

Results of Cognitive Testing of Questions for the National Health Interview Survey

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January 2018

I. Introduction

This report summarizes the findings of a cognitive interview study to test a variety of questions for use in the National Health Interview Survey. The main objective of the NHIS is to monitor the health of the United States population through the collection and analysis of data on a broad range of health topics. The purpose of this testing project was to evaluate questions about adult and child healthcare utilization, use of e-cigarettes, adverse childhood events, and questions related to child physical activity, sleep and screen-time.

This evaluation is based on 25 cognitive interviews that were conducted by a team of researchers from the Collaborating Center for Questionnaire Design and Evaluation Research (CCQDER) at the National Center for Health Statistics in September 2017. Cognitive interviewing is a qualitative question evaluation method used to assess the construct validity of survey questions (Willis 2004; Miller 2011). The following sections of this report include an overview of cognitive interviewing methodology, a summary of key findings, and a question by question analysis. The complete instrument is presented in Appendix A.

II. Methods

Cognitive Interviewing: Cognitive interviewing is a qualitative question evaluation method. As such, cognitive interviewing studies investigate how respondents interpret and respond to questionnaire items based on their particular social and cultural contexts. Cognitive interviewing can be used to determine whether these interpretations align with question intent. Findings of a cognitive interviewing project often lead to recommendations for question improvement, provide evidence of question validity, and can be used in post-survey quantitative analysis to assist in data interpretation.

Cognitive interviewing studies typically involve in-depth, semi-structured interviews with a small sample of approximately twenty to forty respondents. In these interviews, respondents are first administered the survey items under evaluation and then answer a series of follow-up probe questions that reveal how respondents arrived at their particular response choices. These probes can be either concurrent (asked with each survey item) or retrospective (asked after all survey items). Through this semi-structured design, respondents' response processes are revealed.

Sample selection for a cognitive interviewing project is purposive with respondents selected for specific characteristics -- such as race, health status or occupation- that are relevant to the intended purpose of the survey instrument. Because of the small sample size, not all social and demographic groups are represented although an effort is made to maintain a varied sample.

A five-step process of data synthesis and reduction is used in the analysis of cognitive interview data. Through these steps- conducting the interview, summarizing interview data, comparing across respondents, comparing respondent subgroups and making conclusions - the complexities of the question-response process are understood (Miller, Willson, Chepp, & Padilla, 2014). This process reveals how individual questions perform as well as how questions perform across different subgroups of respondents. This information can be used to improve questions and to validate user end conclusions based on survey data.

Sample: A team of researchers from the CCQDER interviewed a total of 25 respondents. The research team recruited a purposive sample of adults over age 18 through newspaper advertisements, e-mail list contacts and flyers. Inclusion criteria included being a current smoker or having a child age 2 to17. A screening process was employed over the telephone to determine eligibility for participation. The sample was split almost equally between male and female respondents. Seventy-two percent identified as black or African American while 80% of respondents had completed some college or more. Demographics for the full sample are shown in Table 1.

Table 1. Respondent Demographics

	5	Total %
Race/Ethnicity		
Asian/American Indian or Alaskan Native	1	4%
Black/African American	18	72%
White	5	20%
Multiple	1	4%
Ethnicity		
Hispanic	2	8%
Non/Hispanic	23	92%
Gender		
Male	13	52%
Female	12	48%
Education		
HS or GED	5	20%
Some College	13	52%
Bachelor’s Degree or higher	7	28%

Age of Adult		
18-29	4	16%
30-49	12	48%
50-64	8	32%
65+	1	4%
Age of child		
2-6	6	24%
7-12	10	40%
13-17	8	32%
No child	1	4%

Interviewing Procedures: During the interviews intensive retrospective verbal probing was used to collect data on the response process. Audio recordings and written notes of interview summaries were collected and used as the basis of data analysis. All interviews were conducted face-to-face in the Questionnaire Design Research Laboratory within the CCQDER. Interviews lasted up to 60 minutes and respondents were given \$40 once the interviews were complete.

Data Analysis: Post-interview analysis was done using Q-Notes, a qualitative software packages designed to facilitate cognitive interview analysis. After each interview was conducted, summary notes for each question were entered into Q-Notes. Summary notes included the way in which a respondent interpreted and processed individual questions, what experiences or perceptions the respondent included as they formulated their answer, and any response difficulties experienced by the respondent. After all interviews and summaries were completed, interviews were compared to identify common patterns of interpretation and response difficulties for each question. Sub-group analysis looked at patterns of interpretation and responses as they varied across different groups within the sample. Use of Q-Notes for this analytic process ensures systematic and transparent analysis across all cognitive interviews as well as provides an audit trail depicting the way in which findings are generated from the raw interview data.

III. Overall Findings

Mental health stigma and response burden: Some respondents expressed strong reactions to both adult and child mental health question including using stigmatized language to describe the question. For example, one such respondent called the set of questions “the crazy questions.” While answering “no” to all questions, this respondent said “I was thinking I never told you I was crazy...I was like why did they ask twice but rephrase it.” Several respondents included comments like “I’m not in a straight-jacket,” “I’m not crazy,” “have not gone crazy

to the point where I needed medication” or “I don’t need a shrink.” While there was no direct observable response error among those who answered “no” to the set of mental health questions these kinds of stigmatized responses indicate that social desirability bias may influence some respondents.

Adverse Childhood events: The section on Adverse Childhood Events asked respondents about potentially sensitive topics related to their children’s environment. The questions were tested with a preamble announcing the sensitive nature of the questions and informing respondents that they could skip any questions. The preamble was effective in alerting respondents to the upcoming sensitive questions. However, because the questions were only tested with the preamble, it is not possible to know how they would have performed without the preamble.

Although the questions in this section were quite sensitive, no respondent asked to skip any questions and all respondents provided responses to all of the questions. Respondents who answered “no” to all of the questions did so with ease and without tension. When asked to explain their responses, respondents who answered “no” made comments like, “That’s just not us” or “That doesn’t apply to us.” Respondents who answered “yes” to any or all of the questions had a harder time discussing their responses. Several respondents cried or had difficulty discussing the circumstances. One said when asked what type of drugs her daughter did in front of her granddaughter, “Do you need to know that? It was drugs.” However, even respondents who were stressed by the sensitive questions were able to provide enough details to substantiate their “yes” responses. Even though some respondents were upset when asked to discuss their responses, it should be noted that no respondent was visibly upset when initially asked the questions.

Screen time: It was difficult for respondents to provide accurate or consistent responses in the section on screen time. Part of the reason for this difficulty is the ubiquity of cellphones. Parents have the feeling that their children are “constantly” using their phones (not to make calls but to watch videos, play games and use social media). When asked about how much time their children use screens, respondents answered based on the amount of time their children have access to screens which for many children is “all the time” – including time that their children spend doing other activities such as homework, eating, afterschool recreation and getting ready for bed. Parents were uncertain about what constituted “rules” for screen-time use and were also uncertain about whether to answer based on their rules or based on reality. These difficulties are discussed in more detail in the write up for each question.

Variation across sub-group characteristics: Response patterns were examined across different sub-groups of respondents. The characteristics examined included age, education, race and gender. Neither response choice nor response pattern differed a great deal across any of the sub-groups. For example, when looking at questions on health care utilization, respondents in all age categories chose similar responses and understood the questions similarly. Likewise, mothers and fathers were similar in their approaches to answering questions about their children. Response error was not more common for any particular sub-group. The only factor that had a slight effect on the way respondents answered was the age of the child being reported on. Respondents answering about children in the oldest age group (13-17) were less certain of their answers than respondents with younger children. In general, it seems parents of teens are not always certain of what their children do. For example, when answering the question on child sleep, the parent of a 17 year old said, “I’m not really sure. I’d like to encourage it [sleep] but it’s difficult, at 17, to get him to bed.” In answering the question on child screen time use, another parent of a teen said, “I’m not around her all the time so I really don’t know. I can give you guess.”

IV. Question-by-Question Review

ADULT UTILIZATION

LASTDR_A. ABOUT HOW LONG HAS IT BEEN SINCE YOU LAST SAW ANY DOCTOR OR OTHER HEALTH PROFESSIONAL ABOUT YOUR HEALTH? NEVER; WITHIN THE PAST YEAR (ANYTIME LESS THAN 12 MONTHS AGO); WITHIN THE LAST 2 YEARS (1 YEAR BUT LESS THAN 2 YEARS AGO); WITHIN THE LAST 3 YEARS (2 YEARS BUT LESS THAN 3 YEARS AGO); WITHIN THE LAST 5 YEARS (3 YEARS BUT LESS THAN 5 YEARS AGO); WITHIN THE LAST 10 YEARS (5 YEARS BUT MORE THAN 10 YEARS AGO); 10 YEARS AGO OR MORE

This question was asked of all respondents and was administered in an open-ended fashion. Most respondents answered by naming the month of their last visit or by estimating the number of months that have elapsed since the visit. Interviewers then mapped the response onto the appropriate answer category and confirmed that selection with the respondent.

Many respondents said their last visit to a health professional was for a routine physical exam or check-up. Most of these respondents referenced an annual wellness exam or well-woman visit with their primary care physician (PCP). Some included check-ups required as part of their jobs, volunteer work, or research study participation while others did not.

Other types of visits considered included those associated with an acute medical concern (e.g., rash, infection, injury, cold/flu) or the management of a chronic condition (e.g., seeing a nutritionist for weight management or an orthopedic surgeon for arthritis). Some respondents considered medication management visits with a PCP or psychiatrist while others did not.

None of the respondents answered based on visits with a mental health counselor, routine appointments with an eye doctor, or routine dental cleanings/check-ups. One respondent who did answer based on a dental visit reported having a root canal the day prior to the interview, which was salient due to lingering pain from the procedure.

Response Error: There is the potential for response error when respondents don't include all health visits in their responses or when they forget when their healthcare visits occurred. In this case, five respondents later referenced wellness exams that happened more recently than the visit they described in response to **LASTDR_A**. In only one case, however, would inclusion of the wellness visit have resulted in a different answer to the current question. In that instance, the respondent answered "within the past year" to **WELLVIS_A** based on a physical exam required for work, but answered the current question "within the last 2 years" in reference to a visit with his PCP for strep throat that occurred about 2 years ago.

Timeframe: At least one instance of response error was a result of a respondent answering outside of the timeframe specified in the question. In this case, a respondent said he'd seen his PCP within the past year for a wellness exam, but later probing revealed that the visit occurred 14 months prior to the interview. When answering this question, the respondent hadn't thought of the specific month of his last visit; instead, he reasoned that the visit must have occurred within the past year since he has wellness exams on an annual basis.

USUALPL_A. IS THERE A PLACE THAT YOU USUALLY GO TO IF YOU ARE SICK? YES, NO, THERE IS MORE THAN ONE PLACE

This question was asked of all respondents. A majority answered by describing specific places where they go for medical care instead of using the yes/no answer format. In a number of cases, respondents expressed uncertainty about how to answer and described going to multiple places depending on the urgency and type of medical concern. These issues will be described in more detail in the analysis of **USPLKIND_A** below.

Most respondents understood the current question to be asking where they go when they have an acute illness such as a cold or the flu. Several of these respondents commented that they don't get sick very often or don't go to a doctor when they are sick. These individuals answered the question hypothetically by describing where they *could* go if they were to get sick and seek medical attention.

Other respondents interpreted the question more broadly to include a range of emergent medical issues. In addition to visits for acute illnesses, they also considered treatment for concerns such as allergic reactions, injuries, infections, and asthma flare-ups. These respondents considered where they would go if they had a relatively urgent need for care.

A final group of respondents understood this question even more broadly to be asking about all types of doctor visits, including visits for check-ups, vaccines, prescription refills, and chronic condition management. Most of these individuals had a PCP and thought of visits to that doctor when answering.

Response error: Potential for response error was identified in a couple of cases. In one instance, a respondent did not understand that the word "place" referred to a medical facility. He answered, "Not really. I mean, I guess, home?" During probing, this respondent described going to a small hospital for minor illnesses and injuries. In another case, a respondent answered "there is no place" based primarily on his image of himself as someone who doesn't go to the doctor. He expressed a general aversion toward hospitals and doctor offices and said he usually doesn't seek medical attention for illnesses. However, further probing revealed that this respondent has gone to a number of different walk-in clinics for urgent medical concerns in the past. Based on their responses to this question, both respondents skipped out of the following question.

