Results from the 2007 New Jersey Health Care Opinion Poll

Do we need to worry about wireless substitution in public opinion polls about health reform?

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## Project Team

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OUTLINE

• The problem of wireless substitution
  – Not just households without landlines

• NJ Health Care Opinion Poll
  – How the poll was conducted
  – Measurement of “wireless mainly” population

• Extent of differences
  – Landline, Wireless-only, Wireless-mainly
    • 81 items, 14 domains
    • Selected examples
  – Effect of post-stratification

• Discussion
Potential for Sample Frame Coverage Bias in Health Opinion Polls

- Opinion polls are traditionally based on Random Digit Dial (RDD) samples using landlines.
- A growing number of households rely on wireless phones and do not have landlines (or don’t use them much).
- Potential for sample frame coverage bias varies by:
  - Prevalence of wireless substitution
  - Magnitude of wireless - landline differences
Wireless-Only Population
Percent of adults with a wireless phone living in households without a landline.

Estimated Population Distribution
Wireless Only, Wireless Mostly, and Landline

Wireless Mostly, 14.0%

Wireless Only, 14.4%

Landline, 71.6%

NJ Opinion Poll Design

- Purpose: gauge concerns about health care issues and support for reform in NJ
- Field period: June 1 to July 9, 2007
- Interviews: English and Spanish
- Calling design: up to 18 contact attempts
- Incentives: $10 for wireless respondents
- Length: 20.2 min (landline) & 22.8 min (wireless)
• Final sample: 1,104 adults total…
  – 804 by traditional RDD landline sample
  – 300 by wireless phone
    • wireless only (197) and wireless “mainly” (103)
• Response rate (AAPOR RR-3):
  – 34.4% (landline) & 36.2% (wireless)
• Weights:
  – Probably of selection
  – 2006 NHIS Northeastern US wireless-only (trended)
  – Extrapolate from Poll “wireless mainly” rates
  – Post-hoc adjustment to Census distributions (age, sex, education)
Our Wireless Sample Screening

In addition to having a cell phone, do you also have at least one land line phone in your house at which you or anyone else in the household NORMALLY receive in-coming phone calls?

IF YES: Please do not include modem only lines, fax only lines, lines used just for a home security system, beepers, pagers, or the cell phone.

(IF YES) Thinking just about the land line home phone, NOT your cell phone, if that telephone rang, and someone was home, under normal circumstances how likely would it be answered.

Would you say:

- Extremely likely
- Very likely
- Somewhat likely
- Somewhat unlikely
- Not at all likely

Wireless Mainly Sample
Estimated Population Size by Wireless Status

Difference between “mainly” and “mostly” concepts

Significance of Differences Between Landline and Wireless Responses by Survey Domain

81 Questions in 14 Conceptual Domains

- Regulatory Reforms (5)
- Public Health Reforms (5)
- Responsibility for Covering Uninsured (5)
- Coverage Reforms (12)
- Priorities for NJ (9)
- Health Worry (7)
- Read or Heard About Reform (2)
- General Worry (7)
- Need for Reform (5)
- Employment & Income (5)
- Own Coverage (2)
- Own Health Care Cost (4)
- Own Health Status (2)
- Demographics (11)

P<.001 P<.01 P<.05

Note: Data unweighted
Source: Rutgers Center for State Health Policy, New Jersey Health Care Opinion Poll, 2007
Rev. 7-08-08
Demographics:
Age Distribution

Sources: Rutgers Center for State Health Policy, New Jersey Health Care Opinion Poll, 2007
Demographics: Non-Citizen in Household

Total: 12.1%
Landline: 9.0%
Total Wireless: 22.5%
Wireless Only: 23.3%
Wireless Mainly: 18.6%

Sources: Rutgers Center for State Health Policy, New Jersey Health Care Opinion Poll, 2007
Own Health Status:
Three or More Prescription Drugs

Sources: Rutgers Center for State Health Policy, New Jersey Health Care Opinion Poll, 2007
Own Health Care Cost:
Great Difficulty Affording the Cost of Hospitals, Doctors, or Other Health Care

Sources: Rutgers Center for State Health Policy, New Jersey Health Care Opinion Poll, 2007
Own Coverage:
Uninsured

Sources: Rutgers Center for State Health Policy, New Jersey Health Care Opinion Poll, 2007
Employment & Income:
Income Below $35,000

Sources: Rutgers Center for State Health Policy, New Jersey Health Care Opinion Poll, 2007
Need for Reform:
Prefer Current Health Insurance System over Universal Insurance Program

Sources: Rutgers Center for State Health Policy, New Jersey Health Care Opinion Poll, 2007
General Worry:
Being Able to Pay Rent or Mortgage

Note: “not too worried” and “not at all worried” categories included in calculating significance, but not shown.
Sources: Rutgers Center for State Health Policy, New Jersey Health Care Opinion Poll, 2007
**Effect of Weighting to Population Distributions**

Reweighted Landline-Only Compared to Combined Sample

*Statistically significant difference at p<0.05 level

Note: DK and REF treated as missing.

Sources: Rutgers Center for State Health Policy, New Jersey Health Care Opinion Poll, 2007
EMPIRICAL OBSERVATIONS

• Landline-Wireless response differences vary by domain
  – Most significant differences are in demographics, health status, coverage, health care cost, and employment & income
  – Few differences in measures of support for specific policy reforms
  – Post-hoc demographic (age, sex, education) weight adjustments reduce but do not eliminate differences

• Wireless-only and -mainly responses generally similar, with some exceptions:
  – Estimate of percent uninsured among ‘mainly’ respondents falls between ‘only’ and landline respondents
  – Estimate of percent low-income among ‘mainly’ respondents similar to landline respondents
DISCUSSION

- Unique problems for state samples
- As always, potential non-response bias, but little difference by landline (34%) v. wireless (36%)
- “Mainly” population potentially in both sample frames
  - More research needed to identify overlap
- Identifying “mainly” respondents is messy
  - What are the right screening questions?
  - CSHP and NCHS “mainly” and “mostly” questions differ
- Fast moving technology