

**Cognitive Testing of the NHIS Injury and Poison Questions  
Interviews Conducted March 18 - April 12, 2002  
in the Questionnaire Design Research Lab, NCHS**

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### **Overview**

This report describes the QDRL project to test the poison and injury section of the 2002 National Health Interview Survey (NHIS).

The purpose of cognitive testing was to 1) provide insight as to why NHIS estimates of poisonings and injuries appear to be dropping while other estimates (such as emergency room visits) are holding steady and propose changes that would likely improve estimates, and 2) identify questions that contribute to inefficient use of interview time and propose changes that would likely reduce overall burden.

Two rounds of cognitive interviews were conducted. The first round, consisting of 9 interviews, were conducted using the 2002 poison and injury module. Changes were made to the screener question based on findings from this first set of interviews. A second round of 8 interviews were conducted to test the proposed changes and to conduct further testing on the follow-up questions.

### **Summary of Findings for Research Objectives**

#### **Objective 1: Provide insight into decreasing estimates for initial screener question**

*Original Screener Question: DURING THE PAST THREE MONTHS, that is, since {91 days before today's date}, {were/was} {you/anyone in the family} injured or poisoned seriously enough that {you/they} got medical advice or treatment?*

Because the initial screening question combined many different and undefined concepts, various types of response problems emerged in the first round of interviewing. To be more specific, six types of problems were identified that could potentially generate false negative reporting. Those problems include:

1. Respondent does not hear and/or consider the phrase "got medical advice"
2. Respondent does not hear and/or consider the term "poison"
3. Respondent uses limited definition of word "injury" (e.g., only thinks of life threatening harm as an injury)

4. Respondent uses limited definition of the word “poison”
5. Respondent uses limited definition of word “medical treatment” (e.g., does not consider diagnostics such as x-rays as medical treatment)
6. Respondent has difficulty recalling other family members’ injuries and poisonings

To mitigate these problems, the original question was unpacked into separate screening questions, asking two different questions for poisonings and injuries as well as separating self-report from proxy-report. A follow-up question regarding whether or not the injured or poisoned party received medical attention was also added to follow these new screening questions. Breaking the question apart served the following functions:

- 1) Creating two separate screening questions for poison and injury forces the respondent to equally consider injuries and poisonings. Equally important, the separation allows for the definition of both terms to be embedded within the question, thereby broadening respondents’ interpretation of the terms and decreasing the possibility of false negative reporting.
- 2) Creating two separate screening questions for self-report and family proxy report forces the respondent to equally consider themselves and other members of the family. Furthermore, by creating two questions, the data involving self-report can be separated from proxy reporting— data that is likely to differ in quality (Tourangeau, Rips, Rasinki, 2000).
- 3) Creating a medical follow-up question to the screener questions helps to clarify what is meant by medical advice or treatment and broadens respondents’ restricting interpretations. Furthermore, keeping the medical component out of the initial screening allows participants to more carefully recall all incidents before abridging their answer with considerations of medical treatment. Finally, the separation allows for the collection of self-treated injuries and poisonings.

Though it was recommended by QDRL (from a question-design perspective) that these three components be separated into different screening questions, for matters more practical, the NHIS review committee determined that the proxy-self report component of the original screening question should remain collapsed. Thus, the following delineates the wording and question order of the resulting section of screening questions:

### **Introduction**

*The next set of questions are about injuries and poisonings. People can be injured or poisoned unexpectedly, accidentally or on purpose. They may have hurt themselves or others may have caused them to be hurt.*

### **Injury Screening Questions**

*During the past three months, that is since {date plus 90}, did {you/you or anyone in your family} have an injury where any part of the body was hurt, for example with a {cut or wound, broken bone, sprain or burn}?*

*Who was this?*

*During the past three months, how many times were {you/name of family member} injured?*

*Did {you/name of family member} talk to or see a medical professional about this injury?*

### **Poisoning Screening Questions**

*During the past three months, that is since {date plus 90}, were {you/you or anyone in your family} poisoned by swallowing or breathing in a harmful substance such as bleach, carbon monoxide, or too many pills or drugs? Do not include food poisoning, sun poisoning, or poison ivy rashes.*

*Who was this?*

*During the past three months, how many times were {you/name of family member} injured?*

*Did {you/name of family member} talk to or see a medical professional about this injury?*

### **Objective #2: Reduce Interview Burden**

The following problems were identified as contributing to interviewer burden:

1. Considerable amount of probing is required of the FR
2. Lack of definitions require FR to explain essential terms
3. FR is required to read a substantial amount of written instruction; the success of the question is dependent on FRs reading, understanding and executing the instructions
4. Open ended questions required FR to type verbatim into the computer
5. Many parenthetical phrases are used that must to be read regularly for the question to be successfully executed
6. The phrase “injury/poison” is frequently used; the FR must “think on her feet” to correctly read the question

To alleviate these identified problems, the module was reworked in the following ways:

1. definitions were embedded within questions
2. much interviewer instruction was eliminated by improving or deleting questions
3. one open ended question was converted into a closed question
4. some parenthetical phrases were removed or incorporated into the question
5. questions were reworked to eliminate the phrase “injury/poison”

To ensure that sufficient time was reduced (particularly because questions were added in the screening section), a time trial was conducted comparing the currently fielded version with the QDRL recommended version (i.e. the version that included the

separation of self-report and proxy-report). The trial concluded that, despite the additional screening questions, there was little to no timing differences between two versions (See Appendix B). Though no trial was conducted on the version that collapsed self and proxy-report, it can be expected that this version is significantly shorter than the version currently in the field.

## **Methods**

Sample. The NCHS Cognitive Methods Staff (CMS) conducted 17 in-depth, semi-structured cognitive interviews. Participants were recruited from two advertisements running in the Washington Post, the Washington Times, or appearing on a poster placed in the NCHS lobby (see Appendix C). Potential participants were individuals who either they experienced or had a family member who experienced an injury or a poisoning in the past 6 months. Recruited participants were paid 30 dollars to participate in the study. The final sample consisted of 6 women and 11 men between the ages of 18 and 81. Of the 17 participants, 9 identified themselves as White and 7 as African American. Eight participants reported an annual household income of \$30,000 or above, 2 reported an annual income between \$20,000 and \$30,000, 6 reported an annual income below \$20,000. Three participants did not receive a high school diploma, 6 held at least a high school diploma, and 8 held at least a bachelor's degree.

Interviewing procedures and analysis. Interviews were conducted face-to-face in the NCHS Questionnaire Design Research Laboratory. The average length of interviews was an hour. Each interview varied depending on the type and number of injuries the participant could report and the detail of information needed to adequately understand interpretations of key terms.

The protocol for the cognitive interviews was consistent with protocol developed for NCHS QDRL cognitive interviews: Interviewers ask participants the proposed survey question as presented on the questionnaire, and participants respond to the question. After a response is provided, interviewers then ask in-depth, emergent probe questions to fully understand how the participant interpreted the question and constructed a response. In the cases where participants were unable or had difficulty in providing an answer, the interviewer would ask questions specifically toward understanding the nature of the difficulty. As such, the interviews are semi-structured, based on the particular circumstances of the participant and their perceptions of the proposed question. Interviewers were all trained and experienced in conducting such open-ended qualitative interviews. To this extent, data from the interviews hold the capacity of providing an in-depth understanding of the types of response patterns respondents may use as well as potential response errors that may occur when responding to each question. Findings from the interviews are based on analysis of transcriptions and interviewer notes.

The remainder of this report provides a question-by-question description of the findings from the cognitive interviews, as well as documentation to the iterative stages that questions underwent to reach their final form.

## Question by Question Review

### ORIGINAL SCREENER QUESTION

**Introduction to the Section:** In this next set of questions, I will ask about **INJURIES AND POISONINGS** that happened in the **PAST THREE MONTHS** that **REQUIRED MEDICAL ADVICE OR TREATMENT**, including calls to a poison control center.

**(FIJ.010) Original Screener Question:** **DURING THE PAST THREE MONTHS**, that is, since {91 days before today date}, {were/was} {you/anyone in the family} injured or poisoned seriously enough that {you/they} got medical advice or treatment?

- |                |           |
|----------------|-----------|
| (1) Yes        | (FIJ.020) |
| (2) No         | (FAU.010) |
| (7) Refused    | (FAU.010) |
| (9) Don't Know | (FAU.010) |

This question (fielded in NHIS 2002) was tested in the first nine cognitive interviews. Six specific types of problems were identified that could potentially generate false negative reporting. The types of response errors associated with this question are conceptual, complexity and knowledge.

### Conceptual

Three key terms in the question (“injury,” “poisoning,” “medical treatment”) are not defined. Consequently, participants were left to use their own standards and definitions which tended to be overly conservative and restrictive.

1. Injury: Respondent uses conservative definition of word □injury□ (e.g., only thinks of life threatening harm as an injury)

INTERVIEWER: [An injury] would be that if you didn't seek [medical help] you would

...

PARTICIPANT: Probably die.

INTERVIEWER: [What do you think of as an injury?]

PARTICIPANT: Injuries in my -- from -- from my point would be falls, slips and falls or breakage... something that requires emergency treatment.

PARTICIPANT: I generally on a scale of one to ten go for about six, in other words, I would say that an injury was something, again, where something got broke. I guess what is turning out in my mind is that the injury has an instant breaking or something like that.

PARTICIPANT: Okay. Broken bones. Cuts that -- Cuts that don't stop bleeding right away. Puncture wounds.....-- I think of like you say injury, I think of a cut or

even a crack against something like that serious or a fall or a bump. I don't think of a headache as an injury. Something to make it like if you were in an accident and your head hurts after.

PARTICIPANT: I think if somebody is injured in any particular way, they're probably going to remember it.... Because it's a big thing in somebody's life if they're injured.

INTERVIEWER: Do you think there's any chance that maybe they were injured and you don't know.

PARTICIPANT: Nothing incredibly serious.

INTERVIEWER: Okay.

2. Poisoning: Respondent uses conservative definition of word poisoning

PARTICIPANT: Poisoning definitely sounds like some kind of noxious or very bad substance has come into your body, like I said, a chemical or some kind of synthetic, nasty substance.

INTERVIEWER: Okay, and you can very clearly know for your own self that the answer to this is no?

PARTICIPANT: Yes. Poisoning sounds very, very serious.

PARTICIPANT: Ah-ha, is it supposed to be up there with the serious type of things? When you say poison, are you talking about poisoning with acid -- I mean, not with acid, but with Strychnine or some of those other things? If it's, I guess, it's a mild non-lethal thing that you are talking about, right?

PARTICIPANT: Okay. In my vocabulary -- being poisoned means this more serious side of that.

INTERVIEWER: More serious.

PARTICIPANT: I mean, somebody --

INTERVIEWER: They are going to die.

PARTICIPANT: -- like they are going to die, yeah.

3. Medical Treatment: Respondent uses conservative definition of word medical treatment (e.g. does not consider diagnostics such as x-rays as medical treatment)

INTERVIEWER: So, well let me go back to this original question, during the past three months were you injured or poisoned seriously enough that you got medical advice or treatment? ....

PARTICIPANT: Well, no, because I don't think -- it didn't require hospitalization, I mean, they basically said, you know, they brought a [medical] team in, they checked me out, they said they were going to wait until that next Saturday to see if I had some system or some level drop, because I was on some systems at home, and they sent in a team in and said, no, that you are okay.

INTERVIEWER: So, you did see a medical professional of some kind?

PARTICIPANT: Oh, yeah, very much so.

INTERVIEWER: You weren't hospitalized?

PARTICIPANT: No. They wanted to put me back in, but I was damned if I was going to go back in again. I had just spent like three and a half weeks in and I wasn't ready to go back.

PARTICIPANT: (He was examined by a physician and then released). But, that really wasn't treated. Is as a matter of fact, I received no treatment because I'm very much against taking unnecessary drugs.

### Complexity

Because of the question's length, the terms "medical advice" and "poisoning" are buried in the question, and participants do not always hear or consider these concepts when constructing their answer.

4. Respondent does not hear and/or consider the phrase "got medical advice" only considers "received medical treatment"

(Man was in a car accident; his car was totaled and an ambulance was called. Though the paramedics checked him over, he did not consider this in his answer to the question because he was focused on "receiving treatment.")

INTERVIEWER: .... You didn't hear the "medical advice?"

PARTICIPANT: Yes or I didn't pay any attention.

INTERVIEWER: You were focused on the "treatment?"

PARTICIPANT: The treatment, right.

INTERVIEWER: And, that took you directly to, well, "I didn't need blood, and I didn't need"...

PARTICIPANT: Yeah.

5. Respondent does not hear and/or consider the term "poison;" only considers the term "injury."

(This man did not think to include a potential poisoning episode that occurred to his daughter just two days before. While they are not certain of the source (but may have been a bee sting), the daughter experienced a severe "allergy-like attack" and was rushed to the hospital. The interviewer had to probe extensively before this man remembered to report this incident. Even at this point, he is only thinking about "injuries," not "poisonings.")

INTERVIEWER: And how about for daughter anything at all --

PARTICIPANT: She had -- you're not -- are you talking about regular illnesses?

