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Department of Health and Human Services
Board of Scientific Counselors
National Center for Health Statistics
Centers for Disease Control and Prevention
September 15-16, 2016

National Center for Health Statistics
3311 Toledo Road
Hyattsville, MD 20782

Meeting Minutes

The Board of Scientific Counselors was convened on September 15-16, 2016 at the National Center for Health Statistics Hyattsville, MD. The meeting was open to the public.

Committee Members

Present

Linette T. Scott, M.D., M.P.H., Chair
Wendy Baldwin, Ph.D.
Timothy J. Beebe, Ph.D.
Virginia S. Cain, Ph.D., Executive Secretary
Michael Davern, Ph.D.
Mark Flotow, M.A.
Sherry A. Glied, Ph.D.
Mary Ellen (Meg) Johantgen, Ph.D., R.N.
Genevieve M. Kenney, Ph.D.
Virginia M. Lesser, Ph.D.
Wendy D. Manning, Ph.D. (by phone)
Robert E. McKeown, Ph.D., FACE
Javier Nieto, M.D., M.P.H., Ph.D. (by phone)
Trivellore E. Raghunathan, Ph.D.
Margo Schwab, Ph.D., OMB
Katherine K. Wallman, Ex-Officio, OMB (by phone)
Robert L. Phillips, Jr., M.D., MSPH—NCVHS Liaison

NCHS-CDC Senior Staff

Jennifer Madans, Ph.D.
Chesley Richards, M.D., M.P.H., FACP
Charlie Rothwell, M.S.

General Audience

Yahtyng Sheu, OAZ
Diba Hen, DRM
Cordell Golden, OAE
Peter Meyer, DRM
Makram Talih, OAE
Justin Mezehn, DRM
Van Parsons, DRM
Don Malec, DRM
Emily Mitchell, AHRQ
Vladisha Beresovsky, DRM
Anita Bercery, DHCS
Kyhi O'Con, DHCS
Patsy Lloyd, OAE
Laurie Pratt, OAE
Clint Thompson, OAE
Shaleah Levant, DHCS
Deborah Bittner, Social & Scientific Systems
Jim Nowicki, Northrop Grumman
Anjel Vahratian, DHIS
Lauren Harris-Kojefin, DHCS
Lisa Mirel, OAE
Meena Khare, DRM
Alan Dorfman, DRM
Stephen Blumberg, DHIS
Julia Holmes, OAE
Nat Schenker, OCD/DRM
Irma Arispe, OAE
Jim Crower, OAE
Jennifer Parker, DHANES
Sarah Lessem, DHIS
Susan Queen, OPBL
Holly Hedegaard, OAE
Virginia Freid, OAE
Shelby Taylor, DHCS
Kelly Myrick, DHCS
Robin Pendley, OAE
Rashmi Tardon, OAE
Ny Arn Bands, OAE

Presenters

September 15, 2016

Amy Branum, Ph.D.

Virginia Cain Ph.D.

Sherry Glied Ph.D.

Brady Hamilton, Ph.D.

Dedun Ingram Ph.D.

Jennifer Madans, Ph.D.

Susan Queen, Ph.D.

Lauren Rossen, Ph.D., M.S.

Charlie Rothwell, M.S.

Linette T. Scott, M.D., M.P.H.

MEETING SUMMARY
September 15-16, 2016

ACTION STEPS

Federal register notices will be coming out on the National Health Interview Survey redesign and potential changes in the OMB standards on the collection of data on race and ethnicity. The Board should: a) determine if there should be a Board response; and b) share this information with people who may have an interest and with other stakeholders to ensure that these notices get the widest possible distribution.

Thursday, September 15, 2016

Welcome, Introductions and Call to Order

Linette T. Scott, M.D., M.P.H., Chair, BSC and Charles Rothwell, Director, NCHS

The meeting began with introductions including announcing Meg Johantgen as a new member and then moved into the NCHS update.

