

Nonsubstantive Change Request

NATIONAL HEALTH INTERVIEW SURVEY

OMB No. 0920-0214, Expiration Date 12/31/2020

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December 9, 2019

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List of Attachments

Attachment 1 – Changes to the Rotating Core and Sponsored Content

Attachment 2 – New 2020 NHIS Sample Adult Questions

Attachment 3 – New 2020 NHIS Sample Child Questions

Attachment 4 – Revised Advance Letter

Attachment 5 – Updated 2020 NHIS Reinterview Questionnaire

NCHS National Health Interview Survey

This is a request for approval of a nonsubstantive change to the National Health Interview Survey (NHIS) (OMB No. 0920-0214, Exp. Date 12/31/2020), conducted by the National Center for Health Statistics (NCHS), Centers for Disease Control and Prevention (CDC).

The NHIS rotates core content onto the survey on a periodic basis as part of its **rotating core**. This content was incorporated in the burden estimates in the initial submission and is presented here as a part of this nonsubstantive change request to show slight modifications to some of the questions that are now being rotated in and out of the NHIS, per the rotating core schedule. The topical areas of rotating content, the necessity of the related items, and the source of the respective questions are described in attachment 1. This nonsubstantive change includes the following modifications:

Addition of questions planned to be rotated in as part of the NHIS rotating core schedule

1. Add 6 questions on detailed adult employment including name of employer, industry, occupation, most important activities on the job, supervisory status, and work category of main job.
2. Add 29 questions on adult injuries including questions about repetitive strain injuries, and accidental injuries.
3. Add 31 questions on adult health behaviors including questions about physical activity, walking, fatigue, sleep, alcohol use, smoking history and cessation.
4. Add 19 questions on child health behaviors including body mass index measurement, physical activity, neighborhood characteristics, sleep, and screen time.
5. Add 23 questions on child accidental injuries and child concussions.

Deletion of questions planned to be rotated out as part of the NHIS rotating core schedule

1. Remove 15 questions on mental health assessments for adults
2. Remove 8 questions on impact and location of pain for adults
3. Remove 22 questions on preventive services for adults
4. Remove 33 questions on mental health assessment for children
5. Remove 4 questions on stressful life events for children

In addition to rotating core content, this submission also seeks approval to add/delete **sponsored content** to the 2020 NHIS:

Additions

1. Add 8 questions on diabetes sponsored by the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK, NIH) to assess diabetes risk and assist in diabetes related monitoring and prevention efforts. This includes questions about family history of diabetes, diabetes screening, and questions about weight loss, fitness, and diabetes prevention.
2. Add 27 questions as part of annual cancer control content sponsored by the National Cancer Institute (NCI, NIH) and the National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP, CDC). This includes 6 questions about lung cancer screening including questions to assess eligibility for lung cancer screening and history of chest x-rays and CT scans to screen for lung cancer among current and former smokers; 12 questions about perceptions of the walking environment that ask about the walking environment of the respondents' neighborhoods, if there are places respondents can walk to for different purposes, and barriers to walking; and 9 questions about sun care and safety including questions on protecting the skin from sun damage, sunburns, and tanning.

3. Add 5 questions to sample adult interview and 4 questions to the sample child interview about asthma sponsored by the National Heart, Lung, and Blood Institute (NHLBI, NIH), National Institute of Occupational Safety and Health (NIOSH, CDC), and the National Center for Environmental Health (NCEH, CDC). The questions are very similar to questions included on past years of the NHIS, most recently in 2018.
4. Add 1 question on the age of onset limitation sponsored by the Administration for Community Living (ACL, HHS).

Deletions of sponsored content from 2019

1. Remove 26 questions about cancer screenings
2. Remove 6 questions about arthritis
3. Remove 6 questions about willingness to participate in biometric measurements
4. Remove 4 questions related to immunizations

Replacements

1. Replace 3 questions in the pain management module sponsored by the National Center for Injury Prevention and Control (NCIPC, CDC) about strategies for treating pain.

The burden hours associated with these questions are a part of the sample adult questionnaire in the Redesigned Adult. The new sample adult questions for the 2020 NHIS are shown in Attachment 2 and the new sample child questions for the 2020 NHIS are shown in Attachment 3. An updated attachment 12 from the revision package summarizing the additions to the 2020 NHIS survey is shown in Attachment 1.

