Office of Analysis and Epidemiology Program Review: Two years later

Presentation to the NCHS Board of Scientific Counselors
Irma Arispe, Director, OAE

(With thanks to Anthony Rizkalla, Makram Talih, and the staff of OAE!)

May 19, 2016



OAE's Program Review

OAE presented its self-assessment to the BSC in September 2013. The program review was held the following spring, with recommendations in May 2014.

Program Review BSC Recommendations:

- Develop a Strategic Vision
- Conduct Systematic Evaluation and Capture User Data and Feedback
- Establish Priorities and Align Resources

Other BSC Recommendations

- Establish or Formalize New Partnerships and Cooperative Ventures
- Support and Enhance Staff Development and Deployment
- Define and Improve Data Dissemination
- Determine Data Linkage Needs and Opportunities

Coinciding with BSC recommendations

Discussions with senior leadership on priorities

Timeliness, relevance, orientation to data visualization

Review of major programs for CDC's Quarterly Program
 Review

Identify which programs to highlight, how to examine on routine basis

Systematic capture of feedback, product uses

Engagement of CDC Evaluation Fellow

Employee Viewpoint Survey

Collection and analysis of data for key programs

Establishing mission, and vision What do we do and why?

Office of Analysis and Epidemiology Logic Model

The Office of Analysis and Epidemiology (OAE) serves NCHS, CDC, HHS, and the broader national and international health and health care communities by using data from NCHS and other sources to inform policies and programs designed to improve the Nation's health.

Inputs

- Staff and subject matter expertise in health statistics and research methodology
- Data from various sources
- Partnerships with NCHS offices and data divisions
- Partnerships with CDC, HHS, Executive and Legislative Branch, State and local health departments, academia
- Legislative authorities
- Availability of training opportunities
- Financial resources
- IT infrastructure

Activities

Cross-Cutting Research, Analysis and Data Dissemination

- Conduct methodological, statistical and epidemiological research
- Link survey and administrative data & coordinate geo-coding
- Develop and support implementation and use of survey measures, tools, and indicators
- · Aggregate data from multiple sources
- Develop, manage, and refine electronic data dissemination systems
- Cultivate expertise in development of crosscutting knowledge base

Monitoring the Health of the Nation

- Develop and produce Congressionallymandated annual report on the health of the nation
- Contribute to Children's Forum and Aging Forum
- Produce Healthy People data and associated products

Technical Leadership and Consultation

- Technical assistance to NCHS, CDC, HHS and governmental agencies, academic, and other partners on use of data, survey measures, methods, tools, and indicators
- Consultation on issues related to access and use of restricted data including physical systems
- · Advocate for measure comparability
- Prepare and deliver presentations, webinars, & training sessions

OAE Organizational Capacity Building

- Recruit and mentor high quality staff and fellows
- · Launch innovative methods and projects

Outputs

- Measures, tools, and indicators
- Data files
- Completed data linkages
- Data dissemination systems
- Analytic research products disseminated through reports, peer-reviewed journal articles, and presentations
- Completed monitoring reports
- Completed technical leadership and consultation activities
- Recruited and mentored staff
- Launched innovative projects

Short-term Outcomes

- Research portfolio
- Consolidation and exchange of research, knowledge, and expertise
- Revised survey questions and methods
- Increased availability of data and tools for research and public health decisionmaking
- Enhanced evidence base for survey measures and statistical methods
- Expanded analytic utility of NCHS data systems
- Expanded quality and quantity of linked data files
- Collaborative relationships formed and strengthened

Intermediate Outcomes

- Maintained innovation in research and dissemination
- Retained high quality staff
- Cross-cutting coordination with NCHS and other data providers
- Increased use of data and tools for research and public health decisionmaking
- Appropriate use of NCHS data and methods by external audiences
- Improved production efficiencies
- Increased availability of policy-relevant analytic products
- Adoption of comparable measures
- Recognized as a primary source for cross-cutting research, analysis and data dissemination expertise
- Adoption of best practices for analysis, production, and dissemination of data

Long-term Outcomes

- Sustainable relationships formed with NCHS, CDC, and other data providers
- Accurate, relevant and timely information on U.S. health status
- Data and research used to guide actions and policies to improve the health of the Nation
- High standards in place for the use of survey measures, methods, tools and indicators
- Improved accuracy and methodological soundness of Agency analytical products

OAE Mission and Vision

Mission: The NCHS Office of Analysis and Epidemiology serves NCHS, CDC, HHS, and the broader national and international health and health care communities by using data from NCHS and other data sources to inform policies and programs designed to improve the Nation's health.