INTERVIEWER: Well --

PARTICIPANT: -- or allergies? Because she had an allergy attack day before yesterday in fact. So -- but, that's -- I don't know. You said injury. That's --

INTERVIEWER: Right.

PARTICIPANT: Well, it is an injury, but it's not an injury.

INTERVIEWER: An allergy attack.

PARTICIPANT: She had an allergy attack which she's never had before.....And required her to go to the hospital.

INTERVIEWER: Okay. So, she did have to see a medical professional.

PARTICIPANT: Correct.

Knowledge/Salience/Recall Some participants acknowledged that they could not accurately report on the injuries of other family members because they did not have enough information. Others simply forgot to consider other family members when providing an answer.

#### 6. Respondent has difficulty recalling other family members' injuries and poisonings

INTERVIEWER: So, but what about your wife? Is it harder to answer for her?

PARTICIPANT: Yes, because sometimes she don't tell me stuff, you know, until it start hurting real bad, or it's real bad and then she comes to me. Why did you wait until the last minute? She's a last minute person...So her, and yes, it's kind of hard for her because she waits until the last minute to tell me things, like injuries and stuff, if she's injured. As far as I know, she hasn't had no cuts or nothing that I know of.

INTERVIEWER: Okay. When was the last time that she had an injury, something that you would call an injury?

PARTICIPANT: My brain fails me. Nothing.

INTERVIEWER: During the past three months, that is since December 20th, was anyone in your family injured or poisoned seriously enough that they got medical advice or treatment?

PARTICIPANT: That seems pretty straightforward. One thing when I thought of myself, I didn't go on to think about anybody else. I was -- I just went okay, I did and I didn't -- of course, the question asks that, but until you said something about it, I was like oh, okay

INTERVIEWER: During the past three months, that is since December 18th, were you or anyone in your family injured or poisoned seriously enough that you got medical advice or treatment?

PARTICIPANT: Yes.

INTERVIEWER: Okay. And who was this?

PARTICIPANT: Myself.

INTERVIEWER: Was there anyone else?

PARTICIPANT: No, just myself...

INTERVIEWER: [*Interviewer probing to see if the respondent forgot any family members' injuries*] Anything at all where your mom was hurt in anyway. Did she bang her toe? Did she burn herself?

PARTICIPANT: [*Now remembering*]... She fell...Oh, she had a bruise on her kneecap.

Based on the nine interviews, it was decided that question revisions should 1) expand respondents' interpretations of the key terms, 2) provide ample cues for recall and 3) allow respondents to consider key concepts separately.

### **Revision #1: Introduction and Injury Screening Question**

Because it provided no additional information, the introduction to the section was rewritten to furnish definitions and pose a wide range of images that could be considered. Additionally, the various dimensions of the question (i.e. injury, poisoning, medical attention, self/proxy report) were split into separate questions, funneling respondents through a series of (rather than one) screening questions. Finally, definitions were embedded within the injury, poisoning, and medical attention questions. Examples were also added to the ends of the questions. Revision #1 for the Introduction and Injury Screening question appear below:

*Introduction: The next set of questions are about INJURIES, where someone is hurt unexpectedly, AND POISONINGS where someone swallows or breathes in something that is hurtful. People can be injured or poisoned accidentally or on purpose. They can hurt themselves, for example by tripping and falling, or other can hurt them, for example by pushing or hitting them.*

*Injury Screening Question: During the past three months, that is since ..., did you have an injury where any part of your body was hurt, for example, with a broken bone, a sprain, a wound, a bad cut or bruise, or an animal or insect bite?*

### **Revision #2: Introduction and Injury Screening Question**

After conducting only one interview, it was evident that the introduction and question were too long. Not only was it difficult to administer, the participant experienced difficulty focusing on the material. Therefore, the introduction was significantly shortened. Eliminating some examples from the injury question was considered, however, it was decided that the examples were necessary to provide a range of injury types as well as degree of seriousness. The remaining interviews were conducted on the second revision:

*Introduction: The next set of questions are about injuries and poisonings. People can be injured or poisoned unexpectedly, accidentally, or on purpose. They may have hurt themselves or others may have caused them to be hurt.*

*Injury Screening Question: During the past three months, that is, since January 3, did you have an injury where any part of your body was hurt, for example, with a broken bone, a sprain, a burn, a wound, a bad cut or bruise or an animal or an insect bite?*

Although most participants' experience with the introduction and screening question revealed no difficulty, a few others noted that the examples made the question too long.

One woman even commented that the long string of examples made her lose track of the question.

To avoid the long list of injury examples in the screening question, a random list of injuries was developed. Using a randomly selected set of examples allows respondents to hear injury examples with a range of severity and condition type. Each of the experts to whom we sent the IP section, Mick Couper at U of Michigan, Carol Runyan, Director UNC Injury Prevention Center, and Lee Annest, Director of Statistics and Programming at NCIPC, also commented on the list of examples. Their concerns were that (1) the list of examples was too long and made the question awkward; (2) we may miss some injuries such as head injuries; and (3) less severe injuries would be answered too frequently. Additionally, recency effects (where the respondent focuses more on the last item of the list when listening to a question) for questions with relatively long lists are very well documented (Krosnick and Alwin, 1987). Generating the random list as we have proposed (1) rectifies the likelihood of this type of response bias, (2) improves the unwieldiness of the list, and (3) presents all injury examples ranging in severity and type.

The implementation involves choosing a random number from 1 to 10 and then the appropriate predetermined example list is inserted as a fill. Jim Dahlhamer spoke with Curtis Ziesing, primary Blaise author at Census, about the programming and was told that choosing this random number from 1 to 10 and then filling with the list was straightforward.

The number of the list of examples shown to the respondent would be stored. It would be used to analyze if the example list shown effects the number of responses to any type of injuries. We believe the sample size would be more than adequate for analysis. The null hypothesis would be that the number of episodes reported is the same regardless of the list the respondent heard. If we assume there are approximately 3,000 unweighted episodes of injury annually and each of the 10 lists is assigned at random, there would be 300 observations for each list of examples. This should be ample for analysis.

The examples were chosen to represent their proportion of all injury emergency department visits. The 1998-2000 National Hospital Ambulatory Medical Care Survey Data –Emergency Dept was analyzed to determine the distribution of visits for injury conditions. To determine the number of times each injury condition would be listed, each injury condition's proportion was multiplied by forty. Then a list of the proper distribution of injuries was selected. A list of numbers 1-40 was also made. An injury condition and number were selected at random. This was repeated until all 40 spaces were filled (reselection occurred only if the injury condition was already selected for the example row; e.g., the random injury list could not read "*sprain*, broken bone, *sprain*, bruise). Finally 10 randomly generated, proportionally correct lists of example conditions were created.

The final injury screening question and introduction to the section appears below. As stated earlier, the steering committee concluded that the dimensions of self and family proxy should be collapsed in this first screening question. Therefore, the phrase “you or anyone in your family” was added, and, though somewhat awkward, the words “your body/his body/her body ” were replaced with “the body.” The steering committee also recommended re-collapsing the medical attention component. However, this recommendation was impossible to fulfill given the necessary restructuring of the section (Appendix D for discussion).

### **Revision #3: Final Introduction and Injury Screening Question**

*Introduction: The next set of questions are about injuries and poisonings. People can be injured or poisoned unexpectedly, accidentally or on purpose. They may have hurt themselves or others may have caused them to be hurt.*

*Injury Screening Question: During the past three months, that is since March 15, {did you or anyone in your family} have an injury where any part of the body was hurt, for example with {a cut or wound, broken bone, sprain or burn}?*

### **Revision#1: Poisoning Screening Question**

*During the past three months, that is since...., were you poisoned by swallowing or breathing in a harmful substance such as bleach, carbon monoxide, arsenic or too many pills or drugs? Do not include food poisoning, sun poisoning, or poison ivy rashes.*

- (1) Yes
- (2) No
- (7) Refused
- (9) Don't Know

This revision was tested in two interviews before the word “arsenic” was eliminated.

Arsenic was eliminated because it intensified the severity of the word poisonings, this is something we want to eliminate.

The poisoning examples listed were chosen based on the need to be concise, consistent with ICD-9CM, common to most people, and address intentionality and mode of exposure. The examples listed are used in both intentional and unintentional poisonings. The modes of poisoning are covered with the examples such as inhaling carbon monoxide and ingesting pills or drugs.

It is also important to note that many participants were inclined to count food poisoning as a form of poisoning. It is, therefore, critical that the follow-up sentence be read to respondents.

### **Final Poison Screening Question:**

During the past three months, that is, since January 3, were {you/you or anyone in your family} poisoned by swallowing or breathing in a harmful substance such as bleach, carbon monoxide, or too many pills or drugs. Do not include food poisoning, sun poisoning, or poison ivy rashes.

- (1) Yes
- (2) No
- (7) Refused
- (9) Don't Know

### FOLLOW-UP QUESTIONS

#### ORIGINAL QUESTION

(FIJ.030) How many different times in the PAST 3 MONTHS were {you/participant's name} injured or poisoned seriously enough to seek medical advice or treatment?

(01-91) \_\_\_\_\_ Times

#### Problems/Concerns:

- Often times respondents underreport the frequency on first response; with more probing, they will later “remember” more incidences than initially reported. Most respondents came in to the interview with one injury in mind to talk about, but when forced to think about *all* instances of injuries or poisonings, they were often able to report more.

#### Example:

INTERVIEWER: During the past three months, that is, since January 8, did you have an injury where any part of your body was hurt, for example, with a broken bone, sprain, burn, wound, cut, bruise, or animal or insect bite?

PARTICIPANT: Okay, now this is for my son. Okay, and it was December 1.

INTERVIEWER: Well, we'll get to the family questions later on.

PARTICIPANT: Okay, this is just me. Okay. Have I been hurt...Yes.

INTERVIEWER(I): Okay. During the past three months, how many different times were you injured?

PARTICIPANT(S): Twice.

#### Solution:

- Changes in the screener questions, as discussed above, are expected to eliminate this type of problem.

**FINAL QUESTION**

**DURING THE PAST THREE MONTHS, how many different times {were you/was alias} injured?**

**(0-91) \_\_\_\_\_ Times**

**(FIJ.041) When did {your/participant name} injury/poisoning happen?**

**MONTH:**

**DAY:**

**YEAR :**

**FR: IF EXACT DATE UNKNOWN, ASK NEXT QUESTION**

**How long ago did {your/participant name} injury/poisoning happen?**

**@NO Number**

**(01-91) 01-91**

**(97) Refused**

**(99) Don't know**

**(7) Refused**

**(9) Don't know**

**@TP Time Period**

**(1) Days ago**

**(2) Weeks ago**

**(3) Months ago**

**Problems/Concerns:**

- Respondents' memories are often unreliable. Except for those who had severe, life-altering injuries, participants were not confident enough to give an exact month, day, and year for the time of their injury.
- When unable to remember an exact date, the procedure for estimation requires respondents to do "mental math" which, for some participants, was very difficult and yielded imprecise results.
- When probed to see exactly how respondents were remembering the dates, it appeared that there is great inconsistency; some based on the date reported on insurance papers. Some remembered the month in which it occurred, some the time of the month (beginning, middle, end), and some the time of the week (weekday vs. weekend).
- The date of the injury along with the date of the interview is used to determine the recall period (i.e. elapsed time between injury and the interview). The number of injuries reported decreases as the recall period increases for less severe injuries. Since the reporting of injuries appears to be somewhat dependent on recall period, analysts subset the data based on recall period.

**Examples:**

S - "I'm more comfortable with it being the weekend of January 11th...so it's January 11th give or take a day. I know it was the early part of January."

S - "I was basing it around a holiday. You know, like New Years. Or President's Day. And then I was trying to figure if -- like was it a middle of the week. In reference to a weekend."

**Solution:**

- Provide respondents with a calendar to provide a visual cue
- Offer respondents the option of answering "when" (beginning, middle, end) during a particular month, or how long ago, the injury occurred if they are not able to give an exact day, month, and year, thus allowing them to answer with the most confidence.

\*\*After 9 interviews, these recommendations were implemented and the new question format was tested on the final 8 participants

**Test Solution:**

S - "I would not have known that it was a Monday without seeing the calendar...this worked pretty good, I liked seeing this little calendar"

I - How does this calendar help you?

S - "I know it was three weeks ago, but with now looking, I can just go back because I know today is the 3rd, and I can go exactly back to the date itself, which is the 17th...yes, that [calendar] really helped me."

S - "It was in January...I think it was this week, maybe. Either this week or this week. I'm sorry, I can't tell you exactly...I think it was near the middle. And I'm not a good time person.

I- This works well then, me giving you the middle, beginning, end card?

S - Yes, I'm not a good time person."

