Strengths of the Nursing Workforce and Challenges Over the Next 10 Years

American Board of Nursing Specialties

Peter I. Buerhaus PhD, RN, FAAN, FAANP(h)

Professor of Nursing, and Director
Center for Interdisciplinary Health
Workforce Studies
College of Nursing, Montana State University

Overview

1. Strengths of the nursing workforce
2. Challenges RNs and the health organizations that employ them will face over next 10 years
3. Implications for planning and leadership

Research Program on Nursing Workforce

Four Interdisciplinary teams

1. Economic issues: Employment, earnings, effects of health reforms, forecasting nurse and physician supply
   - Doug Staiger, Dartmouth College & National Bureau Economic Research
   - Dave Auerbach, Boston, Massachusetts Health Reform Commission

2. Survey research: perceptions of various populations about healthcare workforce and impact of changes in health care, etc.
   - Karen Donelan, Harvard Medical School and Massachusetts General Hospital
   - Catherine DesRoches, Harvard and Beth Israel Hospital

3. Assessing contributions of nurse practitioners: Quantities, types, costs, & quality of NP services
   - Jennifer Perloff and Monica O'Reilly Jacob, Brandeis University
   - Karen Donelan, Harvard Medical School and Massachusetts General Hospital
   - Catherine DesRoches, Harvard and Beth Israel Hospital
   - Lisa Iezzoni, MD, Harvard Medical School and Mongan Institute of Health Policy
   - Sean Clarke, Boston College
   - Robert Dittus, MD, Vanderbilt University Medical Center

4. Quality of care: Constructing, testing & refining quality of care measures associated with nurses
   - Jack Needleman, UCLA

Disclosure

Presentation based on data from studies funded by:

- Johnson & Johnson Campaign for Nursing's Future
- Gordon & Betty Moore Foundation
- Robert Wood Johnson Foundation
- American Association of Nurse Practitioners
- And support from the Montana State University Institute for Applied Regulatory Economic Analysis

Disclosure

The data and views expressed in this presentation are mine, and are not the views of the (still unfunded) National Health Care Workforce Commission *established by the Affordable Care Act in 2010!*

Buerhaus, P. Retchin, S. The Dormant National Health Care Workforce Commission Needs Congressional Funding To Realize its Promise. *Heath Affairs* (November 2013).

1. Strengths of the Nursing workforce (2000-2016)

1. Increasing education, steady employment growth, RN compensation better than most
2. Hospitals have linked value to BSN-prepared RNs
3. Nurses' contribution to inpatient quality and safety engrained in quality improvement
4. Increasing evidence of positive contributions of primary care nurse practitioners
5. Strong public perceptions of nursing
6. Improving projections of the future supply of RNs

Buerhaus, P., Skinner, L., Auerbach, D., Staiger, D. (2017). State of the Registered Nurse Workforce as a New Era of Health Reform Emerges. *Nursing Economic$,* 35(5), 229 -237.

