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

by Kimball Lewis, Marilyn Ellwood, and John L. Czajka of Mathematica Policy Research Inc., for the Office of Health Policy, Office of the Assistant Secretary for Planning and Evaluation, Department of Health and Human Services, December 19, 1997.

"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
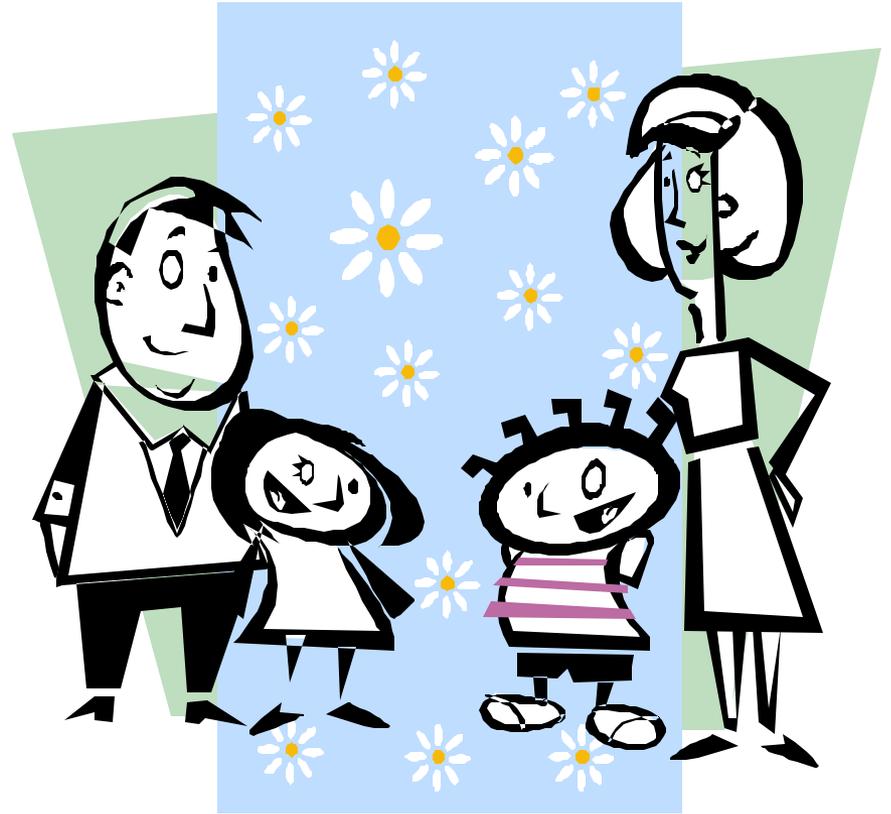
CSHCN Based on NIS

- 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 that those 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
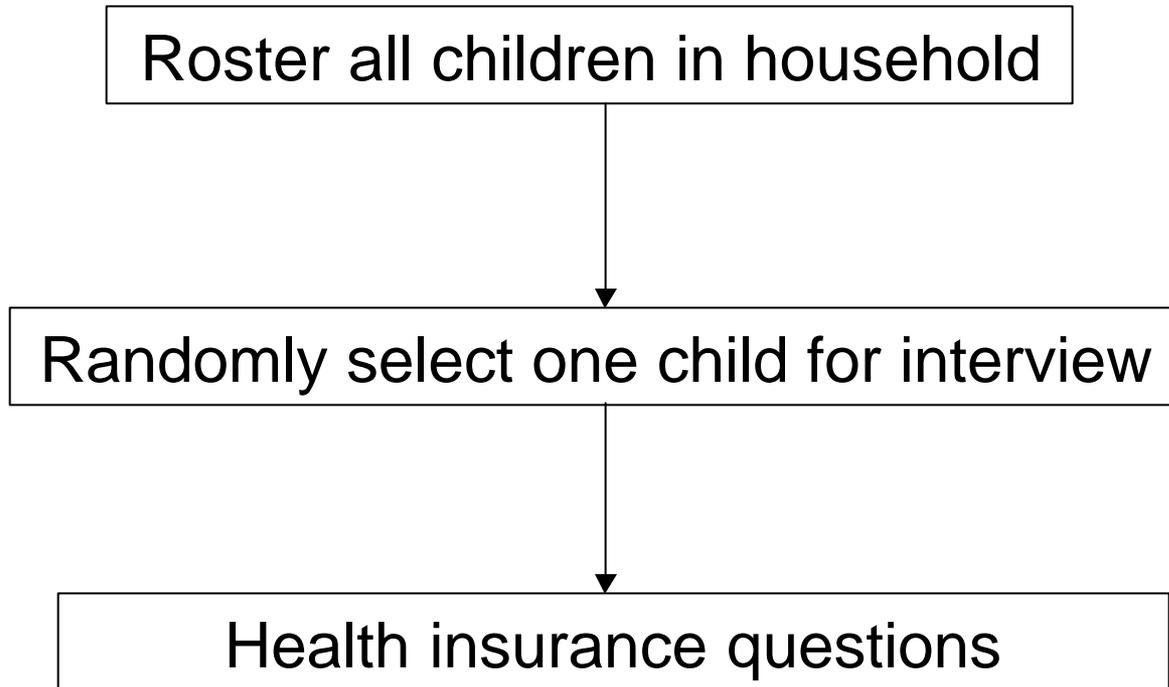
Special Health Care Needs Child

