

**Cognitive Interviewing Evaluation of the
National Immunization Survey Insurance Module:**
Results of fieldwork and laboratory interviews conducted September-October, 2005

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1. Introduction

The purpose of this report is to document the results of cognitive testing on the National Immunization Survey. The tested survey questions are designed to measure the extent to which parents would be qualified to participate in the Vaccines for Children Federal program, and as such, focus on the insurance coverage of children between the ages of 19 and 35 months.

The majority of this report is dedicated to presenting a question-by-question analysis of the insurance portion of the National Immunization Survey. Comments are included for all questions; however, emphasis is placed on items that have the potential to generate response error, that is, they may not capture the information they were designed to measure. The discussion of these questions includes descriptions of how respondents interpreted question intent, explanations of why and how questions presented problems for respondents and, where appropriate, recommendations for question improvement.

The next section briefly describes the methodology of cognitive interviewing, outlines the interviewing procedures, and discusses how respondents were chosen to participate. The third section of the report presents general findings, question-by-question analysis, and recommendations for questionnaire modification.

2. Method

Intensive verbal probing was the primary cognitive interviewing method used for the project. With this technique, interviewers administer the survey question, obtain a response, then retrospectively probe the respondent for other information relevant to the question. This yields rich and detailed information on how respondents answered the question, what they were thinking when answering, and how they interpreted the meaning of the question. Shedding light on the question-response process, this information allows the analyst to determine whether the survey language is too complex in general, or whether one word in particular may not be understood by some respondents. The appropriateness of response categories can also be evaluated with this procedure, as can the ability of respondents to draw upon their own experiences and knowledge to answer the question effectively. Because the intensive interviewing method provides extensive detail on the question-response process, not only does it allow the interviewer to identify *which* questions and/or response categories are problematic, it

also shows *why and how* questions are problematic, leading to possible strategies for improving question design.

Procedures

Many cognitive interviewing projects take place in the National Center for Health Statistics (NCHS) Questionnaire Design Research Laboratory (QDRL). However, the type of participant essential to this study required that a large percentage of the cognitive interviews be conducted off-site. We were interested in parents with either public health insurance, no insurance, or gaps in insurance coverage for their 19 to 35 month old children. Participants with lower incomes are traditionally very difficult to target; therefore, we chose to conduct interviews in area health clinics that were likely to contain a large number of eligible participants. As a result, 11 interviews were conducted in the field, and 9 in the lab.

Because many interviews took place in the field rather than the lab, slightly different recruitment strategies were employed. Instead of newspaper advertisements (which are used predominantly for lab-based evaluation), respondents were recruited with fliers advertising the study, and later through word-of-mouth. Fliers were distributed in the immediate community, and were also given to health clinic personnel in Maryland and the District of Columbia for distribution to their patients. Once we obtained the first few interviews, we employed a snowballing technique in hopes of reaching a larger segment of the clinic population.

Prior to participation, respondents were screened over the telephone in order to identify key demographics such as age, educational attainment, and income level, as well as the ages and health insurance status of their children. Once chosen, respondents filled out paperwork whereby they agreed to the interview being video- and audio-taped. The interviewer then explained the purpose of NCHS, described the survey, and told respondents the manner in which the interview would be conducted. After these introductory remarks, interviewers began by administering the survey questions. Upon recording an answer, the interviewer probed respondents' interpretation of key terms, the ease with which they chose a response category, and their experiences with immunization and health insurance. Through respondent narrative, interviewers were able to ascertain whether or not a response error had occurred and determine how respondents interpreted the intent of each question. Interviews were designed to last one hour, and a \$40 token of appreciation was given to participants.

In total, three versions of the instrument were tested as those versions became available to the QDRL staff. Because three quarters of the testing occurred on the first version of the instrument, caution should be used in drawing conclusions on new material that appeared in subsequent versions. Generally, specific recommendations for changes are not made for new questions in later versions of the instrument due to lack of adequate data on these items. On average, however, the instrument did not undergo major substantive revision.

Respondents

We conducted a total of 20 interviews. Respondents were selected with a purposive sample in mind. Parental status and age of children was the principle participation criteria. In keeping with the immunization schedule recommended by the American Academy of Pediatrics,

participants were required to have at least one child between the ages of 19 months and 35 months. However, due to recruitment challenges, two respondents had children between the ages of 36 and 42 months, and one had a child 18 months old.

Beyond age, diversity in demographic variables was sought, but we were particularly interested in participants who had experience with Medicaid and other forms of public health insurance. We were also interested in those with prior gaps in insurance coverage for their children and, to a lesser extent, those who had private insurance. The demographic breakdown of respondents appears in Table 1. All respondents are women.

Table 1: Demographic summary of respondents in total and for each instrument version

	<u>Version 1</u> (n=15)	<u>Version 2</u> (n=3)	<u>Version 3</u> (n=2)	<u>Total (%)</u> (N=20)
Age				
Under 30	9	1	1	11 (55%)
30 & Over	6	2	1	9 (45%)
Employment				
Employed	6	0	0	6 (30%)
Unemployed	9	2	2	13 (65%)
DK	0	0	1	1 (5%)
R's Insurance Status				
Uninsured	4	1	0	5 (25%)
Public	8	0	0	8 (40%)
Private	3	2	2	7 (35%)
Education				
HS or less	5	1	0	6 (30%)
More than HS	10	2	2	14 (70%)
Income				
Under 20,000	7	1	1	9 (45%)
20,000 & Over	8	1	1	10 (50%)
DK	0	1	0	1 (5%)

3. Results

The general theme that emerged from the cognitive interview analysis centers on question intent. Respondents can only answer survey questions by drawing upon their own experience. This allows them to make sense of the questions before providing what they deem to be an accurate answer. However, the interpretation of questions is shaped by more than respondent experience alone. People need to understand the intent of the question before arriving at a suitable answer, that is, one that reflects the desired construct. While some respondents make an effort to discern the intent of the question, many do not. Because many survey respondents give little time and effort to understanding question intent, it should be clearly and concisely communicated. Question intent that is conveyed in such a manner is much more likely to elicit appropriate answers, resulting in high quality data. On the other hand, question intent that is poorly communicated tends to promote multiple interpretations of the question, response error and, consequently, insufficient construct validity.