NCHS Update

Charles Rothwell, M.S., Director, NCHS

Mr. Rothwell provided an NCHS overview, which included a review of the budget for health statistics. FY 17 is expected to be flat lined although the Senate has come in \$4 million less than the current budget. Although preparations are in place, much of FY 2018 is unknown because of the upcoming presidential transition. Recognition was given for those who are coming on board at NCHS and for those who are leaving. The Evidence-Based Policymaking Commission has been established to determine best way for the federal government to organize, protect, and analyze data to improve public

policy. This commission will meet for up to 18 months to provide information on how the agency might be able to use administrative data and share data better across agencies.

Other issues of importance to NCHS and shared with the BSC include:

- potential changes in the OMB standards for collecting data on race and ethnicity;
- NHIS redesign--sample redesign has been completed; content redesign underway;
- significant improvement in the timeliness for reporting deaths, quarterly reporting mortality indicators;
- quarterly provisional estimates plans for the next twelve months include: establishing a routine and predictable release schedule; enhancing interactivity and data visualization; expanding content; and evaluating additional causes of death;
- Robert Wood Johnson Foundation providing funding for geocoding for the mortality records with the goal of Census tract level data for surveillance purposes;
- The Data Detectives Camp was a successful event for middle school students jointly sponsored by University of Maryland (UMD) and the American Statistical Association at the UMD Campus; Health Statistics Day brought students from two high schools to NCHS to learn about health statistic; NCHS is hoping to expand these events to keep children excited about mathematics and stay with their sciences;
- Concern continues with dropping survey response rates.

Discussion

A question was raised regarding whether the “Data Detectives Camp” was available for wider use. The thought was to raise awareness around statistics and offer the event as a prepackaged activity for high schools and colleges. NCHS received positive feedback on both the middle and high school events and plans to expand it beyond the local schools. Another suggestion was made to go to the American Statistical Association local chapters once the courses are modularized for recruiting for the camp.

Reproductive Health Surveillance and New Quarterly Provisional Birth Estimates

Amy Branum, PhD, Chief, Reproductive Statistics Branch

Lauren Rossen, PhD, MS, Reproductive Statistics Branch, Surveillance Lead

Dr. Branum began with a presentation on reproductive health surveillance. The discussion began with a general overview of reproductive health surveillance. The Reproductive Statistics Branch of NCHS has successfully distributed data from two different data systems, the National Survey of Family Growth and vital statistics, including birth records, and produced a yearly average of 20 reports and journal articles on reproductive health. It was shared that over the past few years NCHS’ priority was to

improve timeliness of data releases. RSB has more recently focused on releasing quarterly birth estimates. In addition, NCHS has dramatically decreased the time from vital statistics data collection to release from a year or more to nine months.

NCHS' current contract for NSFG data collection will end in 2019. There needs to be discussion on how the new iteration of the NSFG will look. NCHS is also seeking innovative projects that will help it use its data in more ground-breaking ways.

Dr. Lauren Rossen gave a presentation on the August 9th quarterly provisional estimates for the birth data. The interactive dashboard, developed by Dr. Rossen and her colleagues, covers several indicators, allows users to choose between 12-month ending estimates as well as quarterly estimates. After some evaluation of accuracy, it was found that these early estimates were within 1 percent of the final data.

Next Steps

1. Adding indicators from the 2003 birth certificate revision
2. Adding different dimensions to the estimates such as maternal race/ethnicity, maternal age and other characteristics.
3. Adding infant mortality rates (age and cause of death) to the quarterly provisional estimates.

Discussion

One member posed a question as to whether or not the recent Medicare and Medicaid initiative to reduce early elective delivery had been a dimension in the research. Low-risk cesarean deliveries were included in the research but not elective deliveries. In order to extend the research to incorporate new items, NCHS will need new funding partners such as the Centers for Medicare and Medicaid Services (CMS) and the CDC Division of Reproductive Health (DRH). Mr. Rothwell stated that there are challenges that must be addressed such as having valid data, seeking infrastructure that provides the data, and to find solutions to support the infrastructure and sustain it. Mr. Rothwell suggested the benefits of being able to link data sets, and also having data available for commercial interests.