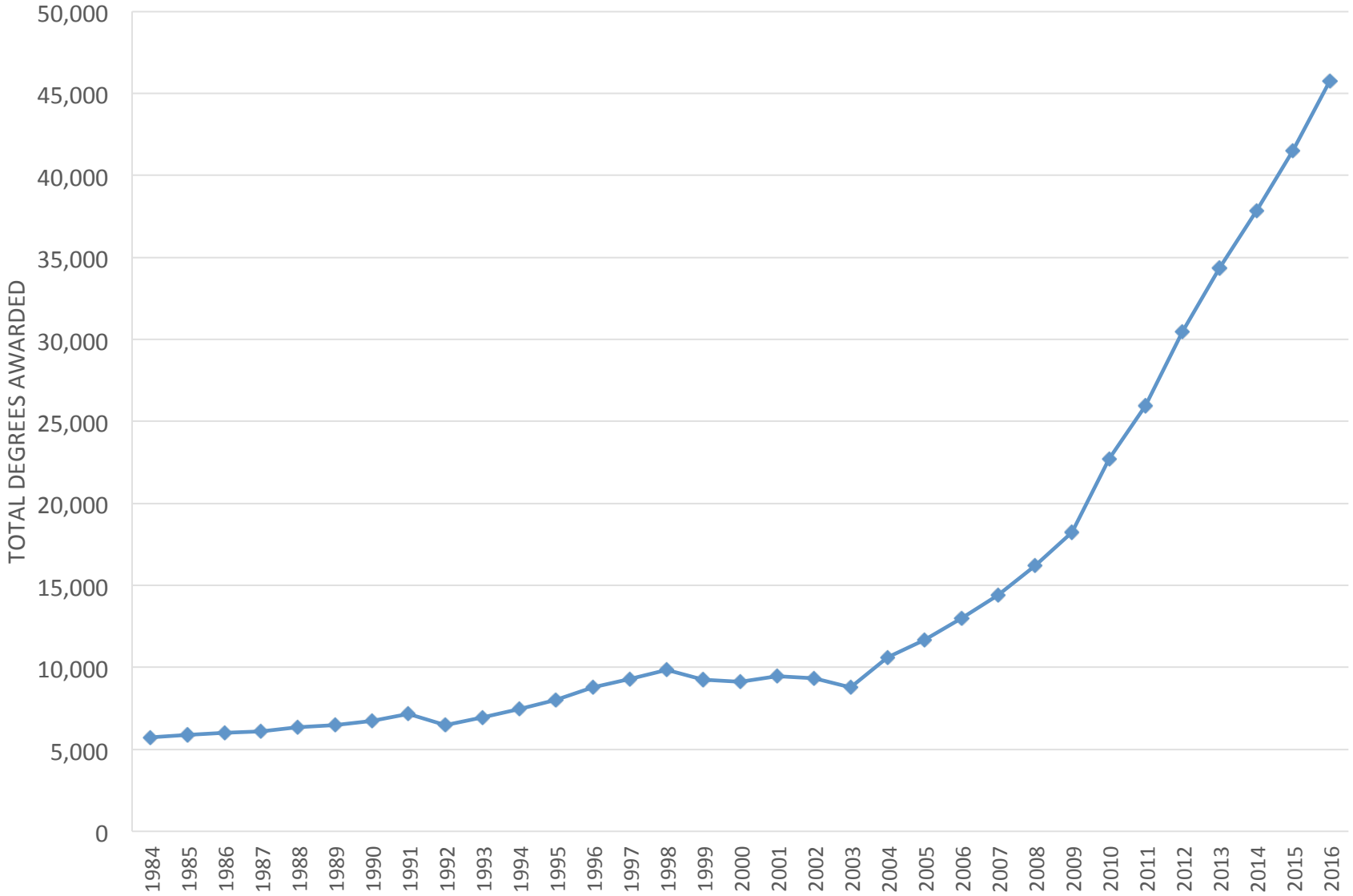
Unprecedented growth in nursing graduates, 2002 - 2016

- Number of new RN graduates tripled from 77,000 in 2002 to over 220,000 in 2016
- Broad based, rapid growth among
  - All demographic groups (Men, Hispanics, African Americans)
  - In baccalaureate and associate degree programs
  - In private and public institutions

Buerhaus, P,. Auerbach, D., Staiger, D. (2016). Recent Changes in the Number of Nurses Graduating from Undergraduate and Graduate Programs. *Nursing Economic$* 34(1), 46-48.

Degrees Awarded in Associate and Baccalaureate Nursing Education Programs, 1984-2016

