

National Health Interview Survey 2019 Content Redesign – Analytic Implications

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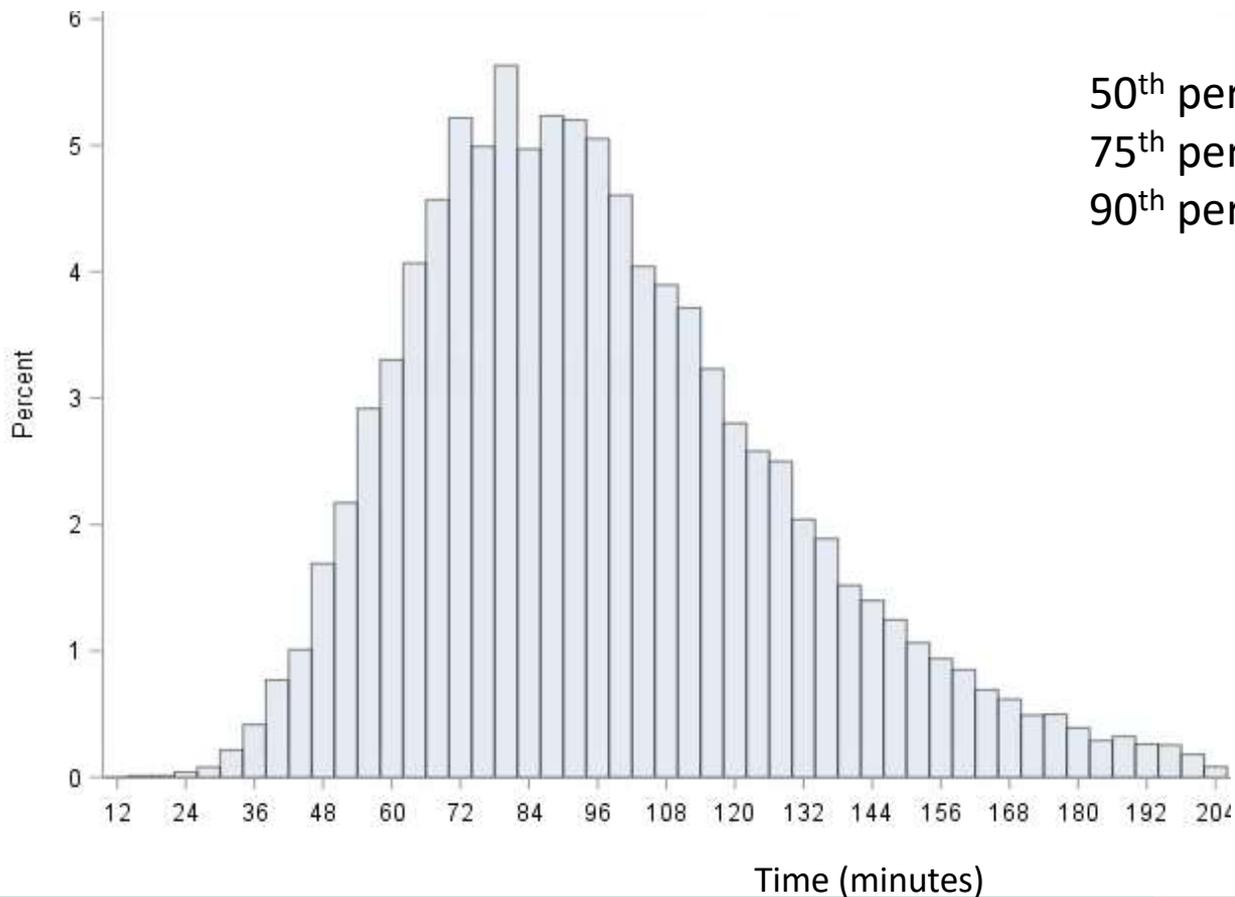
National Health Interview Survey