Vision: We strive for

- scientific excellence in our work
- innovation in our research and dissemination products
- leadership in timely and relevant work on important public health and health policy initiatives.

NCHS data cited as an objective, unbiased, and accurate source of information



MARCH 2016

Federal Subsidies for Health Insurance Coverage for People Under Age 65: 2016 to 2026

Provided as a convenience, this "screen-friendly" version is identical in content to the principal ("printer-friendly") version of the report. Any tables, figures, and boxes appear at the end of this document; click the hyperlinked references in the text to view them.

Summar

The federal government subsidizes health insurance for most Americans through a variety of federal programs and tax preferences. In 2016, those subsidies for people under age 65 will total more than \$600 billion, the Congressional Budget Office and the staff of the Joint Committee on Taxation (JCT) estimate. (The government also bears significant costs for health insurance for people 65 or older, mostly through Medicare and Medicaria!)

Notes: As referred to in this report, the Affordable Care Act comprises the Patient Protection and Affordable Care Act (Public Law 111-148), the health care provisions of the Health Care and Education Reconciliation Act of 2010 (PL. 111-152), and the effects of subsequent judicial decisions, statutory changes, and administrative actions.

Numbers in the tables and figures may not add up to totals because of rounding.

Unless otherwise indicated, all years referred to in describing estimates of mandatory spending and revenues are federal fiscal years, which run from October 1 to September 30 and are designated by the calendar year in which they end.

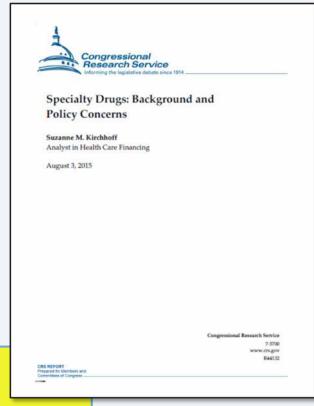
Estimates of health insurance coverage reflect average enrollment in any given month of a calendar year and include spouses and dependents covered under family policies. Those estimates are for the noninstitutionalized civilian population under age 65.

Supplemental data for this report are available on CBO's website (www.cbo.gov/publication/51385)

Vision:

- Scientific excellence
- Innovation in research, dissemination
- Leadership in timely, relevant research

How do we assess our progress in maintaining scientific excellence?



| United States Coverament Accountability Orice |
|---|
| Testimony Before the Subcommittee on Primary Health and Aging, Committee on Health, Education, Labor, and Pensions, U.S. Senate |
| HOSPITAL EMERGENCY DEPARTMENTS |
| Health Center Strategies That May Help Reduce Their Use |
| |

Statement of Debra A. Draper



CAO-11-667T

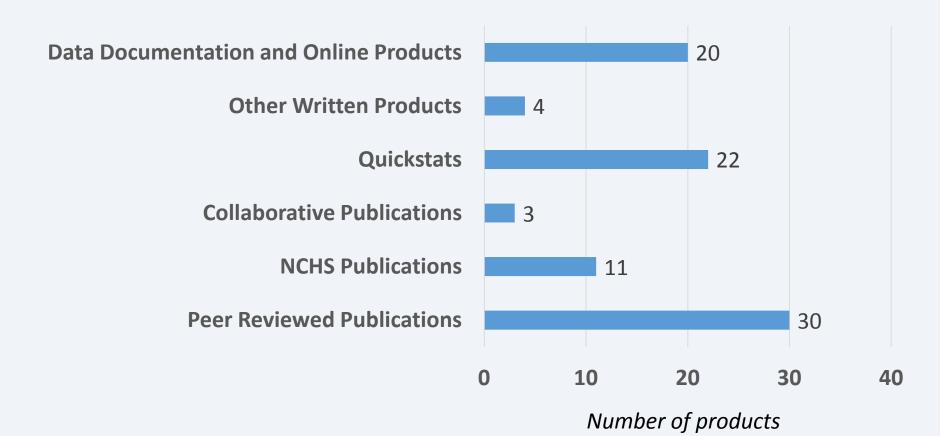
Structures and processes for promoting scientific excellence

