

**FUTURE OF NURSING™**  
Campaign for Action



**National Nursing and Health Care  
Workforce Data Meeting**

**May 9-10, 2016**

**Washington, D.C.**

## Participants

Alyce Louise Bertsche  
Department of Labor-Competency Models

Mary Beth Bigley  
Health Resources and Services  
Administration

Sharon Boivin  
Department of Education

Clarice Brown  
National Center for Health Statistics

Jill Budden  
National Council of State Boards of Nursing

Peter Buerhaus  
Montana State University College of  
Nursing

Jennifer Butlin  
Commission on Collegiate Nursing  
Education

Maureen Cahill  
National Council of State Boards of Nursing

Arpita Chattopadhyay  
National Center for Health Workforce  
Analysis

Joan Clark  
Texas Health Resources

Michelle Cook  
American Association of Nurse Practitioners

Carol DeFrances  
National Center for Health Statistics

Karen Donelan  
Mongan Institute for Health Policy  
Massachusetts General Hospital

Daniel Doyle  
Assistant Survey Director, SIPP, U.S.  
Census Bureau

Lauren Fairley  
Workforce Analyst, Department of Labor

Jason Fields  
Survey Director - Survey of Income and  
Program Participation and National Survey  
of Children's Health, U.S. Census Bureau

Nancy Fishman  
RWJF

Rebecca Freeman  
Office of the National Coordinator for Health  
IT

Bianca Frogner  
University of Washington

Tina Gerardi  
American Organization of Nurse Executives

Judith Halstead  
National League for Nursing Commission  
for Nursing Education

Lauren Harris-Kojetin  
National Center for Health Statistics

Sue Hassmiller  
RWJF

Linda Hofmann  
Intermountain Health

Meg Johantgen  
University of Maryland

Tiandong Li  
Health Resources and Services  
Administration

Gideon Mazinga  
National League for Nursing

Suzanne Miyamoto  
American Association of Colleges of  
Nursing

Jean Moore  
Center for Health Workforce Studies,  
University of Albany

Patricia Moulton  
National Forum of State Nursing  
Workforce Centers

Eloise Parker  
Department of Labor-Census Bureau

Tannaz Rasouli  
Association of American Medical Colleges

Susan Reinhard  
Center to Champion Nursing in America

Veronika Riley  
American Hospital Association

Rebecca Rust  
Bureau of Labor Statistics

Edward Salsberg  
George Washington University

Joanne Spetz  
University of California-San Francisco

Marcy Stoll  
Accreditation Commission for Education  
in Nursing

Michelle Washko  
Health Resources and Services Administration

George Zangaro  
Health Resources and Services Administration

**Facilitator**

Mary Sue Gorski

## Introduction

*Where are America's nurses working, and in what roles? How many are about to retire? What about the future—how must nursing education change to prepare for a more diverse population with distinctive health needs, an increasing number of people with chronic conditions, and the rising need for long-term and end-of-life care due to the growing number of aging baby boomers?*

America's health needs are quickly changing and so must its health care system. At 3.6 million strong, registered nurses are the largest segment of all health care providers, so answers to these questions affect everyone. More people than ever have health coverage in an increasingly diverse country, contributing to a shortage of primary care providers. But there is no unified, national system by which to define the nursing workforce as a whole—where nurses are geographically, and in what settings; what duties they carry out; and with what knowledge and education. To be more exact: there is not one system, there are many.

That is why the Future of Nursing: *Campaign for Action*, an initiative of AARP Foundation, AARP, and the Robert Wood Johnson Foundation (RWJF), responded to a recommendation made in 2015 by the Institute of Medicine (IOM) that it convene, support, and promote collaboration among organizations and associations so that, together, they could create a way to synthesize efforts to collect, analyze, and make use of data about the nursing workforce. The *Campaign* is coordinated through the Center to Champion Nursing in America, also an initiative of AARP Foundation, AARP, and RWJF.

To begin that undertaking, 40 representatives from federal agencies, nursing organizations, universities, and consumers met May 9, 2016, in Washington, D.C. The two-day meeting was unprecedented, in both the breadth of the organizations involved and its intended goal. Those gathered sought to lay the groundwork for a comprehensive system that would, for the first time, coordinate ongoing collection and analysis of facts about nurses, a system that would provide hard data about the workforce to researchers, policymakers, planners, and employers.

