



NATIONAL CENTER FOR HEALTH STATISTICS

Rapid Survey Systems (RSS)

Round 6 Cognitive Interviewing Report



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Abstract

Introduction: The staff of the National Center for Health Statistics' (NCHS) Collaborating Center for Questionnaire Design and Evaluation Research (CCQDER) evaluated the measurement properties of questions included on NCHS' Rapids Survey System (RSS) Round 6 questionnaire. Four topics were evaluated in this round: signs and symptoms of stroke, produce prescription programs, human papillomavirus (HPV) self-testing, and chronic wasting disease (CWD) in deer and elk.

Methods: Twenty cognitive interviews were conducted virtually to evaluate the question-response process and determine patterns of interpretation and response error. Respondents were purposively recruited, with a focus on three criteria: people who have experienced food insecurity, females, and people who have experience with hunting in different parts of the United States.

Results: On the whole, respondents were able to answer questions in each section with minimal difficulty and, for the most part, interpretations of the items fell within the scope of question intent. There were, however, some noted exceptions. These include 1) response categories that did not easily align with the answers some respondents wanted to provide, particularly in the sections 'signs and symptoms of stroke' and 'HPV self-testing,' 2) respondent burden associated with lengthy and numerous questions in the 'produce prescription programs' section, and 3) comprehension issues with certain terms in the 'chronic wasting disease' section, particularly for respondents with less hunting experience.

Keywords: Food insecurity, stroke symptoms, HPV testing, chronic wasting disease

Introduction

The staff of the National Center for Health Statistics' (NCHS) Collaborating Center for Questionnaire Design and Evaluation Research (CCQDER) evaluated questions included on the Rapids Survey System (RSS) as a quality improvement initiative for RSS Round 6. The RSS is a web-based survey platform designed to produce timely estimates for emerging health topics (1). The study received both Office of Management and Budget (OMB) and NCHS/Centers for Disease Control Human Subjects approval.

CCQDER conducted this study using a cognitive research technique known as cognitive interviewing to document constructs measured by the questions and to identify any question response complications, including response error (2,3). This knowledge can facilitate a better understanding of the meaning of survey estimates produced by RSS 6.

The cognitive interview test instrument is included as Appendix 2. For RSS Round 6, there were four topics of interest for question evaluation: signs and symptoms of stroke, produce prescription programs, human papillomavirus (HPV) self-testing, and chronic wasting disease (CWD) in deer and elk.

The research method is outlined in the next section. This is followed by a discussion of the overall findings and a conclusion. Findings for specific questions are found in Appendix 1, which contains a more detailed question-by-question analysis.

Methodology

Given the topics under investigation, there were three main criteria for cognitive study participation: respondents who experienced some degree of food insecurity, females, and respondents who have experience with hunting. Within these groups, efforts were made to include respondents with a mix of age, race, and educational attainment. However, because qualitative sampling is based on theoretical relevance more than equal cell sizes, on-going sample assessment ultimately determined the need to focus recruitment on hunters as a harder-to-reach population. Recruitment was carried out through a combination of word-of-mouth and the CCQDER Respondent Database.

Table 1 summarizes the sample composition. Most respondents were either Black or African American or White. Two respondents identified as more than one race. There were more females than males, a reflection of recruiting for the HPV self-testing questions. Age was more evenly distributed, though the sample did skew slightly older, with more respondents being age 40 or older. Similarly, respondents with a variety of educational backgrounds were included, but most respondents had at least some college.

Table 1. Sample Composition of the Rapid Survey System Round 6 Cognitive Interviews

Demographic Variables	Number (<i>n</i> = 20)
Race/Ethnicity ¹	
Asian	1
Black or African American	6
Hispanic or Latino	3
Native Hawaiian or Pacific Islander	1
White	11
Sex	
Female	15
Male	5
Age	
18 – 29	3
30 – 39	2
40 – 49	4
50 – 59	5
60 and older	6
Education	
High School Diploma or Equivalent	2
Some College	4
Associate's Degree	1
Bachelor's Degree	9
Graduate Degree	4
¹ Numbers do not add to 20 because respondents could choose more than one category. SOURCE: National Center for Health Statistics, Collaborating Center for Questionnaire Design and Evaluation Research, 2025.	

Interviews took place virtually using a video conference platform approved by NCHS and the Centers for Disease Control and Prevention Information Security Offices. Each interview lasted no longer than one hour. As with typical cognitive interviewing projects, interviewers first read the questions to respondents and recorded their answers. The interviewer then followed up with retrospective probes to ascertain respondents' understandings of the questions, rationales for their answers, and whether any response difficulty occurred. A remuneration of fifty dollars was provided to all participants at the interview's conclusion.

Qualitative data analysis was guided by the principles of grounded theory adapted to cognitive interviewing (4-6). Using the constant comparative method, analysts compared the rationale behind respondent answers across all participants for each

question. This systematic comparison yielded patterns of question interpretation and response difficulties. These patterns are discussed next.

Overall Findings

This section discusses general themes associated with each section. Detailed findings for specific questions can be found in Appendix 1. Some questions could not be thoroughly evaluated due to skip patterns or time constraints associated with the one-hour interview. This is noted where applicable.

Stroke Signs and Symptoms

Respondents generally had no difficulty answering questions in this section, but several question-response patterns were observed. First, the section began with a set of questions about symptoms, many but not all of which were associated with stroke. Notably, however, the survey did not explicitly link any of the symptom questions to stroke or any other possible causes. Instead, survey items simply asked what respondents would do – how quickly they would act – based on a set of provided responses, if they (or a friend or relative) experienced a specific symptom (such as, for example, sudden drooping of the face, especially on one side). Even though the symptom questions offered no information regarding a symptom's cause, respondents needed that information in order to provide an answer and often hypothesized on their own what the cause of a given symptom might be. In other words, minus this information, respondents had to put each symptom in the context of a cause, assess the severity of this hypothesized cause, and then answer how quickly they would act on the symptom.

Second, response categories for the symptom questions were not mutually exhaustive. As a result, some respondents had trouble mapping their answer into the response options. For these questions, the response options were:

- 1 Wait 1 day, then decide
- 2 Wait 1 hour, then decide
- 3 Call doctor's office immediately
- 4 Call 911 or another emergency number immediately

As mentioned above, many respondents understood the importance of acting quickly if they tied the symptom to a medical emergency such as a stroke (which many respondents did associate with several of the symptom questions). But there was no consensus on the best way to accomplish that goal. Some respondents believed calling 911 to be the most expedient path to immediate medical care. For example, one respondent said, "A stroke possible symptom. Very important to get the person to the ER via ambulance right away." Other respondents would also choose to go to an emergency department, but not via ambulance. Rather than call 911, they would opt to

have someone drive them to the hospital as the fastest route to obtaining care. This was especially true for respondents who live close to a hospital. For respondents in this group, no response category existed. As a result, they had to choose between calling their doctor immediately or calling 911. However, neither category is an accurate representation of what they

would do in the event of a perceived medical emergency. The following are two examples of respondents trying to decide how to answer (*italics denote interviewer speech*):

“I felt like there was an option missing. The option would’ve been going to the hospital. Just taking yourself or having someone take you to the hospital.”

“Uh...That’s interesting. These are interesting options. [Thinks.] I would say call the doctor if I had to choose.” *What would you do, in your own words?* “I would go to the hospital [without calling 911].”

Additionally, not all respondents see hospital emergency departments as the only route to immediate medical care. Another possible missing option would be going to urgent care. For example, one respondent decided to answer ‘call doctor immediately’ because her general practitioner is in the same building as an urgent care facility. She said, “So, he’s [the physician] gonna tell me one of two things. He can go ahead and see me or [tell me to] go to the urgent care.” Another respondent said, “Um, you should probably seek emergency care if muscles are locking up. Going to urgent care – I don’t know if that [thinks]...that’s not one of the options you gave me?”

Produce Prescription Programs

The general constructs associated with these questions were largely understood by respondents. Respondents considered whether they had difficulty with food security and whether they received information or help from their health care provider in acquiring an adequate amount of food. However, questions in this section are numerous and many are somewhat lengthy, particularly in the context of the interviewer-administered format associated with the cognitive interviews.

Without the benefit of seeing and reading the questions, it was a lot of information for respondents to hear and process before providing an answer. This caused some respondents to lose track of the 12-month timeframe or forget that the questions were referring specifically to assistance offered by their health care provider. Respondents with comprehension difficulties tended to focus on what they understood to be the main intent of the question (such as acquiring information about organizations that provide free food). The result was false positive response error, as some respondents included examples outside of the 12-month timeframe or outside of the healthcare system – or

both. This issue is likely to be minimized in the web or self-administered format of the actual survey, where respondents can see the entire question at once.

HPV Self-Testing

Though the HPV test remains less familiar than Pap tests, respondents were generally able to answer questions surrounding both their preferences for self-tests (versus clinician-administered tests) and the reasons for those preferences. However, the list of possible benefits of a self-test missed an important reason cited by several respondents: cost. Some respondents were under the (possibly mistaken) impression that doing the test at home would offer a cost savings – usually in the form of the avoidance of insurance co-payments that are associated with office visits, but also linked to transportation getting to and from a medical appointment. Respondents with this rationale included it in the ‘another benefit’ item.

Chronic Wasting Disease (CWD)

Respondents had no difficulty reporting whether they ever ate deer or elk meat or had ever hunted deer or elk. Moreover, those who had hunted were able to recall how old they were the first time they hunted, as well as how often they hunt. However, two issues arose in the CWD section. First, experience with hunting affected the respondents’ ability to answer some of the hunting questions. Respondents with less hunting experience often had less knowledge about the sport and, therefore, found some of the items more confusing than respondents who had more experience. For example, questions in this section ask whether a respondent has ever hunted, harvested, or processed deer or elk. Respondents who did not fully understand the difference between these terms found themselves confused when trying to supply an answer. The term ‘harvest’ was specifically problematic. It could be confused with either of the other terms, ‘hunting’ or ‘processing.’

Second, there are multiple factors to consider when answering the opinion questions at the end of the section. This caused answers to fluctuate, depending on what respondents focused on in the moment. This was true for respondents regardless of their hunting experience.