- An Associate Director for Science: Makram Talih!
 - Liaison with NCHS ADS, improved quality and efficiency of products
 - A new OAE concept clearance process
 - An improved understanding of our research: what we are doing and why
- OAE participation in NCHS' science policy and methods research
 - Test of trends

How do we assess scientific excellence?

- Data suppression
- Cross cutting, methods research

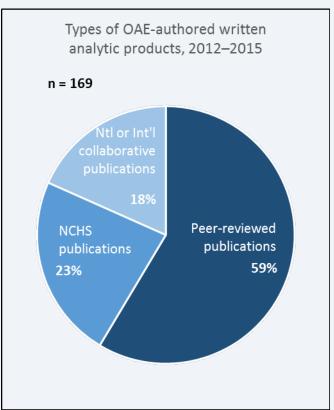
Through a diverse portfolio OAE analytic products, 2015 (N=90)

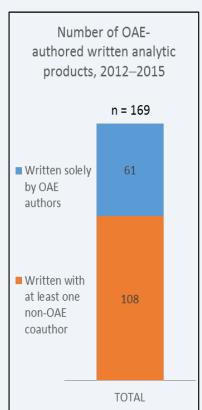


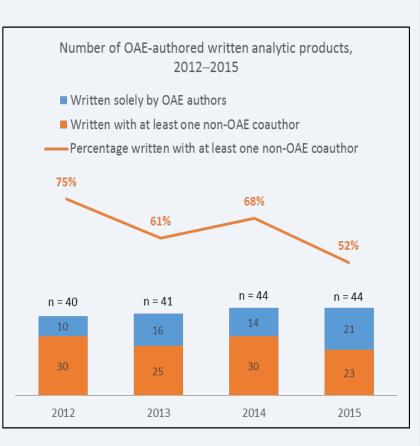
What are we doing and why?

How do we use this mix to best serve our mission and vision?

Through diverse research collaborations Analysis of OAE Publications 2012 through 2015







What's the "right" number? The right mix?

Innovation in Research ...

National Health Statistics Reports

Proposed Framework for Presenting Injury Data Using the International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes

by Holly Hedegaard, M.D., M.S.P.H., National Center for Health Statistics; Renee L. Johnson, R.P.T., M.S.P.H., National Center for Injury Prevention and Control; Margaret Warner, Ph.D. and Li-Hui Chen, M.S., Ph.D., National Center for Health Statistics; and J. Lee Annest, M.S., Ph.D., National Center

Frameworks based on the International Classification of Diseases (ICD) provide immaveries besed on the international Classification of Diseases (ICD) provide injury swaarchest and epidemiologists with standed approaches for pressuring and analyzing injury-related mortality and morbidity data. Injury disgnosis frameworks, such as the Barell Matrix for the ICD Nurth Revision. Clinical Modification (ICD-9-CM) and the Injury Mortality Diagnosis Matrix for the ICD Tenth Revision. (ICD-10), categorize ICD codes into major body region (e.g., head, chest, abdomen, or extremity) by nature-of-injury (e.g., fincture, laceration, organ injury, or vascular injury) categories. In the United States, morbidity coding transitioned from ICD-9-CM to ICD-10-CM on October 1, 2015. In preparation for the use of ICD-10-CMcoded morbidity data for injury surveillance and data analysis, the National Center for Health Statistics and the National Center for Injury Prevention and Control propose at 1CD-10-CM Injury Diagnosis Matrix to provide a standard approach for categorizing injuries by body region and nature of injury. This report provides a brief description of the differences between ICD-9-CM and ICD-10-CM injury diagnosis codes, introduces the proposed framework and the methods used to create it, and provides a list of additional considerations for review and comment by researchers and subjectmatter experts in injury data and surveillance.

