**Attachment 5b**

**2025 NHIS Proposed New Content**

**Concepts Measured, Duplication, and Proposed Uses of Data**

**Sponsored content:** All newly sponsored content will appear on the sample adult questionnaire and includes items on adult attention-deficit/hyperactivity disorder (ADHD) diagnoses and treatment, caregiving, menopause, preventative screening for breast cancer, RSV vaccine, social connectedness and isolation, and whole-person health.

**Emerging Content:** Items will be added for social supports for parents.

**NEW SPONSORED CONTENT**

**ADULT ATTENTION-DEFICIT/HYPERACTIVY DISORDER – Sample Adult**

*Sponsor: NCBDDD – National Center on Birth Defects and Developmental Disabilities*

ADHD is a neurodevelopmental disorder with symptom onset before age 12 that often persists into adulthood.1 Based on parent report, an estimated 7 million (11.4%) U.S. children aged 3–17 years have ever been diagnosed with ADHD.2 Prevalence of diagnosed ADHD has increased as recent NCHS Rapid Surveys System Round 2 data showed that 7.8% of adults were ever diagnosed with ADHD,3 compared with 3.41% in 2007 and 4.25% in 2012.4 Since 2012, no regularly collected nationally representative survey has included assessment of lifetime occurrence of ADHD among adults. ADHD is an important public health burden, significantly increasing risk of morbidity and mortality.1 Individuals with ADHD are at significantly increased risk for a range of poor health outcomes including diabetes, cardiovascular disease, asthma, injuries, substance use, functional limitations, and mental disorders.5

The definition of ADHD and awareness of symptoms has changed over time, so that the disorder is increasingly recognized among adults, especially women, who are often diagnosed in adulthood rather than childhood.6 Moreover, while symptom onset before age 12 years is part of the diagnosis, symptoms and impairment of ADHD can vary over time including throughout adulthood, pointing to ADHD as a chronic condition with variable severity.7 Subclinical presentation of ADHD may also be associated with poor outcomes,8 therefore, those with ever but not current ADHD may experience health risks.

ADHD is considered to be caused by a combination of genetic and environmental risks,1 and access to diagnosis may be affected by sociodemographic factors. Changes in awareness and recognition of ADHD symptoms have resulted in increases in prevalence over time (see response 1 on lifetime ADHD and current ADHD). Among children, ADHD is disproportionately diagnosed in males, whereas adult ADHD diagnosis may be more common among females.6 Diagnosis in adulthood may also be more common among individuals with higher education levels.3

The strongest evidence for effective treatments for ADHD symptoms in adults is prescription stimulant medication, with notable clinicial concerns about side-effects and adherence.1 Psychosocial interventions such as behavior therapy and counseling can complement medication treatment and can support daily functioning and reduce impairment.1

Information on lifetime ADHD, current ADHD, age of ADHD diagnosis, and ADHD treatment in adults are not included in any recurring national representative survey. The NHIS will allow for the collection of nationally representative data all outcomes. The extensive NHIS data on adult health including diabetes, cardiovascular disease, asthma, injuries, smoking, functional limitations, and mental disorders will allow an examination of the association of ADHD with chronic diseases and other health risks. Moreover, the inclusion of both lifetime and current ADHD among children within the NHIS will allow for total population estimates.

Concepts Measured

* Ever been told by a doctor or other health professional had ADHD (ADHDEV\_A)
* Currently have ADHD (ADHDNW\_A)
* Age of ADHD diagnosis (ADHDAGE\_A)
* Current ADHD medication treatment (ADHDMED\_A)

Duplication and Previous NHIS

The NHIS fielded a question on lifetime ADHD on the adult survey in 2007 and 2012. The child survey includes questions on lifetime and current ADHD diagnoses.

Proposed Use of the Data

* Data are intended to produce reliable national estimates of lifetime and current ADHD prevalence, individually, for the adult population, and where there is sufficient sample size, to estimate the prevalence for several subpopulations.
* Data are also intended to produce reliable national estimates of age of diagnosis with a planned dichotomization of whether the diagnosis was received as a child or an adult (before age 18). As sufficient sample allows, the outcome may be further subdivided into additional age groups.
* Data are also intended to produce reliable national estimates of current ADHD treatment, and where there is sufficient sample size, to estimate the prevalence of current treatment for several subpopulations.

**Ever been told by a doctor or other health professional had ADHD (ADHDEV\_A)**

It is estimated that prevalence of lifetime ADHD will be around 8%, based on the results of the Rapid Surveys System findings from 2023.3 This would be result in sample size of approximately 2,400 adults in the 2025 NHIS.

**Currently have ADHD (ADHDNW\_A)**

It is estimated that prevalence of current ADHD will be around 6% among adults, based on the results of the Rapid Surveys System findings from 2023.3 This would be result in sample size of approximately 2,400 adults in the 2025 NHIS. This would be result in sample size of approximately 1,800 adults in the 2025 NHIS.