Conclusion

Overall, respondents were able to answer questions in each section with minimal difficulty and, for the most part, interpretations of the items seemed to fall within the scope of question intent. However, there were some observed difficulties including 1) response categories that did not easily align with the answers some respondents wanted to provide, particularly in the sections ‘signs and symptoms of stroke’ and ‘HPV self-testing,’ 2) respondent burden associated with lengthy and numerous questions in the ‘produce prescription programs’ section, and 3) comprehension issues with certain

terms in the 'chronic wasting disease' section, particularly for respondents with less hunting experience.

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Appendices

Appendix 1: Question-by-question analysis

SSS -- STROKE SECTION

For each symptom, the following question and responses were provided:

If any of the following happened to you or a friend or relative, what do you think would be the best thing to do?

- 1 Wait 1 day, then decide**
- 2 Wait 1 hour, then decide**
- 3 Call doctor's office immediately**
- 4 Call 911 or another emergency number immediately**

SSS_DROOP

Sudden drooping of the face, especially on one side

SSS_NUMB

Sudden numbness or weakness of an arm or leg, especially on one side

SSS_SPEECH

Sudden slurred or garbled speech

Findings: This set of questions on symptoms are included in the stroke section of the instrument but not all symptoms are actually related to having a stroke. Moreover, the instrument does not mention a cause for *any* of the symptoms. (The series of questions, while randomized in the RSS survey, was read in the same order to each respondent in the cognitive interviews.) Although respondents were not told that any symptoms were specifically related to stroke, the first three items – about drooping, numbness in an arm or leg, and sudden slurred speech – were consistently recognized as stroke symptoms by respondents. The following are examples:

“That’s a symptom of a stroke, possibly.”

“Those would be symptoms of someone having a stroke.”

“Well, for me, that would be one of the first signs that I would think of someone having a stroke.”

Not only did most respondents recognize these as stroke symptoms, but they also understood the serious nature of stroke:

“That is a symptom of a stroke, which is very serious.”

“Because to me, sounds like I’m having a stroke. Something that I need to address immediately.”

Additionally, respondents associated quick response time as essential when having a stroke. Understanding the cause associated with a symptom informed respondents’ answers. As a result, ‘call 911’ was the most frequent choice:

“Yes. Call 911 for a stroke.”

“Call 911 immediately, that’s a definite sign of stroke.”

Some respondents explained the need to act quickly as tied to better patient outcomes. For many respondents, this is best accomplished by calling 911 because it allows for medical professionals to intervene as soon as possible:

“Because on the way to the hospital there’s communication going on between the attendants in the ambulance and the hospital. And I could receive treatment on the way to the hospital.”

“You call 911 immediately so that they can get those symptoms reversed. Because if you keep waiting, the stroke could kill that person and if they get immediate help then they could have a full recovery.”

“The 911 personnel are trained to, like, stabilize you. So that’s the main advantage [of calling 911].”

However, some respondents, in assessing the fastest course of action, chose ‘call doctor’s office immediately.’ This was often motivated by beliefs that emergency departments and ambulances can be too slow. For example, one respondent who answered ‘call doctor’s office immediately’ said:

“Because that could be symptom of a stroke.” *Why would calling the doctor right away be important?* “Because if you wait a day, it might be too long. At least if you get to the doctor’s office, they could probably give you something for it. Help treat it before it could escalate further. Opposed to calling 911 and it might be too late. So I figure the doctor would be able to assess you quicker than 911.”

One respondent had to think through the logic of what might be the fastest course of action. She ultimately chose ‘call 911’ but expressed uncertainty. She said:

“Sometimes the doctor has been able to see one of us [family members] very quickly. Like, within the hour. And so I thought, rather than go the route of an ER...and then you’re stuck there, maybe if the doctor could see me immediately, and that was the only symptom – but they do say that if you have any of those symptoms it could be a stroke and you need immediate attention. So I guess it’s sort of hard to know.”

While most respondents seemed confident that the first three symptoms were indicative of stroke, others expressed some degree of uncertainty, particularly for SSS_NUMB. Numbness was perceived as caused by any number of factors. Not knowing the severity of the cause, this group of respondents was more likely to call the doctor or to wait and decide what to do:

“Even though I know that’s a sign or a symptom of a stroke, I’ve experienced that sudden numbness and tingling, and it wasn’t a stroke at all. I ended up calling my doctor and scheduling an appointment.”

“When it comes to numbness in hands or feet, that is a sign of a stroke. But it could be something else. Maybe not as serious as a stroke but still serious. So, I would want to call my doctor to get it checked out.”

“Because to me it could be just something like, it’s not like an emergency. I could have numbness any time, in any part of my body. So I would call the doctor. And if the doctor don’t resolve, or if the doctor advises, then I will call 911 or go to the hospital. It sounds serious, but not an emergency.”

Respondents applied the same logic to SSS_SPEECH. Most respondents associated sudden slurred or garbled speech as stroke related (“That’s one of the first signs of a stroke that I think about.”), but one respondent expressed uncertainty about the cause. She said, “I might wait a day, depending on how serious it is - if I’m impaired in other ways or if it’s just that.” In fact, the presence of other symptoms, along with the one being asked about, often factored into respondents’ judgments in opting for a particular response category because this would suggest possible causes and, therefore, the level of urgency of the situation. This was seen more clearly in the symptom questions that followed.

SSS_MUSCLES

Cramping or locking of muscles of hand or fingers

Findings: Unlike the previous questions, respondents were less likely to see this symptom as associated with a stroke or medical emergency. The following are examples:

“I felt like that, of all the symptoms, could just be maybe from some overuse or...potassium imbalance. I don’t know. Like, I do get muscle cramps sometimes if I’m doing too much gardening or something afterwards.”

“Because I really don’t know what that could be. It might be a reaction to some medication I just took. It might be a reaction to some exercise I just did. Maybe it’s a nerve. I wasn’t quite sure.”

“It could be connected to muscle spasms or something.”

“It could be dehydration; it could be a myriad of things. What comes to mind immediately is dehydration.”

When muscle cramping was attributed to any number of factors, respondents did not select ‘call 911’ as their answer. Instead, they chose either wait a day or an hour or to call the doctor immediately (i.e., one of the first three options):

“The doctor’s office would be able to give you a little more – ask you follow-up questions to see what’s going on before calling 911.”

“I would call the doctor and get advice to see what is the best option and how serious it could be.”

“I would definitely try to wait it out and see if the symptoms get worse. I don’t know if that’s an emergency kind of thing. So I would definitely wait it out and just see.”

SSS_BALANCE

Sudden trouble walking, dizziness, or loss of balance

Findings: This item presented a pattern similar to the previous one about muscle cramping. Respondents were less likely to associate these symptoms with a stroke or other medical emergency and were more likely to assess what to do based on the presence or absence of other symptoms or other reasonable explanations for the symptom that would not indicate an emergency:

“I guess I do get dizzy sometimes just because I haven’t eaten enough and I’m tired or something. So I guess I’d want to wait an hour to see if it wasn’t something else - if that was the only symptom.”

“I feel like that kind of symptom can be so many different types of conditions that in the past I’ve always just waited. Especially if there was a logical reason for why it happened. And I guess if it kept repeating itself - if it wasn’t going away.”

“Because I have vertigo issues, for me I just don’t think that that’s really an emergency, per se...So I would probably wait and if after an hour...it doesn’t dissipate, symptoms get worse, then I would call 911 at that point.”

“I was thinking it would just depend on what else is going on. Like why are you dizzy? Are you getting up too fast? If it’s just a symptom of low blood pressure because you’re moving too fast, you may not need to call 911 or go to the hospital for that.”

While most respondents did not associate these symptoms as serious or as a sign of stroke, several respondents did and would, therefore, call 911:

“When it comes down to losing balance, that is a sign of a stroke. So that’s why I would call 911.”

“It could be a sign of a stroke, an aneurysm, or a heart attack.”

“Possible stroke side effects as well. Important to get to the emergency room immediately.”

SSS_SIGHT

Sudden trouble seeing in one or both eyes

Findings: While not necessarily associated with having a stroke, some respondents nevertheless understood this as a potentially serious symptom to act on quickly, either by calling their doctor immediately or calling 911:

“Your vision’s very important. I mean, your health overall’s important, but your vision, that’s not something to play around with.”

“That’s something extreme. That’s like something going on in your brain. Unless you just looked at the eclipse or did something weird. It’s hard to ask about symptoms without a context.”

“Yeah [to call 911]. A good friend of mine woke up, lost the vision in one of her eyes, it just blinked out on her, and it turns out she has MS [multiple sclerosis].”

Other respondents did not deem this symptom as necessarily critical and, therefore, chose response options 1 or 2:

“Again, because I work around computers a lot...I have problems with my eyes after a full day of work. I have problems like focusing. For me I just don’t think that that’s really like an urgent kind of emergency unless it keeps persisting.”

“I’d probably just want to see if it got better or not.”

“I’m diabetic, so the vision gets messed up a little bit. There’s no concern to run to the hospital. You have to monitor it and take care of it. It could be a glucose issue. So I don’t want to tie up 911 for that.”

“Sometimes it can be as simple as [floaters]. So I’d just call the doctor for advice versus they say a lot of people go to the ER for a lot of stuff that’s not necessary.”

Finally, a couple respondents did link this symptom to the potential for stroke and chose the ‘call 911’ option:

“I have heard that that would also be a potential side effect of coming down with a stroke so it’s important to get to the ER immediately.”

“It could a sign of stroke also, so better seen in [the] emergency room rather than wait for something else to happen.”

SSS_URINE

Burning feeling during urination and cloudy urine

Findings: Urinary tract infection was commonly cited as a possible reason for this symptom. Depending on how serious respondents understood this type of infection to be, they either chose to wait some period of time or call their doctor or 911 immediately:

“I would figure it’s a urinary tract infection. That’s not an emergency.”

“I did not associate it with stroke. But I know it’s something that I needed to call my doctor.”