Meanwhile, the previous nonsubstantive change allowed for both the ongoing main survey and a bridge sample that was introduced to test the redesigned questions. Now that the redesigned questions have been tested, there is no need to maintain both sets of questionnaires. Consequently, the previous four main core instruments and the related reinterview survey will be discontinued for 2020 and the previously split sample will be consolidated into the redesigned instruments.

Also included in this package are updates to the advance letter (Attachment 4) and reinterview questionnaire (Attachment 5) for the 2020 NHIS. Neither of these updates affect the burden of the NHIS.

A. Justification

1. Circumstance Making the Collection of Information Necessary

The NHIS is conducted by the National Center for Health Statistics (NCHS), Centers for Disease Control and Prevention (CDC) to collect, on an annual basis, statistically valid data on the amount, distribution, and effects of illness and disability in the population and on the utilization of health care services for such conditions. The NHIS has been conducted every year since 1957, and the questionnaire has been periodically redesigned to reflect the latest state of the science and maintain the survey's topical relevance toward its critical public health mission.

A redesigned questionnaire launched in January 2019. The redesigned instrument consists of annual and rotating core questions that are permanent fixtures on the redesigned NHIS questionnaire, as well as sponsored questions that comprise the scheduled sponsored content for the 2020 data collection year. This structure is described in attachment 3a of the revision package.

2. Purpose and Use of Information Collection

NHIS Rotating Core Content

Detailed adult employment: These questions were included in the 1997-2017 NHIS and are rotating on to the NHIS redesign for the first time in 2020. Six questions are needed to accurately code respondents into industry and occupation groups. The questions are used to study health by industry and occupation groups.

Injury for sample adults: Injury questions were on 1997-2017 NHIS. These new injury questions were developed using input from technical expert panels consisting of experts from government and academia and cognitive testing (see Jamoom and Massey, 2019). The questions impose less burden on respondents than prior injury questions that asked details about specific injury episodes. Results from cognitive testing of NHIS sample child questions also informed the design of the sample adult injury questions (report forthcoming). The new sample adult injury questions separate out repetitive strain and acute injuries for adults. The injury questions also include information about the seriousness of the injury, treatment of the injury, where the injury occurred, what activities the respondents were engaged in when injured and the impact of the injuries on the respondents' work, school, or usual activities. Overall, these questions provide detail about the injuries that can help characterize the nature of injuries and inform injury prevention efforts.

Health behaviors for sample adults:

- Physical activity: Similar questions were on the 1997-2017 NHIS. Minor modifications were made to questions to better match new physical activity guidelines released in 2018. We also made minor changes to examples of muscle strengthening. Healthy People 2020 used NHIS data for Physical Activity goals and will likely use the data for Healthy People 2030.
- Walking for transportation and leisure: These questions were adapted from questions asked in the 2015 NHIS cancer supplement. Cognitive testing during August of 2019 was used to make it easier for respondents to answer by first asking the number of days and then asking the number of times per day (report forthcoming). These questions were additionally modified to account for new Physical Activity Guidelines which did not require a minimum of 10 minutes to qualify as exercise.
- Fatigue: These questions were on the 2010-2018 NHIS. Questions have not changed since the submission of the revision package. These questions were developed as part of the Washington Group on disability statistics extended set to measure functioning related disability in adults.
- Sleep: These questions were adapted from questions on the 2013-2018 NHIS. See Wheeler and Massey (2018) for cognitive testing. These questions are used to study the relationship between sleep and health and establish guidelines for the amount of sleep for adults. Healthy People 2020 used NHIS data to measure the adequate sleep objective.
- Alcohol: NHIS has included similar alcohol use questions since 1997 that we have adapted for the redesign. Questions can be used to measure the alcohol drinking status of adults as well as whether an adult engages in excessive alcohol use such as binge drinking as a health risk behavior.
- Smoking cessation and history: These questions were adapted from questions on the 1997-2017 NHIS. See Massey et al. (2018) for cognitive testing. These questions are used to understand smoking cessation among adults in the U.S. Healthy People 2020 used NHIS data to measure cigarette smoking history and smoking cessation objectives.