**Age of ADHD diagnosis (ADHDAGE\_A)**

It is estimated that among the 8% of adults with lifetime ADHD, 45% will have received a diagnosis before age 18 years, based on the results of the Rapid Surveys System findings from 2023.3 This would be result in sample size of approximately 1,000 adults in the 2025 NHIS.

**Current ADHD medication treatment (ADHDMED\_A)**

It is estimated that among the 6% of adults with lifetime ADHD, approximately 50% will report receiving ADHD medication treatment or psychosocial treatment in the past 12 months, with approximately 35% receiving both types of treatments, based on the results of the Rapid Surveys System findings from 2023.3 This would be result in sample size of approximately 1,000 adults in the 2025 NHIS.

References

1. Faraone, S. V., Banaschewski, T., Coghill, D., Zheng, Y., Biederman, J., Bellgrove, M. A., Newcorn, J. H., Gignac, M., Al Saud, N. M., Manor, I., Rohde, L. A., Yang, L., Cortese, S., Almagor, D., Stein, M. A., Albatti, T. H., Aljoudi, H. F., Alqahtani, M. M. J., Asherson, P., . . . Wang, Y. (2021). The World Federation of ADHD International Consensus Statement: 208 evidence-based conclusions about the disorder. *Neuroscience & Biobehavioral Reviews*, *23*(7), 519-529.
2. Danielson, M. L., Claussen, A. H., Bitsko, R. H., Katz, S. M., Newsome, K. B., Blumberg, S. J., Kogan, M. D., & Ghandour, R. M. (2024). ADHD prevalence among U.S. children and adolescents in 2022: Diagnosis, severity, co-occurring disorders, and treatment. *Journal of Clinical Child & Adolescent Psychology*, *53*(3), 343-360.
3. National Center for Health Statistics. (2024). *NCSS Rapid Surveys System Round 2 Topic: ADHD*. Retrieved 9/3/2024 from <https://www.cdc.gov/nchs/rss/round2/adhd.html>
4. London, A. S., & Landes, S. D. (2021). Cohort Change in the Prevalence of ADHD Among U.S. Adults: Evidence of a Gender-Specific Historical Period Effect. *J Atten Disord*, *25*(6), 771-782.
5. Landes, S. D., & London, A. S. (2021). Self-Reported ADHD and Adult Health in the United States. *Journal of Attention Disorders*, *25*(1), 3-13.
6. Staley, B. S., Robinson, L. R., Claussen, A. H., Katz, S. M., Danielson, M. L., Summers, A. D., Farr, S. L., Blumberg, S. J., & Tinker, S. C. (2024). Attention-deficit/hyperactivity disorder diagnosis, treatment and telehealth use in adults — National Center for Health Statistics Rapid Surveys System, United States, October – November 2023. *MMWR*, *in press, October 10*.
7. Sibley, M. H., Arnold, L. E., Swanson, J. M., Hechtman, L. T., Kennedy, T. M., Owens, E., Molina, B. S. G., Jensen, P. S., Hinshaw, S. P., Roy, A., Chronis-Tuscano, A., Newcorn, J. H., & Rohde, L. A. (2022). Variable Patterns of Remission from ADHD in the Multimodal Treatment Study of ADHD. *American Journal of Psychiatry*, *179*(2), 132-151.
8. Kirova, A.-M., Kelberman, C., Storch, B., DiSalvo, M., Woodworth, K. Y., Faraone, S. V., & Biederman, J. (2019). Are subsyndromal manifestations of attention deficit hyperactivity disorder morbid in children? A systematic qualitative review of the literature with meta-analysis. *Psychiatry Res*, *274*, 75-90.

**CAREGIVING – Sample Adult**

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

Background/Rationale

President Biden’s April 2023 executive order, Increasing Access to High-Quality Care and Supporting Caregivers, directed federal agencies to “conduct a review to identify gaps in knowledge about the home- and community-based workforce serving people with disabilities and older adults; identify and evaluate existing data sources; and identify opportunities to expand analyses, supplement data, or launch new efforts to provide important data on the home- and community-based care workforce and ensure equity for people with disabilities and older adults.”1 One year after the executive order, the Administration for Community Living released a strategic framework for a national plan on aging, stating “…the aging of our population will create challenges. For example, nearly three-quarters of Americans will need some type of assistance from caregivers to age in their communities. The demand for that assistance, which already far exceeds the capacity of our systems to provide it, will only continue to grow as the number of older adults increases.”2

The advisory councils established by the Recognize, Assist, Include, Support, and Engage (RAISE) Family Caregivers Act and the Supporting Grandparents Raising Grandchildren (SGRG) Act, delivered the “2022 National Strategy to Support Family Caregivers” to Congress in September of 2022.3 This strategy included actions that multiple levels of the government and the private sector can take to address, support, and ensure family caregivers have resources to maintain their health, well-being, and financial security. CDC participated in the Council and established actions to meet Goal Five: Expand data, research, and evidence-based practices to support family caregivers, and one of the stated actions was to add a caregiving question to NHIS in 2025. On September 17, 2024, a progress report on the implementation of the strategy was given to Congress, reporting almost all the federal actions committed to in 2022 were complete or are in progress.4

Approximately one in five US adults are caregivers to a friend, family member or loved one with health needs, such as a chronic health condition or disability.5,6 Changes in health indicators from 2015-2016 and 2021-2022 BRFSS data showed more frequent mental distress, depression, asthma, obesity, and having any or multiple chronic physical conditions among caregivers compared to non-caregivers.6 Adding a question on caregiving to NHIS will help provide nationally representative estimates on caregiving.