“I don’t feel it’s a 911 emergency and I’ve had it [urinary tract infection] before, therefore I know how to handle it and I know at which point to contact my doctor. And I also know that there are over-the-counter medications that help relieve those symptoms.”

“I know with me I get urinary tract infections a lot, so I know any time I get those kind of symptoms it’s usually a UTI. And if I wait like even into the next day, symptoms become really bad to the point where I’m urinating blood and it’s very painful. So, the sooner I call the doctor’s office the better. It’s not something where I would have to call 911 per se, but I would need to call the doctor’s office to get on antibiotics pretty quickly.”

“That could be a potential urinary tract infection. Not life-threatening like immediately, but definitely something you need to talk to your doctors to get an appointment.”

“It kind of sounds like maybe a UTI. So, the person could try some at-home remedies first to see if the burning or discomfort continues.”

SSS_STRKACT

If you thought someone was having a stroke, what do you think would be the best thing to do?

- 1 Wait and monitor their symptoms**
- 2 Call 911 or another emergency number**
- 3 Call their doctor or health professional**
- 4 You or someone else drive them to the hospital**
- 5 Have them drive themselves to the hospital**

Findings: All respondents understood that time is of the essence in the event of a stroke. As such, ‘call 911’ was the most frequent answer:

“Because I know when someone’s having a stroke, it’s very time sensitive. The progression of it can move very quick.”

“I know that if you don’t act fast, it could be worse. The people can die. So to me it’s a real emergency. Something you have to take care of as soon as possible in order that the condition don’t get worse.”

However, if respondents anticipate problems with 911, they chose option 4 (drive them to the hospital) as the best option – or at least debated it before opting for ‘call 911.’

“I think it’s proximity. If the person lives right by the hospital, I know sometimes it can take time for the paramedics to get there.”

“Call 911 or have someone else drive me to the hospital.” *I can only pick one.* “Oh - 911.” *How did you decide between those two categories?* “I’d probably just call 911

because they can get in there quicker. And once they're at the ER, they get them in there right away. And they could treat them on the way to the hospital."

CHR_STREV

Have you ever been told by a doctor or other health professional that you had a stroke?

1 YES

0 NO

Findings: No respondents in the sample had ever been told that they had a stroke.

SSS_SEENSTR

Have you ever seen another person having a stroke?

1 YES

0 NO

Findings: Most respondents had never seen someone having a stroke. One possible misunderstanding with this question is that it can be interpreted as ever having *known* a person who had a stroke. For example, one respondent who answered 'yes' said, "I mean, my grandfather had a stroke, and I wasn't there whenever he was having it. I just had seen him afterwards. But my mom was there, and she had told me about it." The respondent interpreted the question as asking if she knew anyone who had a stroke. The ordering of SSS_SEENSTR and SSS_RELSTR may make a difference. If this respondent had seen the next question (SSS_RELSTR) prior to this one, she may have correctly answered 'no' to this question.

Another possible complication arises when respondents see a stranger exhibiting possible stroke symptoms in a public setting. One respondent answered 'yes' and explained:

"I saw someone having a stroke and I didn't know what was going on at the time. It was at a restaurant, so it wasn't anyone that I knew." *How did you know it was a stroke?* "Some of the other people [in the restaurant] stated that he looked like he was having a stroke."

It is impossible to know whether what this respondent witnessed was someone having a stroke or another type of medical emergency. Hence, this question may capture the witnessing of events beyond just stroke.

SSS_RELSTR

Do you have any close friends or relatives who have had a stroke? [Read if necessary: If you don't know or are unsure, then you may tell me that as well.]

-
- 1 YES
0 NO
9 DON'T KNOW

Findings: Respondents in the sample all understood this question to be asking about friends and family. No one included acquaintances who had strokes.

“I mean, I knew of people but nobody I’m really close to or anything. But I know of people who have [had a stroke].”

“Not related but like church members. People that I know of, but not close family or friends.”

For this next question, you may select more than one answer. Do you now or have you ever held any of the following jobs or titles?

SSS_HLTHJOBSa First responder, including as a firefighter, paramedic, or EMT Yes/No

SSS_HLTHJOBSb Medical doctor Yes/No

SSS_HLTHJOBSc Nurse, including as a registered nurse or nurse practitioner Yes/No

SSS_HLTHJOBSd Aide in a hospital, assisted living facility, or other nursing facility Yes/No

SSS_HLTHJOBSe Other healthcare professional Yes/No

SSS_HLTHJOBSf None of these Yes/No

Findings: No respondents reported working in the health care industry. One respondent was a third-year nursing student but answered ‘no’ to SSS_HLTHJOBSc because she was not yet actually employed as a nurse.

SSS_FAST

Have you heard of the F-A-S-T or ‘fast’ acronym for recognizing stroke symptoms?

- 1 YES
0 NO

Findings: Many respondents had heard of the FAST acronym but, interestingly, no one could recite what it stood for. Additionally, no respondents professed to know what the letters meant when they did not know. The following are examples of respondents who heard of the acronym but had no recollection what it meant:

“Yeah, I did. I learned that in the basic CPR class - basic first aid class. Don’t ask me what it stands for [laughs].”

“I’ve heard of it. I don’t remember the words that go with it.”

“I’ve heard of it, but I don’t remember what it was.”

“I’ll read it [the poster], but because I’ve never had to use it, it doesn’t stick with me.”

“I think I saw signs posed in the doctor’s office in the waiting rooms. And the acronym stands for symptoms to look for. That’s about the extent that I know.”

“I have seen like a bulletin [board], I think it was in the doctor’s office. It’s for ‘face’, ‘acting fast’, um, you’re looking at symptoms. I’m trying to remember, it’s ‘face’, I think I had it written down.”

PPP -- PRODUCE PRESCRIPTION PROGRAMS SECTION

PPP_HLTHCARE

In the past 12 months, have you received any health care? [Read if necessary: *Include any health care received at a health center, urgent care, clinic including one in a drug store or grocery store, mobile or worksite clinic, doctor’s office, outpatient clinic, hospital, or hospital emergency room.*]

Findings: This question was not extensively probed due to time constraints. However, in the interviewer administered format of the cognitive interview, interviewers often had to include the ‘read if necessary’ instruction, as some respondents were initially unclear what was meant by ‘received any health care.’ This is not an expression people typically use when thinking about the need for medical care. Once the definition was read, respondents understood the intent:

“Have I received health care, like any type of health care?” [Interviewer reads the instruction.] “Oh, so like doctor’s appointments? Oh, yes.”

“Have I received any health care insurance?”

“As far as going to the doctor?” [Interviewer reads the instruction.] “Yes.”

PPP_HLTHFOOD

At any of those health care visits, were you asked if [you / your family] could afford enough food to eat? [Read if necessary: *The questions could have been on a paper or online form you completed before the visit or during a conversation with clinical staff at the visit.*]

Findings: During question administration, interviewers found no need to read the additional instructions. When answering, respondents included both types of communication, written and oral. Some respondents answered ‘yes’ because they were thinking of various intake forms and questionnaires they are required to complete, either prior to the appointment or in the office before seeing the physician:

“They have like a questionnaire I submit before I go to the appointment...I think it’s the one where I’m already in the office.”

“When I go to an annual appointment, they have it on the forms you fill out. But I never check ‘yes’ on it. I guess I never thought about what they can actually do if you answer the question ‘yes.’ So, I always put ‘no.’”

Some of these were intake discussions guided by a provider asking standardized questions on the forms:

“The first person who sees you - the nurse assistant - they go through all those questions. They ask if you need help with housing, transportation, food. And they have a designated person in the office who would do any paperwork for you.”

“They start asking you multiple questions, like a questionnaire [the intake form]. They just asking me about the food, and I say yes - if I had enough food or if I need it.”

Other respondents were thinking about more meaningful conversations with their physician or health care provider:

“Well, we usually just sit down and just converse about things going on in my life and she [doctor] just asks me if I’m doing okay with food.”

“When I was at the doctor’s office a few times my doctor said that I looked like I was losing quite a bit of weight and so he had asked me if I had been eating okay and I said, ‘Yeah, it’s just that I have been struggling financially with paying for food.’ And he just said ‘Do you need services? Do you need help with getting on food stamps, finding food pantries, etc.?’ And I said ‘yes.’”

“It was last year when I had my annual physical. At the time I was experiencing a lot of fatigue. Vitals were off [low blood pressure]. And the first thing they asked me was about my eating. And at the time I was having trouble keeping food in the home. My husband was laid off...And that’s when the practitioner asked me what was going on with my eating. Because she said, ‘You seem very fatigued.’ And I had lost a lot of weight. And that’s when I explained to her my situation. And that’s when she asked,

‘Are you having trouble keeping food in the home?’ And I said ‘yes.’ And that’s when she gave me the information about the different programs that assist with food.”

PPP_RUNOUT

Did you ever answer that you worried whether your food would run out before you had money to buy more?

PPP_NOTLAST

Did you ever answer that the food you bought just didn’t last and you didn’t have money to get more?

Findings: There is no discernable difference in what these two questions measure, and one question did not appear to perform better than the other in terms of comprehension. Respondents simply seemed to think about whether they ever reported to their provider any struggles they had with food insecurity; hence, all respondents answered both questions the same way.

PPP_BANKINFO

These next questions are about different ways clinical staff at a health care visit might help you get food. At any of those health care visits.....did someone give you information on where you can get food from a food pantry, food bank, church, or other place that helps with free food?

PPP_WHELINFO

...did someone give you information on how to get home-delivered meal services like Meals on Wheels or another service that delivers free meals?

PPP_WICINFO

...did someone give you information about a food assistance program you could contact to help get additional food for you and your family? This information could include websites, addresses or phone numbers for Women, Infants, and Children or WIC, Supplemental Nutrition Assistance Program or SNAP, or food stamps.

Findings: In the cognitive interviews, the questions were interviewer-administered. Within this context, the length and number of questions in this section imposed a level of cognitive burden on some respondents that increased their chances for response error. It was difficult to retain all the information in an interviewer-administered mode. For example, one respondent thought for a minute before asking, “This was at my doctor’s office you’re asking, right?” [Interviewer repeats question.] “No.”

