



Visualizing the NHIS Early Release Program: A New Online Dynamic Report

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NCHS Board of Scientific Counselors Meeting

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National Health Interview Survey

- **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 by Census interviewers, with follow-up by telephone if needed
- **Data collection:** Continuous, with quarterly and annual data files
- **Sample size:** Complete interviews for 35,000+ households annually
- **Questionnaire:** Currently includes family, adult, and child sections

Most Recent Major Content Redesign was 1997

- Change from Paper-and-Pencil Interview (PAPI) to Computer-Assisted Personal Interview (CAPI) data collection
- Changed how data were processed
- Allowed for estimates to be released throughout the year

National Consensus Conference, 2000

- **Purpose:** To discuss the possibility of using the National Health Interview Survey (NHIS) for the surveillance of sentinel health events
- **Vision:** Develop a way for NHIS to release less-than-annual estimates of a small set of key health indicators within just a few months of data collection
- **Key Questions:**
 - What measures would be important to look at on a more frequent basis?
 - How to evaluate statistical and operational issues with potential measures?
 - National estimates only, or estimates for demographic subgroups?
 - How soon can estimates be generated? How frequently are they needed?
 - Method to disseminate information? Intended audience?

National Consensus Conference, 2000

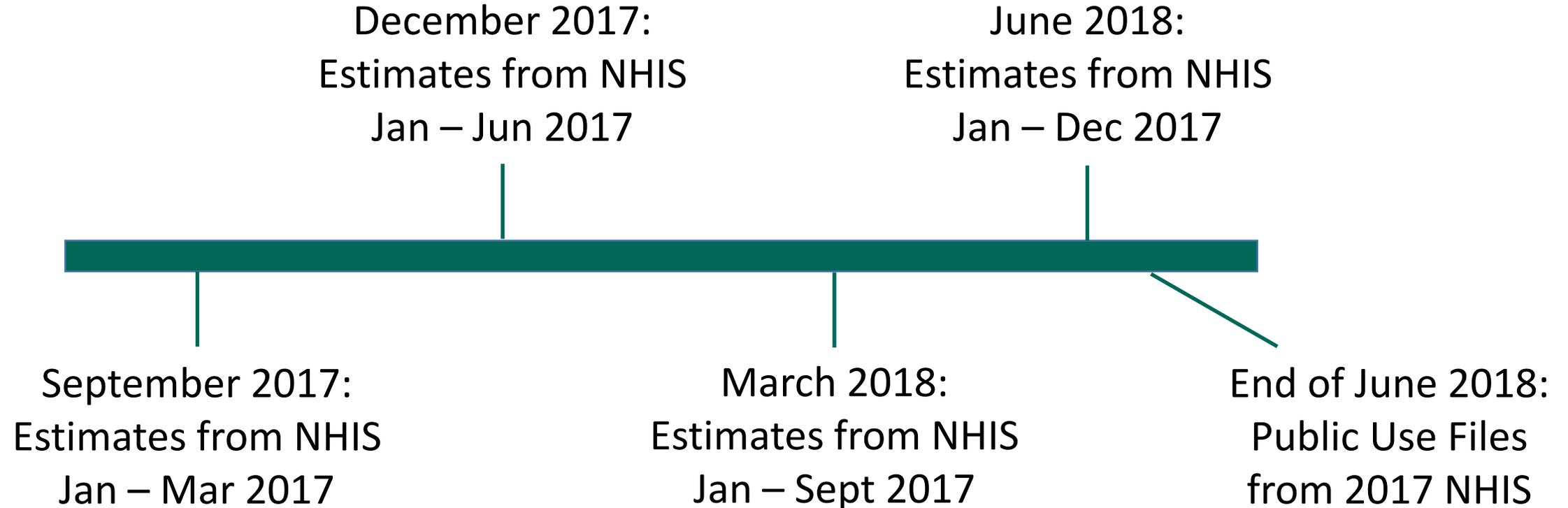
- **Attendees (in addition to current and retired NCHS staff):**
 - Rick Brown, *UCLA Center for Health Policy*
 - John Czajka, *Mathematica Policy Research*
 - Jack Fowler, *University of Massachusetts*
 - Dan Gaylin, *Office of the Assistant Secretary for Planning and Evaluation*
 - Bill Harlan, *National Institutes of Health*
 - Bill Kalsbeek, *University of North Carolina at Chapel Hill*
 - Gene Lengerich, *Penn State University*
 - Jim Lepkowski, *University of Michigan*
 - Paul Newacheck, *University of California at San Francisco*
 - Gordon Reeve, *Ford Motor Company*