Concepts Measured

* Provide regular care or assistance to a friend or family member who has a health problem or disability in the past 30 days (REGCARE\_A)

Duplication (i.e. past data or measurement on the NHIS or other national surveys)

This question has not been previously fielded on NHIS. It has appeared in a BRFSS optional module since 2015 and was fielded on the 2023 Summer Consumer Styles survey.

The BRFSS Caregiving optional module has never appeared in all states in one year, thus estimates only reflect the states including the module. Styles surveys have small sample sizes compared to NHIS. Both surveys have been useful to inform the wording of the question proposed for NHIS, but do not provide nationally representative estimates on a regular basis.

Proposed Use of the Data

* Data are intended to produce estimates of caregiving, defined as those providing regular care or assistance during the previous 30 days to a friend or family member who had a health problem or disability.
* Surveillance data will provide insight into the proportion of adults who are caregivers and the demographic groups who most commonly serve as caregivers, informing the potential need for caregiver support services.3
* This question relates to the Recognize, Assist, Include, Support, and Engage (RAISE) Act Family Caregiving Advisory Council goal to expand data, research, and evidence-based practices to support family caregivers. The addition of this question to NHIS was described as a key federal accomplishment in the RAISE 2024 Report to Congress.4
* Under President Biden’s Executive order to better understand the home- and community-based workforce serving people with disabilities and older adults,1 the data will be used to describe the health status of caregivers, including chronic illnesses and health behaviors. The data can track other health-related characteristics, such as health insurance type and affordability of health care for caregivers.
* The proposed question would be included in 2025 and is planned to be repeated regularly to monitor trends over time and inform public health efforts.

We anticipate that approximately 20% of respondents provided regular care or assistance during the previous 30 days to a friend or family member who had a health problem or disability. This estimate is based on the percentage of US adults in participating states who reported caregiving in the 2021-2022 BRFSS.6

References

1. Executive Order on Increasing Access to High-Quality Care and Supporting Caregivers. Washington, DC: The White House; 2023. <https://www.whitehouse.gov/briefing-room/presidential-actions/2023/04/18/executive-order-on-increasing-access-to-high-quality-care-and-supporting-caregivers/>
2. The Interagency Coordinating Committee on Healthy Aging and Age-friendly Communities. Aging in the United States: A strategic framework for a national plan on aging. Washington, DC: Administration for Community Living; 2024. <https://acl.gov/sites/default/files/ICC-Aging/StrategicFramework-NationalPlanOnAging-2024.pdf>
3. The Recognize, Assist, Include, Support, and Engage (RAISE) Act Family Caregiving Advisory Council; The Advisory Council to Support Grandparents Raising Grandchildren. 2022 National Strategy to Support Family Caregivers. Washington, DC: Administration for Community Living; 2022. <https://acl.gov/sites/default/files/RAISE_SGRG/NatlStrategyToSupportFamilyCaregivers-2.pdf>
4. The Recognize, Assist, Include, Support, and Engage (RAISE) Act Family Caregiving Advisory Council; The Advisory Council to Support Grandparents Raising Grandchildren. 2024 Report to Congress Progress Report: Federal Implementation of the 2022 National Strategy to Support Family Caregivers. Washington, DC: Administration for Community Living; 2024. <https://acl.gov/sites/default/files/2024ProgressReport_StrategyToSupportCaregivers.pdf>
5. AARP and National Alliance for Caregiving. Caregiving in the United States 2020. Washington, DC: AARP; 2020. <https://www.aarp.org/content/dam/aarp/ppi/2020/05/full-report-caregiving-in-the-united-states.doi.10.26419-2Fppi.00103.001.pdf>
6. Kilmer G, Omura JD, Bouldin ED, Walker J, Spears K, Gore J, Ali AR, McGuire LC. Changes in Health Indicators Among Caregivers - United States, 2015-2016 to 2021-2022. MMWR Morb Mortal Wkly Rep. 2024 Aug 29;73(34):740-746.