**FINAL QUESTION**

**Can you tell me approximately how long ago [fill 1: your/ALIAS's] [fill 2: injury/poisoning] happened?**

**@NO\_(01 - 91) \_\_\_\_\_ (FIJ.051\_2)**

**(97) Refused {blind} (FIJ.060)**

**(99) Don't know {blind} (FIJ.060)**

**(1) Days (FIJ.060)**

**(2) Weeks (FIJ.060)**

**(3) Months (FIJ.060)**

**(7) Refused {blind} (FIJ.060)**

**(9) Don't know {blind} (FIJ.060)**

Was this in the beginning of [fill 1: ^IPDATEM (*text*)], the middle of [fill 2: ^IPDATEM (*text*)], or the end of [fill 3: ^IPDATEM (*text*)]?

- (1) Beginning
- (2) Middle
- (3) End
- (7) Refused {blind}
- (9) Don't know {blind}

#### ORIGINAL QUESTION

(FIJ.045) Where did {you/participant name} receive MEDICAL ADVICE OR TREATMENT for this injury/poisoning? Anywhere else? (Read all)

- (1) Did not receive medical treatment or advice (FIJ.046)
- (2) Phone call to doctor or health care professional
- (3) Phone call to Poison Control Center
- (4) Visit to Doctor's Office
- (5) Visit to Clinic or Outpatient department
- (6) Visit to Emergency department
- (97) Refused
- (99) Don't know

#### Problem/Issues #1:

- Participants are unsure as to whether or not to include follow-up care in their response.

#### Example:

I - A visit to a doctor's office or other health clinic?

S - Subsequently, but the original diagnosis was in the emergency room. Originally I thought the answer to that would be no because it would seem to me it would be an either-or question. In other words, was I diagnosed in an emergency facility or was I diagnosed in a doctor's office.

I - Okay, so you're thinking about diagnosis?

S - Right. Not follow-up. That was the way I interpreted the questions.

S - No, I didn't [visit my doctor]...Oh, I did, because I had to have the stitches taken out. So, I forgot. We did have to have follow-up...But that wasn't the initial visit.

The initial visit was, if that's what you're looking for.

I - Yes, so it's unclear if we're asking for the initial injury or follow-ups?

S - Right.

#### Problems/Concerns #2:

- Participants often received aid from emergency vehicles/personnel, which is not an option on the list.

#### Example:

S - I was taken by the ambulance, number six.

I - Number six, visit to the emergency department. Okay. Does that seem like a straightforward question to you, easy to answer?

S - Yeah. The first time I ever rode in an ambulance.

S - Where did I receive it? Okay, the advice that I gave you was on the road. At the scene of the accident. Remember, it was -- they didn't -- I go to them, they came to me.

I - Okay. So, they don't have, really, they don't have rescue squad on here.

S - Well, they don't have anything that applies, the closest one is visit to a clinic, which would be equivalent to going home and looking at it yourself and saying, oh, I'm all right.

### **Problems/Concerns #3:**

- The order in which the options are presented and the wording of the “emergency care” responses, are sometimes confusing to the respondent.

### **Example:**

I - Which of the following ways did you get medical advice or treatment for this injury, phone call to a doctor, nurse, or other health care professional? Visit to a doctor's office or other health clinic?...Visit to an emergency department of a hospital?...Ambulance, fire truck, or emergency squad?...Something else?

S - When you said medical office or clinic, generally I figure the nature of an injury or poisoning, that's more immediate... [Put] the more extreme ones first.

S - “Ambulance, fire truck, or emergency squad car, you were thinking of them as kind of the same thing?...Or emergency, like emergency vehicles, right?...When you asked that question, I was thinking of the kind of transportation that I used to get there, and it's this really weird three-wheeled vehicle in India, and I know my case is like exceptional. So, I was like waiting for maybe something like that. Yes, emergency vehicle might cover one of those things.”

### **Solution:**

\*\*After 9 interviews, these recommendations were implemented and the new wording was tested

- Add an option for emergency care (ambulance, fire truck, squad car)
- Put the more immediate, emergency care options first in the list, and condense “ambulance, fire truck, or emergency squad car” to “emergency vehicles”.
- Add in a clause instructing the participant to include follow-up care.

### **FINAL QUESTION**

(FIJ.080\_1, FIJ.080\_2, FIJ.080\_3, FIJ.080\_4, FIJ.080\_5, FIJ.080\_6, FIJ.081, FIJ.082)  
Where did [fill 1: you/ALIAS] get MEDICAL ADVICE, TREATMENT, or FOLLOW-U CARE for this poisoning?

**A phone call to a poison control center?**

**An emergency vehicle, such as an ambulance or fire truck?**

**A visit to an emergency room?**

**A visit to a doctor's office or other health clinic?  
A phone call to a doctor, nurse, or other health care professional?  
Any place else?**

- (1) Yes**
- (2) No**
- (7) Refused (blind) (FIJ.090)**
- (9) Don't know {blind} (FIJ.080\_2)**

**ORIGINAL QUESTION**

**(FIJ.047) {Was/Were} {you/participant name} hospitalized for at least one night as a result of this injury/poisoning?**

- (1) Yes (FIJ.048)**
- (2) No (FIJ.050)**
- (7) Refused (FIJ.050)**
- (9) Don't know (FIJ.050)**

**Problems/Concerns:**

- No issues

**Solution:**

- No changes necessary

**FINAL QUESTION**

NA

**ORIGINAL QUESTION**

**(FIJ.048) How many nights {were/was} {you/participant name} in the hospital?**

- (01-94) 01-94 nights**
- (95) 95+ night**
- (97) Refused**
- (99) Don't know**

**Problems/Concerns:**

- In the few occasions that participants were in the hospital for at least one night, they sometimes had difficulty remembering the *exact* number of nights of hospitalization. However, they were generally pretty confident in their responses, give or take a day

**Solution:**

- No changes necessary

**FINAL QUESTION**

NA

**ORIGINAL QUESTION**

**(FIJ.050) At the time, what part(s) of {your/participant name} body was/were hurt? What kind of injury/poisoning was it?**

Body Part	Kind of Injury or Poisoning

**Problems/Concerns #1:**

- Since this was an open-ended question, participants had freedom to report whatever they knew and remembered. In cases where there was more than one injury pertinent information was left out. After probing, it was revealed that there were more body parts were injured than were first reported. Participants would often report only the most serious injury, while other more minor injuries (cuts, bruises) also occurred to the body.
- The specificity of the response to the “body part that was injured” varied from “clavicle,” to “both legs” to “a cut on the face” that was referring to an eye injury that left the respondent blind for nearly a month, indicating that there must be more of a guideline for the respondent to follow when answering the question.
- The phrase “what kind of injury was it” confused a few respondents. Some didn’t know the exact medical terminology for what physically happened, while others did not understand what the question was asking (whether it meant: what happened to the body part? or: what happened to make the body part hurt?).

**Example:**

S - “No, [the cheek] was the least of my problems because that healed without stitching...so that cleared up.

I - So you're really thinking about the worst things?) Right.

I - What part or parts of your body were hurt?

S - “Just in general parts? Both legs. Hip, three ribs, and I can't say the name, but it's the collar bone. It's like something clavicle, I can't pronounce it. But, this one fractured, it didn't break, and they originally had me wrapped in -- I broke my left foot, my left knee, I shattered my left kneecap and broke my left leg, thigh, broke my right ankle...shattered the ankle bone actually, I have two pins in there now...and broke the left – the right leg, from the knee to the thigh – I'm sorry, the knee to the ankle, and they had me -- the right ball had separated from the socket in my hip...Didn't break it, didn't do any damage, they just knocked me out and put it back in.”

I - I Okay. So, you got one cut on the head and one cut on the face.

S - And, one on the eye. I'll go two on the face and one on the head.

I - How long was it before you could see again?

S - Approximately three weeks for it to start coming in, but probably about a good four weeks before it came in good enough for me to go out of the house without nobody escorting me. There was damage the eye, it's called hyphema.

S - "It was not a break. I can tell you what it wasn't. I can -- I can tell you what you might call it. Maybe you call it like a -- sort of like a soft tissue injury. It was just like a -- a bad bruise. A bad sprain or hit. They sometimes call it contusions or something like that."

I - What kind of injury was it?

S - When you say that, are you talking about -- like I would have said it was a sprain, but sometimes when I hear like that question would be -- like it would be a falling injury or a tripping injury or --. Because when you first said that, I was going to say falling. But, then I thought maybe that's not what you were asking. So, that's what I

—

#### **Solution:**

- Present respondents with a humonculous with parts labeled, and ask them to review each part and report *any* injury that may have occurred to it. They will be more likely to report all of the injuries that occurred, not just the one(s) that are most salient in their mind.
- Present respondents with a list of possible injuries, at the level so desired by the NHIS, so that respondents do not have to guess at the level of detail they should be reporting.

\*\*After 9 interviews the recommendations were implemented and tested on subsequent participants.

#### **FINAL QUESTION**

**(FIJ.070, FIJ.071, FIJ.072, FIJ.073) In this injury, what parts of [fill 1: your/ALIAS's] body were hurt?**

**(01) Head (not face)**

**(02) Neck**

**(03) Shoulder**

**(04) Upper arm**

**(05) Elbow**

**(06) Forearm**

**(07) Wrist**

**(08) Hand**

**(09) Finger**

**(10) Chest**

- (11) Stomach
- (12) Groin
- (13) Back
- (14) Buttocks
- (15) Hip
- (16) Thigh
- (17) Knee
- (18) Lower leg
- (19) Ankle
- (20) Foot
- (21) Toe
- (22) Eye
- (23) Ear
- (24) Nose
- (25) Mouth
- (26) Teeth
- (27) Jaw
- (28) Face
- (29) Other, please specify (FIJ.071)
- (97) Refused (FIJ.080\_2)
- (99) Don't know (FIJ.080\_2)

In what way was [fill 1: your/ALIAS's] [fill 2: ^IJBODY (*text*)] hurt? Was it a:

- (01) Broken bone or fracture
- (02) Sprain, strain, or twist
- (03) Cut
- (04) Scrape
- (05) Bruise
- (06) Burn
- (07) Insect bite
- (08) Animal bite
- (09) Other, please specify (FIJ.073)
- (97) Refused
- (99) Don't know

**ORIGINAL QUESTION**

**(FIJ.070) How did your injury/poisoning happen? Please describe fully the circumstances or events leading to the injury/ poisoning, and any object, substance, or other person involved.**

**\* Enter the verbatim response, probing for as much detail as possible, including specifically what the person was doing at the time and all circumstances surrounding the event. Record all volunteered information.**

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**Problems/Concerns:**

- Respondents often told the story of the injury, like they've told it before, and like they would tell friends.
- Interviewer burden is likely to be high because they are required to type in the narrative verbatim; some interviewers will do a better job than others; data is likely to be uneven. The question, however, is used only to verify other data, so this problem is not a concern.

**FINAL QUESTION:** Remained the same

NA

## **ORIGINAL QUESTION**

**(FIJ.080) Enter the first appropriate box which describes the cause of the person's injury/poisoning from the list**

- |  |                  |
|--|------------------|
| <b>(01) Transportation, including motor vehicle/bicycle/scooter/motorcycle<br/>/pedestrian/train/boat/airplane</b> | <b>(FIJ.090)</b> |
| <b>(02) Fire/burn/scald related</b>  | <b>(FIJ.150)</b> |
| <b>(03) Fall</b>   | <b>(FIJ.171)</b> |
| <b>(04) Poisoning</b>  | <b>(FIJ.195)</b> |
| <b>(05) Overexertion / strenuous movements</b>   | <b>(FIJ.200)</b> |
| <b>(06) Struck by/against object or person</b>   | <b>(FIJ.200)</b> |
| <b>(07) Animal or insect bite</b>  | <b>(FIJ.200)</b> |
| <b>(08) Cut/pierce</b>   | <b>(FIJ.200)</b> |
| <b>(09) Machinery</b>  | <b>(FIJ.200)</b> |
| <b>(10) Other</b>  | <b>(FIJ.200)</b> |
| <b>(97) Refused</b>  | <b>(FIJ.200)</b> |
| <b>(99) Don't know</b>   | <b>(FIJ.200)</b> |

### **Problems/Concerns:**

- This question is solely for the interviewer to answer to route the respondent to the appropriate set of questions. Consequently, it was not tested among QDRL participants. However, there was indication from existing HIS data that interviewers were having difficulty accurately categorizing the injury.

### **Solutions:**

- Categories were simplified and unnecessary categories were dropped.

## **FINAL QUESTION**

**>ICAUS< FIJ.06 [Interviewer Instruction: Do not read. Enter the first appropriate number which describes the cause of the person's injury from the list below.]**

- (1) In a motor vehicle**
  - (1.1) Collided with a motor vehicle, animal or object**
  - (1.2) No motor vehicle, animal or object involved**
- (2) On a bike, scooter, etc.**
  - (2.1) Collided with a motor vehicle, animal or object**
  - (2.2) No motor vehicle, animal or object involved**
- (3) Pedestrian**
- (4) In a boat, train, or plane**
- (5) Fall**

### **ORIGINAL QUESTION**

**(FIJ.090) {Were/Was} {you/participant name} injured as the driver of a vehicle, a passenger in a vehicle, a bicycle rider, or as a pedestrian?**

- (1) Driver of a vehicle (FIJ.100)**
- (2) Passenger of a vehicle (FIJ.100)**
- (3) Bicycle rider (FIJ.130)**
- (4) Pedestrian (FIJ.140)**
- (7) Refused (FIJ.200)**
- (9) Don't know (FIJ.200)**

### **Problems/Concerns:**

- No problems; but with the new phrasing of the question that categorizes the cause of injury, this question is no longer necessary.