The agenda was divided into three areas of inquiry: demand; supply; and the nation's educational capacity to meet predicted needs. The two days were both tightly orchestrated and freewheeling, with specialists speaking about their knowledge in each area and asking "what ifs" of each other. By the end, the group considered what actions and data were available and possible, homed in on priorities, and made plans to meet again in smaller groups to decide on the next steps necessary to take on those priorities.

## Background

One of four key messages in *The Future of Nursing: Leading Change, Advancing Health*, the IOM's initial report, in 2011, addressed the need for better data on the nursing workforce at the local, state, and national levels:

*Planning for fundamental, wide-ranging changes in the education and deployment of the nursing workforce will require comprehensive data on the numbers and types of nurses currently available and required to meet future needs. Once an infrastructure for collecting and analyzing workforce data is in place, systematic assessment and*

*projection of nursing workforce requirements by role, skill mix, region, and demographics will be needed to inform necessary changes in nursing practice and education.*

The IOM had pinned its plans on a part of the Patient Protection and Affordable Care Act of 2010 that was never funded: The National Health Care Workforce Commission. In its eighth recommendation, the IOM had envisioned that commission as the force that would guide the nation toward a “coordinated national data infrastructure,” partnering with the Health Resources and Services Administration (HRSA) to improve “the collection and analysis of data for use in health workforce planning and policy relating to education, training, and practice.”

HRSA continues to play a large role in gathering information about the nursing workforce, as do the National Council of State Boards of Nursing (NCSBN), the National Forum of State Nursing Workforce Centers, and the nation’s 34 state nursing workforce centers. But HRSA stopped its National Sample Survey of Registered Nurses (NSSRN) after 2008, creating another hole in data collection. Since then, researchers and others have had to piece together information from a number of other national surveys, including:

- HRSA’s first National Sample Survey of Nurse Practitioners, in 2012
- Nursys, a national database of licensure, discipline, and practice privileges of RNs, licensed practical nurses, and licensed vocational nurses created by the NCSBN
- The National Nursing Workforce Survey, created by both the National Forum of State Nursing Workforce Centers and NCSBN
- The Current Population Survey, administered by the U.S. Census Bureau
- The American Community Survey, administered by the U.S. Census Bureau
- An expanded National Ambulatory Medical Care Survey from the National Center for Health Statistics
- The National Health Interview Survey from the Centers for Disease Control and Prevention

It remains, still, for a concerted effort to be made to coordinate and synthesize information from state and federal agencies including state licensing boards, state nursing workforce centers, state and regional educators and employers, and the Department of Labor.

Coordination includes creating a minimum dataset (MDS). An MDS would allow institutions that measure and use the data to have the same understanding for all items that are quantified. This would produce measurements that are standardized among all states and professions, the better to accurately “assess health care workforce needs by demographics, numbers, skill mix, and geographic distribution,” as the IOM puts it. An encouraging note on this front: The National Forum of State Nursing Workforce Centers, HRSA, and NCSBN have agreed on the data elements—that is, they have agreed on standardized definitions and fundamental questions that should be included in all surveys.

## **Meeting of the Minds: A Historic Gathering**

The IOM’s 2011 *Future of Nursing* report is based on the realization that nurses are key to the nation’s good health and will be even more important in the future. As the report spells out, more Americans have health coverage thanks to the Affordable Care Act; the population is growing older, and so includes more citizens with chronic conditions; the citizenry is also growing more diverse, which means there is a need for health care providers who understand

and can treat the distinctions inherent in people of varied characteristics and backgrounds. These are only some reasons that many Americans find it more difficult to get care. Other reasons: regulations in some states that do not allow nurses to practice to the full extent of their education and training, and a shortage of primary care providers that is particularly acute in rural areas of the country.