The overall goal of the insurance module is to capture the eligibility of respondents to participate in the Federal program, Vaccines for Children (VFC). In order to achieve this goal, questions were designed to measure the child's current and past insurance status. Medicaid and S-CHIP participation, either currently or anytime in the child's past, were especially important to capture, as participation in these programs is one criteria for VFC eligibility. For the same reason, periods of no insurance coverage (whether currently or in the past) were also important to measure. In sum, respondents need to be able to communicate through these survey questions whether or not their children have (or have ever had) health insurance coverage, and if so, whether this coverage is (or was) public or private.

In testing the National Immunization Survey insurance module, we found that the initial questions (INS-1 through INS-3) did not straightforwardly communicate their intent. The only thing respondents felt sure of was that we wanted to know whether or not their children had health insurance coverage. However, the intent to distinguish between public and private insurance was not conveyed well. Most participants, through a non-trivial amount of burden, did eventually come to understand this intent, but some were left confused and were never entirely comfortable with their answers. This was NOT because they didn't know whether the coverage they had was public or private. It was because they didn't know exactly what the questions were asking.

Problems with communicating intent in the insurance questions can be linked fundamentally to two factors, the sentence structure of INS-1 and, to a lesser extent, the question ordering of INS-1 through INS-3. (See Appendix A for the final version of the insurance questions and Appendix B for the first version, on which most testing took place.)

Sentence structure: Simply put, INS-1 functions as a double-barreled question. This flaw was the single biggest cause of response error and confusion among the participants, so much so that a correction of this problem is likely to reduce error that occurred in other questions as well.

Because insurance status is not established prior to INS-1, respondents tended to focus on the first part of the sentence when they answered yes or no. The beginning of the sentence (“At this time, is (CHILD) covered by health insurance...”) operates as though it were a stand-alone question and sets the intent for both the rest of the sentence and the following questions.¹ The last part of the sentence (“...that is provided through an employer or union or obtained directly from an insurance company?”) is then perceived by many respondents to be a list of types of insurance plans to choose from. One respondent thought that because she has insurance “the questions implies you have to pick one or the other of these choices” and said she was thinking “which one of those fits?” None of them did because her child is covered by S-CHIP. When they didn’t hear their option, other participants (particularly those with public insurance) felt that the last option (“obtained directly from an insurance company”) might be the correct choice. For example, one respondent who had DC Chartered (a Medicaid plan) said that Chartered is coverage that she gets directly from an insurance company. In her own words, she thought the question was asking “do you have insurance through an employer or through an insurance company?” Saying “yes” meant that it could be one *or* the other; that is, saying “yes” means that the child has some form of health insurance.

Others with public insurance felt that none of the choices applied to them and asked “I know he has insurance...through Medicaid. What would that be?” or stated “I would say it’s under government” or “he just has Medicaid...Amerigroup.” Another respondent said the question “wants to know where the baby’s insurance is coming from, and gives you options – but it didn’t have my option.” This type of answer prompted the interviewer to read the scripted probes, as field interviewers are instructed to do. In each case, the probe clarified the intent and the respondent then gave the correct answer. Clearly, the intent to determine whether the children of participants are covered by public or private insurance is obscured by the structure of this question. The intent is clarified only if the probes are read because they shift emphasis away from the first part of the question and focus on asking respondents if they have private insurance. Without hearing the probes, respondents can usually come to the correct conclusion about the question’s intent – *if* they take time to think about the entire question (or after hearing the next two questions). As one respondent put it, the question was asking “whether he [her son] has health insurance or not...I guess whether he has private insurance or not.” However, respondents are less likely to give the same amount of thought to the question during the telephone interview. Moreover, relying on interviewers to read the scripted probes in order to clarify intent isn’t the best strategy for collecting valid data. Instead, questions should be easy to read and efficient in communicating intent with few – if any – additional aids. Therefore, question improvement is recommended (see question-by-question analysis).

Question order: The intent to distinguish between public and private coverage becomes clearer after respondents reach INS-3. However, respondents can’t and shouldn’t be expected to glean question intent by “putting two and two together” after answering a series of questions. This raises both respondent burden and the probability that misunderstandings will occur. After hearing the first three questions, some people were even prompted to go back and change their answer to the first question, or conversely, felt more confident in the answer they gave to the first question. The latter was especially true for respondents with private coverage, but not necessarily for those with public coverage. Similarly, although ordering the questions by

¹ When fixed, this problem may minimize or even eliminate the question ordering problem.

prevalence in the population is intuitive to analysts, it doesn't necessarily make sense to respondents, and in fact may help create interpretation problems for many of them.

The intersection of experience and communication of intent: Question interpretation varied among people with public insurance. Those with private insurance answered the first question more easily and with less variation in interpretation. Even though it was still double barreled, because they had insurance through an employer, the question resonated with their experience, making it easier to answer "yes." In other words, INS-1 was easier to answer to the extent that "yes" would be the response to both questions embedded in the double-barreled structure. Problems, however, arose for those with public insurance because two different answers (yes and no) are associated with INS-1 for these respondents ("yes" they have insurance, but "no" not through an employer, union, or insurance company). As a result, to a larger extent than those with private insurance, they needed the next two questions in order to help clarify the intent of INS-1. Still, even though INS-2 and INS-3 helped clarify (in some cases)² the intent of INS-1, they did not always convey their own intent very well, causing respondents to demonstrate more than one interpretation of INS-2 and INS-3.

Two interpretation themes emerged in relation to the second and third questions for participants with public health insurance. One possible interpretation was for respondents to see the questions as asking whether their children have public insurance *in general*. In this case, INS-2 and INS-3 seem to be asking the same thing. One respondent specifically asked "can I say yes to both?" The illogical nature of asking the same question twice is likely to create confusion and perhaps cause respondents to re-evaluate their understanding of the questions.

A competing interpretation was for respondents to understand the questions as asking about the *specific* type of public insurance their children have. In this case, INS-2 and INS-3 appear to be different, but then participants became confused in trying to distinguish between all the program names, acronyms, etc. All respondents had some basic understanding of public insurance, but no one understood all the plans and programs listed (and some not listed) in those questions (e.g., Medicaid, various state program names such as Chartered and Amerigroup, Children's Health Insurance Program, DC Healthy Families, and the like). As a result a "yes" response, while accurate, was not often given with confidence.