Masters and Doctoral Degrees Awarded, 1984-2016

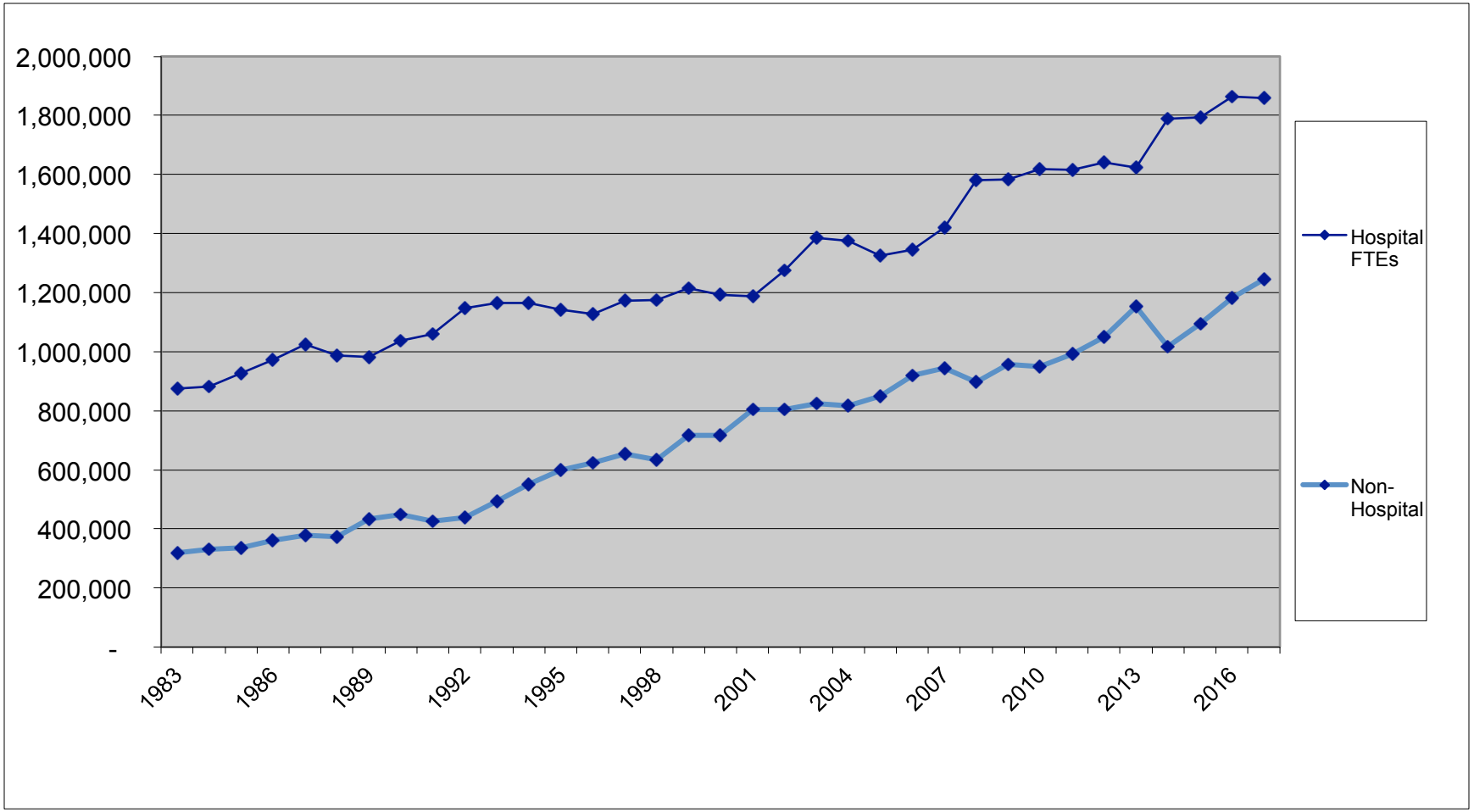


How did this happen?

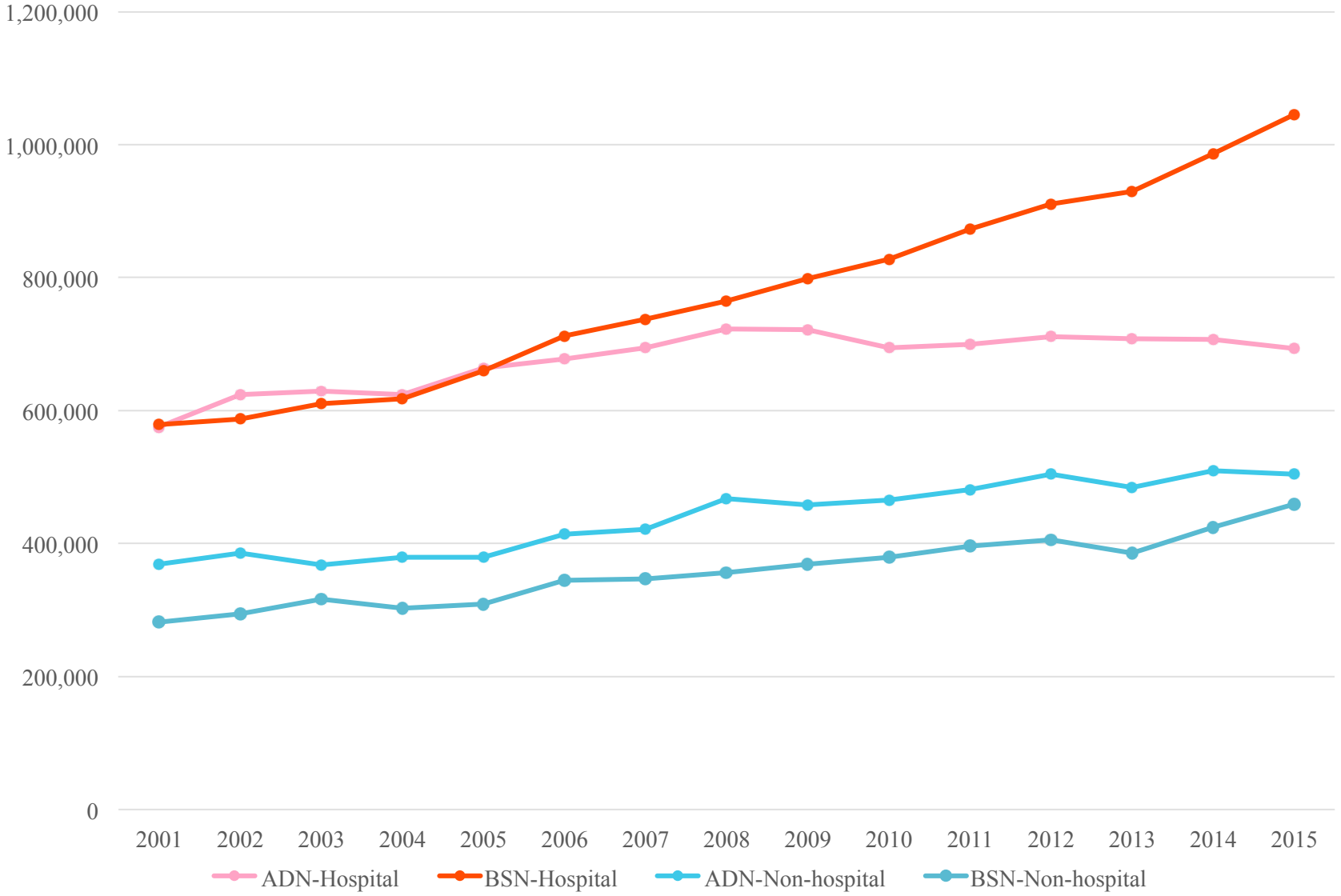
- Johnson & Johnson Campaign for Nursing's Future (2002-)
- Others …
  - STTI
  - RWJF
  - GBMF
  - Jonas Foundation
- Federal and state governments