An update of the IOM's *Future of Nursing* report five years later said that *The Future of Nursing: Campaign for Action* should encourage:

- *Organizations and agencies to build national databases that could be shared and accessed by HRSA and researchers*
- *States to implement the Minimum Data Set (MDS) and to share their data with the National Council of State Boards of Nursing (NCSBN) so they can build the national dataset on practicing nurses*
- *Nursing organizations (such as American Association of Colleges of Nursing, the National League for Nursing, NCSBN, the American Association of Nurse Practitioners) that currently engage in independent data collection efforts to collaborate and share their data to build more comprehensive datasets. Other organizations representing providers that employ nurses and other health professionals, such as the American Hospital Association, should be invited to participate in this collaboration*

Others had important roles, too, said the 2015 report:

- The federal government and states should expand existing data collection activities to better measure and monitor the roles of registered nurses and advanced practice registered nurses. This expansion should include the collection of data on current and former licensees in the American Community Survey and a sampling of services provided by nurse practitioners and physician assistants for their own patient panels and outside of physician offices in the National Ambulatory Medical Care Survey
- HRSA should undertake a combined National Sample Survey of Registered Nurses and National Sample Survey of Nurse Practitioners survey that can be administered more frequently than once every four years. This effort should include the involvement of national and state nursing organizations. HRSA should continue to promote the use of the MDS and assist in and support its implementation.

The *Campaign*-hosted gathering in May was intended to be the catalyst that would lead to actions on all these fronts.

## **Making Data Useful**

Those at the meeting represented many organizations carrying out disparate efforts to calculate multiple aspects of the nursing workforce. Confident as they were in their organizations' efforts, all seemed to have a common understanding: The whole is greater than the sum of its parts. "Just because we collect data doesn't mean it is useful for others," is how one participant put it.

Through presentations, researchers and experts with years of experience in all facets of workforce data sketched a picture of the systems in place for collecting and analyzing the numbers and facts that are known about the nursing workforce. The goal was to paint a picture of what systems exist to count how many nurses are trained and working in various roles and

settings, now and in the future; how those systems complement each other; and what is needed to form a comprehensive record of nurses and nursing in the United States, including agreements to share information. One employer—a chief nursing officer at a 22-hospital health care system—presented a snapshot of the challenge as seen from the providers’ perspective when she ticked off the multiple, interconnected variables required to effectively assess staffing needs. Her organization invests in hardware, software, and experts to translate the data—yet even she does not know precisely what skills each nurse working in her system has, and for which settings. For example, the software system does not differentiate between those holding a doctor of philosophy, trained for research, and a doctor of nursing practice, trained for practice. Even an employer in a data-driven organization has difficulty quantifying the skills and experience of staff members today, let alone the demand tomorrow.

A model mentioned early in the meeting was the American Medical Association’s Physician Masterfile. That data system includes information on physician education, training, and professional certification information on all doctors of medicine and doctors of osteopathic medicine. The Masterfile reflects what participants of this data meeting aimed for: a mechanism by which to collect, analyze, and manage data that is routinely updated and used as a primary resource for medical educators, workforce researchers, government agencies, and other health-related groups.

The session included speakers, open discussions, and work done in smaller groups, dissecting the opportunities and challenges in three areas of the nursing workforce:

***Demand***—Who is collecting data on the demand for nurses, in what roles, and what settings?

***Supply***—Who is tracking the number of registered nurses and advanced practice registered nurse working today, or available and not working; how many will be needed in the future, and where?

***Education***—What is the nation’s educational capacity, including faculty members, to meet today’s changing health care needs and the expected increase?

## **Recommendations**

After reviewing what the experts had to say, and the multifaceted recommendations from the IOM, participants deliberated and chose seven steps they believed are needed most immediately to lay the foundation for a comprehensive tracking system.

The steps:

- 1) Create a national repository of nursing workforce data
- 2) Create a nursing master file (sample frame of all RNs in the United States)
- 3) Make data available in de-identified public use files for research and policymaking
- 4) Implement data agreements with the American Community Survey, Current Population Survey, NSSRN, NCSBN, and others
- 5) Make the case for nursing workforce data to the right people
- 6) Increase advocacy by the nursing organizations for the most helpful/complete data
- 7) Have HRSA administer a sample survey every four years using a revised sample including both RNs and nurse practitioners

The first four priorities were assigned to one workgroup, as the theme among all was similar: to create a clearinghouse or repository by making it easier to share data.

Workgroup 2 was to oversee step 5, efforts to communicate to policymakers how vital it is that the nation have accurate, complete, and reliable workforce data.

Workgroup 3 was to oversee step 6, getting nursing organizations to collaborate with state and federal agencies to improve laws and regulations.