Interrelationships between Vital Statistics and Population Estimates

Measuring Race/Ethnicity: Setting the Stage

Virginia Cain, PhD, Director, Extramural Research

The Census Bureau is interested in improving the quality of its race and ethnicity data. Its goals are to reduce the amount of missing data and to provide response categories with which participants can identify. The two main areas of potential change that will affect NCHS are the use of a combined race/ethnicity question and the addition of a Middle Eastern/North African (MENA) category. Census is also using a country-based approach in providing examples of subgroups contained within the major race/ethnicity

categories. NCHS is highly interested in these proposed changes because it requires equivalent categories to be provided by the Census Bureau for denominator data to be used to calculate vital statistics rates.

Next Steps

1. Continued NCHS participation in the OMB workgroup reviewing the race/ethnicity standards.
2. NCHS will distribute to the public the federal register notice when it is available.

A BSC member asked for additional clarification. Dr. Cain responded that NCHS does not have a “some other race” category but some data collections do include a “race unknown” category. However, Census data collection does use this to report race. Census outreach to communities has shown that individuals reporting “some other race” do not see themselves in the current five race categories. However, in the population estimates which the Census Bureau produces and which are used by NCHS to produce vital statistics rates, “some of race” has been imputed to one of the five races specified in the revised OMB standards.

Background on Bridging

Dedun Ingram, PhD, Health Statistician, Office of Analysis and Epidemiology

The presenter gave a brief presentation on what has been done at NCHS to bridge multiple-race population responses to single-race categories. NCHS uses population estimates for the denominators of vital rates and the race categories of these population estimates must be consistent with those of vital records data used for the numerators. The 1997 OMB standards on the collection, tabulation, and reporting of race/ethnicity data included a major change, namely that respondents could report more than one race. It has taken 19 years to achieve full implementation of this change across the National Vital Statistics System through adoption of revised birth and death certificates. The currently proposed changes to the OMB standards, use of a combined question to collect race and ethnicity data (rather than the currently used separate questions) and the inclusion of a Middle Eastern North African (MENA) category also likely will require a substantial time period for implementation, during which race/ethnicity categories for data in the numerators and denominators of vital rates will not match. Additionally, use of the combined question format instead of the two question format likely will result in a substantial increase in missing race data and the possible need to no longer report vital rates for “total” race groups, and report only for non-Hispanic white, non-Hispanic black, and so forth. Dr. Ingram’s presentation addressed the process NCHS has used to bridge multiple race data to single-race categories -- NCHS developed a bridging model with special coding and editing to translate multiple race responses to appropriate single race categories.. The bridging enabled NCHS to have a defensible method for calculating rates during the time states were transitioning their data collection efforts to

use the 1997 OMB standards and provided one set of population estimates that could be used by all data users.

Discussion

A member commented on the validity of a physician's response to a question that is designed to be self-administered. These administrative records are generally built on someone's observations. One of the Census challenge in data collection is that 70 percent of Hispanics don't identify as Hispanics. The 30 percent who do not identify as Hispanic will go into multiple races. A member commented that this disconnection has to be resolved in order to accurately record data. OMB is only considering these changes at this point. There are no recommendations to OMB nor or there any decisions to OMB to date. A member asked if the need for expediency was due to the set of questions being sent to Congress and their approval timeline. The presenter shared that the presentation was only to illustrate what might happen.

The results of the pilot presented by Dr. Ingram showed that 2 percent of the group said they were multiple races for the whole population. Unlike some groups, the Native Americans and Native Hawaiian are less likely to report multiple races. A member asked if this data represents an age or a cohort effect. Dr. Ingram shared that this finding may have some barring on the fact that there are a lot more mixed marriages. NCHS efforts to transition between the standards found that some data was in compliance with 1997 standards and some which was not in compliance. Over the years, NCHS has developed a bridging model and special coding and editing to translate multiple race responses. The bridging enabled NCHS to have a defensible method for accomplishing the 1997 standard transition. NCHS will use this bridge race estimates for a while especially to produce the 2010 to 2019 intercensal estimates. There was discussion on whether are not the raw data download from the birth or death certificates or NHIS files were the results of the bridging. HIS files are original and are not bridged. A member asked if what would be out of balanced. The bridge race only goes down to the county level and this may cause some imbalance. There was further discussion on taking the county level and assign them to a city. The model has only county levels and no data below that can be captured. There is national testing on single race collection and single race ethnicity.

