

## ***Attachment 3b – Main and Redesigned Questionnaire Structures***

### **Main 2018 Questionnaire Structure and Content**

The 2018 NHIS, like prior years' questionnaires since the last survey redesign in 1997, consists of a Core Module and supplementary content. The Core Module is repeated every year with little change; this allows for trend analyses and for data from more than one year to be pooled to increase sample size for analytic purposes. The Core Module contains three major parts: the Family Core (Attachment 3a), the Adult Core (Attachment 3b), and the Child Core (Attachment 3c). The Family Core component collects information on everyone in the family. This allows the NHIS to serve as a sampling frame for additional integrated surveys, specifically MEPS and NHIS follow-back surveys and other special projects. A summary of the need for each of the topic areas of the NHIS Core Module previously approved by OMB is noted in Attachment 2c.

The household composition section marks the beginning of the Family Core component, which is administered to any available adult respondent to obtain information about all household and family members. The Adult Core component is administered to a randomly selected adult family member who must respond for himself or herself unless physically or mentally incapable. If there are children under 18 in the family, one is randomly selected and the Child Core component is administered to an adult family member who is knowledgeable about that child's health. Finally, recontact information is collected from an adult family member to obtain names, addresses, and telephone numbers of persons who might know the family's whereabouts if they move.

Five broad content domains and associated subdomains are covered by the annual Core Module: health status, health care services, health behavior, health care coverage, and socio-demographic characteristics. The subdomains are listed as follows:

#### Health status

- Conditions
- Injuries/Poisoning
- Activity limitations

#### Health care services

- Access to care
- Service utilization
- Barriers to care

#### Health Behaviors

- Tobacco product use
- Physical activity
- Alcohol consumption
- Obesity
- Sleep

#### Health Care Coverage

- Type(s) of coverage
- Cost and who pays
- Periods of noncoverage

#### Socio-demographics

- Household composition
- Race/national origin

- Education
- Income and assets
- Sex
- Sexual orientation

The previously-approved questions for the Core Module that will continue unchanged in the main 2018 questionnaire are included in Attachments 3a-c.

Supplementary questions may be embedded within or attached to one of the principal sections (Family, Sample Adult, and Sample Child). The supplementary questions that will be administered in 2018 are shown in Attachment 3d; a description of each set of supplementary questions is provided in Attachment 3e. The 2018 questionnaire is replacing supplementary questions covering receipt of culturally and linguistically appropriate health care services, epilepsy, cognitive disability, complementary health, hepatitis B/C screening, vision, and heart disease and stroke prevention that were fielded in 2017 with supplementary modules on asthma and cancer control approved in recent prior years. Continuing from 2017 are supplementary questions about the Affordable Care Act, chronic pain, diabetes, disability and functioning, family food security, ABCS of heart disease and stroke prevention, immunizations, smokeless tobacco and e-cigarettes, and children's mental health.

Flashcards used in the administration of the questionnaire are included in Attachment 3f.

## **Redesigned Questionnaire Structure and Content**

As just described, for the past 20 years—since its last redesign in 1997—the NHIS questionnaire has consisted of a standard basic or Core Module, covering general health topics and demographic characteristics, and topically-relevant supplementary questions or modules that are rotated in and out of the annual NHIS depending on funding availability and data requirements of federal programs such as Healthy People 2020. The redesigned questionnaire, to be launched in 2019 following a dress rehearsal/field test in the last quarter of 2018 has a slightly different structure, consisting of four components: the annual core, the rotating core, sustaining supplements, and periodic supplements.

The annual core questionnaire will contain the same questions from year to year. The rotating core questionnaire consists of questions that will be included in the interview on some years with fixed periodicity. The core questions are sponsored by NCHS and reflect consistently high priority content areas. Supplements are questions funded by other federal agencies, included on a sustaining or periodic schedule. Sustaining sponsors are agencies that sponsor related content every year over multiple years; these supplements do not need to contain the same questions from year to year. Periodic supplements consist of sponsored content that will be included in the interview in one or more years, but not annually. The redesigned questionnaire will maintain the same sample size as in recent survey years, yielding an estimated 35,000 completed sample adult interviews and 12,000 completed sample child interviews. This provides a large nationally-representative sample that is used in data analysis and for measuring the nation's health. In addition, content can still be pooled across years to further increase sample size, as necessary, for examining specific subpopulations or conditions, and trend analyses remain possible and straightforward because of the equal spacing between years on which the questions are and are not included on the survey.