Child Without Special Health Care Needs

Detailed special needs interview with health insurance questions

Shortened interview with health insurance questions

Revised CSHCN Screener Treatment Group Interview

Roster all children in household

↓

Randomly select one child for interview

↓

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?

NSAF Treatment Group:
Private Insurance Questions (cont.)

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?

NSAF Treatment Group:
S-CHIP Questions

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 I. Disposition of Sample by Group

	Control Group	Revised CSHCN Screener Treatment Group	NSAF Treatment Group
Initial Telephone Numbers	**16,272**	**16,272**	**16,272**
Residential Status Determined	**13,620**	**13,805**	**13,732**
Known Households	**4,980**	**5,005**	**4,979**
Households Screened for Children	**4,760**	**4,796**	**4,773**
Households Identified as Having Children	**828**	**894**	**892**

	Control Group	Revised CSHCN Screener Treatment Group	NSAF Treatment Group
Table II. Children Selected and Interviewed by Group			
Number of Children Screened and Selected for Interview	**476**	**472**	**534**
Number of Children Interviewed	**396**	**420**	**486**

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

	Control Group	Revised CSHCN Screener Treatment Group	2-Sided Fisher's Exact Test
Table III. Children's Insurance: Comparison of Control Group and Revised CSHCN Screener Treatment Group			
Uninsured	4.8%	4.8%	1.000
Insurance Private	77.1%	78.8%	.613
Medicaid	16.2%	18.7%	.357
S-CHIP	7.6%	5.6%	.148
Base (Unwtd)	420	396	

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

	Combined CSHCN Groups	NSAF Treatment Group	1-Sided Fisher's Exact Test
Table IV. Children's Insurance: Comparison of Combined Control and Revised CSHCN Screener Treatment Groups and the NSAF Treatment Group			
Uninsured	4.8%	7.0%	0.061
Insurance Private	78.1%	72.4%	.013
Medicaid	17.4%	14.4%	.090
S-CHIP	6.6%	7.8%	.761
Base (Unwtd)	816	486	

Focus of Question

- Hess, Jennifer, Jeffrey Moore, Joanne Pascale, Jennifer Rothgeb, and Catherine Keeley. "Person- vs. Household-Level Questionnaire Design," *Public Opinion Quarterly* Winter 2001: 574-584.

	Person-Level (n=1,110)	Household-Level (n=1,152)
Health Insurance Coverage:		
Plan through employer/union?	75.1	65.3
Directly purchased plan?	9.4	10.8
Plan of nonhousehold member?	3.8	4.5
Medicare?	9.7	11.2
Medicaid?	5.9	8
Military plan?	4.7	3.8
Other plan?	1.9	1.2
Uninsured (constructed item)	6.6	12.6

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