Early in the gathering, the group learned from George Zangaro, PhD, RN, of HRSA, that HRSA will reintroduce the NSSRN. Knowing that, the group decided that the final item did not need a formal workgroup assigned.

The participants identified key members for the workgroups, and designated a coordinator to call each group's first meeting. All three workgroups agreed to meet initially by phone in July to begin their work.

### **Conclusion: A Cornerstone Laid**

Setting the stage for the meeting early on was Peter I. Buerhaus, PhD, RN, FAAN, of Montana State University College of Nursing, when he addressed the group and spoke of what the world would look like five years hence, when they had succeeded. Five years from now, the nation has a handle on assessing a workforce so important to the health of country, said Buerhaus, because it would have:

- Improved the accuracy of forecasting supply and demand for RNs and APRNs
- Created a system of collecting, analyzing, and disseminating data that includes how nurses' roles are changing
- Banished "incident to" billing—whereby nurses' time and services are not recorded but are rather attributed to their physician-employer
- Introduced ways to employ many retiring RNs productively to improve health care and cushion against unexpected demand

In laying out this landscape, Buerhaus provided the group both inspiration and information: He illuminated the goals, showing how it might be possible to improve how information is gathered about the nursing workforce, and noted the gaps in the knowledge needed for effective planning.

Although much remains to be done, the group succeeded in laying the cornerstone for what the IOM called for: a "single, coordinated national data infrastructure" to improve "the collection and analysis of data for use in health workforce planning and policy relating to education, training, and practice." Participants agreed it will take perseverance and collaboration, and give and take, but for the good of America's health and health care, all who are involved in the nursing workforce must help create a system to truly account for America's nursing workforce today and tomorrow.

## Appendix A: National Nursing and Health Care Workforce Data Meeting: Summary

### Introduction

More than 40 representatives from federal agencies, nursing organizations, and universities came together May 9-10, 2016, in Washington, D.C., to promote collaboration to lay the groundwork for improving the collection and analysis of comprehensive data on the national nursing workforce. The meeting was convened by the Center to Champion Nursing in America.

### Purpose

Address the recommendation by the Institute of Medicine (IOM) to improve workforce data collection by promoting collaboration among organizations that collect workforce-related data to consider how they might create more robust datasets and how various datasets can be organized and made available to researchers, policy makers, and planners.

### Objectives

- Identify opportunities and challenges for accessing and sharing federal, state, and private nursing workforce data.
- Propose policy solutions and actions to expand the collection and use of health workforce data.

## MAY 9

### Opening and Welcome

**Susan C. Reinhard**, PhD, RN, FAAN, chief strategist, Center to Champion Nursing in America; senior vice president, AARP Public Policy Institute

**Susan B. Hassmiller**, PhD, RN, FAAN, senior adviser for nursing, Robert Wood Johnson Foundation; director, Future of Nursing: *Campaign for Action*.

### “Setting the Stage: Urgency, Vision, Challenges/Opportunities and Leadership”

**Peter I. Buerhaus**, PhD, RN, FAAN, professor, Montana State University College of Nursing

Key questions confronting the nursing workforce community:

- How much will demand increase as a result of aging baby boomers and health reform?
- How will nursing roles change, including APRNs?
- When, how many, and how abruptly will nurses retire?
- Will we be able to replace retiring RNs, let alone increase the size of the workforce to meet these challenges?

Buerhaus presented his vision, saying that five years from now:

- We will have substantially improved the accuracy of forecasting supply and demand for RNs and APRNs
- We will have a system of collecting, analyzing, and disseminating data concerning the demand health care delivery organizations have for nurses, including how roles are changing
- “Incident to” billing will be a thing of the past and we will have the data needed to fully assess the quality and costs of the NP workforce

- We will have developed initiatives that employ many retiring RNs in productive ways to improve health care, advance the profession, and cushion against supply shocks
- We will have annual meetings focused on the nursing workforce

Achieving this vision will require leadership in all sectors of nursing—practice, administration and management, education, research, policy, and unions. It will also require the leadership of those at the meeting whose focus is on assuring an adequate number of well-prepared nurses and gathering the data needed to inform the evolving state of the nursing workforce.