USPLKIND_A. WHAT KIND OF PLACE DO YOU GO MOST OFTEN (*READ ANSWER CATEGORIES*)? A DOCTOR'S OFFICE OR HEALTH CENTER; WALK-IN CLINIC*, URGENT CARE CENTER, OR RETAIL CLINIC IN A PHARMACY OR GROCERY STORE; EMERGENCY ROOM; A VA MEDICAL CENTER OR VA OUTPATIENT CLINIC; SOME OTHER PLACE; DOES NOT GO TO ONE PLACE MOST OFTEN- *Removed "walk-in clinic" from answer choice for last 7 respondents

This question was asked of respondents who answered "yes" or "there is more than one place" to the previous question (**USUALPL_A.**) which asked if there is a place they usually go if they are sick. Many respondents described going to multiple places for care depending on the urgency and type of medical concerns. However, all respondents were able to select a single response category depending on how they framed the question.

Approximately half of the respondents answered this question with ease because they reported always going to the same place or the same type of place for care. Most of these respondents had a PCP, whom they described as an initial point of contact for any kind of medical concern. Although some mentioned getting referrals to other doctors for particular health issues, they answered "doctor's office" based on their initial and most frequent point of care (with the PCP). A much smaller group of respondents said they always used walk-in clinics

or urgent care centers, primarily because of the convenience and extended hours. Some used the same clinic every time, while others went to different clinics depending on the medical need and situational factors.

Another group of respondents experienced difficulty answering because they reported going to different places depending on the urgency and type of medical concern. Most of these individuals had a PCP but also described using urgent care or the emergency room in some situations. For example, one individual who answered “yes” to **USUALPL_A** explained, “It could be one of two things; depending on the day of the week and the severity of the illness. It could either be the primary care or it could be an immediate health...uh, an urgent care setting of that nature.” When the interviewer asked if the respondent goes to one place most often, he replied, “Lately, I’d say the urgent care, just because of their availability and their close proximity to the home.” The respondent chose to answer “urgent care” based on his recent behavior, but noted that he’d follow up with his PCP for anything that required ongoing care.

Among those who mentioned going multiple places, all were eventually able to select a single response category. However, individuals differed in how they arrived at that response. Some based their responses on past behavior. Most of these individuals answered “a doctor’s office,” reasoning that their most frequent point of medical contact has been with their PCPs. For example, one respondent who hadn’t gotten sick or been to a doctor in over two years answered “doctor’s office” based on previous experience going to his PCP. This respondent answered based on his past experience even though he noted that he would go to an emergency room for future illnesses because the PCP does not accept his new health insurance.

Another group of respondents answered hypothetically based on where they would most likely seek treatment for an acute illness in the future. For example, one respondent who had gone to both her PCP and the emergency room for treatment of illnesses in the past noted that her PCP has limited availability for same-day appointments and decided to answer “emergency room” based on where she is most likely to receive immediate care for illnesses in the future. Individuals who reported not getting sick very often or not going to a doctor when sick also answered this question hypothetically. These respondents answered based on where they *could go* if they were to seek medical attention for an acute illness. Most of them had a PCP and answered “doctor’s office” thinking of their PCPs.

“walk-in clinic”: Some respondents experienced difficulties with the term “walk-in clinic” in the second answer choice. For instance, one respondent answered “doctor’s office or health center” but expressed uncertainty because her PCP’s office is located in a non-profit “clinic.” Other respondents chose “walk-in clinic” because the name of their doctor’s office included the word “clinic.” For example, several respondents reported utilizing health services from La Clinica del Pueblo which is a health provider for low income people and not a “walk-in clinic.” After the term “walk-in clinic” was removed from the answer choice (for the last seven respondents), no additional problems were encountered. However, this fix remains inconclusive because none of the respondents who received the revised version described their healthcare provider as a “clinic” or received health care at a facility with the term “clinic” in the name.

WELLVIS_A. ABOUT HOW LONG HAS IT BEEN SINCE YOU LAST SAW A DOCTOR OR OTHER HEALTH PROFESSIONAL FOR A "WELLNESS VISIT," PHYSICAL EXAMINATION, PREVENTIVE CARE, OR GENERAL PURPOSE CHECK-UP? NEVER; WITHIN THE PAST YEAR (ANYTIME LESS THAN 12 MONTHS AGO); WITHIN THE LAST 2 YEARS (1 YEAR BUT LESS THAN 2 YEARS AGO); WITHIN THE LAST 3 YEARS (2 YEARS BUT

LESS THAN 3 YEARS AGO); WITHIN THE LAST 5 YEARS (3 YEARS BUT LESS THAN 5 YEARS AGO); WITHIN THE LAST 10 YEARS (5 YEARS BUT MORE THAN 10 YEARS AGO); 10 YEARS AGO OR MORE

This question was asked of all respondents. The vast majority understood it to be asking about routine, preventative care check-up visits. They referred to these visits with terms such as “annual wellness exam,” “annual physical,” “routine check-up,” and “general check-up.” Some women referred to annual well-woman visits completed with their PCP. Women who had gynecological check-ups separate from their annual physical exams said they hadn’t considered the gynecological visit in response to this question. A few respondents were thinking about physical exams required as part of their jobs, volunteer work, or research study participation.

When asked to describe what happened during the wellness visits, respondents often referred to “the basics” and having their “vitals” checked, which included blood pressure, height, weight, lungs, joints, ears, eyes, and nose. Respondents also reported getting bloodwork done to check sugar and cholesterol levels and to screen for STDs.

Response error: One respondent failed to consider potentially in-scope visits. This individual answered “more than 10 years ago” but described having “the basics” checked by his regular doctor every time he visits for other concerns. Two additional respondents included potentially out-of-scope visits. One individual who had Type I diabetes was thinking about a check-up visit with his endocrinologist that occurred several weeks prior to our interview. Another respondent was thinking about a trip to the emergency room for a broken foot, which took place two months prior to the interview. Although both respondents happened to have undergone wellness checks within the past year as a requirement for their jobs, neither was thinking of the wellness visit when answering “within the past year” to the current question.

Timeframe: Two respondents erroneously reported that their last wellness visit occurred within the past 12 months. Each respondent assumed that the visit had occurred within the past year since they have regular wellness exams on an annual basis. Upon further probing, however, it was revealed that the visits actually took place 14-15 months prior to the interview. Thus, response error was evident in both cases.

Repetition: Many respondents described the same doctor visit in response to this question as they did in response to **LASTDR_A**. As a result, many commented that the questions seemed repetitive. When asked why she laughed when responding to this question, one respondent said, “That question seems very similar to the other question.” Another individual who was thinking of the same visit as he described in response to **LASTDR_A** spontaneously opined, “Some of these questions are repetitive” upon administration of the current question.

WELLKIND_A. What kind of place did you go to for your most recent “wellness visit,” physical examination, preventive care, or general purpose check-up (*read answer categories*)? A DOCTOR’S OFFICE OR HEALTH CENTER; WALK-IN CLINIC*, URGENT CARE CENTER OR RETAIL CLINIC IN A PHARMACY OR GROCERY STORE; EMERGENCY ROOM; VA MEDICAL CENTER OR VA OUTPATIENT CLINIC; SOME OTHER PLACE; DOES NOT GO TO ONE PLACE MOST OFTEN *Removed “walk-in clinic” from answer choice for last 7 respondents.

This question was asked of all respondents. When answering, many described the same health care provider as they did in response to **USPLKIND_A** (i.e., the place they go most often when they are sick). All respondents

understood this question to be asking about the type of provider they visited for the wellness exam described in response to the previous question.

The most common response was “a doctor’s office or health center,” which most used in reference to their PCP’s office in a hospital or private practice. One respondent used this answer choice in reference to a physical exam conducted in the health center at his place of employment. Another respondent used the answer choice to describe a wellness check that took place in a women’s shelter with her PCP, who floats between various walk-in clinics and health centers as part of a provider network serving low income residents.

Response error: Potential response error was seen in one respondent who answered “emergency room” because he was thinking about a visit for a broken foot, as described in the analysis of **WELLVIS_A** above.

“walk-in clinic”: The term “walk-in clinic” caused confusion for some. For example, one respondent whose PCP is part of a network of providers serving low income residents called “La Clinica Del Pueblo” used the “walk-in clinic” answer choice to describe his (scheduled) wellness visit with the PCP. This respondent used the term “clinic” to describe the place where he has appointments with his PCP. At least one additional respondent erroneously chose the “walk-in clinic” answer option to describe a scheduled wellness visit with a PCP who practices as part of a non-profit “clinic.” After the term “walk-in clinic” was removed from the second answer choice (for the last seven respondents), no additional problems were encountered. However, this fix remains inconclusive because none of the respondents who received the revised version described their healthcare provider as a “clinic.”

URGENT12M_A. DURING THE PAST 12 MONTHS, HOW MANY TIMES HAVE YOU GONE TO A WALK-IN CLINIC* SUCH AS AN URGENT CARE CENTER*, OR CLINIC IN A PHARMACY OR GROCERY STORE ABOUT YOUR HEALTH? *Removed “clinic” terminology for last 7 respondents

This question was asked of all respondents. A number of individuals expressed confusion when answering and many needed the question repeated. More than half of the respondents were uncertain about which types of visits they should count toward their answer. Several asked whether or not they should count urgent care visits for their children, one wondered if a scheduled appointment at Planned Parenthood should be counted, and a few were confused about whether or not to count emergency room visits (some counted ER visits in their answers, while others did not).

Additionally, a lot of confusion surrounded visits to clinics in pharmacies or grocery stores. This confusion was observed primarily among individuals who had no experience with retail clinics. For example, one respondent remarked, “I never knew there was a doctor in the grocery store.” Another respondent began to answer, “There are different places I’ve gone, but you throw in the pharmacies and I’m thinking of getting prescriptions and stuff. But say that again...” After the interviewer re-read the question, the respondent added, “I think what threw me off was the pharmacy and grocery store.” Several respondents asked if they should count visits to the pharmacy to fill prescriptions. Others asked if checking their weight or blood pressure in the pharmacy or grocery store should count. Still others wondered if they should include the time they received a flu shot at the pharmacy or grocery store.

Among the respondents who provided in-scope answers to this question, the types of visits described included trips to urgent care or retail clinics for minor illnesses, infections, and injuries (e.g., flu, sinus infection, a hurt thumb, glass in foot), and trips to walk-in clinics for routine physicals, eye exams, and drug tests. Those who answered “zero times” to this question frequently mentioned a preference to see their PCP for all health concerns. These individuals tended to distrust the qualifications of practitioners at walk-in clinics, and said they preferred to see someone who knew their medical history. Others mentioned having been to an urgent care center or a retail clinic in the past for illnesses or injuries, but answered “zero times” because those visits occurred more than a year ago.

Response error: The general state of confusion surrounding this question led to a number of response errors. For example, one respondent answered “one time,” referring to a general check-up he had as part of a research study at a military installation. Another person answered “one time” based on a wellness visit at his regular family practice, which he described as “a doctor’s office” in response to previous questions. An individual who was thrown off by the idea of a clinic in a grocery store or pharmacy answered “zero times” saying, “I didn’t know they had those inside a drug store or a Giant” and failing to include two relevant visits to a walk-in clinic for work physicals in the past year.

Counting: A couple of respondents reported multiple visits for the same concern and had difficulty judging how to count those visits. One individual answered “one time,” counting multiple visits to urgent care for the same foot injury as a single “time.” Another respondent who made two visits to a retail clinic for a TB skin test (one for the injection, the other for the reading) counted those visits separately, answering “two times.” He said, “How many times have I been? Within the past year? Just anything? Like if I did a TB test and had to come back and get the results, that’s like 2 visits, right?”

“walk-in clinic”: The term “walk-in clinic” proved problematic for respondents who used the term “clinic” to describe the practice of their primary provider. For example, one respondent answered “one time” based on a scheduled wellness exam he had with his PCP, who practices as part of a “clinic” that serves low-income patients. Another respondent answered “10 times” thinking about all of the appointments she had with her PCP and nutritionist at a nonprofit “clinic.” After the term “walk-in clinic” was changed to “walk-in care center” (for the last seven respondents), no additional problems were encountered. However, this fix remains inconclusive because none of the respondents who received the revised version described their healthcare provider as a “clinic.”