Health behaviors for sample children:

- **Body measurements:** This has been adapted from the NHIS sample adult interview. These two questions can be used to calculate a child's Body Mass Index (BMI) which can be used to identify children who are overweight or obese.
- **Physical activity:** This content is based on content from national surveys, including the National Survey of Children's Health and Youth Risk Behavior Survey. Sample Child physical activity questions went through multiple rounds of cognitive testing in September of 2017 (see Massey et al. 2018) and in August of 2019 (cognitive test report forthcoming). These questions are used to measure various aspects of physical activity in children and the impact on health and are meant to be in line with HHS Physical Activity guidelines.
- **Neighborhood characteristics:** This content was adapted from the 2015 cancer supplement on NHIS. The questions are used to measure parental perceptions of the child's neighborhood environment. For example, the questions measure whether there are place/conditions for children to exercise outdoors in their neighborhood and whether there are any barriers to prevent them from doing these activities in their neighborhood, and possibly limiting the ability to exercise.
- **Sleep:** This content is from national surveys, including the National Survey of Children's Health and Youth Risk Behavior Survey, and adapted content from the sample adult interview. Sample Child sleep questions went through multiple rounds of cognitive testing in September of 2017 (see Massey et al. 2018) and in August of 2019 (cognitive test report forthcoming).
- **Screen time:** We researched content from national surveys, including National Survey of Children's Health (OMB No. 0607-0990 Exp. Date: 05/31/2022) and Youth Risk Behavior Survey(OMB No. 0920-0493 Exp. Date: 11/30/2019) , and American Academy of Pediatric recommendations to develop questions on screen time that have been associated with poorer mental and physical health. Sample Child sleep questions went through multiple rounds of cognitive testing in September of 2017 (see Massey et al. 2018) and in August of 2019 (cognitive test report forthcoming). One question was retained to measure how many children fall within the American Academy of Pediatrics recommendation for screen time.

Injury for sample children: Injury questions were on the 1997-2017 NHIS. These new injury questions were developed using input from technical expert panels consisting of experts from government and academia and cognitive testing in August of 2019 (report forthcoming). The new injury questions ask about acute injuries that children experience and separate questions on traumatic brain injury. The injury questions also include information about the seriousness of the injury, treatment of the injury, where the injury occurred, what activities the respondents were engaged in when injured and the impact of the injuries on the sample child such as whether the child missed school due to the injury. Overall, these questions provide detail about the injuries that can help characterize the nature of injuries and inform injury prevention efforts. The traumatic brain injury questions were based on versions of the questions being developed for the National Survey of Children's Health. These questions were adapted for an interviewer-administered survey and were cognitively tested in August of 2019 (report forthcoming).

Sponsored Content

Diabetes: These questions were adapted from questions that were included in the 2016-2018 NHIS. See Dunston et al. (2015) for cognitive testing. These questions are used to assess diabetes risk and assist in diabetes related monitoring and prevention efforts.

Cancer sponsored content:

- **Lung cancer screening:** These questions were adapted from the 2015 NHIS cancer supplement and underwent cognitive testing in August of 2019 (report forthcoming). These questions are used to measure the extent to which respondents are being appropriately screened for lung cancer according to

USPSTF guidelines. This requires knowing pack-year smoking history of the respondents and screening techniques that are used.

- Sun safety: These questions were adapted from the 2015 NHIS cancer supplement. The questions are used to measure various aspects of sun safety such as how often respondents are exposed to the sun, whether they take any precautions to prevent sun burns, and activities they engage in that might lead to increased risk of exposure to the sun.
- Perceptions of the walking environment: These questions were adapted from the 2015 NHIS cancer supplement. The lead in question for this section underwent cognitive testing in August of 2019 (report forthcoming) to help incorporate these questions in the redesigned instrument. The questions are used to measure people's perceptions of the suitability of their environment for walking. For example, the questions measure whether there are places for respondents to walk to in their neighborhood, whether there are any barriers to prevent them from walking in their neighborhood, and subsequently whether these barriers prevent the ability to exercise.

Asthma for sample adults: These questions were adapted from the 2013 and 2018 asthma NHIS supplements that were used to measure Healthy People objectives. These questions are used to better understand treatment of asthma and the relationship between work conditions and asthma.

Age of onset limitation sample adults: This question was developed with the Administration for Community Living and will be used to identify developmental disabilities in adults. The question underwent cognitive testing in the fall of 2019 (report forthcoming).

Pain management questions sample adults: These questions are replacing 3 questions from the pain management module that was fielded in 2019. We found a high percentage of respondents selecting "other" for pain management strategy. Review of case notes from the instrument found that including these three new pain management strategies will provide more complete data about pain management strategies.

Asthma for sample children: These questions were adapted from the 2013 and 2018 asthma NHIS supplements. These questions are used to better understand treatment of asthma in children.