### **“The 2015 IOM Recommendations to Improve Nursing Workforce Data Infrastructure”**

**Edward Salsberg**, MPH, director, Health Workforce Studies, The George Washington University School of Nursing

While there have been significant advances in nursing workforce data since the publication of the 2010 Institute of Medicine report *The Future of Nursing: Leading Change, Advancing Health*, data are fragmented and uncoordinated, leaving many gaps.

Salsberg outlined the recommendation to improve the collection of workforce data made in 2015 by the Committee for Assessing Progress on Implementing the Recommendations of the Institute of Medicine Report *The Future of Nursing: Leading Change, Advancing Health*.

The *Campaign* should encourage:

- Organizations and agencies to build national databases
- States to implement the Minimum Data Set (MDS) and to share their data with the National Council of State Boards of Nursing (NCSBN) so they can build a national dataset on practicing nurses
- Nursing organizations that collect data to collaborate and share their data to build more comprehensive datasets

The federal government and states should expand their data collection to better measure and monitor the roles of RNs and APRNs. Specifically for nurse practitioners, this should include the collection of data on current licensees in the American Community Survey (ACS) and a sampling of services provided by NPs for their own patient panels in the National Ambulatory Medical Care Survey.

The Health Resources and Services Administration (HRSA) should:

- Undertake a combined National Sample Survey of Registered Nurses (NSSRN) and National Sample Survey of Nurse Practitioners (NSSNP) that can be administered more frequently than every four years. This effort should involve national and state nursing organizations
- Continue to promote the use of the MDS and assist in and support its implementation

Salsberg determined that there is great potential for collaboration among nursing organizations on data and outlined the following priorities:

- Establish a national center for nursing workforce data and studies through a consortium of national nursing organizations
- Create a master file of RNs/APRNs (similar to the AMA Physician Masterfile) including a unique identifier for each RN/APRN

- Track employment through an annual sample survey of employers in key settings
- Survey a sample of new RNs on job market experience
- Collect specific licensure and certification data on the ACS
- Restore and revise the NSSRN/NSSNP to fill explicit gaps like scope of work, satisfaction, and plans

### **Working dinner**

During a conversation guided by **Mary Sue Gorski**, PhD, RN consultant, Center to Champion Nursing in America, participants listed the data available on nursing supply, demand, and education from the federal, state, and private sources with which they are associated. Gorski reviewed and clarified the data sources as each participant was introduced.

## **MAY 10**

### **“Availability, Opportunities, and Challenges: Demand”**

**Linda Hofmann**, MSN, RN, NEA-BC, assistant vice president, nursing, Intermountain Healthcare

In discussing the demand aspect of nursing workforce data, Hofmann described Intermountain Healthcare as a data-driven organization, investing in software, hardware, and human capital. As a chief nursing officer for 23 hospitals and 9,000 nurses, Hofmann needs a lot of information to make effective decisions. Hofmann shared examples of data reports.

### **“Availability, Opportunities, and Challenges: Supply”**

**George Zangaro**, PhD, RN, director, National Center for Health Workforce Analysis, Health Resources and Services Administration

Zangaro described HRSA’s Health Workforce Simulation Model. This is a Web-based nursing model for states to upload their own data and receive state-level supply and demand projections.

He mentioned two sources of supply data that are household-based and not RN-specific: the ACS, and the Current Population Survey (CPS), which is produced by the Census Bureau and the Bureau of Labor Statistics.

Zangaro announced that HRSA is bringing back the NSSRN. Data will be collected by the Census Bureau. Oversampling is planned for nurse practitioners, as this survey will avoid the need to conduct a NSSNP.

Zangaro supported the Minimum Data Set and a national repository for nursing data. He suggested that data-sharing contracts could facilitate data collection and dissemination.

### **“Availability, Opportunities, and Challenges: Education”**

**Marsal Stoll**, EdD, MSN, chief executive officer, Accreditation Commission for Education in Nursing

**Jennifer Butlin**, EdD, executive director, Commission on Collegiate Nursing Education

In discussing the education data collected by their accrediting organizations, Stoll presented select snapshots and trends in ACEN accredited programs and Butlin reviewed the growth of CCNE-accredited programs, including student enrollment and types of programs.

### **Table Work: Small Group Discussions**

After each presentation, the participants broke into small groups to discuss the opportunities and challenges with demand, supply, and education data and answer the following questions: *Where specifically do we need more data? Are current data readily accessible? What are the major barriers?* (See summary appendix 1.) Afterward, the best ideas were transcribed for all to see.