However, not all respondents asked for clarification. Instead, some respondents started to focus on what they perceived as the main point of the question. This prompted them to include examples either outside of the timeframe or include information offered to them by someone other than their health care provider. The end result was response error. For example, one respondent stayed focused on whether she received information about food stamps (PPP_WICINFO), but lost track of both the 12-month timeframe and her health care provider. She answered ‘yes’ to the question and explained:

“Let’s see, I signed up for social security at the age of 62 and 9 months. And at that time, I believe someone from social security or food stamps called me and said that I now qualify for food stamps, do I want it? I said sure.”

Finally, respondents who reported receiving this type of information from their health care provider sometimes noted that it was largely unhelpful:

“I sort of wish that they would have helped me through that process more and would’ve had me on the phone and would’ve called these places for me. But they just said they had other patients to be able to help. They just gave me a printed sheet of all the resources with all the phone numbers and then it was my responsibility going forward.”

“They just gave me a bunch of churches and different places. And I’d call them, and they’d say to come on a certain day and time. But if I couldn’t get a ride from anybody, I couldn’t really pick it up.”

PPP_BANKHELP

During or after any of those health care visits...did someone sign you up, help you sign up, or call to connect you with a location where you can get food from a food pantry, food bank, church, or other place that helps with free food?

PPP_WHELHELP

...did someone sign you up, help you sign up, or call to connect you with a church, shelter, home-delivered meal service like Meals on Wheels, or other place that helps with free meals?

PPP_WICHELP

...did someone sign you up, help you sign up, or call to sign you up for Women, Infants, and Children or WIC, Supplemental Nutrition Assistance Program or SNAP, or food stamps?

Findings: For the most part, respondents answered the questions asking about help without error or confusion. However, like the previous questions (which focus on information), the length and repetitiveness of the questions increased cognitive burden in the interviewer administered format and caused a couple respondents to be unsure of question intent. Response error occurred as a result. One respondent began to focus on receiving help from anyone, and another respondent utilized a broader notion of help than that defined by the question. For example, one respondent answered ‘yes’ to PPP_WICHELP even though help signing up for WIC and SNAP was not received from her health care provider. During probing she said:

“Yes, but I don’t know if I answered right or not. Somebody helped me but it wasn’t a person from the health care providers. It was from a different office. Different organizations that are not related to the health care.”

When asked who helped her sign up for WIC and SNAP, the respondent said she was thinking of the organization, Hispanic Unity of [state].

The length of the question created more confusion than clarity for another respondent, which also resulted in response error. During the follow-up discussion for PPP_BANKHELP, she said:

“Yeah. Because they had a piece of paper. And it showed you a bunch of resources. But they, themselves, didn’t physically do it. That’s why I had to think through those questions. Because they did help. It’s just how you define help?”

The phrase ‘did someone sign you up, help you sign up, or call to connect you with’ (repeated at the beginning of each ‘help’ question) does define help, but was too lengthy in the context of the full question for the respondent to keep all the details in active memory when answering. So, in strategizing how to answer, this respondent essentially distilled it down to what she believed to be the primary intent: whether someone ever helped her acquire free food. To that, the answer is ‘yes.’ But the more accurate answer to the survey question is ‘no’ because help was not actively initiated by the health care provider in terms of signing her up, helping her sign up, or calling to sign her up for assistance.

PPP_PRODHELP

...did someone sign you up, help you sign up, or call to sign you up for a fruit and vegetable prescription program that provides coupons, “bucks,” or a gift card to get a box or bag of produce to pick up or have delivered to your home?

Findings: This question could not be evaluated because no respondents answered 'yes' and all were unfamiliar with this program.

PPP_PRODUSE

Have you used the coupons, "bucks," or gift card to get a box or bag of produce from the fruit and vegetable prescription program?

Findings: This question could not be evaluated because all respondents skipped to the next question.

PPP_MEDHELP

During or after any of those health care visits, did someone sign you up, help you sign up, or call to sign you up for meals or groceries specifically prepared to help manage a medical condition you have? These meals and groceries are tailored for people with diet-related conditions. For example, someone with high blood pressure or hypertension may receive low sodium meals or groceries tailored to treat their disease.

Findings: This question could not be adequately evaluated because no respondents answered 'yes.' Two respondents specifically stated that they were unaware such a program exists. One respondent believed this was because she did not have any relevant medical conditions. She said, "I hadn't [heard of that]. And she [nurse] didn't mention it because I did not have a medical condition." However, another respondent wondered why she never heard of such a program because it did seem relevant to her medical status. She said, "I've never heard of that. But I've got diabetes and obesity and a heart thing."

PPP_MEDUSE

Did you use the meals or groceries related to your medical condition that were offered to you?

Findings: This question could not be evaluated because all respondents skipped to the next question.

HPV - HPV SELF-TESTING SECTION

HPV_LASTPAP

About how long has it been since you last had a Pap test or Pap smear, where a doctor or nurse put an instrument in your vagina and took a sample to check for abnormal cells that could turn into cervical cancer?

Findings: This question (and all questions in the HPV self-testing section) was asked only of females and, in the interest of time, was not evaluated. Previous cognitive interview studies have documented that women are very familiar with the Pap test and how often they have one (7).

HPV_SWABEV

Have you ever had an HPV test, where a doctor or nurse put a swab in your vagina and took a sample to test for the HPV virus? This test may have been done on its own, or at the same time as a Pap test.

- 1 YES**
- 0 NO**
- 9 DON'T KNOW**

Findings: While all respondents had heard of HPV, several respondents were unsure about whether they ever had an HPV test. Given the uncertainty among some respondents, proffering the 'don't know' response is appropriate. For example, one respondent chose 'don't know' and explained, "I don't remember. I think they might have checked [for HPV]. I don't know." However, it should be noted that some respondents who were uncertain whether they were ever checked for HPV chose to answer 'no' instead of 'don't know,' so the two categories may not function as entirely discrete categories. One respondent said, "No. I don't know if they tested for that, actually."

Additionally, uncertainty about HPV manifested in two respondents unable to make the distinction between the HPV vaccine and the test to check for HPV infection. For example, one respondent may have been mixing up the HPV vaccine with the HPV test when answering this question. She explained:

"I never knew that they had the home test and when I've gone to the gynecologist, she's never recommended it. And from what I've seen, like on TV, I think like my age group they don't even offer the vaccine."

HPV_PREFTEST

There is a new option to use a simple kit to test for HPV infection yourself:

- To use, you insert a swab about an inch into your vagina and rotate it for about 30 seconds.**
- The kit is designed to be easy to use, and the results are accurate.**
- You can do this test yourself in clinics and doctor's offices, and in the future, you may also be able to do the test at home.**

If available, would you prefer to do this test yourself rather than having an HPV test done by a doctor or nurse? If you have no preference, you can say that as well.

-
- 1 YES, PREFER TESTING MYSELF
 - 2 NO, PREFER DOCTOR OR NURSE TESTING ME
 - 3 HAVE NO PREFERENCE

Findings: Respondents had no difficulty choosing an answer and there was a roughly even split among the response options.

HPV_DISP

[Even if you prefer to have the HPV test done by a doctor or nurse, which / Which] of the following, if any, do you think would be a benefit of doing an HPV test yourself?

HPV_PRIVACY: You would have more privacy.	Yes/No
HPV_EMBARRASS: It would be less embarrassing.	Yes/No
HPV_PAIN: It would be less painful.	Yes/No
HPV_STRESS: It would be less stressful.	Yes/No
HPV_CONVEN: It would be more convenient.	Yes/No
HPV_CONTROL: You would feel more in control.	Yes/No
HPV_DOCRN: You do not like physical exams by doctors or nurses.	Yes/No
HPV_OTHBEN: Another benefit.	Yes/No

Findings: This list of items generally aligned with the reasons respondents themselves cited during probing as beneficial. However, there was some nuance to the way respondents interpreted some of these items.

HPV_CONVEN: First, the item HPV_CONVEN is vague, since ‘convenience’ can relate to any number of factors. At the same time, interpretations of what ‘convenient’ meant seemed within the larger scope of what the item is meant to capture. Many respondents interpreted ‘convenient’ as the benefit of not having to schedule an appointment or deal with the hassle of going to the doctor’s office. For example, one respondent said, “It would be convenient. I wouldn’t have to take a trip to the doctor’s office.” Another respondent explained in more detail:

“It just avoids all the issues of having to call, get the appointment, see if it fits in my schedule, then something comes up with my kids and I can’t make it and I have to call back and then they schedule me in a month. And all that stuff is just [problematic] for me because I have kids.”

Relatedly, other respondents interpreted ‘convenient’ as simply being able to conduct the test at their leisure and on their own timeline. One respondent said, “I just like the convenience of it, of being able to do it on my own time.” Another respondent said, “You can do it at your own

leisure. You wouldn't have to make a doctor's appointment to disrupt your day or your schedule to get it done."

HPV_DOCRN: Agreement or disagreement with this statement was more likely than other items to be disconnected from the benefit of HPV self-testing. Instead, respondents tended to consider this as a stand-alone statement. For example, when the interviewer asked one respondent what she meant by answering 'no,' the respondent replied:

"I'm saying it does not bother me, going to the doctor. It sounds like you're scared, you know, like the dentist. It sounded like are you afraid to go to the doctor."

Similarly, another respondent who answered 'no' explained:

"I'm fine with going to the doctor. I don't have any issues like having tests done or talking to a doctor about any of my illnesses or diagnoses."

One respondent who answered 'yes' noted, "That's kind of true, yeah." These respondents were thinking about their general dislike of visiting a doctor – they were not connecting this to the benefit of HPV self-testing. This is likely due to the shift in sentence structure in HPV_DOCRN when compared to the other items. For example, the meaning of the first item can be distilled down to: You would have more privacy doing an HPV test yourself. The predicate in the sentence is doing the HPV self-test, as it is for all the items, save for one. The predicate changes for HPV_DOCRN. In the sentence 'you do not like physical exams by doctors or nurses,' the predicate is no longer doing the HPV self-test but, rather, liking physical exams by doctors or nurses. Importantly, this change in sentence structure alters the meaning of the item and, by extension the meaning of respondent answers.