CHILD UTILIZATION

LASTDR_C. ABOUT HOW LONG HAS IT BEEN SINCE (CHILD’S NAME) LAST SAW ANY DOCTOR OR OTHER HEALTH PROFESSIONAL ABOUT (HIS / HER) HEALTH? NEVER; WITHIN THE PAST YEAR (ANYTIME LESS THAN 12 MONTHS AGO); WITHIN THE LAST 2 YEARS (1 YEAR BUT LESS THAN 2 YEARS AGO); WITHIN THE LAST 3 YEARS (2 YEARS BUT LESS THAN 3 YEARS AGO); WITHIN THE LAST 5 YEARS (3 YEARS BUT LESS THAN 5 YEARS AGO); WITHIN THE LAST 10 YEARS (5 YEARS BUT MORE THAN 10 YEARS AGO); 10 YEARS AGO OR MORE

This question was asked of respondents who have children ages 2 to 17 years (n=24). It was administered in an open-ended format and most respondents answered by naming the month of their child’s last visit or by estimating the number of weeks or months that have elapsed since the visit.

A majority of the respondents answered based on a back-to-school check-up visit their child completed to meet school requirements. Since the cognitive interviews were conducted in early- to mid-September, these visits were recent and easily recalled. Several parents reported on preventative care visits that occurred outside of the back-to-school context, either because the child was too young for school or because the child's regular wellness exam took place during the prior school year. In total, 21 of 24 respondents answered this question based on a wellness exam. Other types of visits considered included those associated with an injury or having a cold/flu.

Respondents did not consider appointments for eye exams or dental check-ups when answering this question. For example, one respondent who answered "within the past year" was thinking about a school check-up that took place 2 months prior to the interview and did not consider an eye exam that occurred one month prior to the interview. Another respondent answered "within the past year" based on his child's visit to a RediClinic for the flu 9 months ago, but was not thinking about his child's dental check-up 6 months ago.

Response error: There is the potential for response error when respondents don't include all health visits in their responses or when they forget when their healthcare visits occurred. For example, when answering a later question about preventative care visits (**WELLVIS_C**), one respondent referenced a wellness exam that took place more recently than the injury-related visit she described in response to the current question. However, no response error was evident in this case since both the wellness exam and the injury-related visit occurred within the past year.

USUALPL_C. IS THERE A PLACE THAT (CHILD'S NAME) USUALLY GOES TO IF HE/SHE IS SICK? YES, NO, THERE IS MORE THAN ONE PLACE

This question was asked of respondents who have children aged 2 to 17 years (n=24). Almost all of the respondents answered this question by describing specific places where they take their children for medical care instead of using the yes/no answer format. In a number of cases, respondents expressed uncertainty about how to answer because they take their child different places depending on the urgency and type of medical concern. These issues will be described in more detail in our analysis of **USPLKIND_C** below.

Respondents understood the current question to be asking where they *have gone* or where they *would go* when their child has an acute illness such as a cold or the flu. For example, one respondent said, "I was thinking of the last time [my child] was sick. It's been a while."

Problematic wording: Two respondents were confused by question wording that they thought implied that the child goes to a medical facility without a parent. One parent remarked, "She can't go anywhere, she's 16. She has to come to me because I have all her health papers." In another case, the parent of a 10 year old daughter said, "The place that we take her to, because she can't go by herself ... She doesn't have a kid's clinic. I don't even think that those exist." This parent erroneously answered "there is no place" and skipped out of the follow-up question (**USPLKIND_C**), even though she takes her child to the same emergency room every time the child is in need of medical care.

USPLKIND_C. WHAT KIND OF PLACE (IS IT/DOES HE/SHE) GO MOST OFTEN (READ ANSWER CATEGORIES)? A DOCTOR'S OFFICE OR HEALTH CENTER; WALK-IN CLINIC*, URGENT CARE CENTER, OR RETAIL CLINIC IN A PHARMACY OR GROCERY STORE; EMERGENCY ROOM;

A VA MEDICAL CENTER OR VA OUTPATIENT CLINIC; SOME OTHER PLACE; DOES NOT GO TO ONE PLACE MOST OFTEN- *Removed
“walk-in clinic” from answer choice for last 7 respondents

This question was asked of respondents who have children aged 2 to 17 years and who answered “yes” or “there is more than one place” to the previous question (USUALPL_C), which asked if there is a place their child usually goes if sick.

All respondents thought about where they had taken their children in the past. For many respondents, this was their children’s regular pediatrician. One respondent said, “I go to my doctor for everything. I don’t go to urgent care places because I know my doctor so well.”

However, several respondents described taking their children to different places depending on type, timing and urgency of the medical concern. For example, one parent who ultimately decided to answer “a doctor’s office” remarked, “Usually whenever he gets sick I try to call the doctor immediately to see if I can get him in as soon as I could, but if I can’t get him in that week or in the next couple days, I usually just take him straight to the urgent care. Because the one near my house, they are very quick to bring you in and give you what you need.” Another parent who answered “a doctor’s office” echoed a similar sentiment, saying, “It kind of depends on the day. If it’s office hours, she’ll see primary care. But if not, we’ll take her to urgent care. If I would choose one, automatically it’s the primary care. Doctors office.” Another parent answered “urgent care” based on where his child has gone most often for routine illnesses in the recent past; however, this respondent noted that he would follow up with a visit to the child’s pediatrician if the medical concern were more serious or required ongoing care.

“walk-in clinic”: Some respondents experienced difficulties with the term “walk-in clinic” in the second answer choice. For example, one parent selected this response option because her child’s regular healthcare provider (at a hospital) allows walk-in appointments. A couple of additional respondents selected “a doctor’s office” but expressed confusion because the child’s pediatrician’s office is located inside of a “clinic.” After the term “walk-in clinic” was removed from the answer choice (for the last seven respondents), no additional problems were encountered. However, this fix remains inconclusive because none of the respondents who received the revised version described their healthcare provider as a “clinic.”

WELLVIS_C. ABOUT HOW LONG HAS IT BEEN SINCE (CHILD’S NAME) LAST SAW A DOCTOR OR OTHER HEALTH PROFESSIONAL FOR A WELL (BABY / CHILD) VISIT, PHYSICAL EXAMINATION, PREVENTIVE CARE, OR GENERAL PURPOSE CHECK-UP? NEVER; WITHIN THE PAST YEAR (ANYTIME LESS THAN 12 MONTHS AGO); WITHIN THE LAST 2 YEARS (1 YEAR BUT LESS THAN 2 YEARS AGO); WITHIN THE LAST 3 YEARS (2 YEARS BUT LESS THAN 3 YEARS AGO); WITHIN THE LAST 5 YEARS (3 YEARS BUT LESS THAN 5 YEARS AGO); WITHIN THE LAST 10 YEARS (5 YEARS BUT MORE THAN 10 YEARS AGO); 10 YEARS AGO OR MORE

This question was asked of respondents who have children aged 2 to 17 years (n=24). When answering, most respondents were thinking about back-to-school check-ups their children had recently completed, using terms such as “school check-up,” “back-to-school physical,” and “sports physical.” Parents of young children described “well-baby visits,” “well-child exams,” “physicals,” “regular check-ups,” and “yearly check-ups.” All parents reported on a wellness exam that took place within the past year.

When asked to describe what happened during the wellness visits, respondents again referred to “the basics” and also frequently mentioned immunizations and the completion of paperwork for school records. A couple of respondents said they had taken their child to the doctor for another concern, but completed the physical exam when the doctor noticed the child was due for a wellness check.

Repetition: Almost all of the respondents described the same visit in response to **WELLVIS_C** and **LASTDR_C**. As a result, many commented that the questions seemed repetitive. For example, one parent answered with obvious frustration, “The answer to that question is the same as the previous one: within the past 12 months.” He was thinking of the same visit that he described in response to **LASTDR_C**. Another parent, when probed on her answer to this question, remarked, “It kind of seems like the other question. So I said ‘within the last year.’ Just thought of the same thing.”

WELLKIND_C. WHAT KIND OF PLACE DID (CHILD’S NAME) GET (HIS / HER) MOST RECENT WELL (BABY / CHILD) VISIT, PHYSICAL EXAMINATION, PREVENTIVE CARE, OR GENERAL PURPOSE CHECK-UP? A DOCTOR’S OFFICE OR HEALTH CENTER; WALK-IN CLINIC*, URGENT CARE CENTER OR RETAIL CLINIC IN A PHARMACY OR GROCERY STORE; EMERGENCY ROOM; VA MEDICAL CENTER OR VA OUTPATIENT CLINIC; SOME OTHER PLACE; DOES NOT GO TO ONE PLACE MOST OFTEN *Removed “walk-in clinic” from answer choice for last 7 respondents

This question was asked of respondents who have children aged 2 to 17 years (n=24). Almost all respondents described the same health care provider as they did in response to **USPLKIND_C** (i.e., the place their child goes to most often when sick). All respondents understood this question to be asking about the type of provider their child visited for the wellness exam described in response to the previous question (**WELLVIS_C**). The most common response was “a doctor’s office or health center,” used in reference to the child’s regular pediatrician’s office.

Response Error: Potential response error was seen in one respondent who described taking her daughter to the emergency room for a routine physical exam. However, this respondent answered “a doctor’s office” because the emergency room staff were able to find a “hospital doctor” who could fit the child in with a same-day appointment.

“Walk-in clinic”: Potential response error was seen with another respondent who selected “walk-in clinic” to describe her child’s wellness visit at a hospital that allows walk-in appointments. The hospital is her child’s regular healthcare provider. After the term “walk-in clinic” was removed from the second answer choice (for the last seven respondents), no additional problems were encountered.

URGENT12M_C. DURING THE PAST 12 MONTHS, HOW MANY TIMES HAS (CHILD’S NAME) GONE TO A WALK-IN CLINIC* SUCH AS AN URGENT CARE CENTER*, OR CLINIC IN A PHARMACY OR GROCERY STORE ABOUT (HIS / HER) HEALTH? *Removed “clinic” terminology for last 7 respondents

This question was asked of respondents who have children aged 2 to 17 years (n=24). There was less initial confusion in response to this question than was observed in response to the adult version (**URGENT12M_A**), primarily because it was administered later in the interview, after respondents had already voiced their confusion and asked clarifying questions in relation to the adult version.

However, most respondents did not limit the scope of their responses to only urgent care visits. While some respondents answered based the number of times they had taken their children to urgent care clinics, others included all doctor's visits, visits to pharmacies, and visits to the emergency room.

Response error: Several cases of potential response error were identified. One respondent answered this question erroneously by counting all of the child's doctor visits across the past year. That individual answered "two times" based on a wellness visit and a visit for eczema at his daughter's regular pediatrician's office which he'd characterized as "a doctor's office" in response to prior questions. Another respondent answered "one time" based on a visit to the pharmacy to get her son's eczema ointment, which was prescribed by the child's regular doctor. At least two additional respondents counted emergency room visits in their answers, while others did not.

"walk-in clinic": Another source of error related to the problematic "walk-in clinic" terminology. This terminology proved most problematic for respondents who used the term "clinic" to describe their child's primary healthcare provider. For example, one parent answered "three times" based on the three visits her child had across the past year (a doctor visit, a dental visit, and an eye exam) at her usual health care center, which the parent referred to as a "clinic" inside a children's hospital. Another respondent answered "one time" based on his daughter's wellness visit at her regular doctor's office, which is part of a non-profit "clinic." After the term "walk-in clinic" was changed to "walk-in care center" (for the last seven respondents), no additional problems were encountered. However, this fix remains inconclusive because none of the respondents who received the revised version described their child's healthcare provider as a "clinic."

Proxy: Additional problems arose among parents reporting as proxies for older children. A father of a 13 year old daughter answered "three times," but admitted that it was only a rough estimate and he couldn't recall the specific reasons for each visit. Two additional parents of older children (a legal guardian of a 16 year old granddaughter and a father of a 17 year son) both raised the possibility that their child could have gone to a walk-in clinic without their knowledge. Interpreting the question to include emergency room visits, the father of the 17 year old male answered: "As far as I know, never ... he's sort of on his own a lot. So, nothing that I know of ... My hope is that, if he needed to do something like that, if he needed to go into an emergency room, that he'd make me aware of it, that he'd tell me. So, I'm assuming that he hasn't."

ADULT MENTAL HEALTH

MHRX_A. DURING THE PAST 12 MONTHS, DID YOU TAKE ANY PRESCRIPTION MEDICATION TO HELP YOU WITH YOUR EMOTIONS, CONCENTRATION, BEHAVIOR OR MENTAL HEALTH?

This is the first question in a set of questions on adult mental health. This question was asked to all respondents, and was widely understood as asking whether respondents take medication for some mental health need or condition. All respondents answered based on the previous 12 month period.