- **Agency:** Department of Health and Human Services (DHHS); Centers for Disease Control and Prevention (CDC); National Center for Health Statistics (NCHS)
- **Purpose:** To monitor the health of the US population through the collection and analysis of data on a broad range of health topics
- **Sample:** Address-based, multi-stage, clustered national sample of housing units from every state, to be representative of the civilian noninstitutionalized US population
- **Mode:** In-person interviews - follow-up by telephone if needed
- **Data collection:** Continuous by Census field representatives
- **Target sample size:** Complete interviews of 35,000+ households
- **Content redesign start:** January 2019

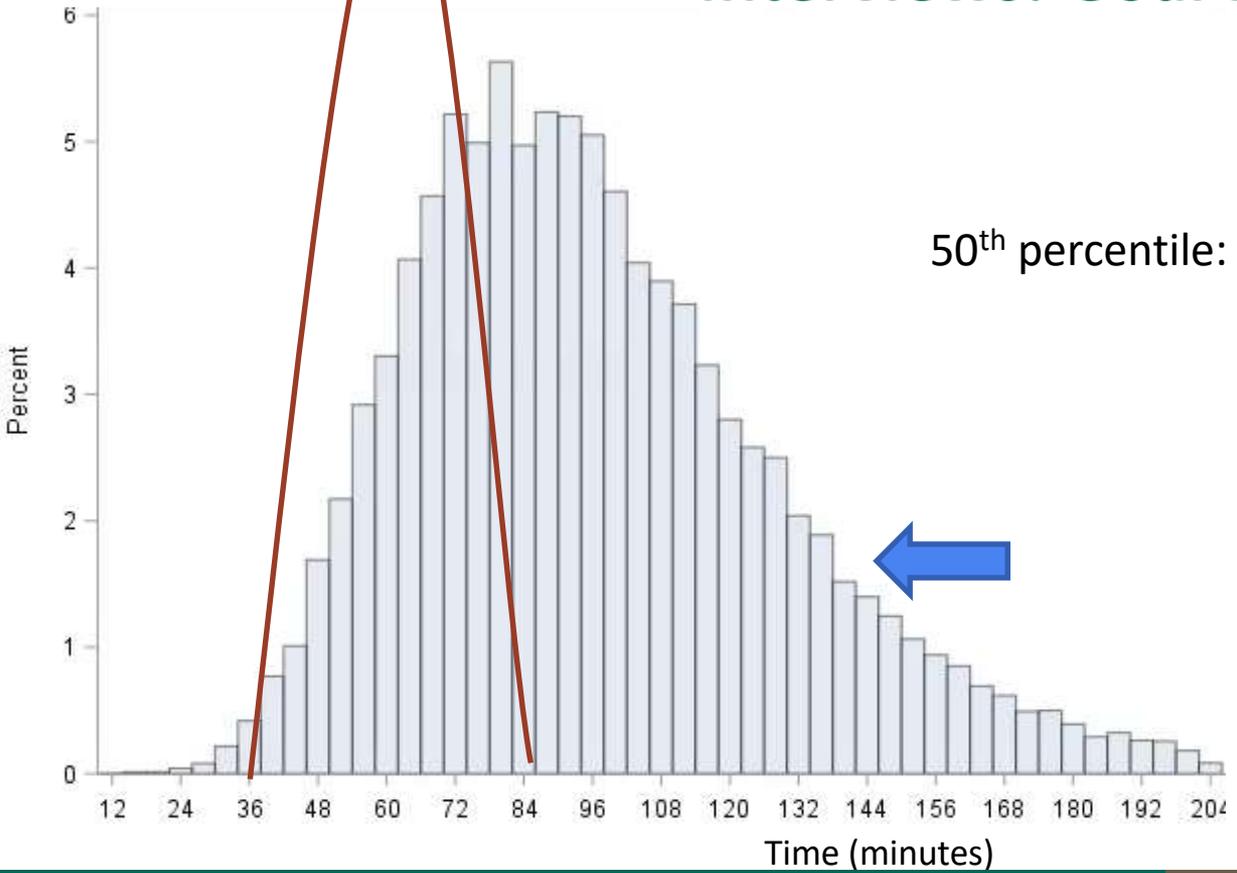
Goals of the NHIS Questionnaire Redesign