HPV_OTHBEN: This item serves as a catch-all question for self-testing benefits that are not covered by the previous items. One benefit in particular was frequently included in this question: Respondents answered 'yes' when they were thinking of cost savings, specifically in terms of the resources it takes to accomplish a doctor's visit. One respondent said, "Maybe cost effective if you're not having to drive to the doctor's office – waste gas going up there for them to do it." Other respondents were under the impression that, by doing the test themselves, they could avoid the expense of the office visit insurance co-payment. For example, one respondent said, "It would save me on co-pay, which is very important." Another respondent cited both types of cost savings. She said, "I would save on transportation, and I would save on office visit payments."

Finally, it was often the case that when respondents answered ‘yes’ to these questions, they were expressing agreement with the statements generally, not personally. When asked to explain the advantages in their own words, their list was generally shorter than the number of items to which they answered ‘yes.’ For example, one respondent answered ‘yes’ to most every item. But when asked to describe any benefits in her own words, she gave only one: “I mean, it’s more accessible. If you were at your house, you wouldn’t have to drive to the doctor’s office.” In other words, when answering the questions during survey administration, some respondents thought more generically about benefits to patients in general, not about benefits to themselves in particular. During probing, when asked to explain any benefits in her own words, one respondent who had also answered ‘yes’ to all the items, offered only one benefit to herself. She said, “Oh a benefit to me? I would not have to carry myself to the doctor’s office 30 miles away.”

HPV_DISP2

[Even if you prefer to do the HPV test yourself, which of the following, if any, would concern you? / Which of the following, if any, would concern you about doing an HPV test yourself?]

HPV_TESTERR: You might do the test wrong.	Yes/No
HPV_SELFEMB: You would feel embarrassed doing the test yourself.	Yes/No
HPV_PAININJ: You are worried that it could be painful or you could injure yourself.	Yes/No
HPV_ACCURACY: You are worried the results would be less accurate than a test done by a doctor or nurse.	Yes/No
HPV_OTHCONC: Another concern.	Yes/No

Findings: These items largely aligned with the concerns that respondents expressed for themselves during probing. However, one finding is similar to the previous question: Respondents mentioned the idea of cost, especially when answering ‘yes’ to the last item, HPV_OTHCONC. One respondent said, “Yeah! For example, it might not be covered by insurance if I do it myself. Like, those home tests, at least at this stage, insurance might not cover.” Another respondent said, “So if I’m being charged for it...then maybe I should just have the medical professional do it.”

HPV_LOCATION

Right now, you can do the HPV test yourself in places like clinics and doctor’s offices, but in the future, you may also be able to do the test at home and return the kit using the mail.

[If you were going to do an HPV test yourself, would / Would] you prefer to do this HPV test at home or to test yourself in a clinic or doctor's office. If you have no preference, you can say that as well.

- 1 HOME**
- 2 CLINIC OR DOCTOR'S OFFICE**
- 3 HAVE NO PREFERENCE**

Findings: Much like HPV_PRETTEST above, respondents had no difficulty choosing an answer and all options were chosen (though almost all respondents chose 'home').

HPV_DISP3

Which of the following, if any, are reasons you would prefer doing an HPV test yourself at home?

HPV_LOCCONV: It would be more convenient to test yourself at home.	Yes/No
HPV_LOCPRIV: You prefer the privacy of testing yourself at home.	Yes/No
HPV_LOCTIME: You could take the test on your own time.	Yes/No
HPV_LOCTRAV: It is hard for you to get to a clinic or doctor's office.	Yes/No
HPV_LOCCOMF: You would be more comfortable in your home.	Yes/No
HPV_LOCDOC: You do not like going to the doctor.	Yes/No
HPV_LOCOTHA: Another reason.	Yes/No

Findings: Respondents were generally able to choose from among these reasons. However, because some of the wording is vague, several important benefits were not directly captured by this list of items – they were captured by the last, catch-all item, HPV_LOCOTHA.

One reason cited by respondents related to the overall aggravation of dealing with doctor appointments. For example, one respondent who answered 'yes' to HPV_LOCOTHA explained, "Yeah. Just the hassle of waiting for the doctor and all the delays. There's always a wait [at the office]." Another respondent echoed this sentiment and said, "You wouldn't have to leave to go to the doctor's office, check in, wait - all those steps would be eliminated [by testing at home]." Carving out time in one's schedule or the hassle associated with medical appointments could arguably be the intent of HPV_LOCCONV or even HPV_LOCTIME. But because those items are somewhat vague, these ideas were captured instead by 'another reason' (HPV_LOCOTHA).

A second important reason for testing at home not captured by this list again relates to the perception of cost savings – an idea that respondents also expressed in previous items. For example, one respondent who answered 'yes' to HPV_LOCOTHA said, "Yes. Again, no co-pay."

HPV_DISP4

Which of the following, if any, are reasons you would prefer doing an HPV test yourself at a clinic or doctor's office?

HPV_LOCMAIL: You would not want to use the mail for at-home medical tests.	Yes/No
HPV_LOCKNOW: You would not want other people you live with to know you are taking an HPV test.	Yes/No
HPV_LOCCLEAN: A clinic or doctor's office would be a cleaner place to test yourself.	Yes/No
HPV_LOCHELP: At a clinic or doctor's office, staff would be available to help you or answer your questions.	Yes/No
HPV_LOCNEED: You have to go to the doctor anyway.	Yes/No
HPV_LOCOTHB: Another reason.	Yes/No

Findings: These items could not be evaluated because most respondents indicated they would prefer to do the test at home, and therefore skipped this question.

CWD - CHRONIC WASTING DISEASE SECTION**CWD_EVEATEN**

Have you ever eaten deer or elk meat?

- 1 YES
0 NO

Findings: Many respondents – even those who never hunted – reported eating deer meat at least once in their life. This question presented no difficulty or response error.

CWD_EVHUNT

Have you ever gone hunting for deer or elk?

- 1 YES
0 NO

Findings: Like the previous question, respondents had no difficulty with this question and no error was detected. Respondents who did hunt represented a range of experience from novice (“Definitely a beginner phase. I go with my husband.”) to experienced (“I have two friends that have been going all their lives...And they invited me out. So kind of got into it.”). Additionally, respondents who had hunted only small game and not deer or elk correctly answered ‘no’ to this question (“[No.] When I was younger, I went dove hunting. Or squirrel. But I haven’t done that anymore.”).

CWD_HUNTAGE

Approximately how old were you the first time you went hunting for deer or elk? _____years

Findings: Respondents had no difficulty remembering their age the first time they went hunting.

CWD_OFTHUNT

Since your first time hunting, about how often have you gone deer or elk hunting?

- 1 Every year**
- 2 Most years**
- 3 Some years**
- 4 Hardly ever**

Findings: The response categories were easy for respondents to choose from. Respondents that hunt several times a year chose the correct response of ‘every year’ (“It’s probably mainly once or twice a year.”). Those who were less regular chose ‘most years’ (“I would say we go yearly-ish. It’s been hit or miss because of the kids.”). ‘Hardly ever’ was the option for those who rarely hunt or have in the past but don’t any longer (“Hardly ever. Like, I go, but it’s not something I count on.”).

CWD_HUNTST00

Since 2000, which states have you hunted deer or elk in? Tell me the name of each state.

- **Have not hunted since 2000**
- **[list states]_____**

Findings: Respondents had no difficulty reporting the states in which they hunted. Hunting was represented in nine different states: Florida, Louisiana, Maryland, New York, Ohio, Virginia, West Virginia, and Wisconsin.

I have recorded that you have not hunted deer or elk in any state since 2000. / I have recorded that you have hunted deer or elk in the following states since 2000: {NAME EACH STATE}. Is this correct?

- 1 Yes**
- 0 No**

Findings: This question presented no difficulties – all respondents confirmed the recorded states as correct. In fact, the question seemed largely unnecessary in the interviewer-administered format of the cognitive interview.

CWD_COWYNE

Just to confirm, since 2000, have you hunted deer or elk in Colorado, Wyoming, or Nebraska?

1 YES

0 NO

Findings: This question was not evaluated as no respondents hunted in these states.

CWD_HUNTST

Since [fill date based on state], have you hunted for deer or elk in [state]?

Findings: All respondents reported hunting within the timeframe specified according to the state in which they hunted (which was presented as a single question associated with the relevant state). It was not difficult for them to remember whether they hunted within the given timeframe.

CWD_HRVEST

Since [fill date based on state] have you harvested any deer or elk while hunting in [state]?

Findings: This question may pose difficulties depending on a respondent's level of hunting experience or knowledge about hunting. For example, one respondent who was inexperienced did not understand that the term 'harvesting' refers to collecting killed deer. Upon hearing the question she said, "Can you define what you mean by harvesting vs. hunting? I'm not sure how I should interpret that." The interviewer asked what the respondent thought it might mean. Confusing 'harvesting' with 'processing' she said:

"I started to think, what do you harvest? So, when I hunted, I would go but I don't actually process it. Maybe that should be a no [to the question]. I was a little confused. If that definition would've been clarified, maybe I would've answered differently."

This stands in contrast to a highly experienced hunter who understood not only the difference between 'hunting,' 'harvesting,' and 'processing,' but also the nuanced difference between 'harvesting' and 'killing.' He said:

"I'm not a killer. I've got some of these hunters on my team that just talk to you like, 'Yeah, we slaughtered this thing.' You don't want to hear that. We *harvest* deer. And we only harvest what we're going to eat or what we're going to donate."

All questions were easy for him to answer because he understood the difference between 'hunting,' 'harvesting,' and 'processing.' This was not the case for respondents who did not fully understand hunting vernacular.

CWD_HRVEST12M

In the past 12 months, have you harvested any deer or elk while hunting in [state]?

1 Yes

0 No

Findings: There were no difficulties with this question aside from those noted in the previous question.

Since 2000, have you processed deer or elk you harvested in any of the following ways?