FTE RNs in Hospital and Non-hospital Settings

All of the growth in 2017 occurred in non-hospital settings



2. Hospitals have linked value with BSN-prepared RNs



Buerhaus, Skinner,Auerbach, & Staiger (2017). State of the Registered Nurse Workforce as a New Era of Health Reform Emerges. *Nursing Economic$*, 35(5), 229 -237.

3. Nurses' contribution to inpatient quality and safety became engrained in quality improvement initiatives

- Meaningful quality improvement began with the 1999 IOM Report: To Err is Human

- Subsequent high profile studies provided evidence for including nurses in quality improvement initiatives, such as …

The New England Journal of Medicine

(2002)

Special Article

NURSE-STAFFING LEVELS AND THE QUALITY OF CARE IN HOSPITALS

NEEDLEMAN, PH.D., PETER BUERHAUS, PH.D., R.N., SOEREN MATTKE, M.D., M.P.H., MAUREEN STEWART, B.A
AND KATYA ZELEVINSKY

ACT

ground It is uncertain whether lower levels
fing by nurses at hospitals are associated with
reased risk that patients will have complica-
r die.

ods We used administrative data from 1997

HOSPITALS, wrote Lewis Thomas in
Youngest Science, are "held together, gl
together, enabled to function . . . by
nurses."[1] More than 1.3 million regist
nurses work in hospitals in the United States. As
pitals have responded to financial pressure from M

Original Contribution
October 23/30, 2002

Hospital Nurse Staffing and Patient Mortality, Nurse Burnout, and Job Dissatisfaction

Linda H. Aiken, PhD, RN; Sean P. Clarke, PhD, RN; Douglas M. Sloane, PhD; et alJulie Sochalski, PhD, RN; Jeffrey H. Silber, MD, PhD
Author Affiliations
JAMA. 2002;288(16):1987-1993. doi:10.1001/jama.288.16.1987

Original Contribution
September 24, 2003

Educational Levels of Hospital Nurses and Surgical Patient Mortality

Linda H. Aiken, PhD, RN; Sean P. Clarke, PhD, RN; Robyn B. Cheung, PhD, RN; et alDouglas M. Sloane, PhD; Jeffrey H. Silber, MD, PhD
Author Affiliations
JAMA. 2003;290(12):1617-1623. doi:10.1001/jama.290.12.1617

The NEW ENGLAND JOURNAL of MEDICINE

SPECIAL ARTICLE

Nurse Staffing and Inpatient Hospital Mortality

Jack Needleman, Ph.D., Peter Buerhaus, Ph.D., R.N., V. Shane Pankratz, Ph.D., Cynthia L. Leibson, Ph.D., Susanna R. Stevens, M.S., and Marcelline Harris, Ph.D., R.N.