**MENOPAUSE – Sample Adult**

*Sponsor:* *National Institutes of Health, Office of Research on Women’s Health:*

On March 18, 2024, President Biden issued an Executive Order on Advancing Women’s Health Research and Innovation, a key focus of which is to address research gaps in understanding women’s health and diseases and conditions associated with women’s midlife and later years.1 Among other directives, the Secretary of Health and Human Services was directed to consider developing new common data elements and survey tools to expand the ethical and equitable collection of data on issues related to women’s midlife health.2

A natural part of reproductive aging, menopause is one such issue related to women’s midlife health. Technically, menopause is defined as the cessation of ovarian function, with loss of reproductive hormone production and irreversible loss of fertility. The hormonal changes of the menopause transition may result in both symptoms and long-term systemic effects, predominantly adverse effects on cardiometabolic and musculoskeletal health.3

Since the passage of the 1993 NIH Revitalization Act, and the establishment of the Office of Women’s Health, (ORWH), menopause research has been central to the mission of ORWH, focusing on many menopause-focused initiatives across their centers. This office is partnering with the NHIS to capture a more accurate point prevalence to look at the health of menopausal women.  The overarching goal of the proposed question set is to reduce misclassification and to better describe the health and experience of women who experience symptoms during the menopausal transition. Traditionally, the cessation of menses for 12 months is used as the sole assessment of menopause. A more nuanced assessment of menopause is proposed here, and it would include a spectrum of symptoms .

Concepts Measured

* Had BOTH ovaries removed, either as part of a hysterectomy or as one or more separate surgeries? (OVREMEV\_A)

(Universe: women ages 18 and over; 78% of female population)

* In the past 12 months, experienced symptoms associated with menopause (hot flashes, night sweats, insomnia or sleep disturbances, irregular vaginal bleeding or menstrual cycles, and vaginal dryness)? ( MNPSYMP\_A)

(For this and subsequent items: universe: women ages 40-60 and over who have not had a hysterectomy, oophorectomy, are not currently pregnant or have had a live birth in the past 12 months. Approximately 25% of the US female population is between the ages of 40 and 60)

* Currently taking any prescription medication to treat symptoms associated with menopause (MNPRXMED\_A)
* Had at least one menstrual period in the past 12 months (MNPPD12M\_A)
* Menstrual period stopped because you received medical treatment for irregular vaginal bleeding (e.g., IUD, uterine ablation, birth control pills, or other hormone treatment) (MNPSTPMED\_A)

Duplication and Previous NHIS

* OVREMEV\_A (Oophorectomy) was fielded as part of the 2015 NHIS Cancer Control Supplement.
* NHANES 2021-23 included an item on other reasons for the cessation of menses including but not limited to menopause (Pregnancy, breastfeeding, hysterectomy, menopause or the change of life, some other reason)
* NHANES 1999-2006 included some items on the reasons for the use of hormones, including to alleviate menopause related symptoms (hot flashes, sweating, vaginal dryness, bladder problems), and to regulate periods.

Proposed Use of the Data

* Define menopause status
* Provide point estimates of women who experience symptoms that may be attributed to menopause and whether they take prescription medication for those symptoms.
* NHIS data can be used to understand the effects of menopausal status on a variety of health behaviors, mental and physical health conditions, and health outcomes included in the survey.

.

References

1. DCPD-202400208 - Executive Order 14120-Advancing Women's Health Research and Innovation. <https://www.whitehouse.gov/briefing-room/presidential-actions/2024/03/18/executive-order-on-advancing-womens-health-research-and-innovation/>
2. National Institutes of Health Revitalization Act of 1993. Public Law 103-43. https://www.congress.gov/103/statute/STATUTE-107/STATUTE-107-Pg122.pdf
3. Susan R. Davis, JoAnn Pinkerton, Nanette Santoro, Tommaso Simoncini,

Menopause—Biology, consequences, supportive care, and therapeutic options,

Cell, Volume 186, Issue 19,2023,Pages 4038-4058,ISSN 0092-8674, https://doi.org/10.1016/j.cell.2023.08.016.

(https://www.sciencedirect.com/science/article/pii/S0092867423009054)

**PREVENTATIVE SCREENING FOR BREAST CANCER – Sample Adult**

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

Background/Rationale

Women who have dense breast tissue are at an increased risk for developing breast cancer, and dense breast tissue makes it more challenging to detect breast cancer on a mammogram.1 Before 2024, a heterogenous patchwork of states had passed individual laws to require mammography facilities to notify people receiving mammograms about their breast density status.2 As of September 10, 2024, a new Food and Drug Administration (FDA) rule requires all mammography facilities to notify people receiving mammograms about their breast density status using standardized language via a written report.3 Clinicians and public health researchers have expressed concern that notification of breast density status through a written report may not be noticed or understood by many people.2 Updated data from the NHIS will be important to understand the prevalence of women with a recent mammogram who recall being notified of their breast density status.