- Improve the relevance of covered health topics, better meeting the needs of the Department of Health and Human Services and other data users
- Focus on leading causes of morbidity/mortality, their known risk and protective factors, and targets of health promotion initiatives
 - Health insurance and health care access
- Harmonize overlapping content with other federal health surveys
- Reduce respondent burden and improve data quality
 - Shorten questionnaire and reduce variation in interview times
 - Eliminate or reduce content better covered by other methods

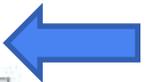
Distribution of Length of Completed Interviews (in minutes): NHIS, 2015



Distribution of Length of Completed Interviews: Goal for NHIS Redesign



50th percentile: 60 minutes



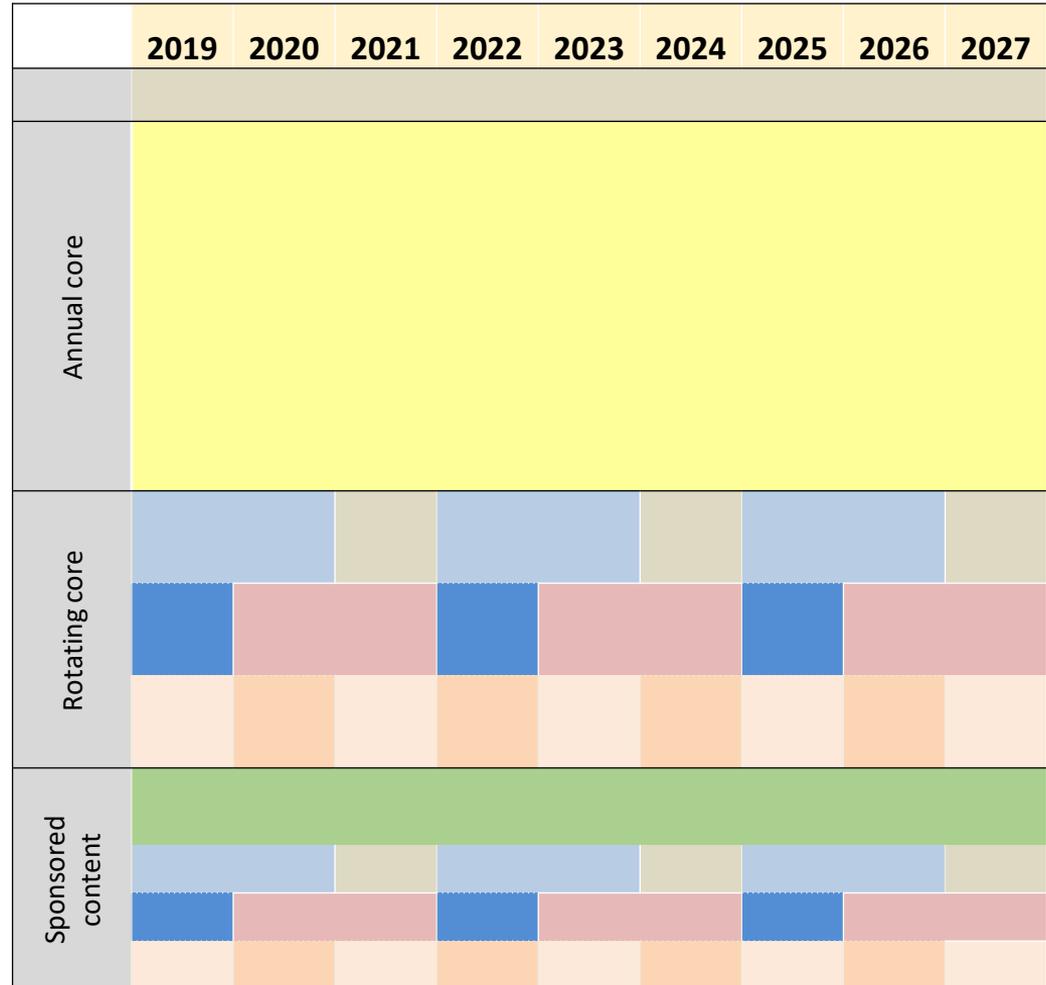
Changes: Rotating Core

Current NHIS

- Consistent content asked annually
- Variation in length because of sponsored supplements