### **Solution:**

- Added 05 so that respondent did not misclassify and so they would get the helmet question.

### **FINAL QUESTION**

**(FIJ.110) fill 1: Were you/Was ALIAS] injured as:**

- (1) The driver of a motor vehicle (FIJ.111)**
- (2) A passenger in a motor vehicle (FIJ.111)**
- (3) A pedestrian (FIJ.150)**
- (4) A bicycle rider or tricycle rider (FIJ.113)**
- (5) The rider of a scooter, skateboard, skates, or other non-motorized vehicle (FIJ.113)**
- (7) Refused {blind} (FIJ.150)**
- (9) Don't know {blind} (FIJ.150)**

## ORIGINAL QUESTION

(FIJ.100) Transportation accidents: What type of vehicle {were/was} {you/participant name} in?

- |  |           |
|--|-----------|
| (01) Passenger car   | (FIJ.121) |
| (02) Light truck (including pickups, vans and utility vehicles/SUVs) | (FIJ.121) |
| (3) Large truck  | (FIJ.121) |
| (4) Motorcycles (including mopeds, minibikes)                        | (FIJ.130) |
| (5) All terrain vehicle or ski/snow-mobile                           | (FIJ.130) |
| (6) Other  | (FIJ.200) |
| (7) Refused  | (FIJ.200) |
| (8) Don't know   | (FIJ.200) |

### Problems/Concerns:

- Respondents were unable to properly identify the type of vehicle based on the given response choices. They frequently classified trucks like the Ford Bronco, a Tahoe, Cadillac Escalade, Dodge as “large trucks” (although they should properly be classified as “light trucks”).

### Example:

S - “A light truck is usually something like a small Isuzu, or what are some of the others...a heavier truck is like the Dodge or the Ford, the big Ford with the large bed on the back of it.”

### Solution:

- Reword the response categories to differentiate between passenger trucks (aka “light trucks”) and large commercial trucks (aka “large trucks”); provide examples.

## FINAL QUESTION

What type of vehicle [fill 1: were you/was ALIAS] in?

- |  |
|--|
| (1) Passenger car (FIJ.112)  |
| (2) Passenger truck, such as a pickup truck, van or SUV (FIJ.112)                  |
| (3) Large commercial truck, such as a semi-truck, big rig, or 18-wheeler (FIJ.112) |
| (4) Motorcycles (including mopeds, minibikes) (FIJ.113)                            |
| (5) All terrain vehicle or ski/snow-mobile (FIJ.113)                               |
| (6) Other (FIJ.150)  |
| (7) Refused {blind} (FIJ.150)  |
| (9) Don't know {blind} (FIJ.150)   |

## ORIGINAL QUESTION

(FIJ.140) What type of vehicle struck your vehicle, or what type of vehicle did you strike?

- (00) No other vehicle involved
- (01) Passenger car
- (02) Light truck (including pickups, vans and utility vehicles)
- (03) Bus
- (04) Large truck
- (05) Motorcycle (including mopeds and minibikes)
- (06) All terrain vehicle or ski or snow-mobile
- (07) Farm equipment (tractor)
- (08) Bicycle
- (09) Train
- (10) Boat (includes all on water vehicles)
- (11) Other
- (97) Refused
- (99) Don't know

### Problems/Concerns:

- Like above, respondents were unable to properly identify the type of vehicle based on the given response choices. While participants were often involved in an accident with a large car or small truck, it was by no means “small” to them; so they had a tendency to report what are considered “light trucks” as “large trucks”
- Not all transportation accidents involved one vehicle striking one other vehicle; there was one case in which an animal was also involved, not another vehicle. As the participant discusses, it is also possible for a transportation accident to be a single-vehicle accident, for example if a car crashes into a tree, or an accident with a pedestrian in which both parties are injured.
- The question’s wording caused some confusion. One participant did not understand that she could answer the question if only one part of it applied to her (if there was a vehicle that struck hers but she struck no one), and thus she did not properly answer the question.

### Example:

S - “A Tahoe. Like the police be driving. Big old trucks. It was just a big old truck...I don't think it was big as those hauling [trucks]. It's like -- it was like an Escalade. A Cadillac Escalade. It was a big ol' truck”

S - “A pig vehicle. I suppose that's as close as it comes, no other vehicle involved because there was no other vehicle unless you consider a pig a vehicle for a soul or a vehicle for pork or something like that. I mean people sometimes hit people or other living things. So, maybe that could be an option... I don't know how common that is that people actually hit other people and then get injured, but I've had a few friends on bicycles who have hit other people, you know, pedestrians who are walking, and both of them have been injured. So, people hit people sometimes and

get injured in the process. [you should have a question in there], something that allows for that possibility. Maybe a question that, you know, leads to some kind of collision with another object besides another vehicle.”

I - What type of vehicle struck your vehicle or what type of vehicle did you strike?

S - “I didn’t strike -- It was a passenger car that hit me.”

I - Did your vehicle hit another vehicle, a person, an animal, or another kind of object, such as a sign, a tree, or the side of a curb?

S - No. I was hit by another vehicle.

I - Right, okay. What type of vehicle struck your vehicle or what type of vehicle did you strike?

S - I didn’t strike -- It was a passenger car that hit me.

I - Okay, so the question is what type of vehicle struck your vehicle. Or what type of vehicle did you strike.

S - I didn’t strike a vehicle.

**Solution:**

- Rewrite the “cause of the injury” choices, to include the possibility of the participant who was either in a motor vehicle or on a bike a) colliding with another motor vehicle, animal or object, or b) no other vehicle, animal, or object involved in the accident.
- Reword the subsequent questions accordingly, so that only someone in an accident that involved another vehicle is asked the type of vehicle *involved* (so as to cut out the confusion of who did the “striking”).

**FINAL QUESTIONS** (Although the QDRL reworded to question to better measure what was intended, for matters more practical, the NHIS review committee recommend and the injury/poisoning participant matter staff determined that the question should be dropped.)

**What type of vehicle [fill 1: were you/was ALIAS] struck by?**

- (01) Passenger car
- (02) Passenger truck, such as a pickup truck, van or SUV
- (03) Bus
- (04) Large commercial truck, such as a semi-truck, big-rig, or 18-wheeler
- (05) Motorcycle (including mopeds and minibikes)
- (06) All terrain vehicle or ski or snow-mobile
- (07) Farm equipment (tractor)
- (08) Bicycle
- (09) Train
- (10) Boat (includes all on water vehicles)
- (11) Other
- (97) Refused {blind}
- (99) Don't know {blind}

**Was another vehicle, a person, an animal, or something else involved in the accident?**

- (1) Another vehicle (FIJ.116)**
- (2) A person (FIJ.150)**
- (3) An animal (FIJ.150)**
- (4) Something else (FIJ.150)**
- (7) Refused {blind} (FIJ.150)**
- (9) Don't know {blind} (FIJ.150)**

**What was the other vehicle?**

- (01) Passenger car**
- (02) Passenger truck, such as a pickup truck, van or SUV**
- (03) Bus**
- (04) Large commercial truck, such as a semi-truck, big-rig, or 18-wheeler**
- (05) Motorcycle (including mopeds and minibikes)**
- (06) All terrain vehicle or ski or snow-mobile**
- (07) Farm equipment (tractor)**
- (08) Bicycle**
- (09) Train**
- (10) Boat (includes all on water vehicles)**
- (11) Other**
- (97) Refused {blind}**
- (99) Don't know {blind}**

## ORIGINAL QUESTION

(FIJ.150) What was it that burned/scalded {you/participant name}? If response is fire or smoke ask: What caused the fire/smoke?

- (1) Cooking unit
- (2) Heater
- (3) Water or steam
- (4) Food
- (5) Chemicals
- (6) Other
- (7) Refused
- (9) Don't know

**Problems/Concerns:** Response options led to the most confusion.

- One participant who was burned by a hot water heater was hesitant to answer “heater,” because thinks of a heater as only a furnace or radiator.
- The wording of the question insinuates that only fire/smoke could have burned the respondent (because he/she is only able to choose among the responses *if* the answer was fire or smoke).

### Example:

I - What burned or scalded you?

S - “I don't want to say heater because it was a water heater, it's the hot water tank. Do you have other on there? Maybe you need that...Well, it's a water heater. I mean, it's the hot water tank, but I don't know if you could consider that. I want to say hot water tank -- well, maybe. Maybe hot water tank because all of those things are usually in the same general area. The heater, when I was thinking about heater, that's all, I mean, water heater, I mean, the tank, but it's not cold. It's a furnace. You're thinking about the furnace, which is for the gas, but I'm saying water heater, the same thing. I'm thinking about the same thing because I know both of them are hot. So, I'm thinking about both of them at the same time...I mean, you could add to furnace, say furnace or hot water tank because both of those get hot, and both of them can burn.

### Solution:

- Give examples along with the answer choices such as “Heater (furnace, radiator or hot water heater),” to ensure that respondents can properly classify their answer.
- Remove the phrase “if response is fire or smoke ask,” since not all of the answer choices necessarily had to produce fire or smoke to burn the participant. Then create a new question, if the response *is* Fire or smoke, to assess exactly what did cause the fire or smoke.

## **FINAL QUESTION**

Although the QDRL reworded to question to better measure what was intended, for matters more practical, the NHIS review committee recommend and the injury/poisoning participant matter staff determined that the question should be dropped.

**What was it that burned or scalded [fill 1: you/ALIAS]?**

- |  |                  |
|--|------------------|
| <b>(01) Cooking Unit</b>                                   | <b>(FIJ.150)</b> |
| <b>(02) Heater (furnace, radiator or hot water heater)</b> | <b>(FIJ.150)</b> |
| <b>(03) Water or Steam</b>                                 | <b>(FIJ.150)</b> |
| <b>(04) Food</b>   | <b>(FIJ.150)</b> |
| <b>(05) Chemicals</b>                                      | <b>(FIJ.150)</b> |
| <b>(06) Fire or smoke</b>                                  | <b>(FIJ.121)</b> |
| <b>(07) Other</b>  | <b>(FIJ.150)</b> |
| <b>(97) Refused {blind}</b>                                | <b>(FIJ.150)</b> |
| <b>(99) Don't know {blind}</b>                             | <b>(FIJ.150)</b> |

**What caused the fire/smoke?**

- (01) Cigarette, Pipe, Cigar**
- (02) Cooking Unit**
- (03) Heater**
- (04) Wiring**
- (05) Motor Vehicle Battery Caps, Radiator Caps**
- (06) Fireworks**
- (07) Other Explosives**
- (08) Chemicals**
- (09) Other**
- (97) Refused {blind}**
- (99) Don't know {blind}**

## ORIGINAL QUESTION

(FIJ.171) How did {you/participant name} fall? Anything else?

On, down, from or into:

(01) Stairs, steps or Escalator

(02) Floor/level ground

(03) Curb, including sidewalk  
commode

(04) Ladder or scaffolding

(05) Playground equipment

(97) Refused

(99) Don't know

(06) Building or other structure

(07) Chair, bed, sofa or other  
furniture

(08) Bathtub, shower, toilet or

(09) Hole or other opening

(10) Other

### Problems/Concerns:

- Problems are again attributed to the response choices; they are not all-inclusive. Three of the seventeen, thus more than 15% of the respondents, had injuries on/down/from/into some sort of sports field, court or rink, which is not an answer choice.

### Example:

S - "None of them, other...I'd say sports injury. Because he really wasn't using playground equipment, or maybe say playing a sport. I guess technically it would be the ground [but] when I think ground, I'm thinking outside. And since this was inside, it was like astroturf...I think field.

S - "Unless they had injury related, I mean sport's related injury. But that's not there.  
I - How did you fall? On, down, from, or into.

S - I guess that would be -- it has to be other. I see playground equipment, but I wasn't on the playground. I would do sports related injury. It would be on the basketball court."

S - Well, my foot -- I couldn't get my foot up to that -- up to the next level. So, yes, I guess I tripped over the stair and then just landed right on my knee. I probably would say I -- I fell. On stairs. Going up the stairs. But, do you think like you could say on? Well, I guess because you have to be -- that wouldn't pertain to anything else, but -- because it wasn't going down the stairs. It was going up the stairs.

### Solution:

- Add a response option that includes "Sports field, court or rink"

## FINAL QUESTION

(FIJ.130) How did [fill 1: you/ALIAS] fall? Anything else?

On, down, from or into:

(01) Stairs, steps, or escalator

- (02) Floor or level ground**
- (03) Curb (including sidewalk)**
- (04) Ladder or scaffolding**
- (05) Playground equipment**
- (06) Sports field, court, or rink**
- (07) Building or other structure**
- (08) Chair, bed, sofa, or other furniture**
- (09) Bathtub, shower, toilet, or commode**
- (10) Hole or other opening**
- (11) Other**
- (97) Refused {blind}**
- (99) Don't know {blind}**

## ORIGINAL QUESTION

(FIJ.180) What caused {you/participant name} to fall?

