Attachment 5b
2024 NHIS Proposed New Content
Concepts Measured, Duplication, and Proposed Uses of Data

Sponsored content: New sponsored content for sample adults only includes questions on cigarettes (number of cigarettes smoked over entire time of smoking, number of packs per day), sun care and protection (sunburns and associated activities like working, trying to get a tan, exercise, being near the water, using sunscreen, drinking alcohol), and loneliness (how often feel lonely), and taste and smell (strong odors smell differently from usual).

For children, taste and smell items that have been previously fielded for the Sample Adult are proposed (cold or flu lasting longer than a month, persistent dry mouth, difficulty with sense of smell, difficulty with taste, unwanted taste, discuss problem with health professional, last time discussed problem with health professional).

NEW SPONSORED CONTENT

Cancer Prevention – Sun Safety and Skin Cancer Prevention – Sample Adult

Sponsors: NIH/NCI - National Cancer Institute, CDC/NCCDPHP - National Center for Chronic Disease Prevention and Health Promotion

Skin cancer is the most common cancer in the United States.[1] The two most common skin cancers are basal and squamous cell carcinomas.[1] Melanoma is the third most common type, and among all skin cancers causes the most deaths.[1] In 2020, 77,230 new melanoma cases were reported in the United States, and 8,214 people died from this disease.[2]

Increased skin cancer risk has been associated with sunburn during adulthood.[3-4] The rate of sunburn in the US is high and has remained relatively constant since 2015.[5] As a known risk factor for cancer, a better understanding of the contexts in which sunburns often occur can inform future intervention approaches specific to context and applicability of relevant policy. Reducing risk relates to the Healthy People 2030 goal to reduce new cases of cancer and cancer-related illness, disability, and death.[6]

In addition to sponsored sun safety items that were previously fielded in the 2020 NHIS, several items on sun safety are being proposed for 2024 (SBURNWRK_A, SBURNTAN_A, SBURNPHY_A, SBURNWAT_A, SBURNSCR_A, SBURNALC_A). These items relate to activities participants were engaged in when sunburned, to better understand the contexts in which sunburns occur.

Concepts Measured

- SBURNWRK_A – Working at a job when got sunburned in past 12 months
- SBURNTAN_A – Trying to get a tan when got sunburned in past 12 months
- SBURNPHY_A – Exercising when got sunburned in past 12 months
- SBURNWAT_A – Spending time in/on/near water when sunburned in past 12 months
- SBURNSCR_A – Using sunscreen when got sunburned in past 12 months
- SBURNALC_A – Drinking alcohol when got sunburned in past 12 months

Duplication and Previous NHIS

This series of questions (SBURNWRK_A, SBURNTAN_A, SBURNPHY_A, SBURNWAT_A, SBURNSCR_A, SBURNALC_A) has not been previously fielded on NHIS. Versions of these items were fielded on the 2018 SummerStyles survey and on the 2019 HINTS survey (H5Cycle3, see https://hints.cancer.gov/data/survey-instruments.aspx#H5C3).

These surveys have a much smaller sample size compared to the usual sample size of NHIS (e.g., 4,088 for the 2018 SummerStyles and 5,438 for the HINTS5-Cycle3 survey) and are unlikely to be used to field these questions in future years. These two surveys have proven to be particularly

useful for initial data collection to inform the items we include on NHIS but do not provide an adequate vehicle for ongoing monitoring of health behaviors to track public health progress and trends over time.

Proposed Use of the Data

- Data are intended to produce estimates of activities participants engaged in when they got sunburned.

- The specific contexts addressed in these items were selected because they inherently create unique sun-safety challenges and are known to be contexts in which individuals often experience high levels of UV exposure. Surveillance data from these items will provide insight into the proportion of sunburns that happen in these contexts and the demographic groups most susceptible to sunburn in these various contexts, thus directly informing the direction of future sun-safety intervention efforts.

