

Assessing the Use of Cell-Wins to Screen Nonworking Cellphone Numbers in Ohio

IFD&TC May 2015

RTI International: Marion Schultz, TJ Nesius, Tamara Terry, Marcus Berzofsky, Kimberly Peterson, Sabrina Bethea
Ohio State University: Bo Lu

Study Background

- The 2015 Ohio Medicaid Assessment Survey (OMAS) is a continuation of one of the largest ongoing state-level public health surveys.
- Data will be collected from approximately 34,000 adults (19 years of age and older) living in Ohio.
- The survey includes sections that focus on insurance status for both adults and children, health status and care giving, usage and access to care, unmet healthcare needs, financial stress and medical bills, food situations, and demographic information.

Study Background

- Key populations of interest include minorities, low income, households with children and rural residents
- 2012 OMAS allocated 25% of the sample to the cellphone frame
- 2015 OMAS allocated 50% of the sample to the cell phone frame

Increase in Cellphone only households

- More household moving to cell use only
- Cell only households tend to be younger, with children and minority
 - 53% of adults live in cell only households
 - 63% of children live in cell only households

Challenges of Dual-Frame Samples

Restrictions

Cell phone numbers need to be hand dialed

Expense

Low Cooperation rates

Cell Phone Sample Improvements

Sample vendors developed methods to identify the likelihood that a cell phone number is working

Cell-Wins activity flag developed by MSG

Code phones numbers coded as active, inactive or unknown

Hypothesis

Assuming the cell-win flag can accurately identify active and inactive cell phone numbers we can reduce the cost of calling cell phone samples by reducing the number of cell phone numbers to be called during production.

Objectives

 Determine the accuracy of the Cell-Wins activity flag in the state of Ohio

 Determine what productivity increases occur by not calling inactive cell phone numbers

2015 OMAS Pilot Study

Pilot study conducted in December 2014

 Cell-Wins activity flag assigned on cellphone numbers

 All cellphone numbers released regardless of activity flag

Pilot Study Findings

Cell Wins	# of Numbers	# of Call Attempts	# of Contacts	# of Completes
Active	12,199	90,295	7,488	1,012
Inactive	5,536	15,009	281	30
Unknown	776	2,696	36	4

OMAS Full Study

Sampled 470,000 cell phone numbers

 Screened out approximately 179,000 cell phone numbers using Cell-Wins inactivity flag (37%)

 Cell-Wins that were listed as unknown were called in the full study.

Productivity Increases

- Made a total of 108,000 call attempts for entire sample that was fielded
- Potential to have made additional 93,000 call attempts if inactive cases called.

- Difference in potential attempts and actual is 86%
- Increased productivity by approximately 14%

Findings

- Use of Cell-Wins activity flagged reduced the number of cell phone numbers to be called
- Improved the efficiency of the cell phone samples that were called
- Reduction in cell phone numbers called leads to a reduction in expenses (labor, telephone costs, etc)

Recommendations

 Continue to research methods offered by vendors to help improve the efficiency of cell phone samples

 Continue to use methods such as Cell-Wins to help in future studies

References

Blumerg, S.J., Ganesh, N., Luke, J.V., Gonzales, G. (2013). Wireless Substitution: State-level Estimates from the National Health Interview Survey, 2012. National Health Statistics Report, Number 70. Retrieved from http://www.cdc.gov/nchs/data/nhsr/nhsr070.pdf on May 1, 2015.

Dutwin, David. January 2015. "Cellular Telephone Methodology: Present and Future". Webinar presentation for AAPOR.

Dutwin, David, David Malerek. Recent Activity Flags for Cellular Samples. Survey Practice, [S.I.], v. 7, n. 1, mar. 2014

More Information

Marion Schultz

Quality Control Manager 919.926.6520, x66520 mschultz@rti.org