ABSTRACT

BACKGROUND

Cross-sectional studies of hospital-level administrative data have shown an association between lower levels of staffing of registered nurses (RNs) and increased patient mortality. However, such studies have been criticized because they have not shown a direct link between the level of staffing and individual patient experiences and have not included sufficient statistical controls.

METHODS

We used data from a large tertiary academic medical center involving 197,961 admissions and 176,696 nursing shifts of 8 hours each in 43 hospital units to examine the association between mortality and patient exposure to nursing shifts during which staffing by RNs was 8 hours or more below the staffing target. We also examined the association between mortality and high patient turnover owing to admissions, transfers, and discharges. We used Cox proportional-hazards models in

From the Department of Health Services, University of California, Los Angeles, School of Public Health, Los Angeles (J.N.); Vanderbilt University, Nashville (P.B.); Mayo Clinic Department of Health Sciences Research, Rochester, MN (V.S.P., C.L.L., M.H.); and Duke Clinical Research Institute, Duke University Medical Center, Durham, NC (S.R.S.). Address reprint requests to Dr. Harris at the Mayo Clinic, Department of Health Sciences Research, 200 First St. SW, Rochester, MN 55905, or at harris.marcelline@mayo.edu.

N Engl J Med 2011;364:1037-45.

Nursing and Quality of Care

- Nurse sensitive quality measures are now part of quality improvement and routine measurement in hospitals
- Chapter one of the book Nursing and quality of care …. Pretty much done!

4. Increasing evidence of positive contributions of primary care nurse practitioners (PCNPs)

- Context, research aims and data
- Summary of studies

Context: Congressional Concerns and Questions

1. Access to primary care
   - Physician shortages – how large, when and where?
   - Can uneven distribution of physicians be improved?
   - Physician willingness to accept Medicaid patients?
   - Do state level regulatory restrictions placed on nurse practitioners limit access to primary care?

2. Quality and cost
   - How does nurse practitioner quality of care compare to physicians?
   - Are nurse practitioners lower cost substitutes to physicians?

Research program and aims

1. Identify physician location and geography of primary care workforce, and forecasts of future supply
2. Analyze types, quantity, costs, and quality of care provided by primary care NPs and compare to primary care physicians
3. Assess impact of state scope of practice laws on the quality of primary care provided by NPs

Data

- National surveys of NPs and MDs: primary and specialty care
- Medicare claims data, 2008-2013
  - Growing numbers (57m now, increasing to 80m in 2030, chronic and complicated conditions)
- Large samples of beneficiaries, NPs, and MDs
- Control for socio-demographic characteristics and severity of illness
- Large number (16) of primary care outcomes
- Quality examined over extended time (12 mo.)
- Greater generalizability

Summary of Key Results

- Unrealistic to rely on physician workforce to provide primary care for nation due to uneven distribution, power couples, and current and projected shortages
- PCNPs are more likely than PCMDs to practice in rural areas – precisely where there are more uninsured and newly insured
- PCNPs are more likely than PCMDs to take care of vulnerable populations – women, non-whites, American Indians, disabled, poor, dual eligibles and those receiving Medicaid

Summary of Key Results

- PCNPs cost less than PCMDs – use fewer and less expensive resources
- PCNPs quality is significantly better than PCMDs on utilization of services, marginally lower on chronic disease management and cancer screening
- State-level SoP unrelated to quality of care provided by PCNPs

Published Studies to Date

1. Staiger, D., Marshall, S., Goodman, D., Auerbach, D., Buerhaus, P. (March 1, 2016). Association between having a highly educated spouse and physician practice in rural underserved areas. *The Journal of the American Medical Association.* 315(9):939-942.

2. Graves, J., Mishra, P., Dittus, R., Parikh, R., Buerhaus, P. (2016). Role of Geography and Nurse Practitioner Scope-of-Practice In Efforts to Expand Primary Care System Capacity: Health Reform and the Primary Care Workforce. *Medical Care*. 54(1): 81-89.

3. Donelan, K., DesRoches, C., Dittus, R., Buerhaus, P. (May 16, 2013) Perspectives of physicians and nurse practitioners on primary care practice. *The New England Journal of Medicine* 368(20): 1898-1906.

4. DesRoches, C, Gaudet, J, Perloff, J, Donelan, K., Iezonni, L. Buerhaus, P. (2013). Using Medicare Data to Assess Nurse Practitioner Provided Care. *Nursing Outlook*. 61(6):400-407.

5. Buerhaus, P, DesRoches, C, Dittus, R, Donelan, K. (2015). Practice Characteristics of Primary Care Nurse Practitioners and Physicians*. Nursing Outlook* 63(2), 144-153.