CWD_PROCESSa: You processed your own meat.	Yes/No
CWD_PROCESSb: Someone you know processed the meat, such as a family member, friend, neighbor, or another hunter.	Yes/No
CWD_PROCESSc: You took it to a commercial meat processor.	Yes/No
CWD_PROCESsd: You donated the whole animal to a charity like a food bank or Hunters for the Hungry.	Yes/No
CWD_PROCESse: You did something else.	Yes/No

Findings: These items did not present any outward difficulty for respondents. However, the first two items (processed your own meat versus someone you know processed the meat) had overlap in terms of respondent understandings. In the first item, 'you' can be understood in its singular or plural form. Some respondents took it to mean that they, themselves, processed the meat. For example, when one respondent answered 'no,' he explained, "Actually getting the meat out of - butchering. That's not something I've done myself. That's why I answered it was a friend." However, another respondent answered 'yes' when she had not personally processed meat, but the people with whom she hunted did. She said, "A couple years ago my husband and his dad would do it. And his brothers bought like a meat processor-grinder thing. All of the skinning, the butchering [they did] themselves." This respondent also answered 'yes' to the next item (someone you know processed the meat), so a singular experience was counted twice.

Item c (commercial meat processor) was generally understood by respondents, but variation emerged according to the level of experience and knowledge a respondent has. More experienced hunters had no trouble with the question. For example, one

respondent reported that he did use commercial processors but was not completely comfortable doing so. He said:

“I don’t really like the process of taking it to a processor. You harvest it in the field, then you have to tag it then you take it to the processor and, honestly, I always wonder if the deer that I take to the processor is the same one I’m getting back! There’s kind of a level of hoping that people are doing the right thing but there’s no way of knowing.”

Another respondent who reported ‘yes’ defined commercial processing that he occasionally uses as done in a shop that is USDA certified for other types of meat. He explained the difference with venison:

“Most USDA butcher shops will do venison. But they’re only allowed to do venison by itself. Like if they’re processing cow or pig that day, they can’t do venison. So, they normally do venison on a Saturday. Because venison isn’t USDA, they can’t run it through the same grinder without it being cleaned up. [That’s why] I do my own, within reason.”

The previous two respondents were thinking about a bona fide butcher. However, depending on the situation or a person’s level of knowledge, ‘commercial processor’ can be interpreted more loosely. For example, one respondent answered ‘no’ even though she had previously mentioned to the interviewer that a friend (and hunting partner) who works in a butcher shop had processed the meat, off-duty. When asked to explain this discrepancy, she modified the details and said, “Because he’s not commercial. It’s a small shop, it’s like in his backyard.” Because she was not present during the processing and was a new hunter with limited knowledge, she was not certain about the details associated with the activity.

Another interpretative variation occurred for the fourth item in this set. The item refers to donations of whole animals, but one respondent took it to mean the donation of any portion of the animal. During probing he explained his answer of ‘yes:’

“Not the whole. I’ve given some. Because it’s too much [to keep]. I don’t have freezer space, so I give it to a friend. And I know some food banks around too...I like to help out where I can because times are hard.”

CWD_EVHEARD

Chronic wasting disease or CWD is an illness affecting deer and elk in parts of the United States. Prior to this survey, had you ever heard of chronic wasting disease, also known as zombie deer disease?

Findings: All respondents were asked this question, regardless of their hunting experience. Many respondents who answered ‘no’ had simply never heard the term. This was especially true, among respondents who never hunted:

“That doesn’t ring a bell to me.”

“I have never heard of that.”

“I just haven’t heard of that. I’ve heard of other diseases connected to animals, like my God, I think so many people probably have heard of the bird flu right now, what’s going on with the bird flu because it’s so much in the news...But that particular one I haven’t.”

Many respondents who had hunting experience had heard about the disease, and some knew quite a bit about it. One respondent said, “Have I ever been aware of it? Yes.” However, there were respondents with hunting experience who had little or no knowledge of chronic wasting disease. The following are examples:

“No [surprised]. Is this new?”

“Maybe I did, but I don’t think so.”

“I know that some deer carry diseases. I just never heard of that, what you mentioned. You just always look for a smell and the color of the meat. But other than that...”

“I had always heard that meat in the store, like the grocery store is bad because of the processes that they do to the meat prior to it getting into the store and I had heard that if you kill your own meat and process it yourself it’s a lot healthier for you but I didn’t know about this disease. I just thought that it was completely safe to eat.”

One respondent who answered ‘yes’ explained how she had only recently heard about this disease:

“I just remember reading some news story about it. I don’t think it’s out here in the East. I think it’s in the West. I’ve never heard it as a public health issue around here.”

CWD_KNWMUCH

Prior to this survey, how much did you know about chronic wasting disease?

1 Hardly anything

2 A little bit

3 A fair amount

4 A lot

Findings: Perhaps unsurprisingly, respondents with more hunting experience tended to report higher levels of knowledge. What is questionable, however, is the extent to which respondents' knowledge is accurate. For example, one respondent with less hunting experience answered 'a little bit' because this was relatively new information to her. Thinking CWD is caused by parasites, she said:

"What I know primarily is that it's a parasite the deer gets. I've looked up videos of deer that have had it. And they do look like they're just foaming at the mouth. They look unhealthy...Since that, I told my husband I really would rather we get the meat tested."

A respondent with more hunting experience answered 'a fair amount' because there were aspects of the disease he did and did not understand. He said:

"I'm aware of it. I'm aware of counties that have it. I'm aware of the regulations regarding not taking that to another county, if you get it. You have to take it to a, like if you're hunting in a county which has chronic wasting disease you have to take it to a processor in the same county. But I don't know if it's something that's detected by blood or tissue sample. And I don't know how it affects humans either. I do know that deer that have it, especially when it's advanced, oh they look terrible!"

Finally, a respondent with a great deal of experience reported 'a lot' because he teaches new hunters and had full confidence in his understanding of the disease. He said:

"We educate on CWD. I do hunt in a CWD area. And we used to have to take the deer in and they would cut their cheek and take brain samples. And then in two days they call us and let us know. Like you said, it's zombie disease. You can see if a deer is emaciated and not acting right. Hunters know wildlife moves in the morning and the evening. Very seldom you're going to see them in the middle of the day, out in the field. See a bunch of deer out in the middle of a field? Something's up. So, we watch them. A CWD deer is going to be emaciated."

However, it became clear that his knowledge was imperfect as he went on to explain, "It's not a parasite. It's a virus. I've been hunting a long time and have never had a call back [that meat tested positive]."

In sum, respondents do have the ability to rate how much they know about CWD, but there is no guarantee that what they know is accurate. This is true irrespective of a person's level of hunting experience. Thus, someone who objectively has a greater knowledge of CWD – such as experienced hunters who are exposed to public health messaging regarding the disease – might answer using a “lower” category (such as ‘a little bit’) because they are aware they do not possess all salient information regarding CWD. However, another respondent who objectively has less knowledge about CWD – such as non-hunters in unaffected states – might use the same answer category to indicate that they had read a news article and were not completely unaware of the disease. Because both novice and experienced hunters may choose the same category even as they have different levels of knowledge, data users should be cautious when making cross-group comparisons of this question.

CWD_CONTEST: How concerned would you be about eating deer or elk meat that was <u>not tested</u> for chronic wasting disease when it was from an area where chronic wasting disease was detected?	1 Not at all concerned 2 Slightly concerned 3 Moderately concerned 4 Very concerned -9 Don't know
CWD_CONPOS: How concerned would you be about eating deer or elk meat that tested positive for chronic wasting disease?	1 Not at all concerned 2 Slightly concerned 3 Moderately concerned 4 Very concerned -9 Don't know
CWD_CONHLTH: How concerned are you about chronic wasting disease affecting human health?	1 Not at all concerned 2 Slightly concerned 3 Moderately concerned 4 Very concerned

Findings: Respondents had no trouble with these three questions. Some respondents seemed to base their level of concern on their (perceived) knowledge of CWD. For example, one respondent reported that he is ‘not at all concerned’ about eating deer meat that was not tested (CWD_CONTEST). When asked about the rationale for his answer, he replied, “Because we know what to look for...If I harvest a deer and field dress it and it's got lesions and all? That deer's getting left in the woods. Donated to Mother Nature.” He essentially trusted his ability to detect CWD in harvested deer without the need for testing. However, it is impossible to know the accuracy of his knowledge and expertise.

Additionally, because there can be multiple factors for which to account, respondents' answers could fluctuate and even self-contradict, depending upon what they were thinking in the moment. For example, one (experienced) respondent was confident in his knowledge, but his survey answer contradicted ideas he conveyed in follow-up probing. To the question CWD_CONPOS he answered 'very concerned' and explained, "If it came back positive, then I'm feeding it to the dogs. We don't need to take the risk." However, during probing he revealed a less concerned attitude:

"Now, if it looks like a healthy deer and it comes back testing positive, it could've been abnormal variation [incorrect test results]. I'm not worried. You cook this meat. You don't eat raw venison. I don't eat the organ meat." *What if you already ate the meat and then found out it tested positive?* "If I brought a deer home and then ate it the next morning and then they called and said your deer tested positive, I would chalk it up as don't eat no more of it....If I knew it had CWD, it's staying in the woods. If I got the call and I already ate some, then so be it, I ate some. I'm not going to worry about it."

Other respondents based their answer on the amount of perceived experience they had with CWD (opposed to knowledge but no experience). For example, having direct experience with CWD factored into one respondent's answer of 'very concerned' about eating deer meat that tested positive for the disease. When asked to explain her answer, she said, "I have seen a case where a woman did contract it. And she did pass away. I don't know if that's truth [about the death], but either way it just kind of freaks me out." In this case, the respondent's experience did not yield fully accurate information about human transmission and outcomes of CWD.

For the last question in this series, CWD_CONHLTH, respondents expressed some concern but not a great deal. For one respondent this was because CWD was not portrayed as a big problem in her area [Wisconsin]. She said, "No, not freaked out because it's not something I've heard about in my area. But given how big hunting is here, it's something to be aware of." Similarly, because another respondent had no direct experience with the disease, he also answered 'moderately concerned.' He said:

"I think that it can affect humans, but I've never known someone that's been affected by it. And because I don't know for sure, and I've never met somebody that has, I don't know. Like, I'm not 'very concerned.' But I imagine if I met somebody that actually had been affected by it, I'd be, like, 'yeah now I'm very concerned' [laughs]."

