

Table: Methodological and Sampling Changes to National Immunization Survey, 2011

Step	Brief Description	Changes from Previous NIS Weighting?	Comments
1	Base Weights	No	
2	Adjustment for Non-resolution of Phone Number	No	
3	Adjustment for Cell-Phone Status Screener Nonresponse	Yes	Screener to restrict cell sample to cell-phone only/cell-phone mainly; applies only to Q1/2011 cell sample (this step is not needed for Q2/2011-Q4/2011 cell sample)
4	Adjustment for Age Screener Nonresponse	No	
5	Adjustment for Subsampling of Teens	No	NIS Teen only
6	Adjustment for Interview Nonresponse	No	
7	Adjustment for Multiple Phone Lines	No	
8	Annual Weights	Yes	Landline sample is combined as usual to derive the annual landline sample weight. The 4 quarters of cell sample are combined by estimation area and telephone status.
9	Adjustment for Children or Teens with HH Interview Completes to Combined Landline, Cell-Phone, No Phone Population	Yes	<p>NIS: Based on minimizing the MSE for the number of children that are breast fed, cell only children from the cell sample are combined with proxy cell only children from the landline sample; based on effective sample size, cell and landline dual user children from the cell sample are combined with cell and landline dual user children from the landline sample. Landline sample children with service interruption are adjusted to represent no phone children.</p> <p>NIS Teen: Based on minimizing the MSE for the number of teen with a household report of receiving any varicella shots, cell only teens from the cell sample are combined with proxy cell only teens from the landline sample; based on effective sample size, cell and landline dual user teens from the cell sample are combined with cell and landline dual user teens from the landline sample. Landline sample teens with service interruption are adjusted to represent no phone teens.</p>
10	Trim the Combined Cell and Landline Sample Weights	Yes	Within each estimation area, weights larger than median plus six times Interquartile Range (IQR) are trimmed
11	Adjustment to Population Control Totals	Yes	Trimmed weights are adjusted to total population controls by estimation area
12	Post-stratification	No	
13	Raking to Population Controls (yields RDD weight)	Yes	Add telephone status (cell-phone-only, cell and landline dual user, landline-only, no phone) as first step in raking
14	Adjustment for Provider Nonresponse	Yes	Include sample type (landline, cell-phone) in the propensity model along with regular covariates, include first-order interactions of sample type with covariates
15	Adjustment for Children with Adequate Provider Data to Combined Landline, Cell-Phone, No Phone Population	Yes	<p>NIS: Based on minimizing the MSE for the number of children that are up-to-date for 4:3:1:3:3:1, cell only children from the cell sample are combined with proxy cell only children from the landline sample; based on effective sample size, cell and landline dual user children from the cell sample are combined with cell and landline dual user children from the landline sample. Landline sample children with service interruption are adjusted to represent no phone children.</p> <p>NIS Teen: Based on minimizing the MSE for the number of teens that are up-to-date for 1+ MenACWY, cell only teens from the cell sample are combined with proxy cell only teens from the landline sample; based on effective sample size, cell and landline dual user teens from the cell sample are combined with cell and landline dual user teens from the landline sample. Landline sample teens with service interruption are adjusted to represent no phone teens.</p>
16	Raking to Population Controls (yields provider weight)	Yes	Add telephone status (cell-phone-only, cell and landline dual user, landline-only, no phone) as first step in raking