That respondents ultimately understood the underlying intent to determine whether they had public insurance helped in producing little response error. However, they did still experience confusion and often asked for clarification. Participants thought we wanted detail about the type of plan they have, especially after receiving two questions on public insurance. When their plan was not specifically mentioned (e.g., Amerigroup or Chartered Health), they were left to wonder whether we were asking about "straight" or "plain" Medicaid or specific programs under Medicaid, such as those geared toward women and children. Instead of focusing on telling us that they had public coverage (which all respondents could do with ease) the question was seen as asking for more detailed information about public insurance programs than most respondents feel they have.

² INS-2 and INS-3 does not necessarily clarify the intent of INS-1 if respondents with public coverage such as Amerigroup assume that "obtained directly from an insurance company" applies to them.

In sum, poorly communicated question intent adversely affects construct validity. For example, one participant answered yes to INS-1 because she thought it was asking “is she [R’s child] covered by health insurance” whether “it’s through somebody’s employment or through the state.” The answer she gave (yes) turns out to be the correct answer because her child is covered by her husband’s insurance that he obtains through an employer. However, her answer is correct by accident rather than by an accurate understanding of what the question is intending to ask. In essence, although response error was minimal, the potential for response error was very high and could be reduced by clarifying question intent.

Question-by-Question Analysis and Recommendations

The remaining analysis is a detailed summary of the question-response process for each individual item in the instrument and includes recommendations for changes where appropriate.

Questionnaire

INS-1 At this time, is (**CHILD**) covered by health insurance that is provided through an employer or union or obtained directly from an insurance company?

YES	1
NO	2 [SKIP TO INS-2]
DON’T KNOW	6 [SKIP TO INS-2]
REFUSED	7 [SKIP TO INS-2]

READ ONLY IF NECESSARY: These plans may be provided in part or fully by a current employer, a former employer, a union, or a professional organization, or purchased directly by an individual.

IF ONLY PLAN NAME OFFERED, PROBE (READ IF NECESSARY): Is this insurance provided through an employer or union or obtained directly from an insurance company? Do not include dental, vision, school, or accident insurance.

IF NECESSARY, TO HELP THE RESPONDENT DETERMINE WHAT KIND OF INSURANCE THEY HAVE, PROBE (READ IF NECESSARY): Did you get that insurance through an employer? Does it help pay for both doctor visits and hospital stays?

Comment: This question is double barreled and does a poor job communicating that it’s about private coverage. It’s largely seen as asking “do you have insurance for your child” because that information has not yet been established. The last part of the question is, consequently, understood to be a list of options from which to choose. When subjects with public insurance don’t see their plan name, they are prompted to re-evaluate their assessment of what the question is asking and often need to hear the next two questions before completely understanding the intent of this one. Otherwise, they assume the last option in the question (obtained directly from an insurance company) applies to them.

Recommendation: The most important remedy is to eliminate the double-barreled structure of this question. Ask a leading question that establishes whether or not respondents have *any* kind of health insurance for their children. Then ask separate questions for each type in particular. Alternatively, structuring the follow-up as a single question with a list to choose from may be a good strategy, as respondents tended to perceive the question in this manner on their own. See Appendix C for examples of revised questions. An alternate approach could be to re-order the questions, so that those on public forms of insurance come before those on private insurance. This may communicate the public/private intent more directly.

INS-1A Does this health insurance help pay for both doctor visits and hospital stays?

YES	1
NO	2 [NOTE: <i>Child is not considered to have private health insurance</i>]
DK/RF5	

Comment: This question was added to the last version of the protocol, and was not extensively tested. One respondent was asked this question and demonstrated no problem.

Recommendations: none.

INS-2 At this time, is (CHILD) covered by Medicaid, a health insurance program for persons with certain income levels and persons with disabilities? [FILL IF APPLICABLE: In this state, the program is sometimes called [STATE PROGRAM].

YES	1
NO	2
DON'T KNOW	6
REFUSED	7

Comments: Participants with public health insurance interpreted this question and the next several ways. They either understood them as asking the same thing (that is, about having public insurance in general), or as attempting to gather more information and detail about their specific *type* of public coverage. With the former interpretation, the answer to both INS-2 and INS-3 would be “yes.” In this case, confusion over intent did not tend to produce actual response error. However, the potential for response error did exist, as participants attempted to make sense of the fact that two questions asking essentially the same thing appeared side-by-side. Because this seems illogical, respondents might assume their answer of “yes” could be incorrect – even when it isn’t.

However, in the latter scenario, when respondents didn’t see their plan, they tended to become confused and exhibit response error by answering “no” to either INS-2 or INS-3. In this case, when asking about Medicaid, respondents interpreted INS-2 as asking about “plain” or “straight” Medicaid and not, for example, about Amerigroup or Chartered, which are both designed

specifically for women and children. This perspective caused participants to potentially answer “no” to INS-3 for similar reasons. It was viewed as something different from what they had; that is, S-CHIP was defined as something different from Amerigroup or Chartered.

Recommendation: Indicate in INS-2 that any plan related to Medicaid should be included in the answer. This may resonate with both respondents who understood the question as asking about Medicaid in general, as well as those who thought in more detailed ways about Medicaid insurance plans. [See Appendix C for an example of revised questions.]

INS-3 At this time, is (**CHILD**) covered by the State Children’s Health Insurance Program or S-CHIP? In this state, the program is sometimes called *{S-CHIP name}*.

YES	1
NO	2
DON’T KNOW	6
REFUSED	7

Comments: See comments for INS-1 and INS-2.

Recommendation: See Appendix C for an example of revised questions.

INS-4 At this time, is (**CHILD**) covered by the Indian Health Service?

YES	1
NO	2
DON’T KNOW	6
REFUSED	7

Comments: None of the respondents we interviewed had explicitly heard of Indian Health Service. Many could deduce that it must apply to American Indians, but even when they did not draw any specific conclusion, they still assumed it had nothing to with them.

Recommendation: No response error; no recommendation for change.

INS_5 At this time, is (**CHILD**) covered by military health care, TRICARE, CHAMPUS, or CHAMP-VA?

