The Future of Innovation in Public Data
APDU 2016 Annual Conference
Perspectives from NCHS

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National Center for Health Statistics
What We Do:

Monitor the nation’s health by collecting, analyzing and disseminating health data

- Compare across time, populations, providers and geographic areas
- Identify health problems, risk factors, and disease patterns
- Inform actions and policies to improve the health of the American people
NCHS Data Systems Use These Sources ...

• Birth, death and fetal death records
• Personal interviews in the home and via phone
• Physical examinations and laboratory testing in mobile exam centers
• Medical records in hospitals, nursing homes, emergency rooms, doctors’ offices
• Interviews with staff in hospice and home care agencies
National Health and Nutrition Examination Survey (NHANES)

- **Data source**
  - Standardized physical examinations, laboratory tests, personal interviews with a nationally representative annual sample of ~5,000 persons.

- **Data on**
  - Disease/condition prevalence
  - Nutrition
  - Body measures
  - Growth and development
  - Health-related behaviors
  - Risk factors
National Health Interview Survey

- **Data source**
  - Representative in person, in home survey of 87,500 respondents

- **Data applications**
  - Health status and disability
  - Insurance coverage
  - Access to and use of health services
  - Extent of illness and disability
  - Immunization
  - Health behaviors
Examples of National Health Care Survey Data

- Diagnosis
- Treatment and services
- Characteristics of patients
- Characteristics of health care providers
- Patterns of disease
- Use of technology and drugs
- Emergence of alternative care sites
Innovations at NCHS

• Data linkage
• Data visualization and infographics
• Moving to electronic health records from record abstraction and claims data
• Real time vital statistics reporting
• Web panel survey testing
• Research data center consolidation
• Wearables?
Data Visualization Example
REPORT CARD ON THE NATION’S HEALTH
THE “OLD” WAY

- 39th edition
- Tables/graphs are downloadable
- Shorter Chart book version
- Special Feature Report (2015 Racial and Ethnic health disparities)
- Great not just for policy wonks but for teachers
Health, United States Spotlight

Selected Health Indicators

Winter 2016

ABOUT HEALTH, UNITED STATES

Health, United States is the annual report on health, produced by the National Center for Health Statistics and submitted by the Secretary of Health and Human Services to the President and Congress. The report uses data from government sources as well as private and global sources to present an overview of national health trends. This infographic features one health indicator from each of the report’s four subject areas.

For more information, visit the Health, United States website at: http://www.cdc.gov/nchs/hus.htm

CIGARETTE SMOKING

CURRENT SMOKE RING AMONG ADULTS AGED 18 AND OVER, BY SEX: 2004–2014

A “CURRENT SMOKER” for adults (18 and over)
• Has smoked 100+ cigarettes in his lifetime
• Now smokes every day or some days

CURRENT SMOKE RING AMONG ADULTS, DECREASED 26% IN 10 YEARS (2004–2014)

1. How did adult cigarette smoking change from 2004 to 2014?

NURSING HOMES

In 2014, there were 15,643 NURSING HOMES

NOT IN THE DATA

Utilization of health resources
Health care expenditures per cap

EDs PROVIDE:

EMERGENCY DEPARTMENT (ED) VISITS

PERSONS WITH ONE OR MORE ED VISITS IN THE PAST 12 MONTHS, BY AGE 2004–2014

HEALTH INSURANCE COVERAGE

NO HEALTH INSURANCE COVERAGE AMONG PERSONS UNDER AGE 65, BY AGE 2004–JUNE 2015

For additional information on Health, United States, see http://www.cdc.gov/nchs/nhis.htm.

For further information about NCHS and its programs, see http://www.cdc.gov/nchs.
Data Linkage Example: NCHS–HUD Linked Data

- Partnership between HHS and U.S. Department of Housing and Urban Development (HUD)
- Data from NHIS (1999-2012) and NHANES (1999–2012) linked to HUD administrative records through 2014 for HUD’s three largest housing assistance programs: Multifamily, Public Housing, and Housing Choice Vouchers
- Linked data managed through the NCHS Research Data Center (RDC)

*http://www.cdc.gov/nchs/data_access/data_linkage_activities.htm*
Future Challenges for NCHS

• Overcome the electronic health record hurdles and thereby improve the timeliness & extent of our Health Care Surveys
• Improve or at least maintain our survey response rates
• Become visible and important to the public
• Work with partners on the NHIS redesign to field a more streamlined and focused survey in 2018
Future Challenges for NCHS

- Continue to improve the timeliness of vitals and use improved timeliness to improve data quality
- Statistical reporting vs public health surveillance
- Alignment of surveys, administrative data systems and health indicators
- Determine the role of big data, social media and future internet-based developments to supplement surveys
Future Challenges for Federal Statistical Agencies

- Continue to inform the policy debate by providing gold standard data that continue to be seen as unbiased.
- Why a challenge? ....
- The “rothwell” Dilemma ... the better you get ... the closer you get to losing everything ... that is ... the more you become timely and collect policy relevant data the harder it becomes to protect your role as a Federal Statistical Agency.
Dilemma Example: Health Insurance Coverage

Health Insurance Coverage: Early Release of Estimates From the National Health Interview Survey, 2015

by Robin A. Cohen, Ph.D., Michael E. Martinez, M.P.H., M.H.S.A., and Emily F. Zammitti, M.P.H.
Division of Health Interview Statistics, National Center for Health Statistics

Figure 12. Change in the percentage of adults aged 18–64 who were uninsured at the time of interview between 2014 and 2015: United States, 2014 and 2015

* Significant difference between years (p < 0.05).
NOTE: Data are based on household interviews of a sample of the civilian noninstitutionalized population.

The rate of uninsured residents continues to fall across the country and particularly in Georgia as more people gain private health insurance, according to an annual survey released today.
Dilemma Example: Mortality reporting

- ‘Superbug’ scourge spreads as U.S. fails to track rising human toll
- By Ryan McNeill, Deborah J. Nelson and Yasmeen Abutaleb
- Filed Sept. 7, 2016, 2 p.m. GMT
- Fifteen years after the U.S. declared drug-resistant infections to be a grave threat, the crisis is only worsening, a Reuters investigation finds, as government agencies remain unwilling or unable to impose reporting requirements on a healthcare industry that often hides the problem.