Concepts Measured

* Received information about whether breasts are dense at most recent mammogram (MAMDNBR\_A)

Duplication (i.e. past data or measurement on the NHIS or other national surveys)

NHIS most recently fielded a measure of breast density notification in 2015.4 Much has changed since 2015, including implementation of a new FDA rule on breast density notification across all states. Updated data from a large, representative, national survey will provide information about national patterns in recalling receipt of a breast density status notification. The NHIS is a good vehicle for collecting this information, as NHIS is the designated data source for measuring national progress and disparities in cancer screening. In addition, this question can only be answered through self-reported data. Adding the breast density notification item in 2025 would allow for efficient synergy with mammography items which are already scheduled to be fielded on NHIS in 2025 and would provide information about notification recall shortly after the FDA rule takes effect in late 2024.

The wording of the proposed breast density notification item for NHIS was informed by developmental work which occurred when a similar item was fielded on Round 1 of the National Center for Health Statistics’ Rapid Surveys System.5 Round 1 of the Rapid Surveys System was fielded in August 2023, before the FDA rule went into effect in September 2024. A breast density notification item is not currently scheduled for future rounds of the Rapids Surveys System. In addition, the larger sample size of the NHIS will allow for additional stratification of estimates by demographic factors which was limited with the relatively smaller sample size in the Rapids Surveys System. Furthermore, NHIS is preferred for providing national estimates due to lower risk of bias.6 To our knowledge, no other national survey has plans to field a measure of breast density notification.

Proposed Use of the Data

The breast density notification item can be analyzed in conjunction with the mammogram and time since most recent mammogram items which are also scheduled to be fielded on the NHIS in 2025. Data from the breast density notification item can be used to estimate overall prevalence and sociodemographic disparities in recalling receipt of a breast density status notification among women who have received a recent mammogram.

We expect the NHIS to have a sufficient sample size for the proposed analyses. From the 2023 Rapid Surveys System data (prior to the introduction of the FDA’s regulation), 56% of women aged 30 years and older who had a mammogram indicated they were notified of their breast density status, and <1% did not answer or did not know.5

References

1. US Preventive Services Task Force, Nicholson, W. K., Silverstein, M., Wong, J. B., Barry, M. J., Chelmow, D., Coker, T. R., Davis, E. M., Jaén, C. R., Krousel-Wood, M., Lee, S., Li, L., Mangione, C. M., Rao, G., Ruiz, J. M., Stevermer, J. J., Tsevat, J., Underwood, S. M., & Wiehe, S. April 30, 2024. Screening for Breast Cancer: US Preventive Services Task Force Recommendation Statement. JAMA, 331(22), 1918–1930. https://doi.org/10.1001/jama.2024.5534

2. Kressin, N. R., Gunn, C. M., & Battaglia, T. A. April 26, 2016. Content, Readability, and Understandability of Dense Breast Notifications by State. JAMA, 315(16), 1786–1788. https://doi.org/10.1001/jama.2016.1712

3. US Food and Drug Administration. March 30, 2024. Mammography Quality Standards Act. https://www.federalregister.gov/documents/2023/03/10/2023-04550/mammography-quality-standards-act

4. Richards, T. B., Dasari, S., Sabatino, S. A., Qin, J., Miller, J. W., & White, M. C. January 6, 2020. Women's Reports of Dense Breast Notification Following Mammography: Findings from the 2015 National Health Interview Survey. Journal of general internal medicine, 35(7), 2207–2209. https://doi.org/10.1007/s11606-019-05619-x

5. NCHS Rapid Surveys Systems. February 21, 2024. Breast Cancer Screening. National Center for Health Statistics. Available from: https://www.cdc.gov/nchs/rss/round1/breast-cancer.html.

6. NCHS Rapid Surveys Systems. February 2024. Round 1 Survey Description. National Center for Health Statistics. Available from: https://www.cdc.gov/nchs/data/rss/survey-description.pdf

**RSV VACCINE – Sample Adult**

*Sponsor: National Center for Immunization and Respiratory Diseases (NCIRD, CDC)*

Respiratory Syncytial Virus (RSV) is a common respiratory virus that infects the nose, throat, and lungs. It usually causes mild, cold-like symptoms. RSV spreads in the fall and winter along with other respiratory viruses. Each year in the United States, RSV contributes to approximately 100,000–160,000 hospitalizations among adults 60 years and older.

Infants and older adults are more likely to develop severe RSV and need hospitalization. For the adult population, CDC recommends everyone ages 75 and older get an RSV vaccine; CDC also recommends adults ages 60–74 who are at increased risk of severe RSV disease get an RSV vaccine.

Three RSV vaccines are licensed by the U.S. Food and Drug Administration for use in adults ages 60 and older in the United States: GSK's Arexvy®; Moderna's mResvia®; and Pfizer's Abrysvo®.

Using the NHIS to monitor RSV vaccination is important because it offers the ability to assess immunization among the target population, along with other recommended vaccinations such as the seasonal flu and COVID-19 vaccinations for older adults.

Concepts Measured

* There is a vaccine available since 2023 for some people that helps prevent the respiratory virus called RSV. Have you received the RSV vaccine? (RSVSHOT) (Universe: Sample Adults 50+).

Duplication and Previous NHIS

* This is a new vaccine, but not a new format for the NHIS which annually collects information on vaccines for which there are CDC guidelines.