Most respondents who answered "yes" thought about medications they were taking regularly for specific mental health conditions like ADHD, anxiety, bipolar II, and depression. For example, "I take Adderall for my ADHD." A single respondent thought more broadly about general mental health issues and associated medications without specifying what they were taking.

All respondents who answered “no” were not taking medication for a mental health condition. Some respondents answered “no” because they did not have a need for medication to help with mental health issues. For example, one respondent stated “I do not have any mental health issues.” Other noted that they were not taking any prescription medications whatsoever. For example, one respondent stated, “I don’t take medications. Period.”

Stigma: Some respondents used stigmatizing language like “crazy,” “nuts,” and “straight-jacket” to describe mental health. For example, one respondent answering “no,” described the question and his response as “Am I crazy and do I take medication for my craziness? And I’m not crazy. I’m mentally sane...have I been diagnosed crazy or do I see things?”

MHTHRPY_A. DURING THE PAST 12 MONTHS, DID YOU RECEIVE COUNSELING, THERAPY, OR OTHER NON-MEDICATION TREATMENT FROM A MENTAL HEALTH PROFESSIONAL SUCH AS A PSYCHIATRIST, PSYCHOLOGIST, PSYCHIATRIC NURSE, OR CLINICAL SOCIAL WORKER?

This question was asked of all respondents. Almost all respondents understood the question as asking about whether they had received some kind of service for a mental health condition within the previous 12 months.

Respondents who answered “yes” thought about providers including social workers, psychiatrists, counselors, and psychologists. One noteworthy respondent specified that he saw an acupuncturist who helped with his insomnia which improved his mental wellbeing.

Respondents who answered “no” thought about the absence of mental health counseling, professional help, or therapy experience. For instance, one respondent who answered “no” indicated he has “never gone to therapy or counseling.”

“non-medication treatment”: A single respondent thought this question was asking about general medication use and disregarded all other words about counseling and focused primarily on not taking any medication. Despite the question asking about counseling or non-medication treatment, this respondent explained, “Again, I’m kind of scared and skeptical of certain medications. I don’t have a mental health problem. So there’s no need for me to take medication for that.” Even with probing, this respondent was fixated on addressing medication treatment instead of describing experiences with counseling. Although there was no evidence of response error in this case, use of the term “non-medication treatment” may lead some respondents to focus on medication.

MHTPYNOW_A. ARE YOU CURRENTLY RECEIVING COUNSELING OR THERAPY OR OTHER NON-MEDICATION FROM A MENTAL HEALTH PROFESSIONAL?

This question was asked of respondents who answered “yes” to the question on receiving therapy or counselling in the previous 12 months (**MHTHRPY_A**). Almost all respondents understood this as a question about their current use of counselling or therapy.

Respondents who answered “yes” described the relative frequency of their visits to a counselor or therapist. For example, some respondents who answered “yes” thought about the general frequency of visits, and described them as “weekly,” “biweekly,” “every other week,” or “monthly.” However, some described their current use as

intermittent or “as needed.” For example, one respondent described it as “if I want an appointment, I can call or e-mail.” A single respondent answered “yes” despite ongoing scheduling challenges. He explained, “[they had] no available appointments until 3 months out” and further detailed having to wait for cancellations to get a short notice appointment to address immediate needs.

Respondents who answered “no” did not receive counselling or therapy. For example, one respondent answered “no” because his mental health need had been satisfied by medication and he did not need counselling or therapy.

MHTHDLY_A. DURING THE PAST 12 MONTHS, HAVE YOU DELAYED GETTING COUNSELING, THERAPY, OR OTHER NON-MEDICATION TREATMENT FROM A MENTAL HEALTH PROFESSIONAL BECAUSE OF THE COST?

This question was asked of all respondents. Nearly all respondents understood this question as asking about having to delay or put off mental health due to financial considerations in the previous 12 months.

Respondents who answered “yes” all framed their responses by providing examples of the expense associated with a mental health service visit. One respondent answering “yes” described both indirect and direct costs for a mental health visit, “I’m thinking about copay and the portion the insurance doesn’t cover...it costs money to get there. Gas, time, that’s taking off of work, and missing out on money, babysitter...” Another respondent, who also answered “yes,” wanted to go more frequently to mental health counseling and explained, “I would probably go more frequently and more often if I had the means to do so... There are copays and it adds up.”

Respondents that answered “no” had not delayed counselling or therapy. Some had never needed therapy. One said, “I’ve never tried to get counseling or therapy.” Several answered “no” because they had found alternatives to mental health services. For example, one respondent had used acupuncture to treat his insomnia which was less expensive than paying for a psychologist or medical doctor. Some respondents answered “no” but described delaying services for reasons other than cost. For example, one respondent described a change in facility as the reason for delaying. This respondent indicated, “I have delayed treatment but it wasn’t because of cost (on Medicaid).”

A single respondent who also answered “no” actually needed therapy but could not get it at all because she could not afford it; thus, she did not perceive this as a delay. (cf. **MHTH.ND**).

“non-medication treatment”: A single respondent thought this question was asking about general medication use and disregarded all other words about counseling and focused primarily on not taking any medication. This respondent said, “again, I don’t take medication. But I do know the cost of them... From my significant other. She takes like Motrin, Tylenol, Aleve.” Although there was no evidence of response error in this case, use of the term “non-medication treatment” may lead some respondents to focus on medication.

MHTHND_A. DURING THE PAST 12 MONTHS, WAS THERE ANY TIME WHEN YOU NEEDED COUNSELING, THERAPY, OR OTHER NON-MEDICATION TREATMENT FROM A MENTAL HEALTH PROFESSIONAL, BUT DID NOT GET IT BECAUSE OF THE COST?

This question was asked of all respondents. Nearly all respondents understood this question as asking about needing mental health services but not receiving them because of financial considerations over the previous 12 months. One respondent answered this question about taking medication for mental health problems.

Several respondents answered “yes” and described a need for mental health services that they could not afford. For instance, one respondent answering “yes” said “[I needed counseling]...because I didn’t have the money.” Another respondent answering “yes” described how cost of treatment limited her mental health counseling access. She said, “I would go more frequently if I had the means.” Another respondent who answered “yes” described not being able to get needed counseling because the therapist was not covered under insurance.

Respondents that answered “no” framed their response similarly to MHTHDLY_A. Some respondents answering “no” described a general lack of need for mental health services, suggesting the question was not applicable. For example, a respondent who answered “no” described, “never had a reason to seek counseling.” Another who answered “no” was getting annoyed at the lack of applicability, “Again doesn’t apply to me.”

“non-medication treatment”: A single respondent thought this question was asking about medication for mental health problems, and disregarded all other words about counseling and focused primarily on not taking any medication. This respondent, who answered “no,” described – “again, I don’t take medication for psychiatric problems.”

Need vs. Delay: Generally respondents interpreted these question on need (MHTHND_A) and the question on delay (MHTHDLY_A) as the same question. For example, one respondent answering “yes” stated, “I was thinking pretty much the same thing as the last question,” suggesting that need was implied for the delaying question as well. However, one respondent noted a difference between the two questions – by answering “yes” to not getting needed counseling and “no” to delaying because of cost, stating “I didn’t delay, I just couldn’t get it [because it’s not covered by insurance].”

CHILD MENTAL HEALTH

MHRX_C. DURING THE PAST 12 MONTHS, DID (CHILD’S NAME) TAKE ANY PRESCRIPTION MEDICATION TO HELP WITH (HIS / HER) EMOTIONS, CONCENTRATION, BEHAVIOR OR MENTAL HEALTH?

This question was asked to respondents with children between ages 2 years and 17 years of age (n=24). This question was widely understood as asking whether the child takes medication for some mental health need or condition. All respondents answered based on the previous 12 month period.

Respondents who answered “yes” all described how their children took medication for a specific mental health condition (e.g., anxiety, ADHD, or depression). For example one respondent answered “yes” and said, “I say that because [my son] is taking pills for ADHD. He’s taken them since third grade. They’re helping. I really think they are.”

All respondents who answered “no” had children who were not taking medication for a mental health condition. Some respondents who answered “no” found the question does not apply because their children do not have mental health conditions or needs. Other respondents answered “no” because their children don’t use

medications for mental health conditions or, in some cases, any medications at all. For example, one respondent said, “My child never uses any medications.”

MHTRPY_C. DURING THE PAST 12 MONTHS, DID (CHILD’S NAME) RECEIVE COUNSELING, THERAPY, OR OTHER NON-MEDICATION TREATMENT FROM A MENTAL HEALTH PROFESSIONAL SUCH AS A PSYCHIATRIST, PSYCHOLOGIST, PSYCHIATRIC NURSE, OR CLINICAL SOCIAL WORKER?

This question was asked of those respondents with children between 2 years and 17 years of age (n=24). Almost all respondents understood the question as asking about whether their children had received some kind of service for a mental health condition within the previous 12 months.

Respondents who answered “yes” provided a range of mental health professionals including guidance counselors, therapists, psychologists, and psychiatrists. Reasons for counseling or therapy treatment included recognized mental health needs (e.g., PTSD from mental trauma), bad attitude (e.g., child fighting, cussing at school, violent behavior), school challenges (e.g., learning difficulty), and challenging family interactions. Frequency varied among those respondents that answered “yes” from a one-time visit to “weekly.”

Respondents answered “no” because their children did not get treatment for mental health conditions either because their children did not have any mental health issues at all or because their issues did not require mental health treatment. For example, a respondent described his child’s behavior as “it does not require mental health treatment or at least doesn’t rise to the level of professional help.”

“non-medication treatment”: A single respondent thought this question was asking about medication for mental health problems, and disregarded all other words about counseling and focused primarily on not taking any medication. While answering “no,” the respondent indicated “Again, never been on medication. Never seen a psychiatrist. Just hyper.” Although there was no evidence of response error in this case, use of the term “non-medication treatment” may lead some respondents to focus on medication.

MHTHDLY_C. DURING THE PAST 12 MONTHS, HAS (CHILD’S NAME) BEEN DELAYED IN GETTING COUNSELING, THERAPY, OR OTHER NON-MEDICATION TREATMENT FROM A MENTAL HEALTH PROFESSIONAL BECAUSE OF THE COST?

This question was asked of those respondents with children between 2 years and 17 years of age (n=24). Almost all respondents understood the question as asking about whether their children’s mental health service for mental health conditions was delayed because of cost within the previous 12 months.

Nearly all responses were “no” such that children were perceived as either being in good mental health or as having no delay because the respondent’s children are covered by insurance or they have the means to pay out of pocket.

“non-medication treatment”: There was one instance of response error from the single respondent who answered “yes.” This respondent answered about his child’s general medication use over the past 12 months,

describing an experience where his child was treated by a health care facility. The respondent explained “[yes] well he was sick and they gave him medicine.” After the question was restated, the respondent reiterated that his child does not have any psychiatric problems, and indicated that his child has adequate coverage saying, “His [Respondent’s child] insurance is under mine; basically he’s covered on any medication he needs to get.” This respondent was fixated on medication use across all questions in both the adult and child mental health sections. This likely stems from the use of the term “non-medication treatment.”

MHTHND_C. DURING THE PAST 12 MONTHS, WAS THERE ANY TIME WHEN (CHILD’S NAME) NEEDED COUNSELING, THERAPY, OR OTHER NON-MEDICATION TREATMENT FROM A MENTAL HEALTH PROFESSIONAL, BUT DID NOT GET IT BECAUSE OF THE COST?

This question was asked of respondents with children between 2 years and 17 years of age (n=24). All respondents understood this question as asking about their children needing mental health services but not receiving them because of financial considerations over the previous 12 months.

All respondents answered “no” to the question. Some respondents answered “no” because their children don’t need mental health treatment. One respondent described her child’s mental health saying, “she’s in good mental health...There’s no need for her, as a child, to see a mental health professional.” Other respondents who answered “no” indicated that cost was not a consideration because insurance would cover the cost of services or that they would pay for the child’s services out of pocket. For instance, one respondent said “[it] doesn’t apply to her. Like I said, cost is not a problem; her insurance pays for everything.” Another respondent suggested cost would not get in the way of needed health services, indicating “that would never occur...I would find a way, I would manage.”

Delay vs. Need: Several respondents who answered “no” to both questions **MHTHND_C** and **MHTHDLY_C** felt like they were answering the same question. For example, one respondent who answered “no” stated “Like I said...” Another respondent stated, “No. And for the same reason...”