YES	1
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NO	2
DON'T KNOW	6
REFUSED	7

Comments: Although most participants were not familiar with TRICARE, CHAMPUS, or CHAMP-VA, and none had military insurance, all understood the question to be asking about health insurance that is provided through the military.

Recommendation: No response error; no recommendation for change.

INS-6 At this time, is **(CHILD)** covered by any other kind of health insurance or health care plan that pays for services obtained from hospitals, doctors, and other health professionals?

YES	1
NO	2 [SKIP to NEXT SECT]
DON'T KNOW	6 [SKIP to NEXT SECT]
REFUSED	7 [SKIP to NEXT SECT]

Comments: Respondents understood this question as one designed to capture any other health coverage they have that was not already reported. Most responses to this question were “no.” However, one respondent answered “don’t know” because she didn’t understand the question the first time it was read to her. She said it “gets confusing” particularly toward the end when it “gets into doctors, hospitals, and everything.” Essentially, she couldn’t keep track of what was being asked, and at first said she thought it might be asking if all health expenses are covered by her plans. A second respondent had the same problem and argued it was “so wordy I got lost in what you were asking. That’s why I had to have you read it twice.” She said she was able to arrive at her answer by focusing on the first part of the question: At this time, is (CHILD) covered by any other kind of health insurance.

Response error occurred for another respondent with public assistance. This was one of the respondents who understood the INS-2 and INS-3 as asking about specific types of public insurance. Because she did not see her plan in those questions (Amerigroup), she believed this question aimed to capture that information.

Recommendation: Because the clauses and length of the sentence can cause respondents to lose sight of what’s being asked, consider separating it into two questions, for example:

- At this time, is (CHILD) covered by any other kind of health insurance or health care plan?
- (if yes) Does this plan pay for services obtained from hospitals, doctors, and other health professionals?

INS-6-1X I recorded that **(CHILD)** was covered by some other health insurance. What is the name of the plan?

Record verbatim response #1 _____

Record verbatim response #2 _____

Comment: No respondents received this question.

Recommendation: none.

ASK INS-7 THROUGH INS-10 FOR ALL UNINSURED CHILDREN.

INS-7

It appears that **(CHILD)** does not have any health insurance coverage to pay for both hospitals and doctors and other health professionals. Is that correct?

YES

1

NO

2 **[GO BACK TO INS-1]**

DON'T KNOW/REF

5 **[SKIP TO INS-14]**

Comments: Question modified for last two respondent, both of whom skipped out because their children were insured.

Recommendation: None.

INS-8

Since **(CHILD)**'s birth, has **(CHILD)** always been uninsured?

YES

1 **[SKIP TO INS-14]**

NO

2

DON'T KNOW/REF

5 **[SKIP TO INS-14]**

Comments: Most respondents skipped out of this question. Only two answered it (in it's initial form, which combined INS-7 and INS-8 into one question). Neither had response error or any difficulty answering the question.

Recommendation: No response error; no recommendation for change.

INS-9

How old was **(CHILD)** in months THE 1ST TIME **(CHILD)** became uninsured?

_____ MONTHS

DON'T KNOW	96
REFUSED	97

Comments: The two respondents who answer this question received a slightly different version (How old was (CHILD) in months when CHILD first became uninsured?) Both had difficulty answering in months. They were able to recall the information from memory, but would have to go through mental calculation in order to translate the recalled information into the appropriate format. This calculation created response error. One respondent's first answer was "1 year, 6 months." Then she said, 18 months, paused and said 19 months, and finally settled on 20 months. The other respondent also took time to arrive at her answer and commented that she thinks in terms of months and years, not months alone.

Recommendation: Offer respondents the opportunity to answer in either months or years/months.

INS-10 During the months when (CHILD) **DID** have health coverage, what kind of health coverage did (CHILD) have?

- INS-10X01 Medicaid [Fill state program name, if applicable]
- INS-10X02 Medicare
- INS-10X03 Title V [Fill state program name, if applicable]
- INS-10X04 SCHIP [Fill state program name, if applicable]
- INS-10X05 Medigap
- INS-10X06 Military
- INS-10X07 Indian Health Service
- INS-10X08 Private Health Insurance
- INS-10X08 Other Insurance Type

Comment: This question was added for the last two respondents and was not tested.

Recommendation: None.

ASK INS-11 THROUGH INS-13 FOR ALL INSURED CHILDREN.

INS-11 Since (CHILD)'s birth was there any time when (CHILD) was not covered by any health insurance?

YES	1
NO	2 [SKIP TO INS-13]
DON'T KNOW	6 [SKIP TO INS-13]

Comments: Issues surfaced for three respondents. First, the idea of being “covered” by insurance momentarily confused one respondent who’s first answer was “yes and no,” but who’s final answer was “no” (which was correct). This occurred because she had just received Chartered Health which required her to declare a pediatrician for her son. Because of an administrative error, Chartered never received the doctor’s name, and her son’s first visit was not initially “covered” (i.e., paid for). However, once she straightened out the paperwork requirement, Chartered did retroactively pay for that doctor’s visit.

Response error occurred for another respondent who answered no to this question, but lacked insurance for her son for 3 months in between moves from VA to MD. She had Medicaid in VA and needed a “closing letter” from VA in order to receive uninterrupted coverage in MD. Because she didn’t obtain that letter, she essentially had to apply as a first time recipient in MD. However, she saw herself as continuously receiving Medicaid.

Another response error occurred, most likely due to the social desirability of reporting no coverage for a child. The respondent first answered “no,” but admitted during probing that there was a month of no-coverage. Because this was created by the respondent trying to time the end of private coverage with the beginning of public coverage, she said the lack of insurance for her child was “not by any intention or ours.”

Recommendation: Because the reason for temporary lack of coverage sometimes factors into respondents evaluation of their child’s health insurance status, consider changing the question to:

Since **(CHILD)**’s birth was there any time when **(CHILD)** was not covered by any health insurance for any reason?

INS-12 How old was **(CHILD)** in months THE 1ST TIME **(CHILD)** became uninsured?

[IF LESS THAN ONE MONTH, ROUND UP TO ONE MONTH]

_____ MONTHS

DON’T KNOW 96

REFUSED 97

Comment: The question itself was not especially problematic, that is, respondents can generally recall the information. However, reporting the answer in months was a problem for many who answered this question.