Keywords: injury diagnosis * classification * traumatic brain injury

Introduction

Since the early 1990s, the Centers for Disease Control and Prevention's (CDC's) National Center for Health Statistics (NCHS) and National Center for Injury Prevention and Control (NCIPC) have collaborated with colleagues from the International Collaborative Effort (ICE) on Injury Statistics and the American Public

> U.S. DEPARTMENT OF HEALTH AND HUMAN National Center for Health Statist

Health Association Injury Control and Emergency Health Services section to improve the analysis and userumess of fatal and nonfatal injury data in our the analysis and usefulness the United States and internationally. One aspect of this collaboration is the development of frameworks or matrices based on standard groupings of International Classification of Diseases (ICD) codes for presenting fatal and nonfatal injury data by external causes of

Health Statistics

SAFER . HEALTHIER . PEOPL

Linkage of NCHS Populatio Health Surveys to Administrative Records From Social Security Administrati and Centers for Medicare **Medicaid Services**

an initiative of the U.S. Department

Abstract

of Health and Human Services that provides science-based, 10-year natio objectives for improving the health of all Americans. As in the previous three decades, Healthy People 2020 (HP2020) has established overarching goals and objectives, and is monitoring progress toward the attainment of its targets as well as the elimination of health disparities among population groups. This Statistical Note discusses the HP2020 measurement practices, contrasting them with those that were in place in Healthy People 2010 (HP2010) and highlighting their strengths and

Healthy People 2020

Objective—This Statistical Note documents the HP2020 methodology for measuring progress toward target attainment and the elimination of health disparities, with a particular focus on methodological considerations for the interpretation of findings.

Progress toward target attainment-For HP2020, the "percent of targeted change achieved" still measures movement of objectives that are moving from their baselines toward their targets. However, for objectives moving away from their baselines and targets, the

from baseline" is used to measure movement. In addition, unlike in HP2010, both the extent of the move and its statistical significance (when measures of variability are available are used to determine progress status HP2020 (e.g., "improving," "little or detectable change," or "getting wors

Healthy People Statistical Notes

Measuring Progress Toward Target Attainment

and the Elimination of Health Disparities in

by Makram Talih, Ph.D.; and David T. Huang, Ph.D., M.P.H., C.P.H., Office of Analysis and Epidemiology

Comparisons to the best group rat As in HP2010, all groups composing a population domain (e.g., race and ethnicity, education, or income) are ethnicity, education, or income) are compared to the group with the "best" (i.e., most favorable or least adverse) rate. However, HP2020 uses the ratio instead of the percent difference between the rates. In addition, HP202 objectives that are expressed in term favorable outcomes to be increased longer need to be re-expressed using complementary adverse outcomes for comparisons to the best group rate.

Measures of overall health dispar In addition to detailed comparisor the best group rate, HP2020 provide measures that quantify the degree of disparity overall across all groups composing a population domain. Un in HP2010, where a single relative measure, the summary index, was us HP2020 uses three measures that inc

Washington Group on Disability

Statistics



U.S. DEPARTMENT OF HEALTH AND HU Centers for Disease Control and Pre National Center for Health Statis

Vision:

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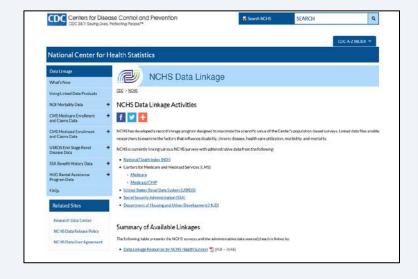
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...and dissemination