- (1) Slipping, tripping or stumbling
- (2) Jumping or diving
- (3) Collision with/pushing, shoving by another person
- (4) Loss of balance/dizziness/becoming faint/seizure
- (5) Or something else
- (7) Refused
- (9) Don't know

### Problems/Concerns:

- The answer choices: slipping, tripping, stumbling, jumping, and diving are not well-defined, and their differences are not well-understood.
- The response categories are again not all-inclusive. As one respondent reports, there is another possibility besides between being shoved by or colliding with another person, which is a collision that involves another object; a response choice that is not currently available.
- One participant admits being offended by this question, claiming that the response choice “slipping, tripping or stumbling” makes him seem clumsy.

### Example:

S - “That question, they all sound alike. It sounds like, you know, semantics...[I would say] slipping, tripping, flipping, whatever.”

S - “It was the first one.

I - Slipping, tripping, and tumbling?

S - Yes.

I - Okay. And how does that question fare with you?

S - I think it was lengthy. I didn't -- when I realized it was the first one, I tried to listen to the other ones to be sure. But, I don't remember really what -- I didn't think the other ones really addressed [my fall]. I just thought there were a lot of words.”

S - “I mean, you dwell on how a person -- if the person trips, they hurt themselves, and you're dwelling on it and then likely the person feels bad, and just reluctant to go ahead and answer anymore questions. Like what stupid thing did you do to hurt yourself. That's the way I got it -- tripping, slipping, tripping -- oh, yes, I was pretty offended.”

### Solution:

- Rewrite the answer choices, using more identifiable words to make it easier to distinguish and less wordy.

## FINAL QUESTION

(FIJ.131) What caused [fill 1: you/ALIAS] to fall? Was it due to:

- (1) Slipping or tripping

- (2) Jumping or diving**
- (3) Bumping into an object or another person**
- (4) Being shoved or pushed by another person**
- (5) Losing balance or having dizziness (becoming faint or having a seizure)**
- (6) Other**
- (7) Refused {blind}**
- (9) Don't know {blind}**

#### **ORIGINAL QUESTION**

**(FIJ.195) Did {your/participant name} poisoning result from:**

- (1) A drug or medical substance used mistakenly or in overdose**
- (2) A harmful or toxic solid or liquid substance**
- (3) Inhaling gases or vapors**
- (4) Eating a poisonous plant or other substance mistaken for food**
- (5) A venomous animal or plant**
- (6) Other**
- (7) Refused**
- (9) Don't know**

#### **Problems/Concerns:**

- As one participant points out, he has a hard time answering the question because the response choices are not mutually exclusive. A harmful combination of liquid substances caused a family member to inhale vapors and become poisoned, and thus the second and third answer choices both apply. Thus, the “poisoning resulted from” inhaling vapors, but the cause of the vapors were harmful liquid substances. The response choices all indicate the producer of the poison, but few actually point to the method of poisoning, which is also very important in this question.

#### **Example:**

S - “I mean, they are harmful, but they're not toxic. Now that I've come to think about it and now that I'm looking at it, inhaled they are toxic and they are harmful, but it was the vapor of the mixture that made her, you know, she inhaled it. I mean, so if anything, you could probably like blend those two questions together almost. Because it's like it's the same thing. I mean, both of them, the mixture was toxic and harmful, and she did inhale the gas, the vapors that it caused.”

#### **Solution:**

- Rewrite the response choices to include the method of poisoning, which should ultimately better distinguish each answer choice from the others.

#### **FINAL QUESTION**

**(FIJ.140) Did [fill 1: your/ALIAS's] poisoning result from:**

- (1) Swallowing a drug or medical substance mistakenly or in overdose**
- (2) Swallowing or touching a harmful solid or liquid substance**

- (3) Inhaling harmful gases or vapors
- (4) Eating a poisonous plant or other substance mistaken for food
- (5) Being bitten by a poisonous animal
- (6) Other, please specify (FIJ.141)
- (7) Refused {blind}
- (9) Don't know {blind}

#### ORIGINAL QUESTION

(FIJ.200) What {were/was} {you/participant name} doing when the injury/poisoning happened?

- |   |   |
|---|---|
| (01) Driving or riding in a motor vehicle   | (08) Sleeping, resting, eating, drinking              |
| (02) Working at paid job  | (09) Cooking  |
| (03) Working around the house or yard   | (10) Being cared for(hands on care from other person) |
| (04) Attending school   | (11) Walking  |
| (05) Unpaid work (incl. housework, shopping, volunteer work)                      | (12) Other  |
| (06) Sports (organized team or individual sport such as running, biking, skating) | (97) Refused  |
| (07) Leisure activity (excluding sports)  | (99) Don't know                                       |

#### Problems/Concerns:

- The phrase “what were you doing when the injury happened” caused one response error; while the participant was riding in a car at the time of an accident, since she was just relaxing in the car at the exact moment of impact, she reported “resting” when asked this question.
- A different participant had trouble stating that she was “driving or riding in a motor vehicle” because she was not driving and does not know *how* to drive; and she, too, does not understand that she can answer for whichever of the “or” statements applies to her
- The answer choice “walking” overlaps most, if not all, of the other answer choices. Since one can be walking while on the job, walking around doing housework, or in the case of one respondent walking after running an errand (and so “other”), the response “Walking” is not very informative for this question and can lead to inaccurate responses.
- Although housework is indeed “unpaid work,” having it as an example of unpaid work, along with it being it’s own category (“working around the house or yard”) causes those response categories to overlap.

#### Examples:

S - “I was resting. Just laid back chilling. Say eight...Sleeping, resting. I was just laid back relaxing enjoying the ride. Trying to get home. That’s when that happened.

I - Is there a reason why you didn't want to say driving or riding in a motor vehicle?

S - I don't know how to drive...What I -- what I was doing at the present time when the crash -- I was riding...seems like number eight is better...Yes, I was laid back, you know, relaxing.”

S - Walking. I guess. I was walking from the car to the house.

I - What are your thoughts here? What's your experience with this question?

S - Well, I didn't think any of my -- what I did fit into this at all. I mean I -- with the walking. I just -- well, the unpaid work, the housework, I would have included cooking with that. But, not (inaudible). I was on two crutches. I was just coming into the house.

I- Would you say other?

S - Yes, you know, I didn't even consider that before. I just -- I think I went down to walking and that was it. Then I was reading the -- because I was trying to figure out like remember what I was doing. Like had we gone out somewhere. But, I was coming back from a doctor's appointment.

### **Solution:**

- Reword the question to ask what *activity* the participant was involved in at the time of the injury/poisoning, not simply what he/she was doing at that exact moment.
- Remove the response category “walking,” and simply add “exercise” to the sports category to encompass recreational walking.
- Remove the “housework” and “shopping” clauses from the examples of unpaid work.
- Add a specify question to the “other specify” category.

### **FINAL QUESTION**

**(FIJ.150) What activity [fill 1: were you/was ALIAS] involved in at the time of the [fill 2: injury/poisoning]?**

- (01) Driving or riding in a motor vehicle**
- (02) Working at a paid job**
- (03) Working around the house or yard**
- (04) Attending school**
- (05) Unpaid work (such as volunteer work)**
- (06) Sports and exercise**
- (07) Leisure activity (excluding sports)**
- (08) Sleeping, resting, eating, or drinking**
- (09) Cooking**
- (10) Being cared for (hands on care from other person)**
- (11) Other, please specify (goto FIJ.151)**
- (97) Refused**
- (99) Don't know**

## ORIGINAL QUESTION

(FIJ.221) Where (were/was) {you/participant name} when the injury/poisoning happened

- |  |  |
|--|--|
| (01) Home (inside)   | (11) Farm  |
| (02) Home (outside)  | (12) Park/recreation area (fields, bike or jog path) |
| (03) School (not residential)  | (13) River/lake/stream/ocean                         |
| (04) Child care center or Preschool  | (14) Industrial or construction area                 |
| (05) Residential institution (excl. hosp.)   | (15) Other public building                           |
| (06) Health care facility (incl. hospital)   | (16) Other   |
| (07) Street/highway  | (97) Refused   |
| (08) Parking lot   | (99) Don't know                                      |
| (09) Sport facility, ath. field or playground  |  |
| (10) Trade and service areas (shopping center, restaurant, store, bank, gas station) |  |

### Problems/Concerns:

- More than one participant reported that his/her injury occurred when he/she was on a sidewalk; not in a road and not yet at a parking lot, but on a walkway made for pedestrians. Also notable, the participant mentioned that oftentimes someone will use the term "street" like in the phrase "I'm going down the street to buy groceries" when they are not actually in a roadway, but to indicate a direction of movement.
- Similarly, the term "trade and service areas" is not commonly used and may be unclear to respondents.

### Example:

S - "No. 10, it says restaurant. Coming out the restaurant...I hadn't made it to the parking lot, never made it to the parking lot. See, because the door -- this side is like, you know, right to the street with the traffic light and all that, the back side is the parking lot. I don't have no need to go that way because I didn't have no car...[the restaurant is] where I was coming from, I wasn't but about three, four feet away from there when it happened...I was still on their property."

S - "I guess -- it says street, but I wasn't out in the roadway. I was on the sidewalk like I said. I don't know be under other or 16 or seven. When they say street, they mean walking out in the -- in the roadway? Some people think the street is out in the road. Depending on what part of the country you're in. Now, if I -- now, if I was -- if I was up in New York City -- and I said I was out in the street, I could be on the sidewalk there or out in the roadway. I was born and grewed up in New York. So, I remember I -- I'd say to my mother that I'm going out. I'm going down in the street."

**Solution:**

- Add in the response choice “sidewalk.”
- Rename the phrase “trade and service areas.”
- Remove “field” from park and recreation category.

**FINAL QUESTION**

**(FIJ.160) Where [fill 1: were you/was ALIAS] when the [fill 2: injury/poisoning] happened?**

- (01) Home (inside)
- (02) Home (outside)
- (03) School (not residential)
- (04) Child care center or preschool
- (05) Residential institution (exclude hospital)
- (06) Health care facility (include hospital)
- (07) Street or highway
- (08) Sidewalk
- (09) Parking lot
- (10) Sport facility, athletic field, or playground
- (11) Shopping center, restaurant, store, bank, gas station, or other place of business
- (12) Farm
- (13) Park or recreation area (such as a bike or jog path)
- (14) River, lake, stream, or ocean
- (15) Industrial or construction area
- (16) Other public building
- (17) Other
- (97) Refused
- (99) Don't know

## ORIGINAL QUESTION

(FIJ.26) As a result of this injury/poisoning, how much work did {you/participant name} miss?

- (1) Not employed at the time of the injury/poisoning
- (2) None
- (3) Less than 1 day
- (4) One to five days
- (5) Six or more days
- (7) Refused
- (9) Don't know

### Problems/Concerns:

- This question attempts to find out if the respondent was employed at the time of the injury (via the response option “not employed at the time of the injury,” as well as the number of days missed. From the respondents point of view, however, the question itself assumes that the he/she was employed at the time of the injury, and it is highly possible that the unemployed or retired respondent would answer “none” (because, indeed, they did not miss any days of work)—especially if they answer before hearing the response categories.

### Example:

S - “None, I'm not employed at the time, so that would be none.”

### Solution:

- By screening the respondents and determining their level of employment before asking the amount of work missed, one will be able to bypass the issue of amount missed for those who were unemployed, and get a better sense of impact of the injury on the participant's work based on their previous work schedule.

\*\*After 9 interviews, these recommendations were implemented and the new wording was tested

### Test Solution:

*At the time of your injury, were you employed full-time, part-time, or not employed?*

*At the time of your injury, were you a full-time student, a part-time student, or not a student?*

## FINAL QUESTION

(FIJ.170, FIJ.171) At the time of this [fill 1: injury/poisoning], [fill 2: were you/was ALIAS] employed full-time, part-time, or not employed?

- (1) Full-time (FIJ.171)
- (2) Part-time (FIJ.171)
- (3) Not employed (FIJ.180)

- (7) Refused {blind} (FIJ.180)
- (9) Don't know {blind} (FIJ.180)

As a result of this [fill 1: injury/poisoning], how many days of work did [fill 2: you/ALIAS] miss?

- (1) None
- (2) Less than 1 day
- (3) One to five days
- (4) Six or more days
- (7) Refused {blind}
- (9) Don't know {blind}

#### ORIGINAL QUESTION

(FIJ.270) As a result of this injury/poisoning, how much school did {you/participant name} miss?

- (1) Not in school at the time of the injury/poisoning
- (2) None
- (3) Less than 1 day
- (4) One to five days
- (5) Six or more days
- (7) Refused
- (9) Don't know

#### Problems/Concerns:

- The core question, like above, assumes that the respondent was in school at the time of the injury. The answer choices are too similar and can lead to response errors.