Recommendation: Offer respondents the opportunity to answer in either months or years and months.

[DO NOT ASK INS-13 IF CHILD IS CURRENTLY INSURED BY MEDICAID OR S-CHIP]

INS-13 Has (**CHILD**) ever been covered by Medicaid or S-CHIP?

YES	1
NO	2
DON'T KNOW	6
REFUSED	7

Comments: This question was added to the last version, and was tested on only one respondent. This did not provide enough data to effectively evaluate the question.

Recommendation: None.

ASK INS-14 FOR ALL CHILDREN.

INS-14 Did cost of vaccinations ever cause you to delay or not get a vaccination for (**CHILD**)?

YES	1
NO	2
Don't know	6
Refused	7

Comments: Most of the testing for the question occurred in the first version and was not asked of every respondent. This was changed in the last two versions so that all respondents received the question – a recommendation that would have been made, had that change not been incorporated. At least two of the first 15 respondents who were skipped out of this question reported delays in vaccines during follow-up probing because of a gap in coverage between one insurance plan and the next.

Recommendation: No response error; no recommendation for change.

[IF ALWAYS UNINSURED, THEN TERMINATE; ELSE ASK INS-15]

INS-15 During the period when (**CHILD**) received most of (his/her) vaccinations, how much of the cost of the immunizations was paid by insurance?

ALL OF THE COST	1 [TERMINATE]
SOME OF THE COST	2

NONE OF THE COST	3
Don't Know	6
Refused	7

Comment: There was little response variation on this question; nearly every respondent answered “all of the cost.” For those with public insurance this was easy to answer – there are no co-pays, deductibles or other out-of-pocket expenses associated with Medicaid. However, this question is potentially more complicated for those with private insurance. Many respondents have co-pays, and while most do NOT have a co-pay associated with “well-baby” visits (when vaccines are administered), some do.

Respondents demonstrated various interpretations of whether or not a co-pay should be included when answering this question and sometimes experienced confusion in making that determination. For example, one respondent first answered “all of the cost,” then changed her answer to “some of the cost” when she decided the co-pay should be accounted for. Another respondent arrived at the opposite conclusion, saying “for the immunization, all of the cost.” She does have a co-pay, even for “well-baby” visits, but doesn’t see the co-pay as “going toward the immunization itself.” She defined it as more of an administrative fee. “I pay that [co-pay] if I walk in the door.”

Other respondents didn’t even consider the issue. When one respondent was reminded she does have a co-pay, she said “Aha!” and laughed and said, “I guess I’m paying for something, aren’t I? Now you’re making me see it in a different light (laughed). I never really thought about that.”

Recommendation: Determine whether or not respondents should include costs such as co-pays and then provide some guidance in the question. One example:

During the period when (**CHILD**) received most of (his/her) vaccinations, how much of the cost of the immunizations was paid by insurance? Please include/do not include expenses such as co-pays for office visits.

INS-16 How much of the cost of the child’s vaccinations did you pay?

ALL	1
SOME	2
NONE	3
Don't Know	6
Refused	7

Comment: Not adequately tested; all but one skipped out.

Recommendation: None.

**National Immunization Program Questionnaire
VERSION 3
(Telephone Survey)**

[TURN ON VIDEO RECORDER.]

Thank you for agreeing to meet here today. Karen has explained that we will be video taping our interview and you gave permission to do that, correct? *(If yes, the proceed)*

I have in front of me a questionnaire about childhood immunization and insurance coverage that will be administered over the telephone to people throughout the United States. However, before interviewers begin to do that, we are testing the questionnaire to see whether the questions are phrased well, whether they are too difficult to answer, and whether they make sense to people.

First, I would like to read the questions to you and have you answer them exactly as you would if an interviewer were to call your house and ask you this information. Then, once we complete the survey questions I will go back and ask you some follow-up questions about how you came up with your answers, how you interpreted certain terms or phrases, and whether the questions were straightforward.

Do you understand what I'm asking you to do? *(Explain again if needed.)* Do you have any questions?

Okay, let's begin. Do you have any children between the ages of 19 and 35 months?

YES

NO [IF THE ANSWER IS NO, R IS NOT ELIGIBLE TO PARTICIPATE.]

What are the names of those children?

NAME

AGE

1. _____

2. _____

3. _____

IF MORE THAN ONE AGE-ELIGIBLE CHILD: First, let's talk about [NAME]

B1 Has [CHILD] ever received an immunization that is a shot or drops?

YES.....	1	}	GO TO D6
NO.....	2		
DON'T KNOW.....	6		
REFUSED.....	7		

B2 Has [CHILD] ever received a D-T-P, D-T-A-P or D-T shot (sometimes called a D-T-P shot, diphtheria-tetanus-pertussis shot, baby shot, or three-in-one shot)?

YES.....	1	}	GO TO B3
NO.....	2		
DON'T KNOW.....	6		
REFUSED.....	7		

B2.A How many D-T-P, D-T-A-P or D-T shots did [CHILD] ever receive?

NUMBER OF SHOTS..... _____
 ALL SHOTS 50
 DON'T KNOW..... 96
 REFUSED..... 97

B3

Has [CHILD] ever received a polio vaccination by mouth, pink drops, sometimes called O-P-V, or by polio shot, sometimes called I-P-V?

YES.....	1	}	GO TO B4
NO.....	2		
DON'T KNOW.....	6		
REFUSED.....	7		

B3.A How many polio vaccinations did [CHILD] ever receive?

NUMBER OF SHOTS..... _____

ALL SHOTS 50

DON'T KNOW..... 96

REFUSED..... 97

B4

Has [CHILD] ever received a measles or M-M-R (Measles-Mumps-Rubella) shot?

YES.....	1	}	GO TO B5
NO.....	2		
DON'T KNOW.....	6		
REFUSED.....	7		

B4.A How many measles or M-M-R shots did [CHILD] ever receive?

NUMBER OF SHOTS..... _____

ALL SHOTS 50

DON'T KNOW..... 96

REFUSED..... 97

B5

Has [CHILD] ever received an H-I-B shot? This shot is for meningitis and is called Haemophilus Influenzae (HA-MA-FI-LUS IN-FLU-EN-ZI)?