Effect of Potential Changes with 2020 Census

Brady Hamilton, PhD, Reproductive Statistics Branch, Division of Vital Statistics

The presenter discussed potential issues related to using a combined race and ethnicity into a single question and adding a new category for MENA (Middle Eastern or North African) in the 2020 Census. Potential issues include: the need to revise the birth and death certificate of the 57 vital statistics reporting areas to include a combined race and ethnicity question (which would be costly and, potentially, lengthy); the possibility of a delayed implementation of the combined question on the birth and death certificate among the reporting areas; the potential need to map race and Hispanic origin

responses between the two question and single question format; the possible need to “bridged” race/ethnicity data during transition to the single question format; and, the possible discontinuity in trend data by Hispanic origin and race. In addition, the presenter also discussed potential issues specifically related to adding a new category for MENA. Potential issues include: the diversity of MENA population and the effect of reporting data for this group will have on birth and death data for the other race groups; and, the relatively small size of the MENA population and the ability to report birth and death statistics for the group. It was noted that while most MENA groups are coded as “white,” a number of groups (for example, Moroccan) are coded as “some other” race by NCHS and Census Bureau. Combining the MENA group into “white” (one of the five minimum race categories stipulated by the 1997 revised OMD standards) would have some impact on the reporting of birth and death data for that group. In closing, the presenter’s discussion points noted the need for adequate notification of Vital Statistics partners and stakeholders of the proposed changes, adequate assessment of impact of the proposed changes on birth and death data, and adequate assessment of costs and time for implementation of the changes.

Discussion

The discussion began with the reasons for the Census Bureau’s interest in exploring a possible change from the two question race/ethnicity format to a combined, single question format. One motivation is to eliminate the missing data on race for the Hispanics who only report their ethnicity. This approach would produce population estimates by race and ethnicity separately but not potentially consistent with how race and ethnicity are currently reported on birth and death certificate in accordance with the current OMB standards. The addition of the proposed MENA category was considered when the 1997 standards were developed and has been advocated for by the MENA community.

Dr. Phillips discussed the need to match up NCHS’ data with the Census. There is a need and a way to preserve data that can be linked to vital statistics. Dr. Phillips shared that some statistical agencies are already treating Hispanics as another group. There is a mutual concern among some government and private agencies that administrative records can be subjective.

Evidence-based Policy Commission

Susan Queen, PhD, Associate Director, Office of Planning, Budget, and Legislation
Sherry Glied, PhD, BSC Member and Commission Member

The Evidence-Based Policy Making Commission Act is a bipartisan effort to improve the use of data for decision-making. The Commission on Evidence-Based Policy was established in 2016 to conduct a study of the data inventory and infrastructure across the federal system, in order to make recommendations. The mission of the Commission

is to develop a strategy for increasing the availability and use of data in order to build evidence about government programs, while protecting privacy and confidentiality. The Commission is composed of 15 members, appointed by the President, the Speaker of the House, the House Minority Leader, the Senate Majority Leader, and the Senate Minority Leader. Members include individuals with experience as academic researchers, data experts, program administrators, and privacy experts. Under current law, the Commission will issue its findings and report to the President and the Congress in September 2017. The Commission will also study the feasibility of establishing a clearinghouse for program and survey data and will consider issues such as: what data would be included in the clearinghouse; data linkages; privacy and confidentiality; governance; access; and sustainability. The Commission will also assess challenges to the establishment of a clearinghouse, including the range of statutes that govern federal and state data, policies and legal interpretations related to access and data sharing, the development of data sharing/data use agreements, resource and capacity constraints, sustainability, and agency culture. The Commission will consider administrative and survey data at the federal and state level, and it is likely that NCHS can showcase examples of linked data and experience in data access and dissemination. Dr. Scott suggested that perhaps the Commission could look at identifiers that could be used across systems to link data, given the substantial role of data linkage for evaluations and building evidence. No new funds were authorized to be appropriated to the Commission; however, the Commission will be supported by funds available to Census. In our role as the principal health statistics agency, NCHS is committed to supporting the efforts of the Commission as they conduct this comprehensive study and develop recommendations.