E-CIGARETTES AND USING E-CIGARETTES IN SMOKING CESSATION

SMKEV_A. THESE NEXT QUESTIONS ARE ABOUT CIGARETTE SMOKING. HAVE YOU SMOKED AT LEAST 100 CIGARETTES IN YOUR ENTIRE LIFE?

All respondents received this question. Respondents generally interpreted this question as asking if they had smoked 100 or more cigarettes in total. “Social” smokers had some difficulty conceptualizing what “100 cigarettes” would be in the context of their experience. For example, one respondent smoked “socially” between the ages of 14 and 20 years old during school recess, after school, at parties, and when “hanging out” with friends. While deciding on an answer to this question she thought aloud, “It might not have been 100, but it was a good amount of them. Was it 100? Hmm...It probably wasn’t 100.” This respondent ultimately decided to answer “no” because 100 cigarettes seemed to be “a lot” of cigarettes despite the fact that she likely smoked more than 100 cigarettes over the course of her seven years of “social” smoking.

Current and former smokers did not have any difficulty answering because they knew they had smoked “way more” than 100 cigarettes. Some smokers (current and former) calculated the “100 cigarettes” by the number of cigarettes in a pack of cigarettes. For example, one current smoker that answered “yes” elaborated, “That’s a carton easily... There’s 20 in each pack and at least 10 in each carton.” Other smokers knew they smoked more than 100 cigarettes simply because they were daily smokers for multiple years. Those that had never smoked also did not have difficulty answering because they knew they had not smoked any cigarettes, let alone 100 cigarettes. For example, one respondent that answered “no” explained, “I’ve never smoked a cigarette in my life.”

SMKNOW_A. DO YOU NOW SMOKE CIGARETTES EVERY DAY, SOME DAYS OR NOT AT ALL?

Respondents that answered “yes” to smoking at least 100 cigarettes (**SMKEV_A**) received this question. Respondents generally interpreted this question as asking for their current frequency of cigarette smoking. Those that answered “every day” were daily smokers. Those that answered “some days” generally described smoking on 3-5 days per week. For example, one respondent that answered “some days” said that he smokes “mostly on the weekends and maybe once or twice on the weekdays. So, I will say maybe 3 days in a week.” However, one respondent that answered “some days” smokes essentially every day, but may go “some days” without smoking. This respondent explained, “I smoke maybe one a day. [But some days] I might not smoke at all. It’s really how stressed I am and how much driving I do.” Those that answered “not at all” generally smoked no cigarettes whatsoever. However, one respondent described smoking a few cigarettes at the very beginning of the 6-week period, “I think there was a couple sneaks during that time, but for sure none since then, 6 weeks ago.”

Respondents that smoke cigarettes as well as e-cigarettes only thought of their cigarette use for this question. One respondent that selected “some days” explained, “Days that I’m not smoking the cigarette, that’s when I use the vapes. It helps with the craving.” In other words, she is smoking either cigarettes or e-cigarettes every day, but only included her cigarette use when answering this question.

ECIGEV_A. THE NEXT QUESTION IS ABOUT ELECTRONIC CIGARETTES OR E-CIGARETTES. YOU MAY ALSO KNOW THEM AS VAPE-PENS, HOOKAH-PENS, E-HOOKAHS, OR E-VAPORIZERS. SOME LOOK LIKE CIGARETTES, AND OTHERS LOOK LIKE PENS OR SMALL PIPES. THESE ARE BATTERY-POWERED, USUALLY CONTAIN LIQUID NICOTINE, AND PRODUCE VAPOR INSTEAD OF SMOKE. HAVE YOU EVER USED AN E-CIGARETTE EVEN ONE TIME?

This question was administered to all respondents. The introductory text was problematic for some respondents with eight respondents interrupting the interviewer during question administration or indicating during probing that the introduction was too long. All respondents, regardless of if they expressed problems with the introductory text or not, had heard of e-cigarettes and were able to easily select an answer to this question. Respondents generally understood this question to be asking if they had *ever* used an e-cigarette. Those that responded “yes” generally described using “e-cigarettes” or “electronic cigarettes.” For example, one respondent that answered “yes” explained, “I was basically thinking about how many times I used them and I really didn’t like the electronic cigarettes.” One respondent thought of an “e-hookah” that he had used once.

Most respondents that answered “no” had never tried an e-cigarette, but knew someone who used them, saw advertisements for them, or saw them being sold in stores. For example, one respondent that answered “no” explained that she had never used e-cigarettes but added, “I’ve seen my friend’s sister with one that looked like an ink pen just the other day.” One respondent answered “no” because she had only taken a puff of an e-cigarette one time and explained, “But I thought, well one puff was not using it one time.”

Response error: There is the potential for response error respondents if respondent answer based on using vaping devices for marijuana although no response error was seen in this sample. A couple of respondents that answered “yes” mentioned that they own vape-pens for marijuana use, but this did not lead to response error because they had both used the vape-pens for tobacco as well. For example, one respondent said, “I own one. I use them for weed... But I have used the ones with ‘e-juice’ (tobacco) and flavors.”

ECIGNOW_A. DO YOU NOW USE E-CIGARETTES EVERY DAY, SOME DAYS, OR NOT AT ALL?

Respondents that answered “yes” to ever using an e-cigarette (**ECIGEV_A**) received this question. Respondents generally understood this question to be asking about how often they currently use e-cigarettes for tobacco or marijuana. The only respondent to answer “every day” uses her vape-pen daily for marijuana while other respondents who use their vape-pens for marijuana answered based only on their use of tobacco. The “some days” response category captured a range of respondents including those that essentially never used e-cigarettes as well as those that used e-cigarettes essentially every day. One respondent that answered “some days” almost never uses e-cigarettes, but would be willing to taste new flavors. He elaborated, “If somebody asks me to try this flavor... Some days I might try it. I can’t say I’ll never try it. But it’s not my cup of tea. I don’t enjoy vape pens and e-cigarettes.” On the other hand, one respondent answered “some days” because she uses e-cigarettes every day, except when waiting for the e-cigarette oil re-fill. She thought aloud while answering, “I want to say ‘every day’, but I think it’s ‘some days’ because today I haven’t used it... Simply because... sometimes I may run out.” Respondents that answered “not at all” had not used an e-cigarette in 2 months to 2 years.

SMKQTN_A. HOW LONG HAS IT BEEN SINCE YOU QUIT SMOKING CIGARETTES? _____ TIME SINCE QUITTING SMOKING

Respondents that answered “yes” to smoking at least 100 cigarette in their lifetime (**SMKEV_A**) and “not at all” to how often they now smoke cigarettes (**SMKNOW_A**) received this question. Most respondents interpreted this question as asking the length of time since they quit smoking cigarettes. Answers ranged from 6 weeks to 30 years. A few respondents had difficulty calculating the exact number of years since quitting. Some of these respondents took a long time to think aloud and attempt the calculation while one respondent did not attempt to make the calculation and provided the year, 1965, that he quit smoking. One of the respondents that thought aloud answered “30 years” and explained, “Let me see, I’m 59, so ... [long pause] ... 30 some years.” She quit smoking at 20 years old, so it has been 39 years since she quit smoking. Although “30 some years” was accurate, it was difficult for the respondent to calculate the exact number.

SMKQT12M_A. DURING THE PAST 12 MONTHS, HAVE YOU STOPPED SMOKING FOR MORE THAN ONE DAY BECAUSE YOU WERE TRYING TO QUIT SMOKING?

This question was administered to those that answered “yes” to smoking at least 100 cigarette in their lifetime (**SMKEV_A**) and “every day” or “some days” to how often they now smoke cigarettes (**SMKNOW_A**). In general, respondents interpreted this question as asking if they had successfully stopped smoking for at least one day in the past year because they were trying to quit. However, four respondents that answered “yes” overlooked the phrase “BECAUSE YOU WERE TRYING TO QUIT SMOKING.” These four respondents had stopped smoking for more than one day, but did not have the intention to quit smoking. Instead, they stopped smoking with the intention to “cut back,” give their “lungs rest,” or did not believe that it was possible to quit. One of these respondents answered “yes” and elaborated, “I wanted to basically give my lungs a little rest, so I stop for a couple days... And then I started back for a couple more days and stopped for a couple days.” Most respondents had stopped smoking because they were trying to quit. For example, one respondent that answered “yes” lasted two days without smoking cigarettes and explained, “Yes. I tried.”

Almost all respondents answered based on the past 12 months. One respondent answered based on a generalization of the past couple years. This respondent explained, “Definitely. Thinking back to the past couple years there was several times when I did try to stop smoking. That's why I was trying to seek other alternatives (e-cigarettes) to help whenever I get the urge.”

Respondents that answered “yes” had stopped smoking for one day up to one month. One respondent explained that she was trying to quit and went one day without a cigarette about a month ago, but stopped trying because of the fear of gaining weight. She elaborated, “I tried it one day. But then I just ate more... and I was going to get as big as a house.” Respondents answered “no” if they had not gone an entire day without smoking, had not tried to quit smoking, or it had been more than a year since they had gone a day without smoking because they were trying to quit. For example, an interviewer asked one respondent that answered “no,” “When was the last time you went a day without smoking” and the respondent replied, “You know, I can’t even remember.”

QTECIGF_A. THINKING BACK TO WHEN YOU STOPPED SMOKING COMPLETELY, DID YOU USE E-CIGARETTES TO HELP YOU QUIT SMOKING REGULAR CIGARETTES?

Former smokers (answered “never” to **SMKNOW_A**) that had used an e-cigarette (answered “yes” to **ECIGEV_A**) were asked this question. In general, respondents understood this question as asking if they ever used e-cigarettes as an aid to quit smoking. Respondents who answered “no” had quit smoking without using e-cigarettes. This included respondents who had quit smoking before the invention of e-cigarettes. As one respondent said, “Uhm, no. We didn’t have those back then [in 1965]. Respondents who answered “yes” had used e-cigarettes to quit smoking or to try to quit smoking. One respondent answered “yes” even though he had not used e-cigarettes when he successfully quit smoking. However, he had previously tried to quit smoking with the aid of e-cigarettes. Another respondent that answered “yes” felt that she unintentionally used e-cigarettes to quit smoking. While answering she thought aloud, saying:

Um... That's so weird to use one smoking to get rid of another smoking. I wouldn't know if I was doing that. I think I was trying to differentiate if I like doing that better than the other. I don't know if I was trying to quit. Was I? But that's not quitting. Quitting is quitting. Not taking up a different kind of

smoke... I would say yes because in a sense when I started picking that up, I wasn't picking up the cigarettes anymore. And then it all started being yuck.

In other words, this respondent answered “yes” because she stopped smoking cigarettes when she started using e-cigarettes and then she decided to quit e-cigarettes.

Of note, current smokers (those who answered “every day” or “some days” to **SMKNOW_A**) were not administered this question. Yet, half of those that answered “yes” to ever using an e-cigarette (**ECIGEV_A**) were current smokers who mentioned during probing that they had tried e-cigarettes in an effort to quit smoking, but were unsuccessful in quitting.

SMKTLK_A. IN THE PAST 12 MONTHS, HAS A DOCTOR, DENTIST, OR OTHER HEALTH PROFESSIONAL ADVISED YOU ABOUT WAYS TO QUIT USING TOBACCO OR PRESCRIBED MEDICATION TO HELP YOU QUIT?

Respondents that had smoked at least 100 cigarettes in their lifetime (answered “yes” to **SMKEV_A**) received this question. A few respondents were confused and thought that the question was double barreled. During administration, one of these respondents asked, “He advised me. Did you say advise me ‘or’ or ‘and’?” This respondent eventually responded “yes” because her doctor told her, “... that I should stop because I have high blood pressure... and he gave me some pamphlets to read and a hotline to call, a ‘help-quit’ hotline.”

Most respondents understood this question to be asking if their doctor gave them resources or advice on ways to quit smoking cigarettes or prescribed them medication to help them quit smoking in the previous 12 months.

Respondents that answered “yes” were generally advised to quit smoking and provided with additional resources about how to quit or prescribed medication such as the patch, Nicorette gum, or Chantix. Some examples of resources that respondents received included pamphlets, hotline numbers, information on classes or support groups, or general tips on how to quit. For example, one respondent that answered “yes” explained, “They gave me the Nicotine patch and Nicotine gum, they prescribed me that... that was like 3 months ago.”