#### Example:

S - He is a student, but he was not at school when this happened. So, he is a student, but this did not happen with a school sponsored event. He was not being a student at the time. Okay. Now, see -- since you went from asking where it happened to this, I thought you were leading that direction, to happen at school. I would just say is this person a full-time student. [At the time of his injury] makes me think, at the time of his injury, was he a student, meaning was he at school. That's how I interpret it, was he at school at the time of injury. I mean, that's immediately what I thought because our insurance company calls all the time, and they ask where was he when it happened, and they always want to know if it's at school or not. They keep calling me and asking me where this injury happened.

#### Solution:

- Like the question discussed earlier about days of work missed, by screening the respondents and determining their status in school (i.e., part-time student, full-time student, not a student at the time of the injury) before asking the amount of school missed, one will be able to bypass the issue for those who were not in

school, and get a better sense of impact of the injury on the participant's school attendance based on their previous school schedule.

#### **FINAL QUESTION**

**(FIJ.180, FIJ.181) At the time of this [fill 1: injury/poisoning], [fill 2: were you/was ALIAS] a full-time student, part-time student or not a student?**

- (1) Full-time**
- (2) Part-time**
- (3) Not a student**
- (7) Refused {blind}**
- (9) Don't know {blind}**

**As a result of this [fill 1: injury/poisoning], how many days of school did [fill 2: you/ALIAS] miss?**

- (1) None**
- (2) Less than 1 day**
- (3) One to five days**
- (4) Six or more days**
- (7) Refused {blind}**
- (9) Don't know {blind}**

#### **ORIGINAL QUESTION**

**(FIJ.280) As a result of this injury/poisoning {do/does} {you/participant name} now need the help of other persons with {your/his/her} personal care needs, such as eating, bathing, dressing or getting around this home?**

- (1) Yes (FIJ.285)**
- (2) No (FIJ.290)**
- (7) Refused (FIJ.290)**
- (9) Don't know (FIJ.290)**

#### **Problems/Concerns:**

- This question is not an objective assessor of the severity of the injury, since *now* needing the help of other persons with personal care needs is more an issue of how long ago the injury occurred than anything else. Many participants answered "no" to this question, but when further probed, readily admitted that they needed the stated help at and for a while after the injury occurred, sometimes for as much as two and a half months.

#### **Example:**

- S - "No. When it was still bothering me."
- I - At that time, you did?
- S - "Oh, yes."

S - "Not anymore.

I- But, you did?

S - Oh, for sure, for sure.

I - For how long after the injury would you say you needed help with your personal care needs like that?

S - Oh, geez, probably, well, three and a half weeks, and then one week, so I mean it was a good two weeks I had family and friends help. So, I would say probably two and a half months, including the hospitalization."

**Solution:**

- Change the question to read "As a result of this injury DID you need the help..." to get a more meaningful, comparable number among the respondents.

\*\*After 10 interviews these recommendations were implemented and tested on subsequent participants

**FINAL QUESTION**

Although the QDRL reworded to question to better measure what was intended, for matters more practical, the NHIS review committee recommend and the injury/poisoning participant matter staff determined that the question should be dropped.

**As a result of this injury, did you need the help of other persons with your personal care needs, such as eating, bathing, dressing, or getting around the house?**

- |                       |                  |
|-----------------------|------------------|
| <b>(1) Yes</b>        | <b>(FIJ.285)</b> |
| <b>(2) No</b>         | <b>(FIJ.290)</b> |
| <b>(7) Refused</b>    | <b>(FIJ.290)</b> |
| <b>(9) Don't know</b> | <b>(FIJ.290)</b> |

### ORIGINAL QUESTION

(FIJ.285) Do you expect {you/participant name} will need this help for a total of 6 months or longer?

- (1) Yes
- (2) No
- (7) Refused
- (9) Don't know

### Problems/Concerns:

- The question asked respondents to predict into the future.
- (None of the participants were currently receiving any help, so the question did not apply and solicited no insightful information.)

### Solution:

- Because of the speculative nature of the question, it is suggested that the question be removed.

### ORIGINAL QUESTION

(FIJ.290) As a result of this injury/poisoning {do/does} {you/participant name} now need the help of other persons in handling routine needs such as everyday household chores, doing necessary business, shopping or getting around for other purposes?

- (1) Yes (FIJ.295)
- (2) No (FIJ.040/FAU.010)
- (7) Refused (FIJ.040/FAU.010)
- (9) Don't know (FIJ.040/FAU.010)

### Problems/Concerns#1:

- Most respondents thought this question referred to activities done *outside*, mostly errands run outside of the home, despite the clause "...such as everyday household chores...".
- Like above, this question does not provide much information regarding the severity of injuries/poisonings and how they have affected participants' ability to perform routine needs, since *now* needing the help of other persons with routine needs is more an issue of how long ago the injury occurred. Many participants answered "no," but when further probed, readily admitted that they needed help at the time of and for a while after the injury.

### Example:

I - Okay. And as a result of this injury, do you now need the help of other persons in handling routine needs? Such as everyday household chores, doing necessary business, shopping?

S - No, it's all healed up.

I - At the time, did you need any help with any of those things?

S - Well, like I said, anything. If I dropped something, I usually ask the wife to pick it up there and getting in and out of a car was -- you could feel it.

**Solution:**

- Like above, change this question to read “As a result of this injury DID you need the help...” to get a more meaningful, comparable number among the respondents.

**Problems/Concerns #2:**

- Some experimenting was done to determine the best way to order the “personal needs” and “everyday routine needs” questions. In some cases, participants were asked the “personal needs” question before that of routine-needs, in other cases the two were switched. It was determined that the questions would be best kept as-is, with the “personal needs” question being asked before the “routine needs,” since participants don’t have a good sense of what a “everyday routine need is,” but have a better grasp on the idea of personal needs – and once they have responded to the personal needs question, they know what is considered a personal need, and thus what must be considered a “routine need.”
- As one participant pointed out, “doing necessary business” sometimes refers to performing personal care. If personal care needs are addressed before everyday routine needs, then the participant has a better chance of knowing what needs/business fall under what category.

**Example:**

I - I: ... did [he] need the help of other persons in handling routine needs, such as everyday household chores, doing necessary business, shopping or getting around for other purposes?

S - “Yes. At school, somebody at first helped him carry his books. They let him out of class early so he wouldn’t be in the hall when it was crowded. I don’t know if that qualifies for that category or not. Those are the accommodations he had at school. I had to bathe him and cut up his food at first. He was unable to do any household chores, so they had to be done for him for months. Which he’s just starting to have to do again. He was complaining. Take the recycling out. Oh, my arm.

I - Okay, so for this question, you’re thinking of...

S - Personal care, I guess.

S - “I think maybe -- Necessary business could be interpreted as using the toilet. Yes, necessary. I mean, sometimes people think doing the necessary things is personal hygiene. I can’t tell you how many patients talk about having a bowel movement. They refer to it as doing their business.”

**Solution:**

- Maintain the current order of questions, with help with “personal care needs” assessed before help with “routine needs.”

## **FINAL QUESTION**

(Although the QDRL reworded to question to better measure what was intended, for matters more practical, the NHIS review committee recommend and the injury/poisoning participant matter staff determined that the question should be dropped.)

**FIJ.200 As a result of this [fill 1: injury/poisoning] did [fill 2: you/ALIAS] need the help of other persons in handling routine needs such as everyday household chores, doing necessary business, shopping or getting around for other purposes?**

- (1) Yes**
- (2) No**
- (7) Refused**
- (9) Don't know**

## APPENDIX A Original Questionnaire

### NHIS INJURY AND POISONING MODULE

In this next set of questions, I will ask about INJURIES AND POISONINGS that happened in the PAST THREE MONTHS that REQUIRED MEDICAL ADVICE OR TREATMENT, including calls to a poison control center.

>FIJ3M<

FIJ.010

DURING THE PAST THREE MONTHS, that is since {91 days before today date}, {were/was} {you/anyone in the family} injured or poisoned seriously enough that {you/they} got medical advice or treatment?

- (1) Yes (FIJ.020)
- (2) No (FAU.010)
- (7) Refused (FAU.010)
- (9) Don't Know (FAU.010)

FIJ.020

Who was this? (Anyone else?)

>IJNO3M<

FIJ.030

How many different times in the PAST 3 MONTHS were you injured or poisoned seriously enough to seek medical advice or treatment?

(01-91)\_\_\_\_\_ Times

>IJDATNEW<

FIJ.041

**[If only 1 injury/poisoning ]**

When did {your/subject name} injury/poisoning happen?

MONTH:  
DAY  
YEAR

**FR: IF EXACT DATE UNKNOWN, ASK NEXT QUESTION**

How long ago did {your/subject name} injury/poisoning happen?

- |                 |                 |
|-----------------|-----------------|
| @NO Number      | @TP Time Period |
| (01-91) 01-91   | (1) Days ago    |
| (97) Refused    | (2) Weeks ago   |
| (99) Don't know | (3) Months ago  |
|                 | (7) Refused     |
|                 | (9) Don't know  |

Goto FIJ.045

**[If more than 1 injury/poisoning]**

Now I'm going to ask a few questions about {your/subject name} most recent injury/poisoning. When did it happen?

MONTH:  
DAY  
YEAR

**FR: IF EXACT DATE UNKNOWN, ASK NEXT QUESTION**

How long ago did {your/subject name} injury/poisoning happen?

- |            |                 |
|------------|-----------------|
| @NO Number | @TP Time Period |
|------------|-----------------|

- (01-91) 01-91
- (97) Refused
- (99) Don't know

- (1) Days ago
- (2) Weeks ago
- (3) Months ago
- (7) Refused
- (9) Don't know

We just talked about {your/subject name} injury/poisoning on {recent injury date} that happened {number of days, weeks or months ago}. When did {your/subject name} injury/poisoning BEFORE THAT one happen?

MONTH:  
DAY  
YEAR

**FR: IF EXACT DATE UNKNOWN, ASK NEXT QUESTION**  
How long ago did {your/subject name} injury/poisoning happen?

@NO Number

@TP Time Period

- (01-91) 01-91
- (97) Refused
- (99) Don't know

- (1) Days ago
- (2) Weeks ago
- (3) Months ago
- (7) Refused
- (9) Don't know

>IJMED2<  
FIJ.045

**FR: ASK. SHOW FLASHCARD F2A. MARK ALL THAT APPLY**  
**ENTER (N) FOR NO MORE.**

Where did {you/subject name} receive MEDICAL ADVICE OR TREATMENT for this injury/poisoning? Anywhere else?

- (1) Did not receive medical treatment or advice (FIJ.046)
- (2) Phone call to doctor or health care professional
- (3) Phone call to Poison Control Center
- (4) Visit to Doctor's Office
- (5) Visit to Clinic or Outpatient department
- (6) Visit to Emergency department
- (97) Refused
- (99) Don't know

FIJ.046

[If Did not receive medical treatment or advice]

**FR: Please verify:**

{You / subject name} DID NOT receive any medical treatment or advice for this injury/poisoning - even a phone call to a doctor's office or other health care professional for advice. Is that correct?

- (1) Yes [go to next injury/poisoning or if no others exit section]
- (2) No [Proceed]

>IJHOSP>  
FIJ.047

{Was/Were} {you/subject name} hospitalized for at least one night as a result of this injury/poisoning/these injuries/poisonings?

- (1) Yes (FIJ.048)
- (2) No (FIJ.050)
- (7) Refused (FIJ.050)
- (9) Don't know (FIJ.050)

>IHNO<  
FIJ.048

How many nights {were/was} {you/subject name} in the hospital?

**FR: IF "STILL IN HOSPITAL," ASK HOW MANY NIGHTS UP TO TODAY.**

- (01-94) 01-94 nights
- (95) 95+ nights
- (97) Refused
- (99) Don't know

>IJTYPE<  
FIJ.050

At the time of the injury/poisoning, what part(s) of {your/subject name} body was/were hurt? What kind of injury/poisoning was it? Anything else?

**FR: RECORD THE BODY PART, THEN THE KIND OF INJURY. RECORD UP TO FOUR PART/KIND COMBINATIONS. FOR POISONINGS AFFECTING THE WHOLE BODY, INDICATED "WHOLE BODY" UNDER BODY PART AND SUBSTANCE CAUSING THE POISONING UNDER KIND OF POISONING.**

Body Part	Kind of Injury or Poisoning
_____	_____
_____	_____
_____	_____
_____	_____

>IJHOW<  
FIJ.070

**FR: VERIFY OR ASK:**

How did {your/subject name} injury/poisoning happen? Please describe fully the circumstances or events leading to the injury/ poisoning, and any object, substance, or other person involved.