NHIS Early Release (ER) Program

- First product released in April 2001
- Provides analytic reports and tables and preliminary microdata on an expedited schedule
- Early Release products are developed prior to final processing and weighting to provide early access to the most recent information
- Reports for a given data year are generally cumulative and overlap
 - Estimates are an average over the time period covered
 - Time period covered gets larger over the course of the data year

NHIS Early Release (ER) Program

- **First products available nine months before public use files released**



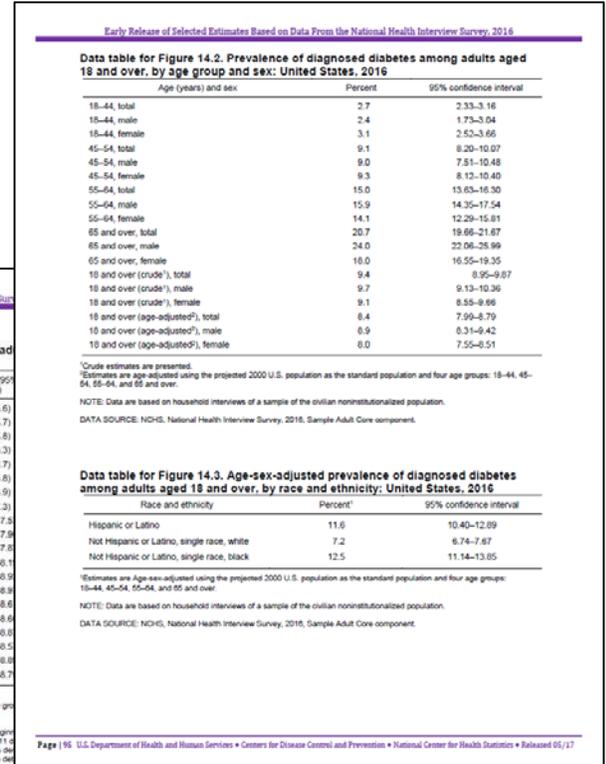
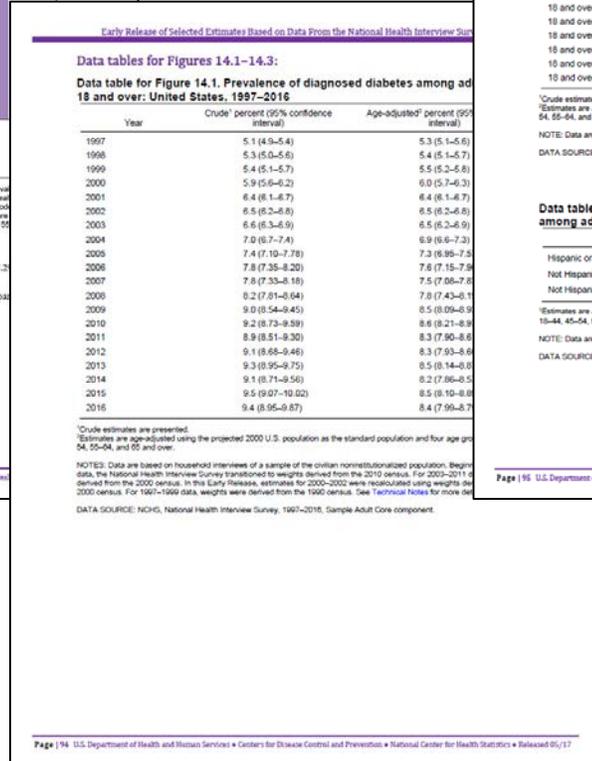
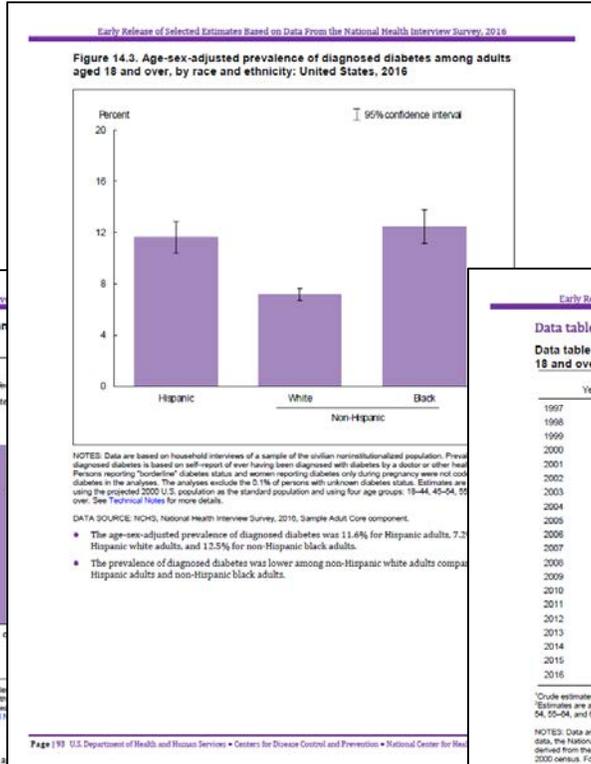
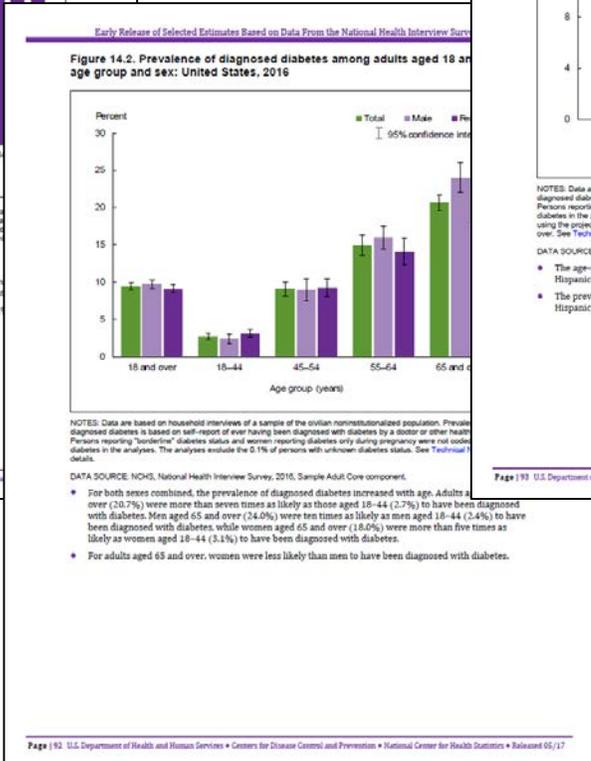
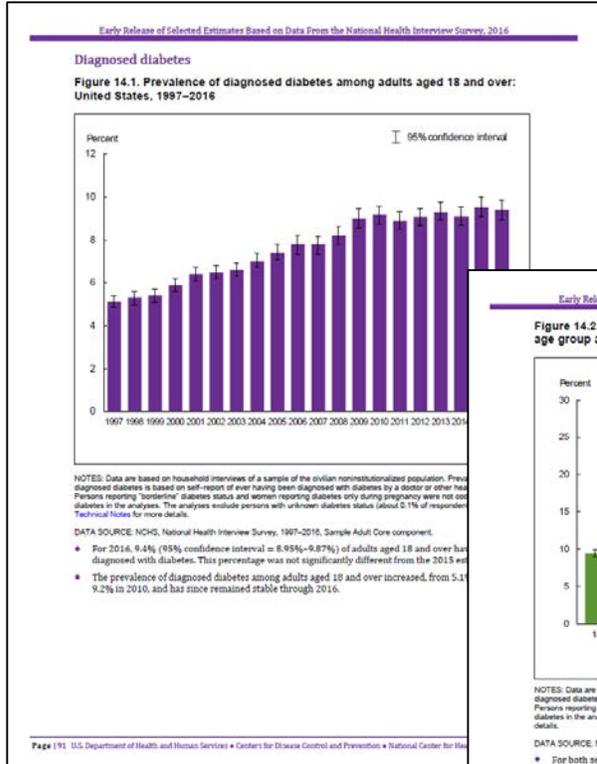
NHIS Early Release (ER) Program