YES.....	1		
NO.....	2	}	GO TO B6
DON'T KNOW.....	6		
REFUSED.....	7		

B5.A How many H-I-B shots did [CHILD] ever receive?

NUMBER OF SHOTS..... _____
 ALL SHOTS 50
 DON'T KNOW..... 96
 REFUSED..... 97

B6

Has [CHILD] ever received a hepatitis B shot? This shot is for meningitis and is often called HepB.

YES.....	1		
NO.....	2	}	GO TO B6.B
DON'T KNOW.....	6		
REFUSED.....	7		

B6.A

How many hepatitis B shots did [CHILD] ever receive?

NUMBER OF SHOTS..... _____
 ALL SHOTS 50
 DON'T KNOW..... 96
 REFUSED..... 97

B6.B Has [CHILD] ever received a chicken pox or varicella shot?

YES	1
NO.....	2 GO TO D6
DON'T KNOW.....	6 GO TO D6
REFUSED.....	7 GO TO D6

B6.C How many chicken pox shots did [CHILD] ever receive?

NUMBER OF SHOTS.....	_____
ALL SHOTS	50
DON'T KNOW.....	96
REFUSED.....	97

D6 How many locations have provided vaccinations for [CHILD]?

NUMBER: _____|_____

D6AA How many locations have provided health care for [CHILD]? Please include the hospital or birthing center where [HE/SHE] was born, and any other clinics or doctor's offices that have seen [HIM/HER].

NUMBER: _____| ENTER "0" IF CHILD HAS NEVER SEEN A DOCTOR OR OTHER HEALTH CARE PROVIDER.

[ASK IF RESPONDENT HAS ANY OTHER CHILDREN BETWEEN THE AGES OF 19 AND 35 MONTHS. IF YES, ASK B1 – D6AA FOR EACH CHILD.]

Next I'm going to ask you a few questions about (**CHILD**)'s health insurance.

[IF R HAS MORE THAN ONE CHILD, THEN REPEAT IN A LOOP INS-1 THROUGH INS-7 FOR ALL AGE-ELIGIBLE CHILDREN.]

INS-1 At this time, is (**CHILD**) covered by health insurance that is provided through an employer or union or obtained directly from an insurance company?

- | | |
|------------|--------------------------|
| YES | 1 |
| NO | 2 [SKIP TO INS-2] |
| DON'T KNOW | 6 [SKIP TO INS-2] |
| REFUSED | 7 [SKIP TO INS-2] |

READ ONLY IF NECESSARY: These plans may be provided in part or fully by a current employer, a former employer, a union, or a professional organization, or purchased directly by an individual.

IF ONLY PLAN NAME OFFERED, PROBE (READ IF NECESSARY): Is this insurance provided through an employer or union or obtained directly from an insurance company? Do not include dental, vision, school, or accident insurance.

IF NECESSARY, TO HELP THE RESPONDENT DETERMINE WHAT KIND OF INSURANCE THEY HAVE, PROBE (READ IF NECESSARY): Did you get that insurance through an employer? Does it help pay for both doctor visits and hospital stays?

INS-1A Does this health insurance help pay for both doctor visits and hospital stays?

- | | |
|-------|--|
| YES | 1 |
| NO | 2 [NOTE: <i>Child is not considered to have private health insurance</i>] |
| DK/RF | 5 |

INS-2 At this time, is (**CHILD**) covered by Medicaid, a health insurance program for persons with certain income levels and persons with disabilities? **[FILL IF APPLICABLE: In this state, the program is sometimes called [STATE PROGRAM].**

[STATE NAMES:
DC = DC Healthy Families
MD = Medical Assistance Program, or HealthChoice
VA = Medallion program]

- | | |
|------------|---|
| YES | 1 |
| NO | 2 |
| DON'T KNOW | 6 |
| REFUSED | 7 |

INS-3 At this time, is **(CHILD)** covered by the State Children’s Health Insurance Program or S-CHIP? In this state, the program is sometimes called *{S-CHIP name}*.

- YES 1
- NO 2
- DON’T KNOW 6
- REFUSED 7

INS-4 At this time, is **(CHILD)** covered by the Indian Health Service?

- YES 1
- NO 2
- DON’T KNOW 6
- REFUSED 7

INS_5 At this time, is **(CHILD)** covered by military health care, TRICARE, CHAMPUS, or CHAMP-VA?

- YES 1
- NO 2
- DON’T KNOW 6
- REFUSED 7

INS-6 At this time, is **(CHILD)** covered by any other kind of health insurance or health care plan that pays for services obtained from hospitals, doctors, and other health professionals?

- YES 1
- NO 2 [SKIP to NEXT SECT]
- DON’T KNOW 6 [SKIP to NEXT SECT]
- REFUSED 7 [SKIP to NEXT SECT]

INS-6-1X I recorded that **(CHILD)** was covered by some other health insurance. What is the name of the plan?

Record verbatim response #1 _____
Record verbatim response #2 _____

ASK INS-7 THROUGH INS-10 FOR ALL UNINSURED CHILDREN.

INS-7

It appears that **(CHILD)** does not have any health insurance coverage to pay for both hospitals and doctors and other health professionals. Is that correct?

- YES 1
- NO 2 [GO BACK TO INS-1]
- DON’T KNOW/REF 5 [SKIP TO INS-14]

INS-8 Since (CHILD)'s birth, has (CHILD) always been uninsured?

YES	1 [SKIP TO INS-14]
NO	2
DON'T KNOW/REF	5 [SKIP TO INS-14]

INS-9 How old was (CHILD) in months THE 1ST TIME (CHILD) became uninsured?
 _____ MONTHS

DON'T KNOW	96
REFUSED	97

INS-10 During the months when (CHILD) **DID** have health coverage, what kind of health coverage did (CHILD) have?