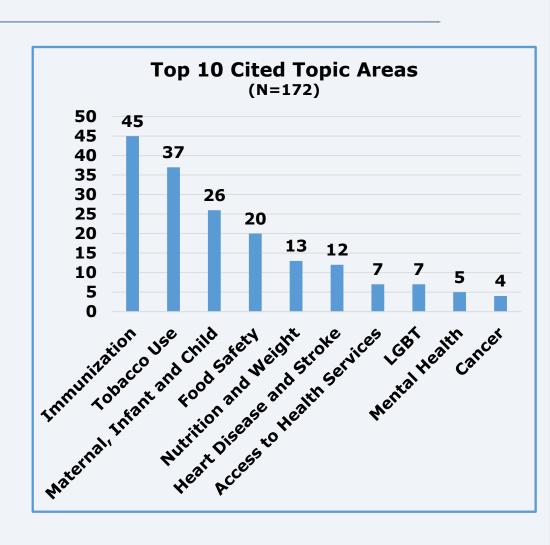


Healthy People 2020 Related News Coverage

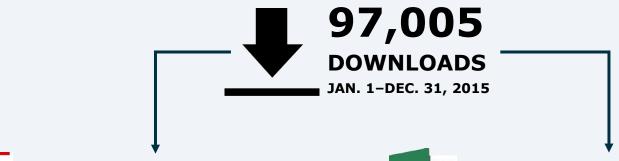
By Data Source and Topic Area, October 2015 to March 2016

Bloomberg Government Analysis October 2015 to March 2016

- 247 News stories referencing Healthy People 2020
 - 131 cite data (53%)
 - 112 cite NCHS survey data by name (45%)
 - 50 cite NHIS
 - 22 cite NHANES
 - 16 cite DVS Data



Health, United States Web Page Activity





Most Popular Report Downloads

- Health, US 2010 with Special Feature on Death and Dying
- Health, US 2014 with Special Feature on Adults Aged 55-64
- Health, US 2013 with Special Feature on Prescription Drugs
- Health, US 2012 with Special Feature on Emergency Care
- Health, US 2011 with Special Feature on Socioeconomic Status and Health



Most Popular Data Table Downloads

- Personal health care expenditures (HUS 2014)
- Healthy weight, overweight, and obesity among adults aged 20 and over (HUS 2014)
- Use of selected substances in the past month among persons aged 12 and over (HUS 2014)
- Gross domestic product and national health expenditures (HUS 2013)

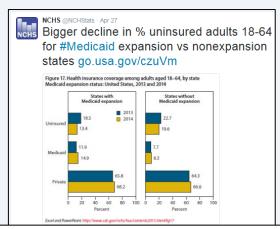
Promotional Tweet

Twitter Countdown





- 48 Tweets posted during week of Health, United States release
- Increased engagement with polls, figures, and animated images



Twitter Poll



Tweets on Key Findings

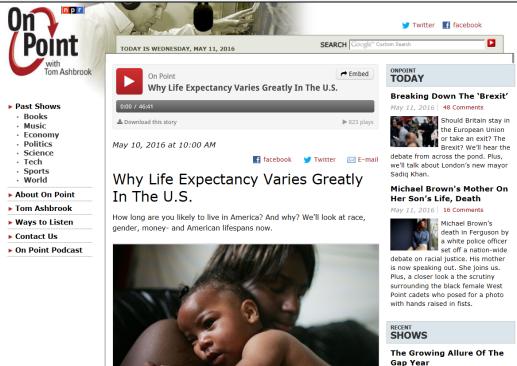
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NCHS @NCHStats · Apr 27

Men are more likely than women to be current #cigarette smokers in U.S. go.usa.gov/ctdJH #smoking #HealthUS15

Leadership on Timely and Relevant Issues





Vision:

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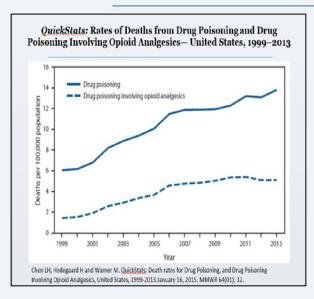
Guests