### **Policy Discussion: Recommendations and Action Plan**

The afternoon was dedicated to creating an action plan to address all five recommendations from the IOM's 2015 progress report (see summary appendix 2). Participants identified seven priority actions steps, and formed three workgroups with a designated coordinator responsible for arranging the first meeting.

The seven priority action steps chosen were:

- 1) Create a national repository of nursing workforce data**
- 2) Create a nursing master file** (sample frame of all RNs in the United States)
- 3) Make data available in de-identified public use files for research and policymaking**
- 4) Implement data agreements with ACS, CPS, NSSRN, NCSBN, and others**
- 5) Make the case for nursing workforce data to the right people**
- 6) Increase advocacy by the nursing organizations for the most helpful/complete data**
- 7) Have HRSA administer a sample survey every four years using a revised sample including both RNs and NPs**

**Workgroup #1:** The first four action steps were combined under one workgroup because the foundational work would be similar for each. The national repository was seen as a place or organization that would serve as a clearinghouse providing workforce planners and researchers access to nursing workforce datasets. The identification of a nursing master file would make it possible to interface nurse licensees with large federal datasets such as the US Census to enhance knowledge of the nursing workforce. NCSBN national licensure data was identified as the most likely master file. Additionally there was interest in exploring other sources of a nursing master file (frame) that may be available in federal datasets. These action steps reflect an overall theme of sharing and the commitment to remove barriers currently in place preventing data sharing.

**Workgroup #2:** The fifth action step, “get the case for nursing workforce data to the right people,” focused on the importance of communicating the case for accurate, complete, and reliable workforce data. The group agreed that there is significant evidence supporting the importance of accessible and accurate workforce data—but that need is not communicated to policymakers in a meaningful way, with stories and connections to the workplace and the worker.

**Workgroup #3:** Action step 6, “increase advocacy of the nursing organizations working in collaboration with federal and state agencies for the most helpful/complete data,” emphasized

the need for continuing communication and collaboration between the nursing organizations and those designing and implementing workforce datasets at the federal level. Examples of essential actions include:

- Raise awareness about the impact of “incident to” billing on availability of nurse practitioner data
- Define clear, consistent identifiers for nurses’ roles
- Work with the National Ambulatory Medical Care Survey to collect APRN data
- Work with federal data collection agencies to identify “low-hanging fruit” (e.g., collecting nurses in the Baccalaureate and Beyond survey)
- Begin a SOC (standard occupational classification) committee to address nursing workforce issues
- Inform HRSA sample survey components

An additional workgroup was not formed for action step 7, “HRSA will complete the sample survey every four years using a revised sample including both NPs and RNs”; in presenting the HRSA perspective earlier, Zangaro had said that HRSA will be implementing the NSS for RNs and NPs every four years. Although HRSA is not able to collect data more frequently, as the IOM recommended, it is committed to collaborating with nursing organizations in development, implementation, and analysis of the NSSRN and to encouraging the use of the MDS.

Participants identified key members and designated someone to coordinate the first meeting for each workgroup. All three workgroups agreed to meet initially by phone in July to begin their work.

## SUMMARY APPENDIX 1: TABLE WORK

### Table Work: “Demand”

	Demand
What data are being collected and is available for nursing workforce planning?	BLS - Bureau of Labor Statistics NAMCS - National Ambulatory Medical Care Survey HRSA nursing projections MDS – minimum data set - 15 states collect demand data (baseline data) NHIS – National Health Interview Survey Online “help wanted” (Burning Glass technologies)
What data are missing or unavailable for workforce planners?	Diversity (IOM Progress) Disaggregation of vacancy rates Data sorted to roles (in-patient/out-patient) Data missing to patient outcomes (patient satisfaction) Tracking when RNs change roles No data connection to quality outcomes HR needs to be part of senior planning Online “help wanted” - not useful
What are the barriers to full and accurate data available and accessible?	Institutional data are proprietary