Respondents who answered “no” had a variety of experiences. Some answered “no” because a doctor had never mentioned that they should quit or because they had never asked their doctor for advice on how to quit. A few respondents answered “no” because they had not seen a health professional within the past 12 months. For example, one respondent that had last seen a health professional at urgent care over a year ago explained, “If I didn't encounter them, that means they didn't have the opportunity to counsel me.” Some respondents who answered “no” had been told *to* quit smoking but not given advice about *ways to* quit or medication to help them quit. One respondent that answered “no” thought aloud:

I’m going to say no, but I’m trying to really think about it because the conversation with my primary care physician, of course, has been to stop... So, it’s always that talk of ‘Oh, you need to quit’, but... I don’t think they’ve ever suggested methods of trying to quit or advised me or prescribed any kinds of patches or gum or anything like that.

A few respondents put the responsibility to ask for advice or medication on themselves. Two of these respondents answered “no” because they never asked their doctor for advice. One elaborated, “I have a really good relationship with my doctor... If I wanted to quit smoking, I would ask for advice. And that is where I would

expect to get a whole bunch of resources from them.” Another respondent that put the responsibility on herself to initiate the “quit smoking” conversation with her doctor answered “yes.” This respondent described how she asked her doctor for a prescription for medication to help her quit smoking, “I made a concentrated effort to stop, but I couldn’t get below 3 cigarettes a day. So I went to my PCP and asked her for some Chantix.” The doctor provided the prescription for Chantix, but did not provide any other information about how to quit smoking.

ADVERSE LIFE EVENTS FOR CHILDREN

VIOLENEV_C. THE NEXT QUESTIONS ARE ABOUT EVENTS THAT MAY HAVE HAPPENED DURING (CHILD’S NAME) LIFE. THESE THINGS CAN HAPPEN IN ANY FAMILY, BUT SOME PEOPLE MAY FEEL UNCOMFORTABLE WITH THESE QUESTIONS. YOU MAY SKIP ANY QUESTIONS YOU DO NOT WANT TO ANSWER. HAS (CHILD’S NAME) EVER BEEN THE VICTIM OF VIOLENCE OR WITNESSED VIOLENCE IN (HIS / HER) NEIGHBORHOOD?

This question was asked to parents of children ages 2-17 (n=24). Despite the sensitive nature of the question, all respondents willingly provided responses and were able to discuss the rationale behind their responses. All respondents understood this question to be asking about violence their child may have seen or experienced. When answering, respondents thought of violence in their immediate neighborhoods, their children’s schools and in their homes. Many of the respondents who answered “no” indicated that this didn’t apply to them. One said, “We just don’t live in that type of neighborhood.” Another said, “We don’t fight. I don’t even yell. No. He’s just not exposed to anything of that nature.”

Threshold of violence: Respondents had different thresholds of violence. Respondents who answered “no” indicated that their children may have experienced or witnessed events that “didn’t rise to the level of violence.” One respondent who answered “no” said, “[My son] may have seen a couple fights or something like that, but not really anyone getting killed or anything like that.” Another respondent who also answered “no” described children fighting in their neighborhood but said, “Yeah. That’s a form of violence, but there weren’t any weapons or anything like that involved. It was just rascals.” In contrast to the previous two respondents, two respondents answered “yes” precisely because their children had witnessed kids fighting in the neighborhood or at school. One of these respondents said, “I’m going to say ‘yes,’ but I had to think about it. It’s nothing like people getting shot or stabbed but there have been instances where he’s talked about fights in school... and that to me is violence.”

Most respondents who answered “yes” described clear and explicit instances of violence that were witnessed by their children. One respondent described ongoing gang activity that her daughter witnessed while living with her Aunt from ages 0-4. Other respondents described violence that their children had witnessed such as instances of domestic violence and neighborhood shootings.

Uncertainty: As proxies, respondents were not always sure what their children had seen or experienced. Thus, some respondents, particularly those with teens, expressed uncertainty. One respondent said that her 14 year old child had never witnessed violence but then qualified her statement, saying, “Well, if she has, she’s never shared it with me.” Another respondent with a 4 year old answered “no” but said, “Who know what she sees when she’s with her mother. All kinds of things go on over there.” Respondents who were uncertain all answered “no” while all of those respondents who answered “yes” were certain and specific.

JAILEV_C. DID (CHILD'S NAME) EVER LIVE WITH A PARENT OR GUARDIAN WHO SERVED TIME IN JAIL OR PRISON AFTER (CHILD'S NAME) WAS BORN?

This question was asked to parents of children ages 2-17 (n=24). Despite the sensitive nature of the question, all respondents willingly provided responses and were able to discuss the rationale behind their responses. All respondents understood this question to be asking about whether either parent had served time in jail during the child's lifetime.

Respondents answered "yes" based on a parent having spent time in jail. The periods of time the parents spent in jail ranged from 30 days to several years. For example, one respondent described how his child's mother had served time in prison. The child, who currently lives with the respondent, used to live with her mother before the mother went to prison.

Respondents answered "no" if neither parent had ever served time in jail, if the parent who served time in jail had never lived with the child or if the jail time had been served before the birth of the child. Respondents who had never been to prison were quick to answer "no." One respondent said vehemently, "That's just not us!" another said, "Well, he's only lived with me and his father and WE have certainly never been to jail." Several respondents clarified, "After [child] was born?" and then answered "no" because any jail time served had been before the child was born.

MENTDEPEV_C. DID (CHILD'S NAME) EVER LIVE WITH ANYONE WHO WAS MENTALLY ILL OR SEVERELY DEPRESSED?

This question was asked to parents of children ages 2-17 (n=24). Despite the sensitive nature of the question, all respondents willingly provided responses and were able to discuss the rationale behind their responses. However, a few respondents had difficulty discussing the precise details of the circumstances. One respondent seemed sad and said, "I'd rather not go into it all, but let's just say 'yes.' [The child's father] had a range of mental health issues." All respondents understood this question to be asking about mental illness or depression in their children's households. Respondents described households of various compositions that included mothers, fathers, grandparents, aunts, uncles, siblings and others. Respondents thought about possible household members who may have had mental illness or depression. One respondent said, "Yes. It's me," referencing a period of depression she had discussed previously. Another respondent said "Yes" because his child's aunt had lived with them during a period of time when she had behavioral issues related to mental illness. In this case the family eventually asked the aunt to move out because her behavior was disruptive for the child.

Diagnosis and medication: Respondents often relied on formal diagnoses to guide their responses. Two respondents answered "no" even though household members showed signs of mental illness. One said, "Perhaps, but it hasn't been diagnosed. I said 'no' because there's no diagnosis." On the other hand, two respondents mentioned household members who had been diagnosed with mental illness or depression but who controlled these issues with medication. These respondents answered "no" despite the diagnoses. One said, "I've been on medication for depression since before he was born and I've never had any symptoms since he came."

Substance abuse: Some respondents included substance abuse under the category “mental illness” while others did not. One respondent who answered “Yes” said, “I guess her mother because she was doing drugs so I guess that has something to do with being mentally unbalanced.” Other respondents answered “no” despite household members’ difficulties with drugs or alcohol.

ALCDRUGEV_C. DID (CHILD’S NAME) EVER LIVE WITH ANYONE WHO HAD A PROBLEM WITH ALCOHOL OR DRUGS?

This question was asked to parents of children ages 2-17 (n=24). Despite the sensitive nature of the question, all respondents willingly provided responses and were able to discuss the rationale behind their responses. However, a few respondents had difficulty discussing the precise details of the circumstances. One respondent started to cry when asked what type of drugs her daughter did in front of her granddaughter, “Do you need to know that? It was drugs.” All respondents understood this question to be asking about substance abuse in their children’s households. Respondents who answered “yes” described household members with serious issues with drinking or drugs. Respondents referenced various types of alcohol and drugs including marijuana, cocaine, synthetic heroine and crystal meth. One respondent described a household member who “did all of that- tequila and weed- all the time.” Another respondent described his own previous behavior, “I used to drink too much and smoke too much weed. I don’t do that now. Sometimes I get drunk and mean but not very often anymore.” Another respondent reported that her child’s father struggled with alcoholism when the child was young. The father has been sober for seven years and they no longer keep alcohol in the house. Thus, respondents thought of household members’ past issues with alcohol and drugs as well as more recent or contemporary issues.

Respondents who answered “no” described households with no drinking or drugs or households with a “normal” level of drinking. One respondent said, “We’re very infrequent drinkers and do not partake in any narcotics.” Another respondent said she drinks “only on holidays and never in front of [the child].”

What is a problem? Although all respondents were able to answer the question initially, several asked on probing “What is a problem?” In fact, respondents’ definitions of what constituted a “problem” varied. One respondent said that a drinking problem would be, “drinking a glass of something every day,” while another respondent thought anything less than 5 drinks a day would not be a problem. One respondent described a household member who drinks every day. She did not consider this a problem because “he still holds down a job and provides for his kids.” She went on to describe his drinking as a habit, “It’s just a bad habit, like me smoking.”

PHYSICAL ACTIVITY FOR CHILDREN

SPORT_C. IN THE PAST 12 MONTHS, DID (CHILD’S NAME) PLAY OR PARTICIPATE ON A SPORTS TEAM OR CLUB OR TAKE SPORTS LESSONS EITHER AT SCHOOL OR IN THE COMMUNITY?

This question was asked to respondents with children ages 6-17 (n=19). All respondents understood the question as asking about sports related activities that their children participate in. All respondents answered “yes” except the parent of a 6 year old. This respondent said, “We haven’t signed her up for any sports of clubs yet, but we will eventually.” Other respondents described the activities that their children participate in

including soccer, basketball, bocce, track, tennis, swimming, modelling and football. One respondent initially answered “yes” because her daughter is involved in a singing and dancing group at after-care, but later changed her answer to “no” because she decided this did not count as a sports activity.

Timing: Response error was seen in a single respondent whose child participated in soccer last year but had not participated in any sports in the last 12 months. Other respondents noted that their children’s activities were seasonal. For example, swimming only during the summer or soccer only during the fall season. However, evidence of response error was not seen in any other responses.

PEGYM_C. IN A TYPICAL WEEK DURING THE SCHOOL YEAR, DOES (CHILD’S NAME) GO TO A PHYSICAL EDUCATION OR GYM CLASS?

This question was asked to respondents with children ages 6-17 (n=19). A few respondents were confused by the terms “physical education” and “gym class.” One respondent who answered “yes,” said, “Oh, gym class? We call it PE.” She did not know that PE is short for “physical education.” However, her confusion did not lead to response error. Another respondent was also confused by the terminology. He answered “no” because he heard “gym” and thought the question was asking about going to a commercial gym to work out. This respondent grew up outside of the United States and was not familiar with physical education classes in school. He stated that he was unsure whether his child had a “physical training class” in school, so it is not clear whether his initial confusion lead to response error.

All other respondents understood this as a question about whether their children have a weekly physical education class at school. Although several respondents weren’t sure, all respondents provided a response. One respondent who answered “yes” said, “I assume so. I’ll have to ask her.” Other respondents were not sure about the timing, regularity or length of the classes but were sure their children had these classes. One said, “I want to say it’s an hour a day, but I don’t really know what all they do at school. I’ll have to ask [my daughter].”

A few parents of middle school and high school students answered “yes” even though their children would not be in gym class until the following semester. One said, “Well, he’s in health right now, but next semester, I think it will be the PE part.”

PADAYS_C. IN A TYPICAL WEEK DURING THE SCHOOL YEAR, HOW OFTEN DOES (CHILD’S NAME) EXERCISE, PLAY A SPORT, OR PARTICIPATE IN PHYSICAL ACTIVITY FOR AT LEAST 60 MINUTES A DAY? WOULD YOU SAY EVERY DAY, MOST DAYS, SOME DAYS, FEW DAYS, OR NO DAYS? (EVERY DAY, MOST DAYS, SOME DAYS, FEW DAYS, NO DAYS)

This question was asked to respondents with children ages 6-17 (n=19). All respondents understood this as a question about how often their children get at least 60 minutes of physical activity in a normal school week. One respondent answered based on her grand-daughter’s general fitness level saying, “My granddaughter’s in shape. She’s not a fat kid, she’s in shape.” This respondent answered “every day” based on this general fitness rather than on her granddaughter’s actual activity level. All other respondents answered based on their children’s activity. Respondents mentioned playing outside, participation on sports teams and going to gym class at school.