Redesigned NHIS: the Quilt

- **Annual core**
 - Key measures
 - Sociodemographics
- **Rotating core**
 - Newer topic areas
 - Expanded detail
 - Varying periodicity
- **Sponsored supplements**
 - 5 min or less



Changes: Family Interview

Current NHIS

Roster/Family Interview

- General information on all family members
- Family-level data
- Proxy response
- Fielded each year

Sample Adult Interview

- Self-response (unless unable)
- Fielded each year

Sample Child Interview

- Knowledgeable adult responds for child
- Fielded each year

Demographics
Family relationships
Family income
Health insurance
Proxy health data

Health utilization
Health conditions
Health behaviors
Additional demographics

Redesigned NHIS

Roster

- Proxy response
- Annual

Sample Adult Interview

- Self-response (unless unable)
- Family-level data
- Annual and Rotating Core

Sample Child Interview

- Knowledgeable adult responds for child
- Family-level data
- Annual and Rotating Core



Demographics
Family identification



Demographics
Martial/cohabitating relationships
Family income
Health insurance
Health utilization
Health conditions
Health behaviors

Changes: Content

Eliminated

- **Questions about rare conditions**
 - Less than 2%, must combine years
- **Better captured elsewhere**
 - Surveys, medical records, administrative claims, registries
- **Infrequently used questions**
 - Based on literature reviews, public comments
- **Proxy about all family members**
 - No health data about family members

Changes to Order or Wording

- **Move to rotating**
 - Details with core
 - Long sections
 - Stable over time
- **Order changes**
 - Health conditions first
 - Sensitive content last
 - Rotating throughout
- **Harmonize with other surveys**
 - Matching similar questions on multiple CDC surveys
- **Spanish translation process**
 - Clarification both ways
- **Cognitive testing**
 - Better understanding by respondents

Added Content

- **Expert advice**
 - Technical Expert Panels (TEPs)
 - Social determinants of health
 - Mental health batteries
- **Public comment**
 - Ex. Dental health
- **Agency priorities**
 - Emerging topic areas

What does the redesigned NHIS let us do?

Analytic Implications

Population level estimates

- Population estimates can be made for questions asked of children and adults
 - Sample Adult and Sample Child content rotate together

Implications for Accuracy and Precision

- No proxy health data
 - Health insurance
 - Other health conditions
- Smaller sample size
 - Wider confidence intervals
- Reduced measurement error
 - Sample adult responses for self

Dyads: An Opportunity for Studying Family Health

- In 2016, 29% of families in the NHIS had one or more children.
 - In 67% of these families, a parent was also the sample adult
 - Nearly 20% of all families have a sample adult/sample child dyad
- Data users cannot currently make nationally representative estimates using associations between the health of sample adult and sample child
 - Matched pairs are not representative of population
- Creating paired weights to represent population of eligible pairs

Identifying Family Context Covariates

Still able to identify:

- Multi-racial families
- Many but not all same-sex couples
- Educational attainment of family members
- Whether the child's parents were born outside of the United States

No longer able to identify:

- Multigenerational or extended families
- Families with one or more disabled members

Files to be released

- Sample Adult file with weights and family-level variables
- Sample Child file with weights and family-level variables
- Dyad weights
- Linkages will still be available at Research Data Center



**Contact us: healthsurveys@cdc.gov
For More Information**

http://www.cdc.gov/nchs/nhis/2019_quest_redesign.htm