NHIS Content Redesign Update

Jennifer Madans, PhD, Associate Director for Science

Mr. Rothwell provided an update on the progress of the redesign. NCHS has received feedback from the public and participated in considerable interaction with stakeholders. All public comments have been answered.

There are many challenges involved in conducting a multipurpose health survey such as the NHIS. Of critical importance is the length of the questionnaire which affects respondent fatigue and the cost for the interview. The redesign of the NHIS questionnaire was done to reduce length but also to improve the quality and usefulness of the information collected. At present, the annual core has been about 40 to 50 percent revised. The two areas that are least developed to date are injury and mental health. In 2018, the NHIS will eliminate the use of flashcards in the survey administration. Only the minimum set of variables will be collected for all family members; the full relationship matrix will not be included. Based on comments received, there was high interest in retaining the country of birth as part of the core but at this time this variable has not been retained. NCHS is encouraging outside funders to pay for content that is unique to their needs. The sample size is not affected by the questionnaire redesign.

It must be assumed that the change in the questionnaire will affect comparability of data over time. Ideally, the new design would be implemented while the old design was still in the field so that the effects of the change in methodology could be separated from true temporal changes. However, Dr. Madans shared that there are no resources (funds and staff) to do this methodological research. NCHS would prefer that this not be the case but running parallel surveys is prohibitively costly.

Current Status and Next Steps

The draft questionnaire has been released.

The federal register notice will be released in two weeks.

There will be a possible 30-day public comment period.

Testing on the questionnaire is ongoing.

The aim is to have a complete questionnaire text by December 2016.

The second round of testing has started and it will probably be completed by the end of November.

Discussion

A question was posed as to whether the survey would only gather health and disability data from the sample adult. There are ongoing discussions regarding disabilities. Dr. Madans also explained that there is a plan to create dyads when the sample child is a child of the sample adult.

While there are many changes, many characteristics will remain the same. There will be no change to the mode of data collection; the survey will remain face-to-face. Dr. Madans reported that NCHS is investing in the core to make it as good as possible. A member asked what the most important content was. Dr. Madans responded that this has been a difficult question and that tradeoffs have to be made. While there is enormous interest in some content; the data collection costs are high and not realistic. A member asked if part of the redesign is in the recruitment method procedures. Dr. Madans responded this is not a part of the content redesign. Locked buildings and the lack of personal or work numbers continue to be challenges for the recruitment process.

MEETING SUMMARY
Friday, September 16, 2016

Committee Members

Present

Linette T. Scott, M.D., M.P.H., Chair
Wendy Baldwin, Ph.D.
Timothy J. Beebe, Ph.D.
Virginia S. Cain, Ph.D., Executive Secretary
Michael Davern, Ph.D.
Mark Flotow, M.A.
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Genevieve M. Kenney, Ph.D. (by phone)
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Wendy D. Manning, Ph.D. (by phone)
Robert E. McKeown, Ph.D., FACE
Javier Nieto, M.D., M.P.H., Ph.D. (by phone)
Robert L. Phillips, Jr., M.D., MSPH
Trivellore E. Raghunathan, Ph.D.
Margo Schwab, Ph.D.
Katherine K. Wallman, Ex-Officio, OMB (by phone)

Not Present

Thomas LaVeist, Ph.D.

NCHS-CDC Senior Staff

Jennifer Madans, Ph.D.
Charlie Rothwell, M.S.

General Audience

Duba Kwan, CDC/DRM
Delta Atkinson, CDC/NCHS/DVS
Jennifer Parker, DHANES
Denys Lau, DHCS
Naga Shanmugam, DHCS
Kelly Myrick, DHCS
Don Cherry, DHCS
Marni Hall, DHCS
Susan Queen, NCHS
Ming Wendt, OMH
Paul Sutton, DVS

Ken Kochanek, DVS
LeeAnn Flagg, DVS
Marianne Spencer, DVS
Jim Nowick, Northrop Grumman
Nat Schenker, OCD/DR
Amy Sitz, DHNES