Proposed Use of the Data

* This question, in combination with other immunization questions on the annual core, and with other NCIRD-sponsored content, will allow for assessment of the Sample Adult’s vaccination history.
* Available RSV vaccination data include weekly estimates of RSV vaccination coverage among adults 60 years and older from the National Immunization Survey-Adult COVID Module (NIS-ACM). Data are uploaded to the RSV Weekly Vaccination Dashboard: [Weekly RSV Vaccination Dashboard | RSVVaxView | CDC](https://www.cdc.gov/rsvvaxview/data/index.html)
  + As of May 11, 2024, an estimated 24.4% (95% Confidence Interval: 23.7%-25.2%) of adults 60 years and older reported having received an RSV vaccine. An additional 10.7% (8.8%-12.7%) reported that they definitely plan to get vaccinated.

**SOCIAL CONNECTEDNESS AND ISOLATION** **– Sample Adult**

*Sponsor: CDC/DCPC – Division of Cancer Prevention and Control*

In 2023, the U.S. Surgeon General issued an advisory on an epidemic of loneliness and isolation in the U.S.1 The advisory highlights the importance of social connection for the health and well-being of the population and the adverse impacts inadequate social connection has on mental and physical health. As a result, the 2024 NHIS featured the addition of a survey item on loneliness and the return of a previous item on social support to assist with monitoring social connectedness in the U.S.

While loneliness is subjective and is described as “feeling alone or disconnected from others,” social isolation is objective and indicates “when a person does not have relationships or contact with others and has little to no social support.”2 People can be lonely even if they are not socially isolated, or they can be isolated without feeling lonely. Studies show that both are relevant to physical health and health behaviors, but there are some differences in health impacts, with loneliness having more psychological effects and social isolation being linked more strongly to mortality.3 Therefore, capturing both constructs is important for understanding their role in population health and well-being.

Concepts Measured

* Weekly frequency of getting together with people that you care about and feel close to (GETOGETHER\_A)
* Weekly frequency of talking on the telephone or by video with people that you care about and feel close to (PHONEVIDEO\_A)
* Yearly frequency of attending religious services (RELIGIOUS\_A)
* Yearly frequency of attending meetings of clubs or organizations you belong to (CLUBORG\_A)

Duplication and Previous NHIS

* These questions are adapted from the Berkman-Syme Social Network Index (SNI),4 which is a validated and frequently used measure of social integration and isolation. Video calls have been incorporated in PHONEVIDEO\_A to capture newer modes of phone calling that have emerged since the SNI.
* The 2001 NHIS included related questions assessing participation in social activities such as talking or getting together with family, friends, and neighbors and attending religious services and other functions or outings.
* The SNIwas also included in the National Health and Nutrition Examination Survey (NHANES) III from 1988-1994; and beginning in Phase 4.0, the Household Pulse Survey has included versions of the SNI items. An item on religious service attendance was also on NHANES from 2005-2008, the National Cancer Institute’s Health Information National Trends Survey (HINTS) 2 in 2005 and is on the National Survey on Drug Use and Health (NSDUH).

Proposed Use of the Data

* These items can be used in conjunction with other NHIS measures of social connectedness to understand the relationships between social isolation, loneliness, and social support.
* NHIS data could be used to produce national estimates of social isolation across a variety of subgroups such as sex, race, age, and sexual orientation. These analyses will help to identify populations at risk for social isolation.
* NHIS data can be used to understand the effects of social isolation on a variety of health behaviors, mental and physical health conditions, and health outcomes included in the survey.
* Household Pulse Survey Phase 4.1 results from June 25-July 22, 2024 indicate that 78.6% of U.S. get together with friends or relatives less than three times in a typical week, 47.3% talk on the telephone with family, friends, or neighbors less than three times in a typical week, 69.6% attend church or religious services less than four times per year, and 71.2% attend meetings of clubs or organizations less than three times per year or never attend.5

References

1. U.S. Public Health Service. Our Epidemic of Loneliness and Isolation 2023: The U.S. Surgeon General’s Advisory on the Healing Effects of Social Connection and Community. Washington, D.C.: Office of the U.S. Surgeon General.
2. U.S. Centers for Disease Control and Prevention. Health Effects of Social Isolation and Loneliness. Available from: <https://www.cdc.gov/social-connectedness/risk-factors/index.html>
3. Hong JH, Nakamura JS, Berkman LF, Chen FS, Shiba K, Chen Y, Kim ES, VanderWeele TJ. Are loneliness and social isolation equal threats to health and well-being? An outcome-wide longitudinal approach. SSM Popul Health. 2023 Jul 1;23:101459. doi: 10.1016/j.ssmph.2023.101459.
4. Berkman LF, Syme SL. Social networks, host resistance, and mortality: a nine-year follow-up study of Alameda County residents. Am J Epidemiol. 1979 Feb;109(2):186-204. doi: 10.1093/oxfordjournals.aje.a112674.
5. National Center for Health Statistics. U.S. Census Bureau, Household Pulse Survey, 2024. Lack of Social Connection. Generated interactively: from <https://www.cdc.gov/nchs/covid19/pulse/lack-socialconnection.htm>