## Table Work: “Supply”

	Supply
<p>What data are being collected and is available for nursing workforce planning?</p>	<p>NSSRN -National Sample Survey RN            NCSBN National Nursing Workforce Survey - RN and LPN;            NURSYSS - RN and APRN            ACS -American Community Survey            CPS -Current Population Survey            Bureau of Labor Statistics (Occupational Employment Statistics)            NPI – National Provider Identifier            NHIS – National Health Interview Survey            NCSBN (National Council of State Boards of Nursing):            NCLEX applicants and results            State boards of nursing            Nursing workforce centers (MDS)            American Hospital Association            AANP Sample Survey            AACN Graduation and Enrollment data</p>
<p>What data are missing or unavailable for workforce planners?</p>	<p>Diversity (IOM Progress)            Restricted use policies            MDS data from 25 states            Substate levels            RNs changing roles/settings/states            Clinical areas of work            Longitudinal follow up of grads            Projections of future supply            BLS turnover data by industry - small samples</p>
<p>What are the barriers to full and accurate data available and accessible?</p>	<p>Sharing data            ACS and CPS are not RN specific surveys            State-level estimates            Longitudinal analysis            Resources (staffing and other)            Those opposed to ACS            Privacy issues            State level rules/requirements/laws</p>

## Table Work: “Education”

	Education
<p>What data are being collected and is available for nursing workforce planning?</p>	<p>IPEDS - Integrated Postsecondary Education Data System                      AACN - American Association of Colleges of Nursing (member and non-member survey respondents)                      NLN - National League for Nursing                      ACEN – Accreditation Commission for Education in Nursing                      CCNE – Commission on Collegiate Nursing Education                      MDS - 24 states</p>
<p>What data are missing or unavailable for workforce planners?</p>	<p>Licensed RNs with ADN, BSN, MSN, DNP, PhD and non nursing degrees obtained by nurses (IOM Progress)                      Only 14 states require accreditation of nursing programs (so incomplete data)                      American Association of Community Colleges (AACCC) - what is collected?                      State of residence of graduate of online programs (currently, know grad based on location of program)                      Longitudinal study (prospective and retrospective)                      HRSA - rural and diversity                      State level - unemployment data</p>
<p>What are the barriers to full and accurate data available and accessible?</p>	<p>IPEDS definition of nursing degrees                      Only 14 states require accreditation of nursing programs                      National Student Clearinghouse - membership (was designed for universities to track students/financial aid) - could have transferrable uses                      Data definitions (i.e. graduation rates) are different for different collection/host agencies, i.e. ACEN graduation rate compared with IPEDS)                      NursingCAS - potentially great data source of nursing enrollment but institutional-level barriers</p>

**SUMMARY APPENDIX 2: IOM RECOMMENDATIONS TABLE WORK AND ACTION PLAN**

*See summary appendix 3 for definitions of abbreviations and acronyms.*

Recommendations	Action Steps	Responsible	Timeline
<p>1) The <i>Campaign</i> should encourage organizations and agencies to build national databases that could be shared and accessed by the Health Resources and Services Administration (HRSA) and researchers.</p>	<ol style="list-style-type: none"> <li>1. <b>National repository of nursing workforce data</b></li> <li>2. <b>Nursing Masterfile</b></li> <li>3. System of routine data collection, analysis, and dissemination of health care delivery organizations' demand for nurses, including how roles are changing (Buerhaus)</li> </ol>	<p>Workgroup #1 1,2, 4 and 11. (Working together) Representatives from NCSBN, Census, the National Forum of State Nursing Workforce Centers, and ICONS plus Joanne Spetz, Ed Salsberg, Erin Fraher, and Jean Moore</p>	<p>1. By 2021</p> <p>First meeting: to be hosted by Patricia Moulton in July</p>
<p>2) States should implement the Minimum Data Set (MDS) and to share their data with the National Council of State Boards of Nursing (NCSBN) so they can build the national dataset on practicing nurses.</p>	<ol style="list-style-type: none"> <li>4. <b>Available in de-identified public use files for research and policymaking (Fraher).</b></li> <li>5. The MDS is fully operational (Buerhaus).</li> <li>6. Data collection webinars (info on the webinars to be disseminated)</li> <li>7. EHRs collect standardized nursing data about nurses' roles (Fraher).</li> <li>8. Follow up surveys of nursing graduates</li> <li>9. Alignment of AHA survey (HR and Nursing)</li> <li>10. Federal Licensure and Certification survey questions should be shared</li> </ol>	<p>Workgroup #2 14. Jean Moore, representatives from NCSBN, the National Forum of State Nursing Workforce Centers, the Campaign for Action, Peter Buerhaus, and Peter McMenamin (ANA)</p>	<p>14 - First meeting to be hosted by Jean Moore in July</p>
<p>3) Nursing organizations that currently engage in independent data collection efforts collaborate and share their data to build more comprehensive datasets. Other organizations representing providers that employ nurses and other health professionals should be invited to participate in this collaboration.</p>	<ol style="list-style-type: none"> <li>11. <b>Data agreements – ACS, CPS, NSSRN, NCSBN and the State boards and others?</b></li> <li>12. Require accreditation of all nursing programs (include in Nurse Licensure Compact)</li> <li>13. Annual conference/gatherings focused on the nursing workforce (Buerhaus).</li> <li>14. <b>Getting the case for nursing workforce data to the right people</b></li> </ol>		