Presenters

September 15, 2016

Delton Atkinson, M.P.H., P.M.P, Director Division of Vital Statistics
Carol DeFrances, Ph.D, Chief Ambulatory & Hospital Care Statistics
Peter Meyer, M.A., M.P.H., Assistant Director Division of Research and Methodology
Charlie Rothwell, M.S.
Linette T. Scott, M.D., M.P.H.
Margaret Warner, Ph.D., Epidemiologist

Welcome, Call to Order

Linette T. Scott, MD, MPH, Chair, BSC

HHS Research Data Center Update

Charles Rothwell, Director, M.S. NCHS
Peter Meyer, M.A., M.P.H., Assistant Director
Division of Research and Methodology

The NCHS Research Data Center (RDC) is expanding across the Department of Health and Human Services (DHHS). AHRQ and SAMHSA are joining their RDCs with the NCHS RDC and NCI is also a potential collaborator. These new Data Centers will join the current NCHS RDCs in Hyattsville, Atlanta, Washington (Humphrey Building) and Rockville (Parklawn Building). As a result, the breadth of data available in the RDCs is also increasing and includes data from ASPE, CDC, NIOSH, HRSA, NCI, AHRQ as well as linked data products. Additional data sources will be coming to the RDCs.

In a related activity, the U.S. Census Bureau is creating the Federal Statistical Research Data Center as a joint project across the Federal statistical agencies. The challenge is to get all users together and make the data available in a way that researchers can really access it. It is hoped that these efforts will facilitate data sharing across agencies. Differing agency policies can create difficulty obtaining approval to use the datasets. These processes need to be streamlined.

Discussion

NCHS and NIOSH are in negotiations to develop an agreement to share more data and to decrease partner cost by jointly funding projects.

A member asked if the department would keep reports of what is being accessed, and if agencies' data would be linked and housed in the same place? Dr. Madans shared that data in the RDC are not stored there other than to complete an approved project. The RDC is not a data repository but files are created to meet the needs of each project. The RDC keeps records of files that are accessed for internal purposes.

A question was posed about the security of the data and the need for a checks and balance system. The RDC was designed to assure data security and respondent confidentiality. These processes are constantly reviewed.

National Hospital Care Survey Demonstration Projects: Traumatic Brain Injury
Carol DeFrances, PhD, Chief Ambulatory and Hospital Care Statistics Branch

The National Hospital Care Survey (NHCS) integrates three long-standing surveys: 1) the National Hospital Discharge Survey (NHDS), the longest continuously fielded sample of inpatient care conducted by NCHS from 1965-2010; 2) the National Hospital Ambulatory Medical Care Survey (NHAMCS), conducted by NCHS and surveys hospital emergency departments (ED) and outpatient departments (OPD) since 1992, hospital ambulatory surgery locations since 2009, and freestanding ambulatory surgery centers since 2010; and 3) the Drug Abuse Warning Network (DAWN) which had collected data on drug-involved ED visits since the 1970s and was most recently conducted by the Substance Abuse and Mental Health Services Administration from 1992-2011. The goal of NHCS is provide reliable and timely healthcare utilization data for hospital-based settings. Several objectives include to move toward the collection of electronic health record data over time, to continue to make available health statistics previously provided, and to link episodes of care across hospital units as well as link to other outside data sources such as the National Death Index (NDI) and Medicare data.

The purpose of the demonstration projects is showcase the NHCS tremendous analytic capabilities and highlight new data elements. New data elements, such as diagnostic and therapeutic services and intensive care unit stays, can add both depth and breadth to an analysis. Additionally, using personally identifiable information (PII), we can demonstrate the ability to track patients that have been discharged from the hospital but return for treatment in the ED or OPD. We can also link to the NDI and evaluate 30-, 60- and 90-day mortality.

In July 2016, the first demonstration project report on traumatic brain injury (TBI) was published by NCHS. TBI entails disruption of normal brain function caused by a blow to the head or a penetrating head injury. TBI is a serious public health problem in the United States, contributing to a substantial number of deaths and cases of permanent disability each year. According to the NHDS, NHAMCS, and the National Vital Statistics System, an estimated 1.7 million people suffer from TBI annually, 52,000 of whom die.