[MARK ALL THAT APPLY, BUT DO NOT READ LIST]

- INS-10X01 Medicaid [Fill state program name, if applicable]
- INS-10X02 Medicare
- INS-10X03 Title V [Fill state program name, if applicable]
- INS-10X04 SCHIP [Fill state program name, if applicable]
- INS-10X05 Medigap
- INS-10X06 Military
- INS-10X07 Indian Health Service
- INS-10X08 Private Health Insurance
- INS-10X08 Other Insurance Type

INS-10X-01 thru INS-10X-08 need to be coded as follows:

Chosen	0
Not chosen	1
Don't know	6
Refused	7

ASK INS-11 THROUGH INS-13 FOR ALL INSURED CHILDREN.

INS-11 Since (CHILD)'s birth was there any time when (CHILD) was not covered by any health insurance?

YES	1
NO	2 [SKIP TO INS-13]
DON'T KNOW	6 [SKIP TO INS-13]
REFUSED	7 [SKIP TO INS-13]

INS-12 How old was (CHILD) in months THE 1ST TIME (CHILD) became uninsured?
 _____ MONTHS

DON'T KNOW	96
REFUSED	97

[DO NOT ASK INS-13 IF CHILD IS CURRENTLY INSURED BY MEDICAID OR S-CHIP]

INS-13 Has (**CHILD**) ever been covered by Medicaid or S-CHIP?

YES	1
NO	2
DON'T KNOW	6
REFUSED	7

ASK INS-14 FOR ALL CHILDREN.

INS-14 Did cost of vaccinations ever cause you to delay or not get a vaccination for (**CHILD**)?

YES	1
NO	2
Don't know	6
Refused	7

[IF ALWAYS UNINSURED, THEN TERMINATE; ELSE ASK INS-15]

INS-15 During the period when (**CHILD**) received most of (his/her) vaccinations, how much of the cost of the immunizations was paid by insurance?

ALL OF THE COST	1 [TERMINATE]
SOME OF THE COST	2
NONE OF THE COST	3
Don't Know	6
Refused	7

INS-16 How much of the cost of the child's vaccinations did you pay?

ALL	1
SOME	2
NONE	3
Don't Know	6
Refused	7

**National Immunization Program Questionnaire
VERSION 1
(Telephone Survey)**

[TURN ON VIDEO RECORDER.]

Thank you for agreeing to meet here today. Karen has explained that we will be video taping our interview and you gave permission to do that, correct? *(If yes, the proceed)*

I have in front of me a questionnaire about childhood immunization and insurance coverage that will be administered over the telephone to people throughout the United States. However, before interviewers begin to do that, we are testing the questionnaire to see whether the questions are phrased well, whether they are too difficult to answer, and whether they make sense to people.

First, I would like to read the questions to you and have you answer them exactly as you would if an interviewer were to call your house and ask you this information. Then, once we complete the survey questions I will go back and ask you some follow-up questions about how you came up with your answers, how you interpreted certain terms or phrases, and whether the questions were straightforward.

Do you understand what I'm asking you to do? *(Explain again if needed.)* Do you have any questions?

Okay, let's begin. Do you have any children between the ages of 19 and 35 months?

YES

NO [IF THE ANSWER IS NO, R IS NOT ELIGIBLE TO PARTICIPATE.]

What are the names of those children?

NAME

1. _____

2. _____

3. _____

IF MORE THAN ONE AGE-ELIGIBLE CHILD: First, let's talk about [NAME]

B1 Has [CHILD] ever received an immunization that is a shot or drops?

YES.....	1	}	GO TO D6
NO.....	2		
DON'T KNOW.....	6		
REFUSED.....	7		

B2 Has [CHILD] ever received a D-T-P, D-T-A-P or D-T shot (sometimes called a D-T-P shot, diphtheria-tetanus-pertussis shot, baby shot, or three-in-one shot)?

YES.....	1	}	GO TO B3
NO.....	2		
DON'T KNOW.....	6		
REFUSED.....	7		

B2.A How many D-T-P, D-T-A-P or D-T shots did [CHILD] ever receive?

NUMBER OF SHOTS..... _____
 ALL SHOTS 50
 DON'T KNOW..... 96
 REFUSED..... 97

B3

Has [CHILD] ever received a polio vaccination by mouth, pink drops, sometimes called O-P-V, or by polio shot, sometimes called I-P-V?

YES.....	1	}	GO TO B4
NO.....	2		
DON'T KNOW.....	6		
REFUSED.....	7		

B3.A How many polio vaccinations did [CHILD] ever receive?

NUMBER OF SHOTS..... _____

ALL SHOTS 50

DON'T KNOW..... 96

REFUSED..... 97

B4

Has [CHILD] ever received a measles or M-M-R (Measles-Mumps-Rubella) shot?

YES.....	1	}	GO TO B5
NO.....	2		
DON'T KNOW.....	6		
REFUSED.....	7		

B4.A How many measles or M-M-R shots did [CHILD] ever receive?

NUMBER OF SHOTS..... _____

ALL SHOTS 50

DON'T KNOW..... 96

REFUSED..... 97

B5

Has [CHILD] ever received an H-I-B shot? This shot is for meningitis and is called Haemophilus Influenzae (HA-MA-FI-LUS IN-FLU-EN-ZI)?

YES.....	1		
NO.....	2	}	GO TO B6
DON'T KNOW.....	6		
REFUSED.....	7		

B5.A How many H-I-B shots did [CHILD] ever receive?

NUMBER OF SHOTS..... _____

ALL SHOTS 50

DON'T KNOW..... 96

REFUSED..... 97

B6

Has [CHILD] ever received a hepatitis B shot? This shot is for meningitis and is often called HepB.

YES.....	1		
NO.....	2	}	GO TO B6.B
DON'T KNOW.....	6		
REFUSED.....	7		

B6.A

How many hepatitis B shots did [CHILD] ever receive?

NUMBER OF SHOTS..... _____

ALL SHOTS 50

DON'T KNOW..... 96

REFUSED..... 97

B6.B Has [CHILD] ever received a chicken pox or varicella shot?

- YES 1
- NO..... 2 GO TO D6
- DON'T KNOW..... 6 GO TO D6
- REFUSED..... 7 GO TO D6

B6.C How many chicken pox shots did [CHILD] ever receive?

- NUMBER OF SHOTS..... _____
- ALL SHOTS 50
- DON'T KNOW..... 96
- REFUSED..... 97

D6 How many locations have provided vaccinations for [CHILD]?