Recommendations	Action Steps	Responsible	Timeline
<p>4) The federal government and states should expand existing data collection activities to better measure and monitor the roles of registered nurses and advanced practice registered nurses. This expansion should include the collection of data on current and former licensees in the American Community Survey and a sampling of services provided by nurse practitioners for their own patient panels and outside of physician offices in the National Ambulatory Medical Care Survey.</p>	<p>1. Nursing organizations advocating for the most helpful/complete data from federal and state sources.</p> <p>Examples include the following: Incident to billing is a thing of the past; Identifier for nurses' roles - creating better databases together - current frame; working with NAMCS; Federal data collection agencies to identify "low hanging fruit" (i.e. collecting nurses in Bacc and Beyond survey) and; SOC (standard occupational classification) committee to address nursing workforce issues; informing HRSA sample survey components.</p>	<p>Workgroup #3 Ed Salsberg and representatives from HRSA and IPEDS/GEMEnA (Buerhaus to provide the case from #14).</p> <p>Also, Michelle Cook from AANP to dialogue w NCHS re: NAMCS</p>	<p>4. First meeting to be hosted by Ed Salsberg - July.</p>
<p>5) HRSA should undertake a combined National Sample Survey of Registered Nurses and National Sample Survey of Nurse Practitioners survey that can be administered more frequently than once every 4 years. This effort should include the involvement of national and state nursing organizations. HRSA should continue to promote the use of the MDS.</p>	<p>HRSA will complete the sample survey every four years using the revised sample collaborating with nursing organizations in development, implementation, and analysis.</p>	<p>George Zangaro, HRSA</p>	

### **SUMMARY APPENDIX 3: ABBREVIATIONS AND ACRONYMS**

**AANP** – American Association of Nurse Practitioners  
**AACN** – American Association of Colleges of Nursing  
**ACEN** – Accreditation Commission for Education in Nursing  
**ACS** – American Community Survey  
**ADN** – Associate’s Degree in Nursing  
**AHA** – American Hospital Association  
**APRN** – Advanced Practice Registered Nurse  
**BLS** – Bureau of Labor Statistics  
**BSN** – Bachelor of Science in Nursing  
**CCNA** – Center to Champion Nursing in America  
**CCNE** – Commission on Collegiate Nursing Education  
**CPS** – Current Population Survey  
**DNP** – Doctor of Nursing Practice  
**EHR** – Electronic Health Records  
**GEMEnA** – Interagency Working Group on Expanded Measures of Enrollment and Attainment  
**HRSA** – Health Resources and Service Administration  
**ICONS** – Interagency Collaborative on Nursing Statistics  
**IOM** – Institute of Medicine  
**IPEDs** – Integrated Postsecondary Education Data System  
**MDS** – Minimum Data Set  
**MSN** – Masters of Science in Nursing  
**National Forum** – National Forum of State Nursing Workforce Centers  
**NAMCS** – National Ambulatory Medical Care Survey  
**NCHS** – National Center for Health Statistics  
**NHIS** – National Health Interview Survey  
**NCLEX** – National Council Licensure Examination  
**NCSBN** – National Council of State Boards of Nursing  
**NHIS** – National Health Interview Survey  
**NLN** – National League for Nursing  
**NursingCAS** – Centralized Application Service for Nursing Programs  
**NPI** – National Provider Identifier  
**NSSRN** – National Sample Survey of Registered Nurses  
**Nursys** – NCSBN national nurse licensure database  
**RWJF** – Robert Wood Johnson Foundation