6. Perloff, J., DesRoches, C., Buerhaus, P. (2016). Comparing the Cost of Care Provided to Medicare Beneficiaries Assigned to Primary Care Nurse Practitioners and Physicians. *Health Services Research.* Article first published online: 27 DEC 2015 | DOI: 10.1111/1475-6773.12425

Published Studies to Date

7. DesRoches, C., Perloff, J., Clark, S., O'Reilly Jacob, M., Buerhaus, P. (2017, *October 1*). Underserved populations. The Quality of Primary Care Provided by Nurse Practitioners to Vulnerable Medicare Beneficiaries. *Nursing Outlook*.

8. Perloff, J., Clarke, S. DesRoches, C., O'Reilly-Jacob, M., Buerhaus, P. (2017). Association of State-Level Restrictions in Nurse Practitioner Scope of Practice with the Quality of Primary Care Provided to Medicare Beneficiaries. *Medical Care Research and Review (on line as of September 14, 2017).*

9. DesRoches, C, Buerhaus, P, Dittus, R, Donelan, k. (2015). Primary Care Workforce Shortages and Career Recommendations from Practicing Clinicians. *Academic Medicine.* 90(5): 671-677.

10. Auerbach, DI, Chen, PG, Friedberg, MS, Reid, R, Lau, C. Buerhaus, PI, Mehrotra, A. (2013). Nurse-managed health centers and patient-centered medical homes could mitigate expected primary care physician shortage. *Health Affairs* 32(11):1933-1941.

11. McMichaels, B, Safriet, B, Buerhaus, P. (2017). The extra-regulatory effect of nurse practitioner scope-of-practice laws on physician malpractice rates. *Medical Care Research and Review*

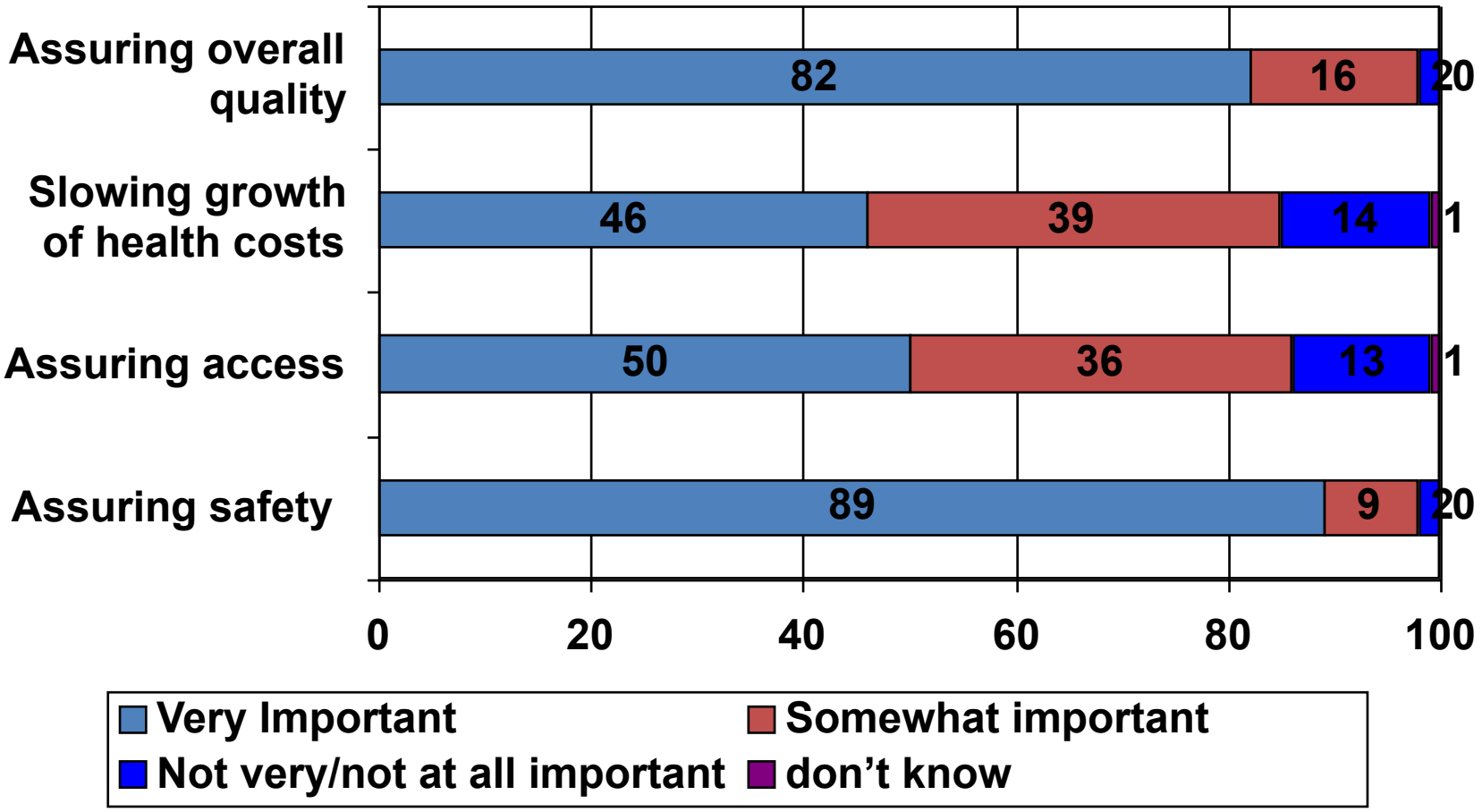
12. Buerhaus, P., Perloff, J., Clarke, S. O'Reilly, M., Zolinisy, G., DesRoches, C. Comparing the quality of primary care provided to Medicare beneficiaries by nurse practitioners and physicians. *In press*.

