health Officials (NACCHO) used a stratified random sampling design for a study that took place in January to February 2011 of local health department (LHD) job losses and program cuts. NACCHO used a representative sample instead of a complete census design to minimize survey burden on LHDs while enabling the calculation of national estimates. LHDs were stratified by size of population served (LHD size), using seven size categories: (1) less than 25,000; (2) 25,000–49,999; (3) 50,000–99,999; (4) 100,000–249,999; (5) 250,000–499,999; (6) 500–999,999; and (7) 1,000,000 or more. Because LHDs with large population sizes represent a relatively small portion of all LHDs, those LHDs were oversampled to ensure a sufficient number of responses from large LHDs for the analysis. Two states (Hawaii and Rhode Island) were excluded from the sample because they have no LHDs.

Once the sampling plan was finalized, NACCHO used SPSS Version 18 to draw a random sample of the specified size from within each stratum. In some centralized states, two or more LHDs had the same person listed as the contact person. In order to minimize response burden, no more than two LHDs with the same contact person were kept in the sample. When LHDs with a common contact person were dropped from the sample, or contact information was not available, a replacement was drawn. Overall, a sample of 596 LHDs was selected.

### Survey Administration

The LHDs in the sample received a survey link and an invitation from NACCHO's president to participate in the survey on Jan. 19, 2011. After the initial invitation, the potential participants received up to four reminder e-mails. In addition, NACCHO called people who had not yet completed their survey, targeting states with low response rates. Some state associations of county and city health officials assisted by encouraging their members to take part in the survey. NACCHO closed the survey on Feb. 11, 2011, with 441 responses, for a response rate of 74 percent.

### Data Cleaning

Data cleaning involved several approaches. First, NACCHO performed exploratory analyses and examined descriptive statistics to detect and address any anomalies. Second, NACCHO compared survey responses internally and with existing data to ensure their accuracy. For example, the reported number of people laid off was compared to existing data about the total number of employees at the LHD in 2010. NACCHO examined cases with a high ratio of layoffs to total staff and considered reported program and budget cuts to determine if the response was supported by auxiliary data. In the event that a ratio was high and there were not supporting data, the data were excluded from analysis. Cleaning tended to result in the exclusion of cases that reported high budget or workforce loss,

which may have resulted in a slightly conservative estimate for these variables.

### Analysis

Data analysis was conducted using Stata Version 11. All statistics reported were developed using appropriate scale weights to account for both sampling and dissimilar non-response by size of population served. To create these weights, NACCHO divided the total number of LHDs in each of the seven strata in the sampling frame by the number of valid survey responses in the corresponding stratum.

### Acknowledgments

Funding for this project was provided by Award Number 5U38HM000449-03 from the Centers for Disease Control and Prevention and by the Robert Wood Johnson Foundation in Princeton, NJ. The contents of this document are solely the responsibility of NACCHO and do not necessarily represent the official views of the sponsors.

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