NUMBER: _____|_____

D6AA How many locations have provided health care for [CHILD]? Please include the hospital or birthing center where [HE/SHE] was born, and any other clinics or doctor's offices that have seen [HIM/HER].

NUMBER: _____| ENTER "0" IF CHILD HAS NEVER SEEN A DOCTOR OR OTHER HEALTH CARE PROVIDER.

[ASK IF RESPONDENT HAS ANY OTHER CHILDREN BETWEEN THE AGES OF 19 AND 35 MONTHS. IF YES, ASK B1 – D6AA FOR EACH CHILD.]

Next I'm going to ask you a few questions about (**CHILD**)'s health insurance.

[IF R HAS MORE THAN ONE CHILD, THEN REPEAT IN A LOOP INS-1 THROUGH INS-7 FOR ALL AGE-ELIGIBLE CHILDREN.]

INS-1 At this time, is (**CHILD**) covered by health insurance that is provided through an employer or union or obtained directly from an insurance company?

YES	1
NO	2 [SKIP TO INS-2]
DON'T KNOW	6 [SKIP TO INS-2]
REFUSED	7 [SKIP TO INS-2]

[IF R GIVES THE PLAN NAME RATHER THAN YES/NO, ASK:

“Is this insurance provided through an employer or union, or obtained directly from an insurance company?”

IF R SAYS THEY HAVE INSURANCE, BUT DON'T KNOW WHAT KIND, ASK:

“Did you get that insurance through an employer?”

IF R SAYS THEY HAVE SOMETHING, BUT AREN'T SURE IT'S INSURANCE, ASK:

“Does it help pay for both doctor visits and hospital stays?”]

INS-1-XI Does this insurance cover the cost for all, some, or none of the cost for (**CHILD**'s) vaccinations?

ALL	1 [SKIP TO INS-2]
SOME	2
NONE	3 [SKIP TO INS-2]
DON'T KNOW	6 [SKIP TO INS-2]
REFUSED	7 [SKIP TO INS-2]

INS-1-XII How much of the cost of the child's vaccinations do you pay?

**ALL
SOME
NONE**

INS-2 At this time, is (**CHILD**) covered by Medicaid, a health insurance program for persons with certain income levels and persons with disabilities? **[FILL IF APPLICABLE: In this state, the program is sometimes called [STATE PROGRAM].**

YES	1
NO	2
DON'T KNOW	6
REFUSED	7

INS-3 At this time, is (**CHILD**) covered by the State Children's Health Insurance Program or S-CHIP? In this state, the program is sometimes called *{S-CHIP name}*.

YES	1
NO	2
DON'T KNOW	6
REFUSED	7

INS-4 At this time, is (**CHILD**) covered by the Indian Health Service?

YES	1
NO	2
DON'T KNOW	6
REFUSED	7

INS_5 At this time, is (**CHILD**) covered by military health care, TRICARE, CHAMPUS, or CHAMP-VA?

YES	1
NO	2
DON'T KNOW	6
REFUSED	7

INS-6 At this time, is (**CHILD**) covered by any other kind of health insurance or health care plan that pays for services obtained from hospitals, doctors, and other health professionals?

YES	1
NO	2 [SKIP to INS-7]
DON'T KNOW	6 [SKIP to INS-7]
REFUSED	7 [SKIP to INS-7]

INS-6-1X I recorded that (**CHILD**) was covered by some other health insurance. What is the name of the plan(s)?

Record verbatim response #1_____

Record verbatim response #2_____

INS-7 Since (**CHILD'S**) birth has (**CHILD**) been covered by private insurance...

ALL OF THE TIME
SOME OF THE TIME
NEVER

INS-8 During the period when (**CHILD**) received most of (his/her) vaccinations, how much of the cost of the immunizations was paid by insurance?

A. ALL OF THE COST
B. SOME OF THE COST [GO TO INS-9]
C. NONE OF THE COST [GO TO INS-9]

INS-9 [If 8 = B or C] How much of the cost of the child's vaccinations did you pay?

ALL
SOME
NONE

Appendix C

Revision ideas for questions INS-1 through INS-3

Example 1

1. At this time, is (CHILD) covered by any health insurance?
Yes [go to 2]
No [go to 10]
2. Does this insurance help pay for both doctor visits and hospital stays?
Yes [go to 3]
No [go to 10]
3. Is this health insurance provided through an employer?
Yes [go to 6]
No [go to 4]
4. Is this health insurance provided through a union?
Yes [go to 6]
No [go to 5]
5. Is this insurance bought directly from an insurance company?
Yes [go to 6]
No [go to 6]
6. At this time, is (CHILD) covered by any Medicaid plan, a health insurance program for persons with certain income levels and persons with disabilities?
Yes [go to 7]
No [go to 7]
7. At this time is (CHILD) covered by the State Children's Health Insurance Program, or S-CHIP? In this state, the program is sometimes called (NAME).
Yes [go to 8]
No [go to 8]
8. At this time is (CHILD) covered by Indian Health Service?
Yes [go to 9]
No [go to 9]
9. At this time is (CHILD) covered by military health care, TRICARE, CHAMPUS, or CHAMP-VA?
Yes [go to 10]
No [go to 10]

Revision ideas for questions INS-1 through INS-3

Example 2

1. At this time, is (CHILD) covered by any health insurance?
Yes [go to 2]
No [go to 10]
2. Does this insurance help pay for both doctor visits and hospital stays?
Yes [go to 3]
No [go to 10]
3. Is this health insurance provided through an employer, a union, purchased directly from an insurance company, or something else?
 - a. Employer [go to 4]
 - b. Union [go to 4]
 - c. Insurance company [go to 4]
 - d. Something else [go to 4]
4. At this time, is (CHILD) covered by any Medicaid plan, a health insurance program for persons with certain income levels and persons with disabilities?
Yes [go to 5]
No [go to 5]
5. At this time is (CHILD) covered by the State Children's Health Insurance Program, or S-CHIP? In this state, the program is sometimes called (NAME).
Yes [go to 6]
No [go to 6]
6. At this time is (CHILD) covered by Indian Health Service?
Yes [go to 7]
No [go to 7]
7. At this time is (CHILD) covered by military health care, TRICARE, CHAMPUS, or CHAMP-VA?
Yes [go to 8]
No [go to 8]