5. Amidst social, demographic, and political disruptions, the public continues to hold positive perceptions of nurses

Americans admire, trust, and respect nurses above all other professions

- Assure quality of care
- Protection and safety
- Advice on personal health issue

How important are nurses to health services?



Donelan, Buerhaus, DesRoches, Burke,(2010). Health Policy Thoughtleaders Views of the Health Workforce in an Era of Health Reform. *Nursing Outlook*. 58(4): 175-180.

Did Media Lead to More or Less Respect for RNs?

	% who saw in past year	More respect	Less Respect	Made No Difference
Scrubs, House, ER, Grays Anatomy	**60%**	**28**	**5**	**66**
News: RNs on strike	**22**	**38**	**11**	**49**
News: RN shortage	**62**	**51**	**1**	**47**
News: RNs important to patient safety	**36**	**64**	**2**	**33**
News: RNs help in disaster	**66**	**75**	**0**	**24**
Advertisements about nursing	**47**	**38**	**1**	**60**

Donelan, Buerhaus, DesRoches, Dittus. Public Attitudes about Nursing

6. Compared to Earlier Forecasts Much Improved Outlook of the Future National Supply of RNs

ORIGINAL CONTRIBUTION

Implications of an Aging Registered Nurse Workforce

Peter I. Buerhaus, PhD, RN
Douglas O. Staiger, PhD
David I. Auerbach, MS

REGISTERED NURSES (RNs) COMprise the largest group of health care professionals in the United States, with more than

Context The average age of registered nurses (RNs), the largest group of health care professionals in the United States, increased substantially from 1983 to 1998. No empirically based analysis of the causes and implications of this aging workforce exists.

Objectives To identify and assess key sources of changes in the age distribution and total supply of RNs and to project the future age distribution and total RN workforce up to the year 2020.

Design and Setting Retrospective cohort analysis of employment trends of recent RN cohorts over their lifetimes based on US Bureau of the Census Current Population