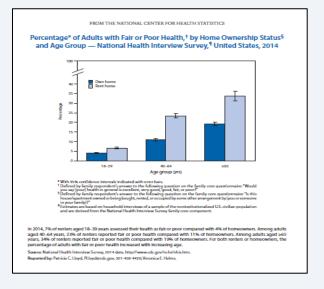
Andrew Fenelon, Senior Service Fellow in the National Center for Health Statistics at the Center for Disease Control. (@andyfenelon)

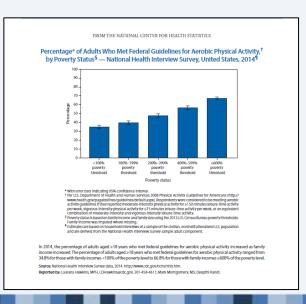
Robert Hummer, professor of sociology at the University of North Carolina.

Tyson Brown, professor of sociology at Vanderbilt University. (@tysonbrown)

Spotlight on emerging issues, data needs







Establishing Priorities, Aligning Resources

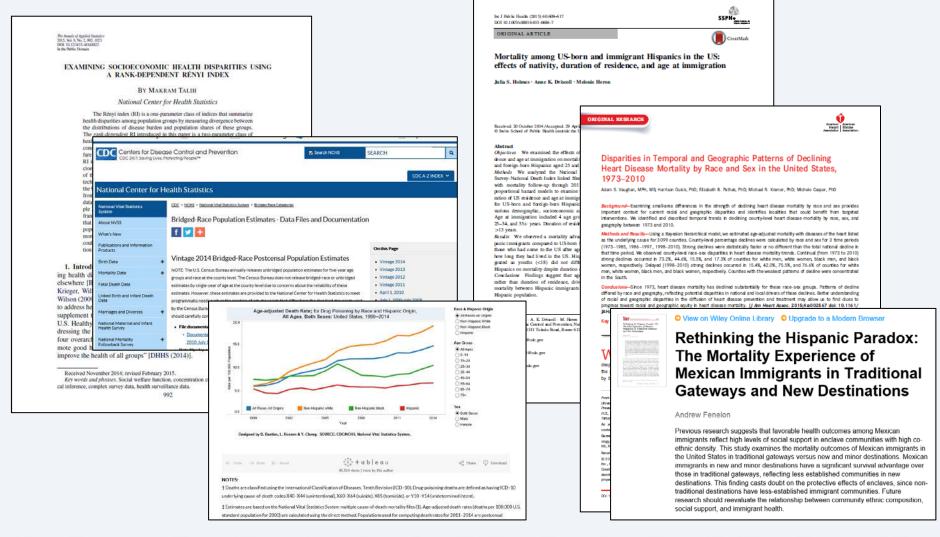
- Long-standing, core activities that directly fulfill our statistical agency mission.
- Programmatic and time sensitive commitments and mandates that we must balance with our desire for unlimited innovation.

- Niche areas, specialized segments of the market where, right now, the agency is well positioned and can/desires to remain so.

Honoring long-standing commitments that fulfill NCHS' mission, and position us for the future



Understanding health disparities and progress toward reducing them



The Future: Challenges ...

- Changes in budget, staffing, organization
 - Retirements and departures
 - Relocating to new space
- Center priorities, some new, some ongoing
 - Rethinking our approach to data access tools
 - Sunsetting (for now) of products, programs
- Realignments
 - Reorientation toward Center-centric work
 - Repositioning of Staff

And Opportunities

- Staffing: New staff brings new opportunities
 - Sibeso Joyner, Analyst, Health Promotion Statistics Branch (HPSB)
 - Elizabeth Pathak, Methodologist, HPSB
 - Mark Montgomery, Student Volunteer, TBA HPSB
 - Lisa Mirel, Chief, Special Projects Branch
 - Ernest Moy, Senior Medical Officer, OAE Office of the Director
- Long standing programs face important transitions
 - New data sources (electronic health records, administrative data)
 - New ways to access our data (API, user friendly interfaces, tweets)
 - Anniversaries as time for thinking of the future (Health, US; Healthy People)
 - Engaging in strategic thinking about our research: cross-OAE, cross-NCHS