**WHOLE-PERSON HEALTH – Sample Adult**

*Sponsor: NIH/NCCIH – National Center for Complementary and Integrative Health*

The National Academies of Sciences, Engineering, and Medicine published a report in 2023, *Achieving Whole Health: A New Approach for Veterans and the Nation*, in which whole health is described as “physical, behavioral, spiritual, and socioeconomic well-being as defined by individuals, families, and communities.”1 This emphasis on the subjective experience of well-being is in line with the U.S. Department of Veterans Affairs emphasis on “what matters to you, not what is the matter with you,” which focuses on patient-reported factors, as opposed to objective measurements such as lab results and diagnostic imaging.2 It is also consistent with the World Health Organization (WHO) definition of health as “a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity.”3

The National Center for Complementary and Integrative Health (NCCIH) is leading efforts at NIH to ensure that biomedical research and clinical efforts support the well-being of the whole person.4 To guide the implementation of whole person health care, whole-person health measures are needed that are patient-centered, self-reported, comprehensive across multiple domains, and broadly applicable across the research and clinical spectrum. NCHS and NCCIH have been working together to create and test such an integrated measure, named the Whole-Person Health Index (WPHI).

Concepts Measured

The NHIS annual core already includes an overall measure of self-assessed health status, “Would you say your health in general is excellent, very good, good, fair, or poor?” Using these same response options, the WPHI asks for subjective ratings of the following domains:

* How would you rate your quality of life, focusing on what matters most to you? (WPHQOL\_A)
* How would you rate your social and family connections? (WPHSOCFC\_A)
* In general, how healthy is your overall diet? (WPHDIET\_A)
* How would you rate your physical activity, compared with people in your age group? (WPHPHYSA\_A)
* How would you rate your ability to manage stress? (WPHSTRESS\_A)
* How would you rate your sleep? (WPHSLEEP\_A)
* How would you rate your ability to find meaning and purpose in your daily life? (WPHSPRT\_A)
* How would you rate your ability to manage your health, focusing on aspects of your health that matter most to you? (WPHMANGH\_A)

Duplication and Previous NHIS

* NHIS includes questions on physical activity and sleep as part of its rotating core. These topics were most recently assessed in 2024 and will be included again in 2026. Core NHIS questions on these topics, however, are generally objective rather than subjective measures.
* NHIS has included sponsored questions on life satisfaction since 2021. CDC/NCCDPHP/DCPC will again sponsor a question on life satisfaction in 2025. However, that question will use a 4-category response set to be consistent with previous years and with state-level assessments using the optional Behavioral Risk Factor Surveillance System (BRFSS) social determinants module.
* In 2025, NHIS will include additional questions on social isolation, sponsored by CDC/NCCDPHP/DCPC in coordination with the Office of the Surgeon General. The WPHI question on this topic concerns the quality of social and family connections, whereas the other sponsored questions ask about frequency of such connections.
* The question asking about diet quality has been fielded in the Flexible Consumer Behavior Survey, a component of the National Health and Nutrition Examination Survey, most recently in the 2017-March 2020 period. It has shown good concordance with validated diet quality measures based on lengthy dietary recall assessments.5
* The WPHI was cognitively tested by the NCHS Collaborating Center for Questionnaire Design and Evaluation Research (CCQDER), and it was previously fielded on Round 10 of the NCHS Research and Development Survey (RANDS). Minor modifications to question wording were made after qualitative testing (e.g., “compared with people in your age group” was added to the physical activity question, and “ability to find meaning and purpose” replaced “spirituality and belief in God”). Quantitative testing revealed that all items had moderate correlations with each other (*r* = 0.3 to 0.6) and reasonable correlations with related concepts (e.g., ratings of social and family connections were related to scores on the UCLA Loneliness Scale and the Lubben Social Network Scale; ratings of sleep were related to scores on the Pittsburgh Sleep Quality Index).

Proposed Uses of the Data

* These 8 new items will be used in conjunction with the overall measure of self-assessed health status to compute an index score for whole-person health. The methods for calculating such an index score are under development, partly based on the RANDS-10 data.
* Nationally representative estimates using the WPHI will provide important benchmarks and comparisons for clinical populations at NIH and VA.
* WPHI data are intended to complement the somewhat-objective measures of illness and functioning in NHIS, and to contribute evidence for broad frameworks of health that also include social, environmental, economic, educational, and vocational factors.
* NCCIH also expects to examine connections between the domains that people often seek to address through complementary and integrative health approaches (e.g., poor sleep, stress) and the conditions assessed by NHIS that drive the greatest utilization of health care, like chronic pain, diabetes, cardiovascular disease, and mental health conditions6,7 (conditions which will be assessed in added detail with rotating and sponsored content in the 2025 NHIS).
* RANDS-10 data revealed good distributions across all five answer choices for all WPHI items. For example, the percentage of RANDS respondents reporting “excellent” varied from 9% (for diet quality) to 21% (for social and family connections). The percentage of RANDS respondents reporting “poor” varied from 2% (for quality of life) to 10% (for physical activity and sleep).

