Questionnaire Effects:
A Test of the Impact of Question Ordering and Context on Responses to Children's Health Insurance Questions
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BACKGROUND and CONTEXT
Children's Health Insurance Patterns:  
A Review of the Literature

“Although most researchers agree on the general trends of health insurance coverage -- that is, that the rate of private or employer-sponsored coverage is falling while public sponsored coverage is rising -- they often disagree on the actual number of uninsured, or even how the uninsured should be defined and measured.”
“For example, although the most widely cited estimate of the number of uninsured children in America is about 9.8 million, which is based on the March 1996 Current Population Survey (CPS), there is debate over whether this estimate is closer to the number of uninsured at a point in time or the number uninsured throughout the year.”
“Moreover, estimates of the uninsured using alternative data sources, or using CPS data that have been edited because of problems with the reporting of Medicaid, vary from the basic CPS estimate by as much as one-third.”
Reasons for Differences

• Time-Frame

• Medicaid Underreporting

• Undercoverage of the Population
Surveys that Measure

- CPS (Current Population Survey)
- SIPP (Survey of Income and Program Participation)
- NHIS (National Health Interview Survey)
- MEPS (Medical Expenditure Panel Survey)
- Other Surveys
Motivation for Current Research

- CSHCN Levels of reported insurance higher than 2 other surveys
  - 1999 National Survey of America’s Families (Urban Institute-Westat)
  - NHIS – National Health Interview Survey (NCHS-Census)
What is CSHCN?

- State Children’s Health Insurance Program (S-CHIP) introduced in 1997
- Desire to TRACK Children’s Health Coverage – STATE Level
CSHCN Based on NIS

- National Immunization Survey (NIS) conducted by National Immunization Program (NIP) of Centers for Disease Control and Prevention (CDC)
CSHCN Based on NIS

• More than 700,000 telephone screening interviews to yield 400 children aged 19-34 months in 78 IAP Areas in the U.S.
CSHCN Based on NIS

- Only 4-5% of households are eligible for NIS which is a relatively low burden interview

- Other 95% of households not interviewed at all

- Use these households (NIS-eligible and NIS-ineligible) for SLAITS
State Tracking

• State and Local Area Telephone Survey (SLAITS) National Survey of Children with Special Health Care Needs (CSHCN)
  – Maternal and Child Health Bureau/Health Resources and Services Administration and the Office of the Assistant Secretary for Planning and Evaluation (ASPE), Department of Health and Human Services
State-Level Tracking

• Each state
  – Sample of 3,675 households with children
  – 750 interviews with focus on children with special needs
  – 3,494 shorter interviews with focus on children without special needs
  – Insurance coverage collected for each interviewed child
Health Insurance

• HOW IS HEALTH INSURANCE COVERAGE AND NON-COVERAGE DETERMINED IN A SURVEY?
Questions and Methods

• Determining the level of the Uninsured has been accomplished by estimating the health care covered population and SUBTRACTING

• INSURED:
  – Private Insurance (Employer – Individual)
  – Medicare, Medicaid, Military, Other
Questions and Methods

UNINSURED = 100% - INSURED
Levels of Uninsurance

• When levels of insurance “COVERAGE” are higher than expected
Levels of Uninsurance

• Levels of uninsurance go DOWN
UNINSURANCE IS NOT UNDERREPORTED!!

- IF UNINSURANCE IS TOO LOW, IT IS CAUSED BY INSURANCE COVERAGE BEING OVERREPORTED
Possible Reasons for Differences

- MODE (Telephone vs. In-Person)
- QUESTION ORDER
- QUESTION CONTEXT (FOCUS)
- HOUSE
Health Insurance Question Experiment

• To attempt to answer questions about Question Order, House and Context Effects an Experiment Was Undertaken with
  – CONTROL GROUP – Current CSHCN
  – TREATMENT 1 – Revised CSHCN (Insurance First)
  – TREATMENT 2 – NSAF Questions
Control Group Interview

Roster all children in household

Administer the CAHMI Special Needs Screener to determine whether any child has special health care needs

Randomly sample up to one child with special health care needs and one child without special health care needs

Special Health Care Needs Child

- Detailed special needs interview with health insurance questions

Child Without Special Health Care Needs

- Shortened interview with health insurance questions
Revised CSHCN Screener Treatment Group Interview

1. Roster all children in household
2. Randomly select one child for interview
3. Health insurance questions
NSAF Treatment Group Interview

Roster all children and adults in household and map household relationships

Randomly sample up to one child aged 0-5 and one child aged 6-18

Select the target group for the insurance questions. The target group consists of the sampled child(ren), the most knowledgeable adult for each child, and the spouse or partner of the most knowledgeable adult

Health insurance questions
Control and Revised CSHCN Screener Treatment Groups: Private Insurance Questions

At this time, is *(the child)* covered by health insurance that is provided through an employer or union or obtained directly from an insurance company?

*(If ‘YES’ to the previous question)* Does this health insurance help pay for both doctor visits and hospital stays?
Control and Revised CSHCN Screener Treatment Groups: Medicaid and S-CHIP Questions

At this time, is (the child) covered by Medicaid, a health insurance program for persons with certain income levels and persons with disabilities? In this state, the program is sometimes called (state Medicaid name).

At this time, is (the child) covered by the State Children’s Health Insurance Program or S-CHIP? In this state, the program is sometimes called (state S-CHIP name).
NSAF Treatment Group:
Private Insurance Questions

At this time, is anyone covered by a health plan provided through a current or former employer or union? Please remember to include plans obtained through persons not living with your family.

Who is the policyholder for this plan?