12. Estimates of Annualized Burden Hours and Costs

A. Time Estimates

The questions included as scheduled rotating content in attachments 3a and attachment 12 of the revision package and were already accounted for in the burden estimate for the Redesigned Adult Questionnaire. The topical areas for the 2020 cancer control sponsored content were also previously described in attachment 12. In addition, these questions replace the questions on preventive cancer screening that were in the 2019 NHIS so there is no impact on the burden. Likewise, the 3 new pain management questions are replacing questions in the pain management section that has been on the NHIS 2019, so this change does not impact burden. However, the proposed inclusion of the 8 additional diabetes-related questions, 9 asthma related questions, and one question on the age of onset limitation increase the overall average burden per response to the Redesigned Adult Questionnaire from 42 to 48 minutes. The Redesigned Child Questionnaire has increased from 27 to 28 minutes. The burden times for other data collection instruments will not be impacted by the proposed modifications.

In addition, the annualized burden estimate for the main NHIS that has been replaced by the redesigned NHIS was 38,501 annualized burden hours. The corresponding annualized burden estimate for the redesigned NHIS is

28,921 hours. Prior estimates of burden also included 4,407 annualized burden hours for a bridge period where both the main NHIS and the redesigned NHIS were administered at the same time. The NHIS maintains 5,000 annualized burden hours for methodological projects. Consequently, the annualized burden estimate decreased by 13,589 hours from 47,960 to 33,921 hours.

Estimated Annualized Burden Hours

Type of Respondent	Form Name	Number of Respondents	Number of Responses per respondent	Average Burden per Response (in hours)	Total Burden Hours
Adult Household Member	Redesigned Household Roster	32,500	1	5/60	2,708
Sample Adult	Redesigned Adult Questionnaire	27,000	1	48/60	21,600
Adult Family Member	Redesigned Child Questionnaire	9,000	1	28/60	4200
Adult Family Member	Methodological Projects	15,000	1	20/60	5,000
Adult Family Member	Redesigned Reinterview Survey	4,950	1	5/60	413
Total					33,921

B. Cost to Respondents

At an average wage rate of \$21.00 per hour, the estimated annualized cost for the 33,921 burden hours is \$807,618. This estimated cost does not represent an out of pocket expense but represents a monetary value attributed to the time spent doing the interview.

Estimated Annualized Burden Costs

Type of Respondent	Form Name	Total Burden Hours	Hourly Wage Rate	Total Respondent Costs
Adult Household Member	Redesigned Household Roster	2,708	\$21.00	56,868
Sample Adult	Redesigned Adult Questionnaire	21,600	\$21.00	453,600
Adult Family Member	Redesigned Child Questionnaire	4,200	\$21.00	88,200

Adult Family Member	Methodological Projects	5,000	\$21.00	105,000
Adult Family Member	Redesigned Reinterview Survey	4,950	\$21.00	103,950
Total				807,618

15. Explanation for Program Changes or Adjustments

The burden hours associated with the rotating content and cancer control sponsored content were previously accounted for as a part of the Redesigned Adult Questionnaire when a draft set of cognitively tested questions were available. Given the additional time to complete the 8 diabetes items, 9 asthma questions, and 1 onset limitation question it is anticipated that the overall burden of the Redesigned Adult Questionnaire will increase from 42 to 48 minutes. The Redesigned Child Questionnaire has increased from 27 to 28 minutes. The overall burden times for no other data collection instrument will be impacted by the proposed modifications.

Meanwhile, the previous nonsubstantive change allowed for both the ongoing main survey and a bridge sample that was introduced to test the redesigned questions. Now that the redesigned questions have been tested, there is no need to maintain both sets of questionnaires. The previous nonsubstantive change included 4,407 annualized burden hours from a bridge period where both the main NHIS and redesigned NHIS were administered at the same time. The redesigned NHIS also requires less burden compared to the main NHIS instruments that were administered in the past. Consequently, the previous four main core instruments and the related reinterview survey will be discontinued for 2020 and the previously split sample will be consolidated into the redesigned instruments. Overall, the changes proposed herein decrease the overall previously approved burden hours from 47,960 to 33,921.

References

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- Jamoom, Eric and Meredith Massey. "Results of Cognitive Testing of Questions on Injury for the National Health Interview Survey" Q-Bank (2019): 1-21. Web. 20 Nov. 2019. <https://wwwn.cdc.gov/qbank/report/Massey_2018_NCHS_NHIS.pdf>.
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