In 2013, the NHCS sample consisted of 581 non-institutional, non-federal hospitals with six or more staffed inpatient beds. NHCS collects Uniform Bill (UB)-04 administrative

claims data from participating hospitals from all available settings—inpatient, emergency department, and outpatient department. In 2013, 97 hospitals provided approximately 1.5 million inpatient discharges and 88 hospitals provided 3.8 million emergency department visits and 15.1 million outpatient department visits. There were 11,473 inpatient discharges, 62,806 ED visits, and 36,112 OPD visits with a first-listed diagnosis of TBI in the 2013 data collection. The number of TBI records in NHCS far exceeds the data previously collected in NHDS and NHAMCS.

The report's results were consistent with previous research in the distribution of TBI by age and sex. A first-listed diagnoses of TBI accounted for 1.7% of all ED encounters. Of the ED TBI encounters, most (38.3%) were made by children under the age of 15. In fact, the percentage of children under age 15 seen for TBI was higher than the percentage of children under age 15 seen for any reason in all 3 settings. In the inpatient setting, most hospitalizations for a first-listed diagnosis of TBI were by those aged 75-84 (16.0%) and the fewest hospitalizations were made by those aged 35-44 (6.2%). For OPD encounters with a first-listed diagnosis of TBI, adults aged 55-64 had the most encounters (17.7%).

Through the administrative claims data, revenue codes are collected from a patient's record. These codes describe services provided during an encounter, from room and board to diagnostic and therapeutic services received. We chose six clinically relevant diagnostic and therapeutic revenue codes—CT scan, diagnostic radiology, and MRI on the diagnostic side. Physical therapy, occupational therapy, and speech therapy on the therapeutic side. The most common diagnostic service received in encounters for TBI in all settings was a CT (computed tomography) scan: approximately 1 in 2 encounters in the ED, 9 in 10 encounters in the inpatient setting, and 1 in 10 encounters in the OPD setting. The most common therapeutic service received during encounters for TBI in the inpatient and OPD settings was physical therapy, followed by occupational therapy and speech therapy.

In addition to the diagnostic and therapeutic revenue codes, we also analyzed revenue codes related to the use of the intensive care unit (ICU) in the inpatient setting. Approximately 6 in 10 hospitalizations for TBI resulted in an ICU stay, and their average length of stay was 7.3 days, with 1.2 days spent in the ICU. Patients with no ICU stay were only hospitalized for, on average, 3.2 days.

For the first time, individual patients can be followed through their entire experience in a hospital. Patients are identified through the PII included on the billing claims, including name, date of birth, and social security number, and are given a unique identifier. Of the 11,473 inpatient discharges for TBI, 11,202 were individual patients. The first inpatient discharge for TBI in 2013 was considered the index visit and follow-up care in the hospital's OPD for any-listed TBI was analyzed for 1 year following the index visit. Of the 11,202 inpatients with TBI, just over 10% received follow-up OPD care in the same hospital. The mean number of follow-up visits was 3.

We think that this was a very successful demonstration paper which displayed the potential uses of NHCS data. It illustrated a unique opportunity to study rare conditions and to study care and services received including intensive care use, and diagnostic and physical services. Further, the paper showed the ability to link across hospital settings and follow care provided.

Future demonstration project topics include pneumonia and opioid use.

Discussion

A question was asked regarding the selection bias that may exist with the data used for the TBI demonstration project. The response was that the data used were not weighted due to low hospital response rate. Larger hospitals were overrepresented in the 2013 sample.

A question was raised regarding which survey would pick up a patient that was seen at a military hospital and then transferred to a non-military hospital. The response was that the patient could be included in both a Veteran Affairs survey and the NHCS.

A question was asked whether we have received electronic health record (EHR) data yet. The response was that the 2015 NHCS data are expected to have EHR data from eight hospitals. The 2016 NHCS data is expected to have even more.

Improving Mortality Statistics

Improving National Mortality Data System: Enhancing State Performance

Delton Atkinson, M.P.H., P.M.P., Director, Division of Vital Statistics

Mr. Atkinson raised the four major issues confronting vital statistics: 1) timeliness, 2) quality of the data, 3) access and usability of the data, 4) cost of the data.