References

1. National Academies of Sciences, Engineering, and Medicine. Achieving Whole Health: A New Approach for Veterans and the Nation. Washington, DC: The National Academies Press; 2023.
2. U.S. Department of Veterans Affairs. Whole health basics. Accessed at https://www.va.gov/WHOLEHEALTH/veteran-resources/whole-health-basics.asp
3. WHO. Constitution of the World Health Organization. Accessed at https://www.who.int/about/governance/constitution
4. National Center for Complementary and Integrative Health. NCCIH Strategic Plan FY 2021–2025: Mapping the Pathway to Research on Whole Person Health. Accessed at https://nccih.nih.gov/about/nccih-strategic-plan-2021-2025
5. Sullivan VK, Johnston EA, Firestone MJ, Yi SS, Beasley JM. Self-Rated Diet Quality and Cardiometabolic Health Among U.S. Adults, 2011-2018. Am J Prev Med. 2021;61(4):563-575.
6. Langevin HM. Making Connections to Improve Health Outcomes. Glob Adv Health Med. 2022;11. doi:10.1177/2164957X221079792
7. Dieleman JL, Cao J, Chapin A, et al.US health care spending by payer and health condition, 1996-2016. JAMA. 2020;323(9):863-884.

**EMERGING CONTENT**

**SOCIAL SUPPORTS FOR PARENTS – Sample Adults Who Are Parents of Children < 18 Years in the Household**

*Sponsor: NCHS – National Center for Health Statistics*

On August 28, the U.S. Surgeon General published an advisory on the mental health and well-being of parents in the United States1. It was a call to arms to better understand the unique challenges of raising children in the modern age, with an emphasis on the stressors that parents face in their daily lives and finding ways to foster a culture of connection among parents to combat loneliness and isolation. Much of the data used for the advisory relied on convenience and non-probability-based samples that may be prone to sampling and measurement biases. The NHIS serves as an appropriate vehicle for collecting this type of data, benefitting from a large, nationally representative sample. The NHIS also provides critical data on several physical and mental health outcomes among adults which can be examined within the context of parental connectedness and stress. This includes loneliness and depression, which were recently the focus of another U.S. Surgeon General advisory.2

Additionally, given the ability to link NHIS data from a randomly selected child in the household to that of a randomly selected adult by using parent-child pair weights, it would be possible to explore the relationship between stress in a parent and the health outcomes of their child. Previous research has found children being raised by stressed parents are more likely to experience several adverse health outcomes, including anxiety, depression, and several chronic health conditions.3-6

Concepts Measured

• Frequency of emotional support for parenting (PARENTCON1\_A)

• Level of difficulty in raising children (PARENTCON2\_A)

• Frequency of parental social connections (PARENTCON3\_A)

Duplication and Previous NHIS

These questions have not previously appeared on the NHIS. The first question asking about how frequently emotional needs are met in parenting or raising children is modeled after the question about the frequency with which social and emotional needs are met as part of the social connectedness section of the NHIS Sample Adult interview (SUPPORT\_A).

Proposed Use of the Data

• Data are intended to produce reliable national estimates of the prevalence of parenting connectedness and stressors among adults in the population who are parents.

• Where there is sufficient sample size, prevalence estimates within several subpopulations would be obtained, given notable disparities seen by social determinants of health1

For all questions, it is estimated that data from approximately 6,200 adults will be collected each year.

References

1 Office of the Surgeon General, 2024. Parents Under Pressure: The US Surgeon General's Advisory on the Mental Health & Well-Being of Parents.

2 Office of the Surgeon General, 2023. Our epidemic of loneliness and isolation: The US Surgeon General’s Advisory on the Healing Effects of Social Connection and Community.

3 Rezendes, D.L. and Scarpa, A., 2011. Associations between parental anxiety/depression and child behavior problems related to autism spectrum disorders: The roles of parenting stress and parenting self‐efficacy. Autism research and treatment, 2011(1), p.395190.

4 Farmer, A.Y. and Lee, S.K., 2011. The effects of parenting stress, perceived mastery, and maternal depression on parent–child interaction. Journal of Social Service Research, 37(5), pp.516-525.

5 Yamamoto, N. and Nagano, J., 2015. Parental stress and the onset and course of childhood asthma. BioPsychoSocial Medicine, 9, pp.1-8.

6 Parks, E.P., Kumanyika, S., Moore, R.H., Stettler, N., Wrotniak, B.H. and Kazak, A., 2012. Influence of stress in parents on child obesity and related behaviors. Pediatrics, 130(5), pp.e1096-e1104.