**FR: ENTER THE VERBATIM RESPONSE, PROBING FOR AS MUCH DETAIL AS POSSIBLE, INCLUDING SPECIFICALLY WHAT THE PERSON WAS DOING AT THE TIME AND ALL CIRCUMSTANCES SURROUNDING THE EVENT.**

**RECORD ALL VOLUNTEERED INFORMATION.**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

>CAUSNEW<

FIJ.080

**FR: ENTER THE FIRST APPROPRIATE BOX WHICH DESCRIBES THE CAUSE OF THE PERSON'S INJURY/ POISONING FROM THE LIST BELOW.**

- (01) Transportation, including motor vehicle/bicycle/scooter/motorcycle  
/pedestrian/train/boat/airplane (FIJ.090)
- (02) Fire/burn/scald related (FIJ.150)
- (03) Fall (FIJ.171)
- (04) Poisoning (FIJ.195)
- (05) Overexertion / strenuous movements (FIJ.200)
- (06) Struck by/against object or person (FIJ.200)
- (07) Animal or insect bite (FIJ.200)
- (08) Cut/pierce (FIJ.200)
- (09) Machinery (FIJ.200)
- (10) Other (FIJ.200)
- (97) Refused (FIJ.200)
- (99) Don't know (FIJ.200)

**FR: THE NEXT SET OF QUESTIONS ARE ASKED TO VERIFY DETAILS OF THE CIRCUMSTANCES SURROUNDING THE INJURY(S). IF YOU ALREADY KNOW THE ANSWER BECAUSE OF THE VERBATIM RESPONSE FOR HOW THE INJURY(S) OCCURRED, VERIFY THE ANSWER WITH THE RESPONDENT. OTHERWISE, ASK THE QUESTION.**

>MVWHO<

FIJ.090

{ Were/Was } { you/subject name } injured as the driver of a vehicle, a passenger in a vehicle, a bicycle rider, or as a pedestrian?

- (1) Driver of a vehicle (FIJ.100)
- (2) Passenger of a vehicle (FIJ.100)
- (3) Bicycle rider (FIJ.130)
- (4) Pedestrian (FIJ.140)
- (7) Refused (FIJ.200)
- (9) Don't know (FIJ.200)

>MVTYP<

FIJ.100

What type of vehicle { were/was } { you/subject name } in?

- (01) Passenger car (FIJ.121)
- (02) Light truck (including pickups, vans and utility vehicles/SUVs) (FIJ.121)
- (3) Large truck (FIJ.121)
- (4) Motorcycles (including mopeds,minibikes) (FIJ.130)
- (5) All terrain vehicle or ski/snow-mobile (FIJ.130)
- (6) Other (FIJ.200)
- (7) Refused (FIJ.200)
- (8) Don't know (FIJ.200)

>**SBELTNEW**<

FIJ.121 {Were/Was} {you/subject name} restrained at the time of the accident? That is, wearing a safety belt or in a car safety seat.

- (1) Yes, using a safety belt
- (2) Yes, using a safety seat (including booster seat)
- (3) No
- (7) Refused
- (9) Don't know

@ (FIJ.141)

>**HELMT**<

FIJ.130 **FR: VERIFY OR ASK:** {Were/Was} {you/subject name} wearing a helmet at the time of the accident?

- (1) Yes
- (2) No
- (7) Refused
- (9) Don't know

@ (FIJ.141)

>**MVHIT**<

FIJ.140 **FR: VERIFY OR ASK: [Only ask of Pedestrians]** What type of vehicle {were/was} {you/subject name} struck by?

- (01) Passenger car
- (02) Light truck (including pickups, vans and utility vehicles)
- (03) Bus
- (04) Large truck
- (05) Motorcycle (including mopeds and minibikes)
- (06) All terrain vehicle or ski or snow-mobile
- (07) Farm equipment (tractor)
- (08) Bicycle
- (09) Train
- (10) Boat (includes all on water vehicles)
- (11) Other
- (97) Refused
- (99) Don't know

(Go to FIJ.200)

>MVHITD<  
FIJ.141

**FR: VERIFY OR ASK: [Ask of Drivers and Bicycle riders]**

What type of vehicle struck {your/subject's name} vehicle or what type of vehicle did {you/subject's name} strike?

- (00) No other vehicle involved
- (01) Passenger car
- (02) Light truck (including pickups, vans and utility vehicles)
- (03) Bus
- (04) Large truck
- (05) Motorcycle (including mopeds and minibikes)
- (06) All terrain vehicle or ski or snow-mobile
- (07) Farm equipment (tractor)
- (08) Bicycle
- (09) Train
- (10) Boat (includes all on water vehicles)
- (11) Other
- (97) Refused
- (99) Don't know

(Go to FIJ.200)

>BURN<  
FIJ.150

What was it that burned/scalded {you/subject name}?

**FR: IF RESPONSE IS FIRE OR SMOKE ASK:**

What caused the fire/smoke?

- (1) Cooking unit
- (2) Heater
- (3) Water or steam
- (4) Food
- (5) Chemicals
- (6) Other
- (7) Refused
- (9) Don't know

(Go to FIJ.200)

>FALLNEW< **FR: VERIFY OR ASK. SHOW FLASHCARD F3. RECORD UP TO 2 RESPONSES:  
ENTER (N) FOR NO MORE.**

FIJ.171 How did {you/subject name} fall? Anything else?

On, down, from or into:

- |                                 |  |
|---------------------------------|--|
| (01) Stairs, steps or Escalator | (06) Building or other structure         |
| (02) Floor/level ground         | (07) Chair, bed, sofa or other furniture |
| (03) Curb, including sidewalk   | (08) Bathtub, shower, toilet or commode  |
| (04) Ladder or scaffolding      | (09) Hole or other opening               |
| (05) Playground equipment       | (10) Other                               |
|                                 | (97) Refused                             |
|                                 | (99) Don't know                          |

>FWHY<  
FIJ.180

What caused {you/subject name} to fall? Was it due to:

- (1) Slipping, tripping or stumbling
- (2) Jumping or diving
- (3) Collision with/pushing, shoving by another person
- (4) Loss of balance/dizziness/becoming faint/seizure
- (5) Or something else
- (7) Refused
- (9) Don't know

(Go to FIJ.200)

>POITP<  
FIJ.195

**FR: SHOW FLASHCARD F4.**

Did {your/subject name} poisoning result from:

- (1) A drug or medical substance used mistakenly or in overdose
- (2) A harmful or toxic solid or liquid substance
- (3) Inhaling gases or vapors
- (4) Eating a poisonous plant or other substance mistaken for food
- (5) A venomous animal or plant
- (6) Other
- (7) Refused
- (9) Don't know

(Go to FIJ.200)

**>WHAT< FR: VERIFY OR ASK. SHOW FLASHCARD F5. RECORD UP TO 2 RESPONSES:  
ENTER (N) FOR NO MORE.**

FIJ.200 What {were/was} {you/subject name} doing when the injury/poisoning happened?

- (01) Driving or riding in a motor vehicle
- (02) Working at paid job
- (03) Working around the house or yard
- (04) Attending school
- (05) Unpaid work (incl. housework, shopping, volunteer work)
- (06) Sports (organized team or individual sport such as running, biking, skating)
- (07) Leisure activity (excluding sports)
- (08) Sleeping, resting, eating, drinking
- (09) Cooking
- (10) Being cared for(hands on care from other person)
- (11) Walking
- (12) Other
- (97) Refused
- (99) Don't know

(Go to FIJ.221)

**>WHERENEW< FR: VERIFY OR ASK. SHOW FLASHCARD F6. RECORD UP TO 2 RESPONSES:  
ENTER (N) FOR NO MORE.**

FIJ.221 Where (were/was) {you/subject name} when the injury/poisoning happened?

- (01) Home (inside)
- (02) Home (outside)
- (03) School (not residential)
- (04) Child care center or Preschool
- (05) Residential institution (excl. hosp.)
- (06) Health care facility (incl. hospital)
- (07) Street/highway
- (08) Parking lot
- (09) Sport facility, ath. field or playground
- (10) Trade and service areas (shopping center, restaurant, store, bank, gas station)
- (11) Farm
- (12) Park/recreation area (fields, bike or jog path)
- (13) River/lake/stream/ocean
- (14) Industrial or construction area
- (15) Other public building
- (16) Other
- (97) Refused
- (99) Don't know

(Go to FIJCCI1)

**Check item FIJCCI1: If AGE > 13 then goto WKLS;  
Else if AGE > 4 and AGE < 14 then goto SCLS;  
Else if AGE < 5 then return to IJDATE (FIJ.041) for next (injury/poisoning) event or next person.  
When there are no more persons with (injury/poisoning) events,  
go to FDMED12M(FAU.010)**

>WKLS<  
FIJ.260

**FR: SHOW FLASHCARD F7.**

As a result of this injury/poisoning, how much work did {you/subject name} miss?

- (1) Not employed at the time of the injury/poisoning
- (2) None
- (3) Less than 1 day
- (4) One to five days
- (5) Six or more days
- (7) Refused
- (9) Don't know

(Go to FIJ.270)

>SCLS<  
FIJ.270

**FR: SHOW FLASHCARD F8.**

As a result of this injury/poisoning, how much school did {you/subject name} miss?

- (1) Not in school at the time of the injury/poisoning
- (2) None
- (3) Less than 1 day
- (4) One to five days
- (5) Six or more days
- (7) Refused
- (9) Don't know

<IJADL<  
FIJ.280

As a result of this injury/poisoning {do/does} {you/subject name} now need the help of other persons with {your/his/her} personal care needs, such as eating, bathing, dressing or getting around this home?

- (1) Yes (FIJ.285)
- (2) No (FIJ.290)
- (7) Refused (FIJ.290)
- (9) Don't know (FIJ.290)

>LIMTM<  
FIJ.285

Do you expect {you/subject name} will need this help for a total of 6 months or longer?

- (1) Yes
- (2) No
- (7) Refused
- (9) Don't know

>JIAD<  
FIJ.290

As a result of this injury/poisoning {do/does} {you/subject name} now need the help of other persons in handling routine needs such as everyday household chores, doing necessary business, shopping or getting around for other purposes?

- (1) Yes (FIJ.295)
- (2) No (FIJ.040/FAU.010)
- (7) Refused (FIJ.040/FAU.010)
- (9) Don't know (FIJ.040/FAU.010)

>HLIMT<  
FIJ.295

Do you expect {you/subject name} will need this help for a total of 6 months or longer?

- (1) Yes (FIJ.040/FAU.010)
- (2) No (FIJ.040/FAU.010)
- (7) Refused (FIJ.040/FAU.010)
- (9) Don't know (FIJ.040/FAU.010)

**If more injuries/poisonings go to FIJ.041 and ask whole set for next injury/poisoning up to 10 total**

## **CARD F2A**

*You may choose more than one.*

- 1. Did not receive medical treatment or advice**
- 2. Phone call to doctor or health care professional**
- 3. Phone call to Poison Control Center**
- 4. Visit to Doctor's Office**
- 5. Visit to Clinic or Outpatient department**
- 6. Visit to Emergency department**

## **CARD F3**

*You may choose more than one.*

**On or down from or into:**

- 1. Stairs, steps or escalator**
- 2. Floor/Level ground**
- 3. Curb, including sidewalk**
- 4. Ladder or scaffolding**
- 5. Playground equipment**
- 6. Building or other structure**
- 7. Chair, bed, sofa, or other furniture**
- 8. Bathtub, shower, toilet or commode**
- 9. Hole or other opening**
- 10. Other**

## **CARD F4**

- 1. A drug or medical substance used mistakenly or in overdose**
- 2. A harmful or toxic solid or liquid substance**
- 3. Inhaling gases or vapors**
- 4. Eating a poisonous plant or other substance mistaken for food**
- 5. A venomous animal or plant**
- 6. Something else**

## CARD F5

1. Driving or riding in a motor vehicle
2. Working at a paid job
3. Working around the house or yard
4. Attending school
5. Unpaid work (including, housework, shopping, volunteer work)
6. Sports (organized team or individual sport such as running, biking, skating)
7. Leisure activity (excluding sports)
8. Sleeping, resting, eating, drinking
9. Cooking
10. Being cared for (hands-on care from other person)
11. Walking
12. Other

## CARD F6

1. Home (inside)
2. Home (outside)
3. School (not residential)
4. Child care center or Preschool
5. Residential institution (excluding hospital)
6. Health care facility (including hospital)
7. Street/highway
8. Parking lot
9. Sport facility, athletic field or playground
10. Trade and service areas (shopping center, restaurant, store, bank, gas station)
11. Farm
12. Park/recreation area (fields, bike or jog path)
13. River/lake/stream/ocean
14. Industrial or construction area
15. Other public building
16. Other

## CARD F7

Not employed at the time of  
the injury/poisoning

None

Less than 1 day

1 to 5 days

6 or more days

## CARD F8

Not in school at the time of  
the injury/poisoning

None

Less than 1 day

1 to 5 days

6 or more days

## APPENDIX B

### Comparing Time Averages for the Two Questionnaires

QDRL Staff: Alison Malmon, Kristen Miller, Karen Whitaker  
5/29/02

Method: Fifty mock interviews were conducted to obtain comparable time averages for the two questionnaires:

- 1) the current fielded version of the P/I section, and
- 2) the NCHS proposed version with all dimensions of the initial screener question (injury/poison, proxy/self report, medical attention) unpacked into separate questions.

Interview participants were given a short scenario describing the details of a poisoning or an injury and were asked to base their answers on the particular scenario. For comparability, each scenario was used once on each set of questions. To prevent bias that may occur with participants' familiarity with a particular scenario, each trial was timed using the scenario with a different participant. Response errors arising from problematic or vague questions were also documented.