His presentation focused on the aspect of timeliness. With respect to timeliness, the goal is to be able to use vital statistics as a near real-time public health surveillance systems. Funding partnerships have provided resources to the states beginning in 2013 and continuing through 2016 to enhance state performance aimed at nationally having 80% of mortality records transmitted to NCHS within 10 days of the event. Timeliness has been improving so that during the period January-August 2016 approximately 47% of stat mortality records were sent to NCHS within 10 days of death and the goal for 2017 is 60% of mortality records.

A number of future initiatives are planned to continue to improve vital records:

- eVitals Initiative
Final approval of the national HL7 standards

- Enhance the utility of death records for research
Methodology to extract PII information in literal text field to be able to use.
New business model for NDI
- Interoperability of the Medical Examiner/Coroner Systems and the Electronic Death Registration Systems (proposed project with OPHPR)
- Death Reporting using FHIR (Fast Healthcare Interoperability Resources)
- Next Generation Electronic Death Registration System

Discussion

Delta Atkinson provided the names of funders and others who contributed to this five-year plan through contracts. Some initiatives included funding dollars for states to expand coverage for their electronic death registration. A member inquired as to the number of states that have utilized these funds to improve their systems. As of 2016, 22 states have been funded for timeliness improvement and 12 states were funded for quality improvement. How are we going to try to push all 50 states and the District of Columbia to take advantage of this in order to get everyone engaged in this? Continue seeking new funding sources especially for those bottom tier states. Discussion continued as a member asked if there were plans to look at the relationship between the different kinds of coding. Coding is one of the things the Vermont Office of the Chief Medical Examiner will share in its final report. A final question regarding the strategies that need to be put into place nationally to make a difference. Mr. Rothwell suggested that funds were needed to help states become as proficient as they can with their existing systems.

Reaching Out to Medical Examiners/Coroners to Improve Mortality Surveillance

Margaret Warner, PhD, Injury Epidemiologist

Death investigations are carried out in over 2,300 medical death investigation jurisdictions. The types of death investigated include:

- Sudden unexpected deaths
- Unattended deaths
- Non-natural deaths (i.e. unintentional, homicides, suicides)
- Others, determined by variation & restrictions by jurisdiction (e.g. <65 years old)

Dr. Warner presented a continuing high profile example of deaths investigated by medical examiners and coroners, drug poisoning. A series of maps demonstrated the

increasing incidence of drug poisoning deaths across counties in the US between 1999 and 2014. While there are large differences by state in the reporting of specific drugs identified in the overdose, nationally 81% of drug overdose deaths had specific drugs identified.

Recent efforts have been made to increase two way communication between medical death investigation units in the various jurisdictions and CDC. Specific outreach by NCHS to improve national mortality surveillance included:

- Promoting quality and consistency in death investigations and death certification
- Promoting collection, automation, and distribution of medicolegal death investigation data
- Facilitating information sharing among the medicolegal death investigation community
- Coordinating public health surveillance efforts

Discussion

Timing and coordination of efforts is key to forward movement. Main factor to explore is the medical mapping investigation system of legal deaths in the United States. About 80% of these examiners are elected. Many of the systems are county based rather than by state. There are guiding questions to be asked whether state or county jurisdiction. Is an investigation necessary? What types of deaths do Medical Examiners and Coroners certify? Who/how records the number of deaths with the specific drug listed? Outreach must be established beyond funding. States that have coroners as well as small counties need to be a part of a set of common standards and communication process. The data are needed for prevention, evaluation, and emerging threats.

BSC Wrap-Up

Federal register notices will be coming out on the NIH - NHIS redesign and race and ethnicity. Comments are welcome. The race/ethnicity measurement change potential is one that is less known. These are topics to: a) Determine if there should be a Board response; and b) share this information with people who may have an interest and with other stakeholders to ensure that these notices get the widest possible distribution.

Public Comments:

There was no public comment.

Meeting adjourned

To the best of my knowledge, the foregoing summary of minutes is accurate and complete.