- **Available every three months:**
 - A report on 15 key health indicators
 - A report on health insurance coverage
 - Web tables with quarterly health insurance estimates
 - Preliminary microdata file used for these reports
- **Available every six months:**
 - A report on wireless substitution
- **Available periodically:**
 - Reports and tabulations on special topics

15 Key Health Indicators

- Health insurance coverage
- Usual place to go for medical care
- Obtaining needed medical care
- Influenza vaccination
- Pneumococcal vaccination
- Obesity
- Leisure-time physical activity
- Current smoking
- Alcohol consumption
- HIV testing
- General health status
- Personal care needs
- Serious psychological distress
- Diabetes
- Asthma

15 Key Health Indicators



New Online Dynamic ER Report

- Replaces previous static quarterly reports
- Single location updated quarterly with the latest estimates
- Readers can compare estimates spanning 11+ years in a single data visualization
- Intuitive controls easily create interactive charts and tables with results in dynamically generated bullet points
- “Tool tip” with useful information when hovering on a bar within a chart (percentage, confidence interval, year, subgroup, etc.)
- Includes matrix of z-scores in trend charts for comparing one year to another
- Each set of figures, tables, and bullets can be exported to PDF format for download, sharing, and printing

New Online Dynamic ER Report

- <https://www.cdc.gov/nchs/nhis/releases/released201806.htm>

The Future of the Online Dynamic ER Report

- **2019 questionnaire redesign changes the availability of indicators**
 - Health insurance coverage
 - Usual place to go for medical care
 - Obtaining needed medical care
 - Influenza vaccination
 - Pneumococcal vaccination
 - Obesity
 - **Leisure-time physical activity**
 - Current smoking
 - **Alcohol consumption**
 - ~~HIV testing~~
 - General health status
 - ~~Personal care needs~~
 - **Serious psychological distress**
 - Diabetes
 - Asthma

The Future of the Online Dynamic ER Report

- **2019 questionnaire redesign changes the availability of indicators**
 - What measures? How to evaluate potential measures?
 - What demographic subgroups?
 - How soon can estimates be generated?
 - How frequently are ER products needed?
- **Options for online distribution of key estimates?**
 - Importance of consistency with past and current reports?
 - Are there existing tools at CDC that could meet our needs?
 - Are there existing solutions that could be purchased?
 - How do we offer efficient access for data users and app developers?

Timeline for NHIS Questionnaire Redesign

- June 2018 Field Test
- Oct – Dec 2018 Dress Rehearsal and Full-Scale Systems Test
- January 2019 Launch of the Redesigned 2019 Questionnaire
- **December 2019** **First ER Products from 2019 Questionnaire**
- Summer 2020 Public Use Data Files from 2019 NHIS

Questions to the NCHS BSC

The Future of the Online Dynamic ER Report

- **2019 questionnaire redesign changes the availability of indicators**
 - What measures? How to evaluate potential measures?
 - What demographic subgroups?
 - How soon can estimates be generated?
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- **Options for online distribution of key estimates?**
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- Are the questions above the right questions for DHIS to ask?
- What process do you recommend for DHIS to determine what to do?
- Are there data query systems or solutions you suggest we look at?