- This set of questions relates to the Healthy People 2030 goal to reduce new cases of cancer and cancer-related illness, disability, and death. Experiencing sunburn during adulthood is associated with an increased risk for skin cancer. A better understanding of the contexts in which sunburns often occur can inform future intervention approaches specific to context and applicability of relevant policy.

- The proposed questions would be included in 2024 and are planned to be repeated every 4 years to monitor trends over time and inform public health efforts to reduce sunburn prevalence and skin cancer risk.

- Overall prevalence is expected to be ≥ 2% for each item based on findings from HINTS and SummerStyles surveys. Additional details for each item are provided below.

Occupational Sunburn (SBURNWRK_A):
We anticipate that approximately 25% of respondents will report one or more sunburns in the past twelve months with about 10% of those who got sunburned reporting that they got burned while working at their job (approximately 2.5% of the total survey sample). These estimates are based on the percentage of US adults who reported sunburn on the 2020 NHIS and the percentage of respondents who reported getting a sunburn while working at their job on the HINTS5-Cycle3 survey.[7]

Sunburn When Trying to Get a Tan (SBURNTAN_A):
We anticipate that approximately 25% of respondents will report one or more sunburns in the past twelve months with about 17% of those who got sunburned reporting that they got burned while trying to get a tan (approximately 4% of the total survey sample). These estimates are based on the percentage of US adults who reported sunburn on the 2020 NHIS and the percentage of respondents who reported getting a sunburn while sunbathing on the HINTS5-Cycle3 survey.[7]

Sunburn While Being Physically Active (SBURNPHY_A):
We anticipate that approximately 25% of respondents will report one or more sunburns in the past twelve months with about 19% of those who got sunburned reporting that they got burned while engaging in physical activity (approximately 5% of the total survey sample). These estimates are based on the percentage of US adults who reported sunburn on the 2020 NHIS and the percentage of respondents who reported getting a sunburn while engaging in physical activity on the HINTS5-Cycle3 survey.[7]

Sunburn While Spending Time In, On, or Near the Water (SBURNWAT_A):
We anticipate that approximately 25% of respondents will report one or more sunburns in the past twelve months with at least 33% of those who got sunburned reporting that they got burned while spending time in, on, or near the water (approximately 8% of the total survey sample). These estimates are based on the percentage of US adults who reported sunburn on the 2020 NHIS and the percentage of respondents who reported getting a sunburn while swimming on the HINTS5-Cycle3 survey.[7]

Sunburn When Using Sunscreen (SBURNSCR_A):
We anticipate that approximately 25% of respondents will report one or more sunburns in the past twelve months with approximately 39% of those who got sunburned reporting that they got burned while using sunscreen (approximately 10% of the total survey sample). These estimates are based on the percentage of US adults who reported sunburn on the 2020 NHIS and the percentage of respondents who reported getting a sunburn while using sunscreen on the 2018 SummerStyles survey.[8]

Sunburn When Drinking Alcohol (SBURNALC_A):
We anticipate that approximately 25% of respondents will report one or more sunburns in the past twelve months with approximately 19% of those who got sunburned reporting that they got burned while drinking alcohol (approximately 5% of the total survey sample). These estimates are based on the percentage of US adults who reported sunburn on the 2020 NHIS and the percentage of respondents who reported getting a sunburn while drinking alcohol on the HINTS5-Cycle3 survey.[7]

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Lung cancer screening – assessing smoking history - Sample Adult

Sponsor: National Center for Chronic Disease Prevention and Health Promotion and National Cancer Institute