Appendix 2: Cognitive interview test instrument

SSS -- STROKE SIGNS AND SYMPTOMS

The first questions ask about various health symptoms.

[Ask ALL]

If any of the following happened to you or a friend or relative, what do you think would be the best thing to do?

SSS_DROOP

Sudden drooping of the face, especially on one side

- 1 Wait 1 day, then decide
- 2 Wait 1 hour, then decide
- 3 Call doctor's office immediately
- 4 Call 911 or another emergency number immediately

SSS_NUMB

Sudden numbness or weakness of an arm or leg, especially on one side

- 1 Wait 1 day, then decide
- 2 Wait 1 hour, then decide
- 3 Call doctor's office immediately
- 4 Call 911 or another emergency number immediately

SSS_SPEECH

Sudden slurred or garbled speech

- 1 Wait 1 day, then decide
- 2 Wait 1 hour, then decide
- 3 Call doctor's office immediately
- 4 Call 911 or another emergency number immediately

SSS_MUSCLES

Cramping or locking of muscles of hand or fingers

- 1 Wait 1 day, then decide
- 2 Wait 1 hour, then decide
- 3 Call doctor's office immediately
- 4 Call 911 or another emergency number immediately

SSS_BALANCE

Sudden trouble walking, dizziness, or loss of balance

- 1 Wait 1 day, then decide
- 2 Wait 1 hour, then decide
- 3 Call doctor's office immediately

-
- 4 Call 911 or another emergency number immediately

SSS_SIGHT

Sudden trouble seeing in one or both eyes

- 1 Wait 1 day, then decide
- 2 Wait 1 hour, then decide
- 3 Call doctor's office immediately
- 4 Call 911 or another emergency number immediately

SSS_URINE

Burning feeling during urination and cloudy urine

- 1 Wait 1 day, then decide
- 2 Wait 1 hour, then decide
- 3 Call doctor's office immediately
- 4 Call 911 or another emergency number immediately

SSS_STRKACT

If you thought someone was having a stroke, what do you think would be the best thing to do?

- 1 Wait and monitor their symptoms
- 2 Call 911 or another emergency number
- 3 Call their doctor or health professional
- 4 You or someone else drive them to the hospital
- 5 Have them drive themselves to the hospital

CHR_STREV

Have you ever been told by a doctor or other health professional that you had a stroke?

- 1 YES
- 0. NO

SSS_SEENSTR

Have you ever seen another person having a stroke?

- 1 YES
- 0 NO

SSS_RELSTR

Do you have any close friends or relatives who have had a stroke? [Read if necessary: If you don't know or are unsure, then you may tell me that as well.]

- 1. YES
- 0. NO
- 9 DON'T KNOW

For this next question, you may select more than one answer. Do you now or have you ever held any of the following jobs or titles?

SSS_HLTHJOBSa First responder, including as a firefighter, paramedic, or EMT Yes/No

SSS_HLTHJOBSb Medical doctor Yes/No

SSS_HLTHJOBSc Nurse, including as a registered nurse or nurse practitioner Yes/No

SSS_HLTHJOBSd Aide in a hospital, assisted living facility, or other nursing facility Yes/No

SSS_HLTHJOBSe Other healthcare professional Yes/No

SSS_HLTHJOBSf None of these Yes/No

[Ask ALL]

SSS_FAST

Have you heard of the F-A-S-T or 'fast' acronym for recognizing stroke symptoms?

1 YES

0 NO

PPP -- PRODUCE PRESCRIPTION PROGRAMS

These next questions are about health care and programs that help people get food and groceries.

[Ask ALL]

PPP_HLTHCARE

In the past 12 months, have you received any health care? [Read if necessary: *Include any health care received at a health center, urgent care, clinic including one in a drug store or grocery store, mobile or worksite clinic, doctor's office, outpatient clinic, hospital, or hospital emergency room.*]

1 YES

0 NO [Go to **HPV SELF-TESTING**]

[Ask if R received healthcare]

PPP_HLTHFOOD

At any of those health care visits, were you asked if [you / your family] could afford enough food to eat? [Read if necessary: *The questions could have been on a paper or online form you completed before the visit or during a conversation with clinical staff at the visit.*]

1 YES

0 NO [Go to PPP_BANKINFO intro]

[Ask if R was asked if they could afford enough food]

PPP_RUNOUT

Did you ever answer that you worried whether your food would run out before you had money to buy more?

1 YES

0 NO

PPP_NOTLAST

Did you ever answer that the food you bought just didn't last and you didn't have money to get more?

1 YES

0 NO

[Ask if R received health care in past year]

These next questions are about different ways clinical staff at a health care visit might help you get food. At any of those health care visits...

PPP_BANKINFO

...did someone give you information on where you can get food from a food pantry, food bank, church, or other place that helps with free food?

1 YES

0 NO

PPP_WHELINFO

...did someone give you information on how to get home-delivered meal services like Meals on Wheels or another service that delivers free meals?

1 YES

0 NO

PPP_WICINFO

...did someone give you information about a food assistance program you could contact to help get additional food for you and your family? This information could include websites, addresses or phone numbers for Women, Infants, and Children or WIC, Supplemental Nutrition Assistance Program or SNAP, or food stamps.

1 YES

0 NO

PPP_BANKHELP

During or after any of those health care visits...

...did someone sign you up, help you sign up, or call to connect you with a location where you can get food from a food pantry, food bank, church, or other place that helps with free food?

1 YES

0 NO

PPP_WHELHELP

...did someone sign you up, help you sign up, or call to connect you with a church, shelter, home-delivered meal service like Meals on Wheels, or other place that helps with free meals?

- 1 YES
- 0 NO

PPP_WICHELP

...did someone sign you up, help you sign up, or call to sign you up for Women, Infants, and Children or WIC, Supplemental Nutrition Assistance Program or SNAP, or food stamps?

- 1 YES
- 0 NO

PPP_PRODHELP

...did someone sign you up, help you sign up, or call to sign you up for a fruit and vegetable prescription program that provides coupons, "bucks," or a gift card to get a box or bag of produce to pick up or have delivered to your home?

- 1 Yes
- 0 No [Go to PPP_MEDHELP]

[Ask if R was signed up for produce program]

PPP_PRODUSE

Have you used the coupons, "bucks," or gift card to get a box or bag of produce from the fruit and vegetable prescription program?

- 1 YES
- 0 NO

[Ask if R received healthcare in past year]

PPP_MEDHELP

During or after any of those health care visits, did someone sign you up, help you sign up, or call to sign you up for meals or groceries specifically prepared to help manage a medical condition you have? These meals and groceries are tailored for people with diet-related conditions. For example, someone with high blood pressure or hypertension may receive low sodium meals or groceries tailored to treat their disease.

- 1 YES
- 0 NO [Go to **HPV SELF-TESTING**]

[Ask if R was signed up for groceries to manage a condition]

PPP_MEDUSE

Did you use the meals or groceries related to your medical condition that were offered to you?

- 1 YES

0 NO

HPV - HPV SELF-TESTING

[Ask females 21 and older. Everyone else go to **CHRONIC WASTING DISEASE**]

These next questions are about two types of tests you may have had to look for cervical cancer – Pap tests or Pap smears, and HPV or human papillomavirus tests.

HPV_LASTPAP

About how long has it been since you last had a Pap test or Pap smear, where a doctor or nurse put an instrument in your vagina and took a sample to check for abnormal cells that could turn into cervical cancer?

[READ IF NECESSARY:]

- 1 Within the past year (ANY TIME LESS THAN 12 MONTHS AGO)
- 2 Within the last 2 years (MORE THAN 1 YEAR BUT LESS THAN 2 YEARS AGO)
- 3 Within the last 3 years (MORE THAN 2 YEARS BUT LESS THAN 3 YEARS AGO)
- 4 Within the last 5 years (MORE THAN 3 YEARS BUT LESS THAN 5 YEARS AGO)
- 5 Within the last 10 years (MORE THAN 5 YEARS BUT LESS THAN 10 YEARS AGO)
- 6 10 years ago or more
- 0 You have never had a Pap test

HPV_SWABEV

Have you ever had an HPV test, where a doctor or nurse put a swab in your vagina and took a sample to test for the HPV virus? This test may have been done on its own, or at the same time as a Pap test.

- 1 YES
- 0 NO
- 9 DON'T KNOW

HPV_PREFTEST

There is a new option to use a simple kit to test for HPV infection yourself:

- To use, you insert a swab about an inch into your vagina and rotate it for about 30 seconds.
- The kit is designed to be easy to use, and the results are accurate.
- You can do this test yourself in clinics and doctor's offices, and in the future, you may also be able to do the test at home.

If available, would you prefer to do this test yourself rather than having an HPV test done by a doctor or nurse? If you have no preference, you can say that as well.

-
- 1 YES, PREFER TESTING MYSELF
 - 2 NO, PREFER DOCTOR OR NURSE TESTING ME [go to HPV_DISP]
 - 3 HAVE NO PREFERENCE [go to HPV_DISP]

HPV_DISP

[Even if you prefer to have the HPV test **done by a doctor or nurse**, which / Which] of the following, if any, do you think would be a benefit of doing an HPV test yourself?

HPV_PRIVACY

You would have more privacy.

- 1 YES
- 0 NO

HPV_EMBARRASS

It would be less embarrassing.

- 1 YES
- 0 NO

HPV_PAIN

It would be less painful.

- 1 YES
- 0 NO

HPV_STRESS

It would be less stressful.

- 1 Yes
- 0 No

HPV_CONVEN

It would be more convenient.

- 1 YES
- 0 NO

HPV_CONTROL

You would feel more in control.

- 1 YES
- 0 NO

HPV_DOCRN

You do not like physical exams by doctors or nurses.

- 1 YES
- 0 NO

HPV_OTHBEN

Another benefit.

1 Yes

0 No

HPV_DISP2

[Even if you prefer to **do the HPV test yourself**, which of the following, if any, would concern you? / Which of the following, if any, would concern you about doing an HPV test yourself?]