Variability: Some respondents noted that their children’s activity level varied depending on the day of the week or the season of the year. For example, one respondent said his daughter often plays outside after school during the warmer months, but as the weather gets colder and the days get darker, she plays outside less and less. He answered “some days” because her activity level varies from season to season. Another respondent said her child gets lots of activity during the week but none on the weekends. She also answered “some days.” Other respondents answered “every day” or “most days” when their children’s activity level varied during the year. For example, one respondent answered “most days” because his daughter gets at least 60 minutes of activity on most days *during swim team season* (but not during other times of the year).

WALKBIKE_C. IN A TYPICAL WEEK DURING THE SCHOOL YEAR, HOW OFTEN DOES (CHILD’S NAME) WALK OR RIDE A BIKE FOR AT LEAST 10 MINUTES AT A TIME? EVERY DAY; MOST DAYS; SOME DAYS; FEW DAYS; NO DAYS.

This question was asked to respondents with children ages 6-17 (n=19). Respondents interpreted the question in several ways:

Walk or bike 10 minutes a day. Most respondents answered based on how often their children walk or bike for at least 10 minutes. Many respondents noted that their children walk at least 10 minutes a day to get to school or the bus stop. A few respondents described how their children ride bicycles as a primary mode of transportation. One respondent who answered “every day” said, “We’re rural and the bike is the main way he gets around.” Other respondents stated that their children “walk around a lot” without thinking of specific walking or biking activities. At least one respondent also included the use of scooters and hover boards although her response would not have changed if she’d only included walking and biking.

A few respondents wondered if the activity had to be all at once or could cumulatively add up to 10 minutes in a day. One respondent who answered “every day” wasn’t sure her daughter walked for 10 consecutive minutes a day but was sure that she walked more than 10 minutes in total. She said, “Ten minutes goes by fast, so I think for a teenage girl, it’s much more than that. She probably walks 10 minutes just going from class to class throughout the day. Walking from the bus to school, that’s a few minutes right there.”

For exercise only. Two respondents answered “no days” because their children never walk or bike for exercise. These children may walk 10 minutes on at least some days, for example, one respondent reported that her child frequently walks to a park that is three blocks away, so this interpretation could lead to potential response error.

Walking only. One respondent answered “no days” because her daughter’s bike was stolen three years ago and had not been replaced. This respondent reported that her daughter walks to the metro every day and “runs during soccer practice.” If she had answered about biking AND walking, she would have answered “most days,” but she only responded to the part of the question that asked about biking.

Variability: A few respondents noted that their children walk and bike different amounts depending on the time of year. In the winter months, there are fewer daylight hours after school for children to walk and bike outside. These respondents answered “some days” or “most days” to indicate an average over the whole school year.

LIVESCHL_C. HOW FAR DOES (CHILD'S NAME) LIVE FROM SCHOOL? LESS THAN ½ MILE; BETWEEN A ½ MILE TO 1 MILE; 1 MILE TO 2 MILES; MORE THAN 2 MILES FROM SCHOOL; HOME SCHOOLED OR NOT IN SCHOOL

This question was asked to respondents with children ages 6-17 (n=19). All respondents answered based on the distance their children travel to school. In general, respondents did not hesitate in selecting an answer category. However, most respondents answered based on a rough estimation of the distance rather than on definitive knowledge of the distance. Most respondents were more certain of the amount of time it takes their children to get to school and based their estimates of distance on this. For example, one respondent said, "It's a 5 minute drive, so it has to be more than 2 miles away," while another respondent said "Our walk to school is about 10 minutes, so I'd say, 'less than half a mile.'" Respondents' estimates of distance based on time did not always seem accurate as illustrated by the respondent who estimated that her daughter's school was less than a mile away even though her daughter's bus ride is 40 minutes long. She said, "It's about a 40 minute bus ride...and it takes me 30 minutes to drive it, so I'd say it's less than a mile away."

WALKSCHL_C. DURING A USUAL SCHOOL WEEK, HOW MANY TIMES DOES (CHILD'S NAME) WALK TO OR FROM SCHOOL? (E.G., IF HE/SHE WALKED TO AND FROM SCHOOL EVERY DAY, THE ANSWER WOULD BE 10 TIMES).

This question was asked to respondents with children ages 6-17 (n=19). Most respondents modelled their responses on the example provided in the question. Almost all respondents reported that their children walk (or don't walk) to school with regularity. That is, some respondents answered "0" because their children never walk to school, others answered "5" because their children walk home from school every day while still others answered "10" because their children walk to and from school every day. A few respondents said that their children "rarely" walk to or from school. These respondents either answered "zero" or came up with an "average" estimate. For example, one of these respondents wanted to answer "8 times a month" because his son almost always gets a ride but sometimes is walked to school by his grandmother. Since the question asked for a weekly frequency, the respondent provided the average, "2 times a week."

SCREEN TIME FOR CHILDREN

WSCREEN_C. ON A TYPICAL DAY DURING THE SCHOOL YEAR, ABOUT HOW MANY HOURS DOES (CHILD'S NAME) USUALLY SPEND PLAYING WITH A SMARTPHONE OR COMPUTER, WATCHING TV OR MOVIES, OR PLAYING VIDEO GAMES?

This question was asked to respondents with children ages 2-17 (n=24). All respondents understood the question to be asking how much recreational time their children spend on screened devices. One respondent answered "Don't Know" because she was unable to provide an accurate estimate because her daughter spends a lot of time in an unsupervised area of the house where she has access to screens. Another respondent also had difficulty answering. The father of a 4 year old, he answered "zero." He said, "I wanted to answer in minutes. I really keep screen time to a minimum. She doesn't have access to any devices on her own, so I wasn't sure how to answer."

All other respondents answered based on the amount of time their children have access to screened devices rather than on the actual amount of time their children spend using the devices. Respondents who had a time

limit for screen usage used that as their default answer. For example, one respondent answered “4 hours” because his son is allowed 4 hours of screen time each day. However, this respondent acknowledged that his son probably isn’t on screens for the whole 4 hours.

Respondents whose children don’t have screen-time limits also answered based on access to screens. For example, one respondent said, “I just thought about the amount of time [her child] is at home and not doing homework or sleeping.” Many respondents noted that their children are “constantly” using their phones (to text or watch videos). One said, “From what I can tell it’s like every waking minute that he’s on his phone.” Therefore, respondents generally answered based on the number of hours their children have between school and bedtime.

Overlap: Respondents based their answers on the amount of time their children have access to screens but these hours of screen access overlapped heavily with the times respondents reported that their children are outside playing, doing homework or participating in recreational activities after school. For example, in responding to **PADAYS_C** which asks whether children get at least 60 minutes of physical activity a day, one respondent answered “every day” and described how her child plays kickball and other outside games with her friends every day when she gets home from aftercare. In describing the time her child uses screened devices, this respondent said, “She has time when she gets home from aftercare. About four hours. She doesn’t play video games, but she can do all the other stuff- videos, snapchat, Instagram. That’s her time for doing that. I don’t limit it, but I do check it once a week.” Thus, this respondent didn’t distinguish between the time her child spends playing outside and the time her child has available to use screens. It is possible that the child does both activities in that period of time, but this respondent, like most others, does not count the discrete chunks of time spent doing each.

Uncertainty: Generally respondents recognized that they were unwilling or unable to accurately account for the exact amount of time their children spend on screens. One respondent said, “How many hours? If I really pay attention, which I don’t. That’s sporadically on and off. When you say ‘hours,’ I’m thinking hours all in one. Like, does she do it for 2 hours straight? But really it’s back and forth, so I have no idea.” Other respondents pointed out that they don’t know what their children do during the school day, and parents of older children acknowledged that they often don’t know what their children are doing. One said, “He does all kinds of things. I have no idea!”

SCRNRULE_C. DO YOU HAVE A RULE FOR HOW MUCH SCREEN TIME (CHILD’S NAME) IS ALLOWED IN A GIVEN DAY?

This question was asked to respondents with children ages 2-17 (n=24). Respondents all understood the question as asking about limitations they impose on their children’s use of screened devices. A few respondents thought specifically about time limits. For example, one respondent answered “yes” because her son has a screen-time limit of three hours a day. Most respondents answered based on not just time limits but a broader set of limits such as limits on using screens while doing other activities (such as eating or homework), limits imposed by schedules (such as school or bed time) and conditions for continued screen privileges (such as getting good grades, having a good attitude or helping around the house). Respondents differed as to whether they considered these broader types of limits to be “rules,” and this impacted how they answered the question.

Some respondents considered general limitations on screen use to be “rules” and answered “yes” to the question. For example, one respondent answered “yes” because her son can’t use his phone unless his homework is completed and he has done his chores. Another answered “yes” because her son can’t have his phone after bedtime. However other respondents had similar limitations on their children’s use of screens but answered “no” because they did not consider these limits to be “rules.” For example, one respondent answered “no” even though her daughter can’t be on her phone after bedtime. Another respondent also answered “no” and described how she had taken her granddaughter’s phone away when the child got bad grades or had a bad attitude. Yet another respondent answered “no” but then explained that his son has to read a certain number of minutes a day in order to earn screen time to play video games. Therefore, respondents’ understanding of what constituted a “rule” guided their responses to the question and for this reason, there was little distinction between respondents who answered “yes” and those who answered “no.”

SCRNPLACE_C. DO YOU HAVE PLACES IN YOUR HOME WHERE (CHILD’S NAME) IS NOT ALLOWED TO USE A SMARTPHONE OR COMPUTER, WATCH TV OR MOVIES, OR PLAY VIDEO GAMES?

This question was asked to respondents with children ages 2-17 (n=24). Most respondents answered based on whether they limit the locations their children are allowed to use screens. Respondents who answered “yes” had limits on where their children are allowed to use screens. For example, one respondent answered “yes” because her daughter is not allowed to use her phone in her bed. Respondents who answered “no” generally didn’t have limits on where their children are allowed to use screens although quite a few respondents noted exceptions to this. For example, one respondent answered “no” but then noted that his son isn’t allowed to use his iPad at the table. Thus, respondents who answered “no” were quite similar to those who answered “yes.”

Response error: Several respondents answered in ways that could lead to response error. For example, a few respondents answered based on places their children are not allowed to go in general (not on places they’re not allowed to use screened devices). For example, one respondent answered “yes” because she doesn’t allow her daughter to go near hot stoves or the bathtub when it’s full. Another answered “yes” because her son isn’t allowed to use his phone in the cat room. In fact, the child is never allowed in the cat room because he has a cat allergy. A single respondent answered “yes” because his child is not allowed to touch HIS devices. He does not want his young daughter to touch his expensive electronic equipment. This respondent was not thinking about limits to his daughter’s use of screens when he answered the question.

SLEEPING FOR CHILDREN

SLPH_C. (INCLUDING NAPS), HOW MUCH SLEEP DOES (CHILD’S NAME) USUALLY GET IN A 24 HOUR PERIOD...ON A TYPICAL SCHOOL DAY /WEEKDAY? _____ HOURS OF SLEEP DURING SCHOOL WEEK

This question was asked to parents of children ages 2-17 (n=24). The question was asked in an open-ended format. All respondents understood that the question was asking about how much their children usually sleep in 24 hours. Respondents with children who nap counted the number of hours their children sleep at night as well as the number of hours their children nap during the day while respondents with older children, who do not nap, counted the number of hours their children sleep at night.

Range: Most respondents initially answered by providing a range rather than a single number of hours. For example, one respondent said, “7-8. I don’t really know when exactly he falls asleep, but it’s somewhere in there.”

Uncertainty: Several respondents expressed uncertainty although all were able to provide responses. One said, “I’m really not sure. I try to encourage it, but it’s difficult to get him to bed.” Another expressed uncertainty, saying, “Maybe about 6?” Some respondents confidently provided an initial response, but later, during probing, expressed uncertainty about what time their children actually fall asleep or their children’s exact sleep and wake habits. In general, parents of younger children, particularly those who nap, were more certain of their children’s sleep habits than those of older children.

Accuracy: Interviewers probed on respondents’ initial answers by asking them what time their children go to bed and what time they wake up. The calculations for the amount of sleep children get, based on parent-reports of the sleep and wake times rarely matched the initial estimates given by respondents. For example, one respondent initially answered “7 hours.” She later reported that her daughter goes to bed at 9:30 and gets up at 6:00. Based on these sleep and wake times, her daughter gets 8.5 hours of sleep, not 7. Almost all respondents’ initial answers differed from later estimates based on sleep and wake times. Although respondents were not always certain about how long it takes their children to actually fall asleep, most respondents were confident about their children’s bedtimes and wake up times. Some respondents estimated higher while others estimated lower. When asked which was more accurate, the initial estimate or the estimate based on sleep and wake times, respondents always stood by the stated sleep and wake times. One respondent who initially answered “6” said, “Oh well, yeah, it’s probably more like 9 then. I mean, I definitely know what her bedtime is.” In general, parents of younger children were more accurate in their estimates of their children’s sleep than parents of older children.