As in the past, one “sample adult” aged 18 years and over and one “sample child” aged 17 years and under (if any children live in the household) will be randomly selected from each household following a brief screener that identifies the age, sex, race, and ethnicity of everyone who usually lives or stays in the household. Information about the sample adult will be collected from the sample adult him-/herself unless s/he is physically or mentally unable to do so, in which case a knowledgeable proxy will be allowed to answer for the sample adult. Information about the sample child will be collected from a knowledgeable adult who may or may not also be the sample adult. In households with children, the order of the two interviews (sample adult and sample child) may vary by household, depending on the availability of the sample adult. The collection of the sample adult interview will be prioritized if both the sample adult and the respondent for the sample child are available.

For the first time, the redesigned NHIS also allows for the explicit linkage and weighted analysis of the data from the sample child and the sample adult when those respondents are from a parent-child dyad. (This type of analysis is not currently recommended with NHIS public-use data files, as the existing weights do not provide estimates that are nationally representative of US parent-child pairs.) The ensuing nationally-representative dyadic estimates will greatly expand the value of NHIS data across a number of research areas and domains.

Another design component in which the redesigned NHIS departs from its 1997-2017 format is the family questionnaire. The family section, as it has existed up until 2018, will be eliminated, and critical content covered by it will be collected within the sample adult and sample child interviews. To this end, the relationship between the sample adult and sample child will be obtained to determine whether they are in the same family, and questions that refer to the family will be captured in whichever interview comes first. In addition, some limited information will still be collected about the rest of the members of the household as part of the household composition section.

As shown below, the redesigned questionnaire retains the five broad content domains from past years (health status, health care services, health behavior, health care coverage, and socio-demographic characteristics), though the associated subdomains covered by the Core Module of the redesigned questionnaire and their

distribution across annual and rotating periodicity differ. Topic areas that have been discontinued in the redesigned questionnaire in order to shorten questionnaire length, streamline content, and reduce public burden are the following: detailed relationships of all family members to household and family respondent, country of birth (if not US), number of months worked last year, personal earnings amounts, active military duty time periods, instrumental activities of daily living (IADLs), disability-associated conditions, receipt of medical advice by phone, and amount family spent out of pocket for medical care.

#### Health Status

- Conditions (some annual and some rotating)
- Injuries (rotating)
- Disability and functional limitations (some annual and some rotating)

#### Health Care Services

- Access to care (some annual and some rotating)
- Service utilization (some annual and some rotating)
- Cost as a barrier to care (some annual and some rotating)

#### Health Behaviors

- Tobacco product use (some annual and some rotating)
- Physical activity (rotating)
- Alcohol consumption (rotating)
- Obesity (annual)
- Sleep (rotating)

#### Health Care Coverage

- Type(s) of coverage (annual)
- Cost and who pays (annual)
- Periods of noncoverage (annual)

#### Socio-Demographics

- Household composition (annual)
- Age (annual)
- Race and Hispanic ethnicity (annual)
- Education of all adult family members (annual)
- Family level income and assets (annual)
- Sex (annual)
- Sexual orientation (annual)
- Marital status (annual)
- Veteran status (annual)

To cover these content areas in a streamlined manner, the redesigned NHIS questionnaire has been structured to consist of three sections (household composition, sample adult, and sample child), with some topics included annually on the questionnaire and other topics rotated with a fixed periodicity. A figure describing the rotating core content, periodicity, and resulting pattern of health outcomes and covariates that will be collected in each year can be found in Attachment 2a.

The household composition section (Attachment 4a) collects basic demographic information on every person in the household. This section is used to determine the survey eligibility and to select the sample adult and sample

child. The sample adult section (Attachments 4b) and sample child section (Attachments 4c) of the redesigned questionnaire are spread between the annual core, rotating core, sustaining supplements, and periodic supplements. Supplements may be appended to the questionnaire following the annual and rotating core sections of the adult and child module, or embedded within a core section; the choice of integration in future years will be based on topical cohesion and made to minimize respondent burden.

The 2018 version of the redesigned questionnaire to be rehearsed using the systems test sample includes supplements about cancer screening (colorectal, breast, cervical, and prostate), food security, immunization and the use of non-cigarette tobacco products. See Attachment 4d for a description of these supplements. Other topic areas covered by past supplements and that may recur in future years of the redesigned questionnaire include complementary and integrative medicine, alcohol use, and heart disease, among others.