Lung cancer is the leading cause of cancer death in the US. In 2023, an estimated 238,340 persons will be diagnosed with lung cancer, and 127,070 persons will die of the disease.[1] The most important risk factor for lung cancer is smoking. Smoking is estimated to account for about 90% of all lung cancer cases, with a relative risk of lung cancer approximately 20-fold higher in smokers than in nonsmokers.[2] Lung cancer has a generally poor prognosis, with an overall 5-year survival rate of 25.4%.[1] However, early-stage lung cancer has a better prognosis and is more amenable to treatment. Low-dose computed tomography has demonstrated mortality benefit in several randomized trials as a screening modality for persons at high risk of lung cancer.[3-4] As such, in 2021, the U.S. Preventive Services Task Force recommended annual lung cancer screening for adults ages 50 to 80 years who have a 20 pack-year or more smoking history and either currently smoke or have quit within the past 15 years.[5]

Available data indicate that uptake of lung cancer screening is low.[6] One recent study using data for 10 states found that only 14.4% of persons eligible for lung cancer screening (based on 2013 USPSTF criteria) had been screened in the prior year.[7] Increasing lung cancer screening discussions and offering screening to eligible persons who express a preference for it is a key step to realizing the potential benefit of lung cancer screening. Using the NHIS to monitor population behavior trends in relation to lung cancer screening is important because it offers the ability to assess under-, appropriate, and over-use of lung cancer screening in the population. It

also potentially allows for the identification of specific subpopulations that could benefit from targeted interventions to increase appropriate uptake rates.

Accurately assessing smoking history is a critical part of tracking lung cancer screening rates in the population, as eligibility for screening is largely determined by it.

We propose to add the following new question to NCI/CDC Sponsored Content:

- Over the entire time that you have smoked, what is the average number of cigarettes that you smoked per day? (Universe: Sample Adults 18+ who ever smoked 100 cigarettes)

Concepts Measured

- Average number of cigarettes smoked per day across respondents' entire smoking history– This question, in combination with several other smoking history questions on the annual and rotating core, will allow for assessment of smoking pack-years.

- The new item provides a standard, single question that can be used to estimate the history of average cigarettes smoked per day for respondents who now smoke every day, now smoke some days, or smoked in the past.

- This proposed item has wording similar to what is used on the 2022 BRFSS.

Duplication and Previous NHIS

- The Adult Annual Core question CIGNOW_A (On average, about how many cigarettes do you NOW smoke a day?) will continue to be included but will no longer be used as part of NCI/CDC smoking pack year calculations since it does not capture average consumption over the entire smoking lifespan, which is needed to assess screening eligibility. (There are other valid reasons for others to assess *current* smoking patterns.)

- The NHIS NCI/CDC previously sponsored questions FORNUMCIG_A (When you last smoked FAIRLY REGULARLY, how many cigarettes did you usually smoke per day?) and FORVARCIG_A (What is the average number of cigarettes that you smoked daily during the longest period that you smoked?) will be deleted, as this new item provides a more accurate and efficient way to measure average lifetime pack-years. The 2 questions to be deleted were asked in 2020, 2015, and 2010.

Proposed Use of the Data

- Data are intended to produce accurate estimates of participants' smoking pack-year histories.

- This new item will be used in conjunction with 6 questions on the annual and rotating core, to fully assess lung cancer screening eligibility among respondents. These include:

    - AGE

- SMKEV_A (Have you smoked at least 100 cigarettes in your ENTIRE LIFE?)
- SMKAGE_A (How old were you when you FIRST started to smoke fairly regularly?)
- SMKNOW_A (Do you NOW smoke cigarettes every day, some days or not at all?)
- SMKQTN_A (How long has it been since you quit smoking cigarettes?)
- SMKQTTP_A (Enter time period for time since quit smoking.)

- Accurate information about screening eligibility will then allow for reliable assessment of under-, appropriate, and over-screening for lung cancer. This in turn informs national targets. For example, this item is one of several questions to assess Healthy People 2030 Objective C-03, which is to increase the proportion of eligible adults who get screened for lung cancer.[8]

- The proposed new question will be included in 2024 and is planned to be repeated every 4 years.

