

National 2009 H1N1 Flu Survey: Methodological Overview

The **National 2009 H1N1 Flu Survey**, conducted October 2009 through June 2010, is sponsored by the Centers for Disease Control and Prevention (CDC). The purpose of this survey is to produce weekly national and monthly state level estimates of both seasonal and H1N1 influenza vaccination coverage for children, adults, and priority groups designated by CDC. In addition, the questionnaire will collect data relating to knowledge and behaviors related to pandemic flu, vaccination intention, and recent respiratory illness.

Sample Plan

- The sample is a list-assisted random digit-dial (RDD) sample of both landline and cell telephones. Landline numbers are automatically dialed; cell telephone numbers are manually dialed.
- Targets are set to achieve a total of approximately 44,000 completed interviews from landline households and 10,000 from cell-only or cell-mostly households, or approximately 6,000 total interviews per month. (For the first month only as the survey ramps up, the number of interviews completed will be approximately 4,350.)
- In order to avoid early responder bias the sample is broken into equal groups. One group per week is released and remains "live" in the system for five weeks. This approach is designed to provide a consistent mix of cooperative and reluctant respondents for each week's estimates.

Data Collection

- An advance letter is sent to households for which the telephone number can be matched to an address.
- Interviews are conducted by telephone with households in all 50 states and the District of Columbia.
- The survey is conducted in both English and Spanish; Language Line interpretation services are employed to facilitate data collection in other languages.
- Households are screened into the survey based on the presence of a household member 18 years of age or older. Cell telephone respondents are screened into the survey if they are a "cell telephone only" household (i.e., they report that they do not maintain a landline telephone in their household) or a "cell telephone mostly" household (i.e., they maintain a landline but nonetheless make and receive most of their calls on a cell telephone), and they are 18 years of age or older.
- For the landline sample, the questionnaire rosters all adults 18 years and older in the household and randomly selects one adult about whom questions are asked regarding their current and previous flu vaccination status. For the cell telephone sample, the adult who answers the cell phone is asked about their own current and previous flu vaccination status. The total expected sample size of adults is approximately 54,000.
- Additionally, the questionnaire rosters all children in the household younger than 18 years in both the landline and the cell telephone samples. One child is randomly selected and the adult respondent is asked about the flu vaccination status of that child. The total expected sample size of children is approximately 14,000.

- The questionnaire further asks about high risk status and recent respiratory illness of both the adult and the selected child. It also asks opinions about seasonal and H1N1 flu vaccination, pandemic flu knowledge and concerns, vaccination intention, and infectious disease control behavior. General demographics for the household, the adult, and the child are collected at the end of the survey.

Data Delivery

- NORC derives weekly and monthly sample weights for the completed interviews within each survey week and month. Sample weights account for the probability of selection, integration of the various samples from which the weekly and monthly completed interviews are comprised, and ratio adjustment to control the completed interview sample to selected demographic (Age, Race/Ethnicity, Gender) and geographic (10 HHS Regions for weekly weighting, State for monthly weighting) Census Bureau population estimates.
- CDC receives weekly and monthly deliveries from its data collection contractor, NORC at the University of Chicago. The deliveries consist of tables populated by all interviews completed from the previous week or month. The tables are calculated from cleaned, imputed, and weighted data.
- In addition, NORC delivers a weighted data file to the CDC on a monthly basis, which includes all interviews completed in the prior month.
- These deliveries also incorporate vaccination status data collected for children under 18 years of age from three other CDC-sponsored surveys currently underway: the National Immunization Survey, the National Immunization Survey-Teen, and the National Survey of Children with Special Health Care Needs. The data from these surveys and the core pandemic flu survey are appropriately weighted together to yield national and state level estimates. The total expected sample size of children from the three additional surveys is approximately 74,000. Thus the total expected sample size of children after incorporating with the pandemic flu survey is approximately 88,000.