HPV_TESTERR

You might do the test wrong.

1 YES

0 NO

HPV_SELFEMB

You would feel embarrassed doing the test yourself.

1 YES

0 NO

HPV_PAININJ

You are worried that it could be painful or you could injure yourself.

1 YES

0 NO

HPV_ACCURACY

You are worried the results would be less accurate than a test done by a doctor or nurse.

1 YES

0 NO

HPV_OTHCONC

Another concern.

1 YES

0 NO

[Ask if R prefers to do own test or has no preference. Else if R prefers Dr to do test, go to **CHRONIC WASTING DISEASE**]

HPV_LOCATION

Right now, you can do the HPV test yourself in places like clinics and doctor's offices, but in the future, you may also be able to do the test at home and return the kit using the mail.

[If you were going to do an HPV test yourself, would / Would] you prefer to do this HPV test at home or to test yourself in a clinic or doctor's office. If you have no preference, you can say that as well.

- 1 HOME
- 2 CLINIC OR DOCTOR'S OFFICE [Go to HPV_DISP4]
- 3 HAVE NO PREFERENCE [Go to **CHRONIC WASTING DISEASE**]

[Ask if R prefers home test]

HPV_DISP3

Which of the following, if any, are reasons you would prefer doing an HPV test yourself at home?

HPV_LOCCONV

It would be more convenient to test yourself at home.

- 1 YES
- 0 NO

HPV_LOCPRIV

You prefer the privacy of testing yourself at home.

- 1 YES
- 0 NO

HPV_LOCTIME

You could take the test on your own time.

- 1 YES
- 0 NO

HPV_LOCTRAV

It is hard for you to get to a clinic or doctor's office.

- 1 YES
- 0 NO

HPV_LOCCOMF

You would be more comfortable in your home.

- 1 YES
- 0 NO

HPV_LOCDOC

You do not like going to the doctor.

- 1 YES
- 0 NO

HPV_LOCOTHA

Another reason.

1 YES

0 NO

[Ask if R prefers test in clinic or doctor's office; others go to **CHRONIC WASTING DISEASE**]

HPV_DISP4

Which of the following, if any, are reasons you would prefer doing an HPV test yourself at a clinic or doctor's office?

HPV_LOCMAIL

You would not want to use the mail for at-home medical tests.

1 YES

0 NO

HPV_LOCKNOW

You would not want other people you live with to know you are taking an HPV test.

1 YES

0 NO

HPV_LOCCLEAN

A clinic or doctor's office would be a cleaner place to test yourself.

1 Yes

0 No

HPV_LOCHELP

At a clinic or doctor's office, staff would be available to help you or answer your questions.

1 YES

0 NO

HPV_LOCNEED

You have to go to the doctor anyway.

1 YES

0 NO

HPV_LOCOTHB

Another reason.

1 YES

0 NO

CWD - CHRONIC WASTING DISEASE

[Ask ALL]

CWD_DISP

The next questions are about the consumption and hunting of deer or elk.

CWD_EVEATEN

Have you ever eaten deer or elk meat?

1 YES

0 NO

CWD_EVHUNT

Have you ever gone hunting for deer or elk?

1 YES

0 NO [Go to CWD_EVHEARD]

[Ask if R ever hunted deer/elk]

CWD_HUNTAGE

Approximately how old were you the first time you went hunting for deer or elk?

_____ years old

CWD_OFTHUNT

Since your first time hunting, about how often have you gone deer or elk hunting?

[READ OPTIONS:]

1 Every year

2 Most years

3 Some years

4 Hardly ever

CWD_HUNTST00

Since 2000, which states have you hunted deer or elk in? Tell me the name of each state.

1. Have not hunted since 2000

2. _____ [States]

I have recorded that you have not hunted deer or elk in any state since 2000. / I have recorded that you have hunted deer or elk in the following states since 2000: {NAME EACH STATE}. Is this correct?

1 Yes

0 No

[Ask if R hunted in Colorado, Wyoming, or Nebraska since 2000]

CWD_COWYNE

Just to confirm, since 2000, have you hunted deer or elk in Colorado, Wyoming, or Nebraska?

1 YES
0 NO

CWD_HRVEST00

Since 2000, have you harvested any deer or elk while hunting in {Colorado, Wyoming, or Nebraska}?

1 YES
0 NO

[Ask if R hunted in SOUTH DAKOTA, WISCONSIN, ILLINOIS, UTAH, NEW MEXICO, KANSAS, WEST VIRGINIA, OR NEW YORK]

CWD_HUNTST05

Since 2005, have you hunted for deer or elk in {SOUTH DAKOTA, WISCONSIN, ILLINOIS, UTAH, NEW MEXICO, KANSAS, WEST VIRGINIA, OR NEW YORK}?

1 Yes
0 No

[Ask If R hunted since 2005 in SOUTH DAKOTA, WISCONSIN, ILLINOIS, UTAH, NEW MEXICO, KANSAS, WEST VIRGINIA, OR NEW YORK]

CWD_HRVEST05

Since 2005, have you harvested any deer or elk while hunting in {SOUTH DAKOTA, WISCONSIN, ILLINOIS, UTAH, NEW MEXICO, KANSAS, WEST VIRGINIA, OR NEW YORK}?

1 Yes
0 No

[Ask if R hunted in VIRGINIA OR NORTH DAKOTA]

CWD_HUNTST10

Since 2010, have you hunted for deer or elk in {VIRGINIA OR NORTH DAKOTA}?

1 Yes
0 No

[Ask if R hunted since 2010 in VIRGINIA OR NORTH DAKOTA]

CWD_HRVEST10

Since 2010, have you harvested any deer or elk while hunting in {VIRGINIA OR NORTH DAKOTA}?

1 YES
0 NO

[Ask if R hunted in MINNESOTA, MARYLAND, MISSOURI, PENNSYLVANIA, TEXAS, IOWA, OR MICHIGAN]

CWD_HUNTST15

Since 2015, have you hunted for deer or elk in {MINNESOTA, MARYLAND, MISSOURI, PENNSYLVANIA, TEXAS, IOWA, OR MICHIGAN}?

1 YES

0 NO

[Ask if R hunted in MINNESOTA, MARYLAND, MISSOURI, PENNSYLVANIA, TEXAS, IOWA, OR MICHIGAN since 2015]

CWD_HRVEST15

Since 2015, have you harvested any deer or elk while hunting in {MINNESOTA, MARYLAND, MISSOURI, PENNSYLVANIA, TEXAS, IOWA, OR MICHIGAN}?

1 Yes

0 No

[Ask if R hunted in ARKANSAS, MONTANA, MISSISSIPPI, TENNESSEE, OR OHIO]

CWD_HUNTST20

Since 2020, have you hunted for deer or elk in {ARKANSAS, MONTANA, MISS, TENN OR OHIO}?

1 YES

0 NO

[Ask if R hunted since 2020 in ARKANSAS, MONTANA, MISSISSIPPI, TENNESSEE, OR OHIO]

CWD_HRVEST20

Since 2020, have you harvested any deer or elk while hunting in {ARKANSAS, MONTANA, MISSISSIPPI, TENNESSEE, OR OHIO}?

1 Yes

0 No

[Ask if R hunted in IDAHO, ALABAMA, LOUISIANA, NORTH CAROLINA, OKLAHOMA, FLORIDA, KENTUCKY, INDIANA, OR CALIFORNIA]

CWD_HUNTST12M

In the past 12 months, have you hunted for deer or elk in { in IDAHO, ALABAMA, LOUISIANA, NORTH CAROLINA, OKLAHOMA, FLORIDA, KENTUCKY, INDIANA, OR CALIFORNIA}?

1 Yes

0 No

[Ask if R hunted in the past 12 mos in IDAHO, ALABAMA, LOUISIANA, NORTH CAROLINA, OKLAHOMA, FLORIDA, KENTUCKY, INDIANA, OR CALIFORNIA]

CWD_HRVEST12M

In the past 12 months, have you harvested any deer or elk while hunting in {FILL
SELECTED STATE NAME(S)}?

1 Yes

0 No

[Ask if R **ever** processed deer or elk in **any** state; else go to CWD_EVHEARD]
Since 2000, have you processed deer or elk you harvested in any of the following
ways?

CWD_PROCESSa

You processed your own meat.

1 Yes

0 No

CWD_PROCESSb

Someone you know processed the meat, such as a family member, friend, neighbor, or
another hunter.

1 Yes

0 No

CWD_PROCESSc

You took it to a commercial meat processor.

1 Yes

0 No

CWD_PROCESSd

You donated the whole animal to a charity like a food bank or Hunters for the Hungry.

1 Yes

0 No

CWD_PROCESSe

You did something else.

1 Yes

0 No

[Ask ALL]

CWD_EVHEARD

Chronic wasting disease or CWD is an illness affecting deer and elk in parts of the
United States. Prior to this survey, had you ever heard of chronic wasting disease, also
known as zombie deer disease?

1 YES

0 NO [Go to CWD_DISP3]

[Ask if R heard of CWD]

CWD_KNWMUCH

Prior to this survey, how much did you know about chronic wasting disease?

[READ OPTIONS:]

- 1 Hardly anything
- 2 A little bit
- 3 A fair amount
- 4 A lot

[Ask if R heard of CWD; else end interview]

CWD_CONTEST

How concerned would you be about eating deer or elk meat that was not tested for chronic wasting disease when it was from an area where chronic wasting disease was detected?

[READ OPTIONS:]

- 1 Not at all concerned
- 2 Slightly concerned
- 3 Moderately concerned
- 4 Very concerned
- 9 Don't know

[Ask if R heard of CWD]

CWD_CONPOS

How concerned would you be about eating deer or elk meat that tested positive for chronic wasting disease?

[READ OPTIONS:]

- 1 Not at all concerned
- 2 Slightly concerned
- 3 Moderately concerned
- 4 Very concerned
- 9 Don't know

CWD_CONHLTH

How concerned are you about chronic wasting disease affecting human health?

[CATI RESPONSE OPTIONS - DO NOT READ:]

- 1 Not at all concerned
- 2 Slightly concerned
- 3 Moderately concerned
- 4 Very concerned

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