- Overall prevalence is expected to exceed 2%. In the 2020 NHIS, 37.3% of sample adults aged ≥18 years reported "Yes" to SMKEV_A, and there was little missing data for the question previously investigating the average number of cigarettes smoked per day.[9]

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SOCIAL SUPPORT AND LONELINESS

Sponsor: CDC/NCCDPHP - National Center for Chronic Disease Prevention and Health Promotion

The U.S. Surgeon General issued an advisory on an epidemic of loneliness and isolation in the U.S. in 2023.[1] The advisory highlights the importance of social connection for individual health, community-wide metrics of health and well-being, and the significant consequences of loneliness. Loneliness is defined as the perception of social isolation or the subjective feeling of being lonely.[2] Social support is a protective factor related to loneliness and is defined as the actual or perceived availability of resources from others.[2]

The Surgeon General's advisory called attention to the the impact of loneliness on biological, psychological, and behavioral health processes that in turn affect health outcomes. Studies have found that loneliness increases the risk for all-cause mortality and premature mortality. In addition, loneliness is associated with psychological, cognitive, and physical morbidities.[2]

Concepts Measured

- How often feel lonely (LONELY_A)

Duplication and Previous NHIS

- The question LONELY_A is also included on the 2023 BRFSS and will continue in the 2024 BRFSS.

Proposed Use of the Data

- More than one-third of adults aged 45 and older feel lonely.[2]

- A question on social support that was previously included in the NHIS in 2021 can be used to understand the extent to which social support is a protective factor for loneliness.

- NHIS data could be used to produce national estimates of loneliness across a variety of subgroups such as sex, race, age, and sexual orientation. These analyses will help to identify populations at risk for loneliness.

- NHIS data can be used to understand the effects of loneliness on a variety of health behaviors, menthal and physical health conditions, and health outcomes included in the survey.

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TASTE AND SMELL

Sponsor: CDC/NCCDPHP - National Center for Chronic Disease Prevention and Health Promotion

The 2021 NHIS included questions on taste and smell for adults that are being repeated in the 2024 NHIS. The 2021 NHIS included a question on Phantosmia - smelling an unpleasant odor when nothing was there.[1] This is one type of smell related disorder, but does not include other relevant smell disorders. Some people may experience a distorted sense of smell when strong odors smell differently from usual. This is distorted sense of smell is called Parosmia and has been associated with COVID-19.[2]

There is a dearth of research related to smell and taste disorders in children. Questions about smell and taste disorders in children are being added to the 2024 NHIS to help understand the prevalence of problems that children have with these senses as reported by a parent or guardian.

Concepts Measured – Adults Only

- When you had coronavirus or afterwards did strong odors smell differently from how they usually smell (CVDPAROS_A)
- (Past 12 months) Strong odors smell differently from how they usually smell (SMELLPAR_A)

Concepts Measured – Added for Children

- cold or flu lasting longer than a month (COLDFLU12M_C)
- persistent dry mouth (DRYMTH12M_C)
- difficulty with sense of smell (SMELLDF_C)
- smell unpleasant, bad, metallic, or burning odor when nothing was there (SMELLPHT_C)
- difficulty with taste (TASTEDF_A)
- unwanted taste (TASTEUNW_C)
- discuss problem with health professional (TSTSMHP2_C)
- last time discussed problem with health professional (TSTSMLAST_C)

Duplication and Previous NHIS

- Most of the taste and smell items included in the 2024 NHIS were last fielded for adults in the 2021 NHIS.

- Similar items related to sense of taste and smell as well as discussing such with a health professional were fielded on the NHANES in the years 2011-2014

Proposed Use of the Data

- The addition of a question on Parosmia will improve measurement of smell disorders in adults and provide data that provides more qualitatiave distinctions between the types of smell disorders that adults experience.

- With the addition of questions on the Sample Child Questionnaire, full population estimates can be made for taste and smell loss, especially among various age groups.

- Using data from the 2021 NHIS, 10.7% of adults experience difficulty smell and 8.1% experience difficulties with taste.

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