Works Cited

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Appendix A. Instrument

NHIS Redesign 2017		
ADULT UTILIZATION - USUAL PLACE OF CARE, WELL VISITS, URGENT CARE		
LASTDR_A.	About how long has it been since you last saw any doctor or other health professional about your health?	<p>Never</p> <p>Within the past year (anytime less than 12 months ago)</p> <p>Within the last 2 years (1 year but less than 2 years ago)</p> <p>Within the last 3 years (2 years but less than 3 years ago)</p> <p>Within the last 5 years (3 years but less than 5 years ago)</p> <p>Within the last 10 years (5 years but more than 10 years ago)</p> <p>10 years ago or more</p>
USUALPL_A.	Is there a place that you USUALLY go to if you are sick?	<p>Yes</p> <p>There is NO place (AU4)</p> <p>There is MORE THAN ONE place</p>
SKIP	IF (2) 'There is NO place' go to WELLVIS_A. else go to USPLKIND_A.	
USPLKIND_A.	What kind of place do you go <i>most often</i> (read answer categories)?	<p>A doctor's office or health center</p> <p>Walk-in clinic, urgent care center, or retail clinic in a pharmacy or grocery store</p> <p>Emergency Room</p>

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		<p>A VA Medical Center or VA outpatient clinic</p> <p>Some other place</p> <p>Does not go to one place most often</p>
WELLVIS_A.	About how long has it been since you last saw a doctor or other health professional for a "wellness visit," physical examination, preventive care, or general purpose check-up?	<p>Never (AU6)</p> <p>Within the past year (anytime less than 12 months ago)</p> <p>Within the last 2 years (1 year but less than 2 years ago)</p> <p>Within the last 3 years (2 years but less than 3 years ago)</p> <p>Within the last 5 years (3 years but less than 5 years ago)</p> <p>Within the last 10 years (5 years but more than 10 years ago)</p> <p>10 years ago or more</p>
SKIP	IF 0 'Never' go to URGENT12M_A. , else go to WELLKIND_A.	
WELLKIND_A.	What kind of place did you go to for your most recent "wellness visit," physical examination, preventive care, or general purpose check-up (read answer categories)?	<p>A doctor's office or health center</p> <p>Walk-in clinic, urgent care center, or retail clinic in a pharmacy or grocery store</p> <p>Emergency Room</p> <p>A VA Medical Center or VA outpatient clinic</p> <p>Some other place</p> <p>Does not go to one place most often</p>

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URGENT12M_A.	During the past 12 months, how many times have you gone to a walk-in clinic such as an urgent care center, or clinic in a pharmacy or grocery store about your health?	_____ Times visited walk-in clinic
ADULT MENTAL HEALTH		
MHRX_A.	During the past 12 months, did you take any prescription medication to help you with your emotions, concentration, behavior or mental health?	Yes No
MHTRPY_A.	During the past 12 months, did you receive counseling, therapy, or other non-medication treatment from a mental health professional such as a psychiatrist, psychologist, psychiatric nurse, or clinical social worker?	Yes No (AMH4)
SKIP	IF 2 'No' go to MHTHDLY_A. else go to MHTPYNOW_A.	
MHTPYNOW_A.	Are you currently receiving counseling or therapy or other non-medication from a mental health professional?	Yes No
MHTHDLY_A.	During the past 12 months, have you delayed getting counseling, therapy, or other non-medication treatment from a mental health professional because of the cost?	Yes No
MHTHND_A.	During the past 12 months, was there any time when you needed counseling, therapy, or other non-medication treatment from a mental health professional, but did not get it because of the cost?	Yes No
E-CIGARETTES AND USING E-CIGARETTES IN SMOKING CESSATION		
SMKEV_A.	These next questions are about cigarette smoking. Have you smoked at least 100 cigarettes in your ENTIRE LIFE?	Yes No (SMK3)

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SKIP	IF 2 'No' go to ECIGEV_A. , else go to SMKNOW_A.	
SMKNOW_A.	Do you NOW smoke cigarettes every day, some days or not at all?	Every day Some days Not at all
ECIGEV_A.	The next question is about electronic cigarettes or e-cigarettes. You may also know them as vape-pens, hookah-pens, e-hookahs, or e-vaporizers. Some look like cigarettes, and others look like pens or small pipes. These are battery-powered, usually contain liquid nicotine, and produce vapor instead of smoke. Have you EVER used an e-cigarette EVEN ONE TIME?	Yes (SMK4) No (SMK5 or END)
SKIP	IF 'Yes' go to ECIGNOW_A. , IF 'No' to ECIGEV_A. and 'Not at all' to SMKNOW_A. go to SMKQTN_A. <u>Else</u> FINISHED WITH ADULT QUESTIONS	
ECIGNOW_A.	Do you now use e-cigarettes every day, some days, or not at all?	Every day Some days Not at all
SMKQTN_A.	How long has it been since you quit smoking cigarettes?	_____ Time since quitting smoking
SKIP	ASK SMKQT12M_A. IF SMKNOW_A. = 'Every day' OR 'Some days'	
SMKQT12M_A.	During the PAST 12 MONTHS, have you stopped smoking for more than one day BECAUSE YOU WERE TRYING TO QUIT SMOKING?	
QTECIGF_A.	Thinking back to when you stopped smoking completely, did you use e-cigarettes to help you quit smoking regular cigarettes?	Yes No
SKIP	ASK QTECIGC_A. IF SMKNOW_A. 'Every day' OR 'Some days'	

NHIS Redesign 2017		
QTECIGC_A.	During the PAST 12 MONTHS, have you stopped smoking for more than one day BECAUSE YOU WERE TRYING TO QUIT SMOKING?	Yes No
SMKTLK_A.	In the past 12 months, has a doctor, dentist, or other health professional ADVISED you about ways to quit using tobacco or prescribed medication to help you quit?	Yes No
END ADULT SECTION		
CHILD UTILIZATION - USUAL PLACE OF CARE, WELL VISITS, URGENT CARE		
<i>Now, I would like to ask you about (CHILD'S NAME) health care.</i>		
LASTDR_C.	About how long has it been since (CHILD'S NAME) last saw any doctor or other health professional about (HIS / HER) health?	Never Within the past year (anytime less than 12 months ago) Within the last 2 years (1 year but less than 2 years ago) Within the last 3 years (2 years but less than 3 years ago) Within the last 5 years (3 years but less than 5 years ago) Within the last 10 years (5 years but more than 10 years ago) 10 years ago or more
USUALPL_C.	Is there a place that (CHILD'S NAME) USUALLY goes to if (HE / SHE) is sick?	Yes No (CU4)
SKIP	IF 'There is NO place' go to WELLVIS_C. else go to USUKIND_C.	

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USUKIND_C.	What kind of place (IS IT / DOES HE/SHE GO TO MOST OFTEN) - a doctor's office or health center; a walk-in clinic, urgent care center, or retail clinic in a pharmacy or grocery store; an emergency room; or some other place?	<p>A doctor's office or health center</p> <p>Walk-in clinic, urgent care center, or retail clinic in a pharmacy or grocery store</p> <p>Emergency Room</p> <p>A VA Medical Center or VA outpatient clinic</p> <p>Some other place</p> <p>Does not go to one place most often</p>
WELLVIS_C.	About how long has it been since (CHILD'S NAME) last saw a doctor or other health professional for a well (BABY / CHILD) visit, physical examination, preventive care, or general purpose check-up?	<p>Never (CU6)</p> <p>Within the past year (anytime less than 12 months ago)</p> <p>Within the last 2 years (1 year but less than 2 years ago)</p> <p>Within the last 3 years (2 years but less than 3 years ago)</p> <p>Within the last 5 years (3 years but less than 5 years ago)</p> <p>Within the last 10 years (5 years but more than 10 years ago)</p> <p>10 years ago or more</p>
SKIP	IF 'Never' go to URGENT12M_C. , else go to WELLKIND_C.	
WELLKIND_C.	What kind of place did (CHILD'S NAME) get (HIS / HER) most recent well (BABY / CHILD) visit, physical examination, preventive care, or general purpose check-up?	<p>A doctor's office or health center</p> <p>Walk-in clinic, urgent care center, or retail clinic in a pharmacy or grocery store</p>

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		Emergency Room A VA Medical Center or VA outpatient clinic Some other place Does not go to one place most often
URGENT12M_C.	During the past 12 months, how many times has (CHILD'S NAME) gone to a walk-in clinic such as an urgent care center, or clinic in a pharmacy or grocery store about (HIS / HER) health?	_____ Times visited walk-in clinic
CHILD MENTAL HEALTH		
MHRX_C.	During the past 12 months, did (CHILD'S NAME) take any prescription medication to help with (HIS / HER) emotions, concentration, behavior or mental health?	Yes No
MHTRPY_C.	During the past 12 months, did (CHILD'S NAME) receive counseling, therapy, or other non-medication treatment from a mental health professional such as a psychiatrist, psychologist, psychiatric nurse, or clinical social worker?	Yes No
MHTHDLY_C.	During the past 12 months, has (CHILD'S NAME) been delayed in getting counseling, therapy, or other non-medication treatment from a mental health professional because of the cost?	Yes No
MHTHND_C.	During the past 12 months, was there any time when (CHILD'S NAME) needed counseling, therapy, or other non-medication treatment from a mental health professional, but did not get it because of the cost?	Yes No
ADVERSE LIFE EVENTS FOR CHILDREN		

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VIOLNEV_C.	The next questions are about events that may have happened during (CHILD'S NAME) life. These things can happen in any family, but some people may feel uncomfortable with these questions. You may skip any questions you do not want to answer. Has (CHILD'S NAME) ever been the victim of violence or witnessed violence in (HIS / HER) neighborhood?	Yes No
JAILEV_C.	Did (CHILD'S NAME) ever live with a parent or guardian who served time in jail or prison after (CHILD'S NAME) was born?	Yes No
MENTDEPEV_C.	Did (CHILD'S NAME) ever live with anyone who was mentally ill or severely depressed?	Yes No
ALCDRUGEV_C.	Did (CHILD'S NAME) ever live with anyone who had a problem with alcohol or drugs?	Yes No
PHYSICAL ACTIVITY FOR CHILDREN		
SPORT_C.	In the past 12 months, did (CHILD'S NAME) play or participate on a sports team or club or take sports lessons either at school or in the community?	Yes No
PEGYM_C.	In a typical week during the school year, does (CHILD'S NAME) go to a physical education or gym class?	Yes No
PADAYS_C.	In a typical week during the school year, how often does (CHILD'S NAME) exercise, play a sport, or participate in physical activity for at least 60 minutes a day? Would you say every day, most days, some days, few days, or no days?	Every day Most days Some days Few days No days

NHIS Redesign 2017		
WALKBIKE_C.	In a typical week during the school year, how often does (CHILD'S NAME) walk or ride a bike for at least 10 minutes at a time?	Every day Most days Some days Few days No days
LIVESCHL_C.	How far does (CHILD'S NAME) live from school?	Less than ½ mile Between a ½ mile to 1 mile 1 mile to 2 miles More than 2 miles from school Home schooled or not in school
WALKSCHL_C.	During a usual school week, how many times does (CHILD'S NAME) walk to or from school? (e.g., if he/she walked to and from school every day, the answer would be 10 times).	_____ Number of times walk to school
SCREEN TIME FOR CHILDREN		
WSCREEN_C.	On a typical day during the school year, about how many hours does (CHILD'S NAME) usually spend playing with a smartphone or computer, watching TV or movies, or playing video games?	_____ Time spent on computer/smartphone during school year
SCRNRULE_C.	Do you have a rule for how much screen time (CHILD'S NAME) is allowed in a given day?	Yes No
SCRNPLACE_C.	Do you have places in your home were (CHILD'S NAME) is NOT allowed to use a smartphone or computer, watch TV or movies, or play video games?	Yes No
SLEEPING FOR CHILDREN		

NHIS Redesign 2017		
SLPH_C.	(INCLUDING NAPS), how much sleep does (CHILD'S NAME) usually get in a 24 hour period...on a typical school day /weekday?	_____ Hours of sleep during school week