At this time, in addition to (policyholder) who else is covered by (policyholder’s) plan?
Are *(people in target group)* covered by any other employer or union-provided health insurance plans?

Who is the policyholder for this plan?

At this time, in addition to *(policyholder)* who else is covered by *(policyholder’s)* plan?
NSAF Treatment Group: Medicaid Questions

Medicaid (or state name for Medicaid) is a program that pays for health care for persons in need. It is different from Medicare, which is a health insurance program for persons 65 and older and certain disabled persons under 65. At this time, are (people in target group) covered by Medicaid (or state name for Medicaid)?

Who is covered?
At this time, is (first selected child) covered by the health insurance program for children in your state called (state CHIP name)?

Is (second selected child) covered by (state CHIP name)?
<table>
<thead>
<tr>
<th></th>
<th>Control Group</th>
<th>Revised CSHCN Screener Treatment Group</th>
<th>NSAF Treatment Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial Telephone Numbers</td>
<td>16,272</td>
<td>16,272</td>
<td>16,272</td>
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<tr>
<td>Residential Status Determined</td>
<td>13,620</td>
<td>13,805</td>
<td>13,732</td>
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<tr>
<td>Known Households</td>
<td>4,980</td>
<td>5,005</td>
<td>4,979</td>
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<td>Households Screened for</td>
<td>4,760</td>
<td>4,796</td>
<td>4,773</td>
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<tr>
<td>Children</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Households Identified as</td>
<td>828</td>
<td>894</td>
<td>892</td>
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<tr>
<td>Having Children</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Control Group</td>
<td>Revised CSHCN Screener Treatment Group</td>
<td>NSAF Treatment Group</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>---------------</td>
<td>----------------------------------------</td>
<td>----------------------</td>
</tr>
<tr>
<td>Number of Children Screened and Selected for Interview</td>
<td>476</td>
<td>472</td>
<td>534</td>
</tr>
<tr>
<td>Number of Children Interviewed</td>
<td>396</td>
<td>420</td>
<td>486</td>
</tr>
</tbody>
</table>
Hypothesis I

INSURANCE LEVELS SUBJECT TO ORDER EFFECT “POSSIBLE CONDITIONING”
Hypothesis I: Summary of Findings

• No significant difference between insurance levels in the Control Group and the Revised CSHCN Screener Treatment Group

• Question order effect did not result in insurance rate changes
<table>
<thead>
<tr>
<th></th>
<th>Control Group</th>
<th>Revised CSHCN Screener Treatment Group</th>
<th>2-Sided Fisher’s Exact Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uninsured</td>
<td>4.8%</td>
<td>4.8%</td>
<td>1.000</td>
</tr>
<tr>
<td>Insurance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private</td>
<td>77.1%</td>
<td>78.8%</td>
<td>.613</td>
</tr>
<tr>
<td>Medicaid</td>
<td>16.2%</td>
<td>18.7%</td>
<td>.357</td>
</tr>
<tr>
<td>S-CHIP</td>
<td>7.6%</td>
<td>5.6%</td>
<td>.148</td>
</tr>
<tr>
<td>Base (Unwtd)</td>
<td>420</td>
<td>396</td>
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</tbody>
</table>
Hypothesis II

- PERSON (CHILD) FOCUS WOULD PRODUCE HIGHER LEVEL OF REPORTING
Hypothesis II: Summary of Findings

• Near significant difference in uninsured levels between the NSAF Treatment Group and the combined CSHCN groups

• Level of private insurance was significantly lower in the NSAF Treatment Group
Table IV. Children’s Insurance: Comparison of Combined Control and Revised CSHCN Screener Treatment Groups and the NSAF Treatment Group

<table>
<thead>
<tr>
<th></th>
<th>Combined CSHCN Groups</th>
<th>NSAF Treatment Group</th>
<th>1-Sided Fisher’s Exact Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uninsured</td>
<td>4.8%</td>
<td>7.0%</td>
<td>0.061</td>
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<tr>
<td>Insurance Private</td>
<td>78.1%</td>
<td>72.4%</td>
<td>.013</td>
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<tr>
<td>Medicaid</td>
<td>17.4%</td>
<td>14.4%</td>
<td>.090</td>
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<tr>
<td>S-CHIP</td>
<td>6.6%</td>
<td>7.8%</td>
<td>.761</td>
</tr>
<tr>
<td>Base (Unwtd)</td>
<td>816</td>
<td>486</td>
<td></td>
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</tbody>
</table>
Focus of Question

<table>
<thead>
<tr>
<th>Health Insurance Coverage:</th>
<th>Person-Level</th>
<th>Household-Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plan through employer/union?</td>
<td>75.1</td>
<td>65.3</td>
</tr>
<tr>
<td>Directly purchased plan?</td>
<td>9.4</td>
<td>10.8</td>
</tr>
<tr>
<td>Plan of nonhousehold member?</td>
<td>3.8</td>
<td>4.5</td>
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<tr>
<td>Medicare?</td>
<td>9.7</td>
<td>11.2</td>
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<tr>
<td>Medicaid?</td>
<td>5.9</td>
<td>8</td>
</tr>
<tr>
<td>Military plan?</td>
<td>4.7</td>
<td>3.8</td>
</tr>
<tr>
<td>Other plan?</td>
<td>1.9</td>
<td>1.2</td>
</tr>
<tr>
<td>Uninsured (constructed item)</td>
<td>6.6</td>
<td>12.6</td>
</tr>
</tbody>
</table>
HYPOTHESIS III

• House effect would produce higher level of insurance reporting

• Higher rates of private insurance observed in experiment provides evidence against house effect hypothesis
Future Research

• Replication

• Validation