Findings: The attached chart illustrates the time needed to complete both modules for each scenario. The time needed to respond to the fielded questions ranged from 0:22 to 6:38, depending on the circumstances of the particular scenario. The time needed to respond to the proposed questions (using the same scenarios) ranged from 1:00 to 6:42. The additional screener questions in the proposed questionnaire added approximately 35 seconds to the interview time for those who had no injuries or poisonings.

It should be noted that the a primary goal for cognitive testing was to identify and correct questions that added to interviewer burden. Consequently, the proposed questions (particularly, those questions after the initial screener questions) are much more efficient than those in the fielded version. Therefore, the proposed module, even though it contains more questions, does not add a great deal of time (in some cases the proposed version took less time than the fielded version). The average time differences between the two questionnaires was 10.8 seconds more for the proposed questionnaire.

Particularly noteworthy, with the dimension of proxy/self report now collapsed back into the initial screener question (as is presented in the NCHS proposed questions) 8 questions were eliminated, cutting the screening section in half. While no time trials were actually taken on this collapsed version, it is expected that this set of proposed questions will average less time than the version currently in the field.

Consistent with findings from the cognitive interviews, more response errors were identified in the fielded version of the questionnaire than in the proposed version. The

proposed questionnaire yields more accurate, specific, comprehensive results, especially in terms of the exact place and type of injury that occurred to the body, and the exact types of medical professionals who were involved in a particular instance. For questions such as “where did you/participant name receive medical advice or treatment for this injury/poisoning?” respondents to the fielded questionnaire in a few instances left out follow-up care or ambulance-rides, both of which were part of the detailed scenario. In real life, these false negatives may in fact translate into more “fumbling time” as respondents spend time trying to figure out what is the correct answer for the question, and thus an increase in overall response time for the module. Since the scenarios were so explicitly “spelled out” in this experiment, it is believed that respondents were much more confident in their yes/no answers (although some answers were indeed incorrect), since the questions/answer choices did not correspond exactly to what was written as their scenario.

#	Scenario	Time – Fielded Questions	Respon se Errors		Time – Proposed Questions	Respon se Errors	Time Differences Btw. Fielded and Proposed Questions
1	<b>No Injury or Poisoning</b>	0:26			1:00		+0:34
2	<b>No Injury or Poisoning</b>	0:22			1:07		+0:45
4	<u>Self report</u> <b>transportation accident</b> (pedestrian hit by a car)	5:56	3		6:02		+0:06
5	<u>Self-report</u> <b>transportation accident</b> (pedestrian hit by a car)	4:26			5:18		+0:52
6	<u>Self-report</u> <b>transportation accident</b> (car hit car)	6:16	2		5:23		-0:53
7	Self-report <b>transportation accident</b> (car hit car)	5:45			4: 44		-1:01
8	<u>Proxy-report</u> <b>transportation accident</b> (car hit bicycle)	5:15			5:28		+0:13
9	<u>Proxy-report</u> <b>transportation accident</b> (car hit bicycle)	6:13			6:24		+0:11
10	<u>Self-report</u> <b>Burn</b>	6:08			6:06		-0:02
11	<u>Self-report</u> <b>Burn</b>	5:55			5:20		-0:35
12	<u>Proxy-report</u> <b>Burn</b>	5:34	63		6:01		+0:27
13	<u>Proxy-report</u> <b>Burn</b>	4:00			5:49		+1:49

Time Range for Fielded Questions= 0:22 to 6:38  
Time Range for Proposed Questions= 1:00 to 6:42  
Average of Time Differences= +0:10.8

## APPENDIX C

May 2002

Letter to OMB Desk Officer Lauren Wittenberg regarding recruitment for the Poison and Injury cognitive testing project.

Hi Lauren—

At your request, I wanted to give you an update on the Poison and Injury cognitive testing project.

As you may recall, we chose to use two different advertisements because the project had two (almost opposing) objectives: 1) to properly test all injury and poisoning questions, which meant recruiting participants with specific types of injuries (i.e. those with cuts and bruises, broken bones, sprains, burns as well as, those who fell, had a medication overdose, and were in traffic accidents) and 2) to identify interpretations of the terms “injuries” and “poisonings.” You may also recall that one of the main goals of the testing project was to attempt to understand why NHIS estimates of poisons and injuries are much lower than other estimates. Because the primary question providing that estimate used no definition of terms (“During the past three months, that is since {date} was anyone in the family injured or poisoned seriously enough that they got medical advice or treatment?”), it was essential to explore how potential respondents were understanding those terms. Advertisement A (see attachment), we surmised, would recruit participants with the needed injuries, but might also bias their understanding of the terms “injuries” and “poisonings” for the interview. There was a chance that Advertisement B would not recruit participants with the needed injuries, but it would, however, recruit participants with little idea of how survey designers intended the key terms to be conceptualized. We believed that use of both ads would provide the best recruitment pool for meeting both objectives.

The advertisements were placed in two newspapers, Advertisement A in The Washington Post and Advertisement B in the Washington Times. Additionally, a poster (using Advertisement A) was placed in the lobby of our building near the Kaiser health clinic. Finally, we planned to rely on our database of past participants should we need to recruit more participants who had no previous exposure to our interpretation of the words “injuries” and “poisonings.”

Through this advertising effort, we received a total of 35 phone calls expressing an interest to participate. We received 31 phone calls of interest from persons who had seen the Washington Post advertisement inviting those who were “injured or poisoned” to participate, but only 3 phone calls from the Washington Times advertisement that listed injury types; one participant responded to the poster near the health clinic that also listed categories of injuries. Because we had received so few calls from the longer ad in the Times, we re-advertised that same ad in the Washington Post two weeks later.

From this second round of advertising, we received 34 total calls of interest (3 of those 34 callers had also responded to the first round using advertisement A).

From the first round of advertising, nine interviews were conducted—one from the Times’ Advertisement A, six from Post’s Advertisement B, one from the poster’s Advertisement A, and one from the QDRL participant database. Because 7 of the 9 participants had been recruited with only the words “injury” and “poison,” we were able to explore interpretations of the key terms and begin to understand that the terms “injury” and “poisoning,” with no definition or presenting examples, could easily be understood as “life-threatening” or “life-altering” traumas.” Consequently, we were able to establish, relatively soon into the interviews, that the question’s lack of definition was a serious potential problem and, most likely, is leading to (at least some) false negative reporting. To be more specific, through analysis of these first 9 cognitive interviews, we identified six potential avenues that could lead a respondent to a false negative response:

- Respondent has too strict definition of the word “injury”
- Respondent has too strict definition of the word “poison”
- Respondent did not hear the term “got medical advice”
- Respondent did not hear the term “poison”
- Respondent has too strict definition of “medical treatment”
- Respondent has trouble with recalling other family members’ injuries

As a result, we re-structured the initial screener question so that the question was unpacked into the various components of the question, embedding definitions and relevant examples into the questions themselves (e.g. “During the past three months, that is since {date} did you have an injury where any part of your body was hurt, for example, with a broken bone, sprain, burn, wound, cut, bruise, or animal or insect bite?” Did you talk to or see a medical professional about any of these injuries?”).

With participants who were recruited through the second round of advertising (of which interviews are currently being conducted), we are able to more fully test the questions that require the specific injuries. As was expected, many more calls from those who had injuries and poisonings that fit survey designers specifications came from those who had seen the longer ad. A comparison of the types of injuries recruited from the two types of advertisements confirms our expectations for recruitment:

Calls Responding to Two Washington Post Advertisements:

	Listed Categories	“Injured or Poisoned”	
Broken bones	17		8
Cuts and bruises	15	11	
Burns	3	0	
Medication overdose	1		0
Food poisoning (is not to count as “poisoning”)	1	4	

While most callers responding to the shorter ad referred to a particular traumatic event or were unsure if their event “really counted as an injury,” those who had seen the longer advertisement easily placed themselves within the proper category. This cursory “experiment” in advertising also helps to confirm our findings from the interviews—that it is necessary to provide definitions and relevant examples in poison and injury screener questions.

Thank you for your interest. Should you have any further questions, do not hesitate to call or email me.

Kristen Miller, Ph.D.

## **Attachment A**

### **Participants Needed for Injury and Poison Study**

The National Center for Health Statistics is looking for adults, 18 years of age or older, to test questions for a health survey. We are looking for people who have been injured or poisoned in the past 6 months

OR

whose household family members (such as child, spouse or live-in parent) have been injured or poisoned in the past 6 months.

Participants will receive \$30.

**FOR MORE INFORMATION,**  
Please call: **301-458-4676**

**U.S. Department of Health and Human Services  
Centers for Disease Control and Prevention  
National Center for Health Statistics**

## **Attachment B**

### **Participants Needed for Health Study**

The National Center for Health Statistics is looking for adults, 18 years of age or older, to test questions for a health survey. We are looking for people who have experienced any of the following in the past 6 months:

broken bones  
bad cuts or bruises  
bad burn  
taken/exposed to poisonous substance  
medication overdose  
other type of serious accident

OR

whose household family members (such as child, spouse or live-in parent) have experienced any of these.

Participants will receive \$30.

**FOR MORE INFORMATION,**  
Please call: **301-458-4676**

**U.S. Department of Health and Human Services  
Centers for Disease Control and Prevention  
National Center for Health Statistics**

## APPENDIX D

### Discussion of the Recommendation to Retain “Medical Advice or Treatment” in the Initial Screener Question

3C, Part 1. The FIJ team met with the intent of making the proposed changes. However, after long and careful deliberation, we were unable to arrive at a set of questions that did not require substantial rewriting or awkward wording. In part, the difficulty in eliminating FIJ.014 (and FIJ.024) is a byproduct of unpacking “medical advice or treatment” from the initial screener. Since this “unpacking” is vital to section flow and data quality, we feel the best approach is to retain the existing (FIJ team proposed) items. The following chart presents an interview scenario that follows the recommendation of the NHIS Review Committee. The sidebar technical review describes the potential problems with these recommendations.

<b>Interview Scenario using the Questionnaire as is recommended by the NHIS Review Committee</b>	<b>Sidebar Technical Review of Recommended Questions</b>
<p>Field Representative: During the past three months, that is since October 31, did you or anyone in your family have an injury where any part of the body was hurt, for example, with a cut or wound, broken bone, sprain or burn?</p> <p>Jane Hudson: Yes</p> <p>Field Representative: Who was this?</p> <p>Jane Hudson: Myself and my sister Blanche were injured.</p> <p>Field Representative: Did you talk to or see a medical professional about any of these injuries?</p>	<p>Problem: This question assumes that there was more than one injury, when it is possible that the respondent was only injured once. Additionally, the respondent could easily be confused by this question because she may assume that the question is asking about both her own injury as well as her sister’s. Because of the plural word, “injuries,” as well as no other implicit indication embedded in the question, the respondent may believe that the question is attempting to measure conditions, not episodes.</p>

To manage the problems that arrive with use of the plural, the question could be re-written in the singular: "Did you talk to or see a medical professional about this injury?" However, this assumes that there was only one injury, or (in worst case) it may compel the respondent to believe that they should only consider one of their multiple injuries.

To deal with the potential problems of both singular AND plural episodes, the question could be re-written as, "Did you talk to or see a medical professional about the injury or injuries?" This, however, is somewhat wordy and awkward. Furthermore, it does not alleviate the problem of collapsing all family injuries, nor does it deal with the confusion over the term injury as an episode or as a condition.

It is much more straight-forward to simply ask: "During the past three months, how many different times (were you/was Blanche) injured?" Because of the word "times," this question establishes that the question is asking about episodes (not conditions). It also solves the singular/plural problem with no awkward phrasing or clumsy wording for the follow up question. Depending on the number of reported injuries, the (FIJ team proposed) follow up questions are: "Did you talk to or see a medical professional about any of these injuries ?" OR "Did you talk to or see a medical professional about this injury?"

Note also that it is critical to retain the "talk to or see a medical professional" for this initial question (even though it tends to be wordy) because this phrase defines what is meant by "receiving medical attention" or "consulting a medical professional."

<p>Jane Hudson: Yes</p> <p>Field Representative: How many times was the injury serious enough that a medical professional was seen or talked to?</p>	<p>Participants in cognitive interviews tended to define “receive medical attention” extremely conservatively; many only saw surgery or life saving procedures as receiving medical attention. Calling a doctor, being examined by an EMT at a crash site, and getting x-rays were all actual situations that were dismissed by cognitive interview participants because they did not view such activities as “receiving medical attention.”</p> <p>Problem: Because the previous question was omitted and the initial number of injuries was not ascertained, the first part of this question (“Of the 2 times that you were injured...”) also needed to be dropped. Consequently, the singular/plural problem again appears as well as the problem of respondents conceptualizing the term injury as a condition, not as an episode. To alleviate these problems, the question could be re-worded as: “How many times were you injured such that the injury was serious enough that a medical professional was seen or talked to?” This, however, is extremely awkward and confusing. By retaining question FIJ.014, all of these potential response errors are addressed.</p>
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