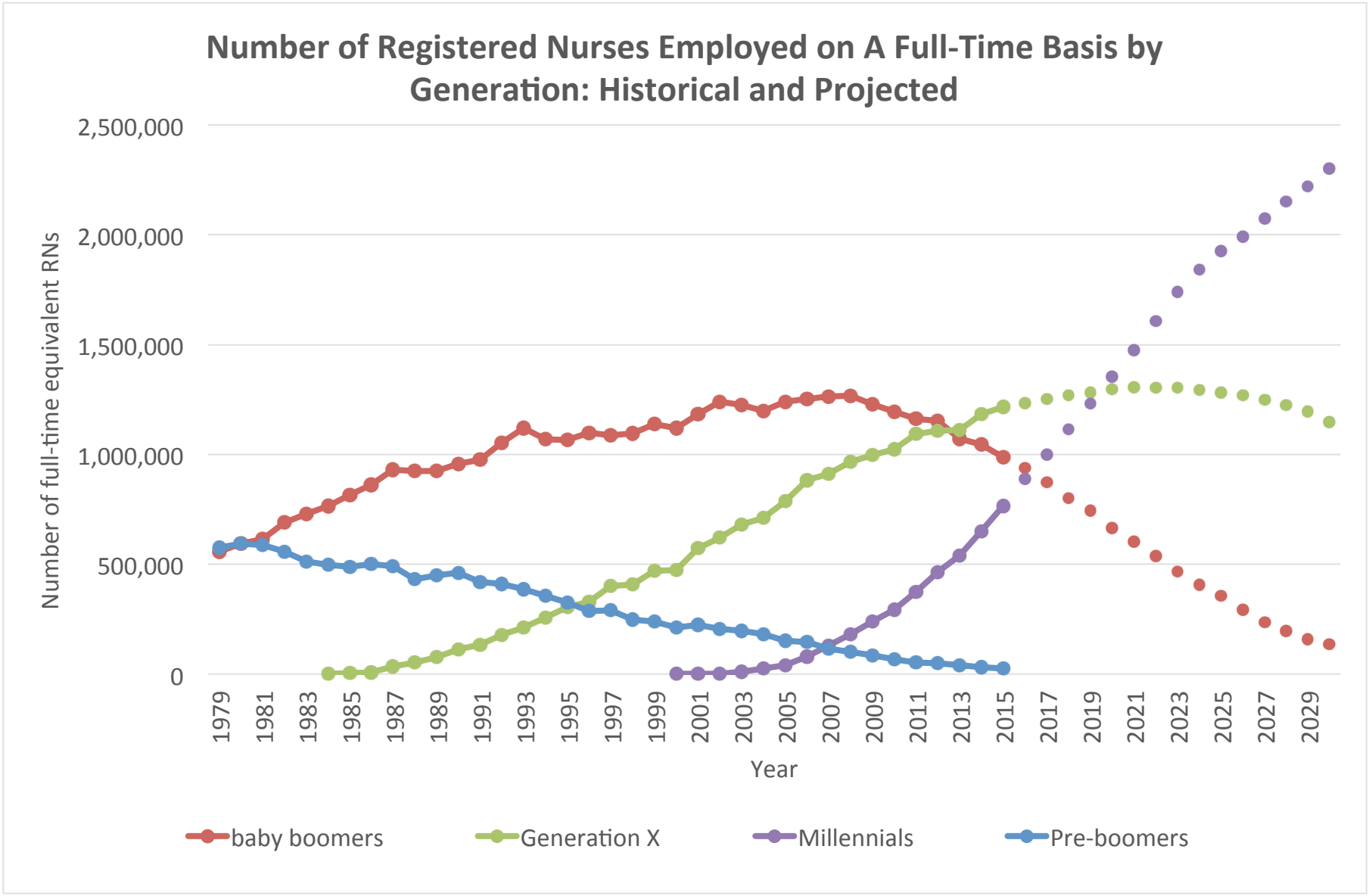
The Journal of the American Medical Association. 2000;283(22):2948-2954.

Latest Supply Projections Now through 2030
(Auerbach, Buerhaus & Staiger, October 2, 2017)

Highlights:

- In 2020, the Millennial generation of RNs will become the largest group of nurses in the workforce
- *Nationally*, able to replace the retiring baby boom RNs
- Total *national* supply will increase by roughly 1 million RNs
- As things now stand, large *national* shortage is unlikely
- The Feds believe this growth will be enough to match (even exceed) the national demand for RNs*

Auerbach, Staiger, & Buerhaus (October 2, 2017). Millennials almost twice as likely to be registered nurses as baby boomers were. *Health Affairs. 36(10),* 1804-1807.
*Health Resources and Services Administration (July 21, 2017). Supply and Demand Projections of the Nursing Workforce: 2014-2030.



Auerbach, Buerhaus, & Staiger. Millennials are becoming RNs at twice the rate of the baby boomers: yet the workforce will still grow more slowly. Health Affairs, Oct 2, 2017 36(10), 1804-1807.

These strengths establish a strong foundation moving forward

1. Increasing education, steady employment growth, expanding opportunities
2. Hospitals have linked value to BSN prepared RNs
3. Nurses' contribution to inpatient quality and safety engrained in quality improvement
4. Increasing evidence of positive contributions of primary care nurse practitioners
5. Strong public perceptions of nursing and increasing inclusion in high level health policy
6. Improving projections of the future supply of RNs!

Buerhaus, P., Skinner, L., Auerbach, D., Staiger, D. State of the Registered Nurse Workforce as a New Era of Health Reform Emerges. *Nursing Economic$* 2017 (*In press*).

2. Challenges Nurses and the Health Organizations that Employ them will Face Over Next 10 Years

1. Uneven growth of RN workforce across the US
2. Many (most?) nurses are unprepared for value based care and payment
3. RNs will face
   - Aging baby boom generation
   - Physician shortages
   - Retirement of RN workforce
4. Public and marketplace disruptions
   - Implementation of new health reforms
   - Provider and non-provider consolidations
   - Consumerism and digital care

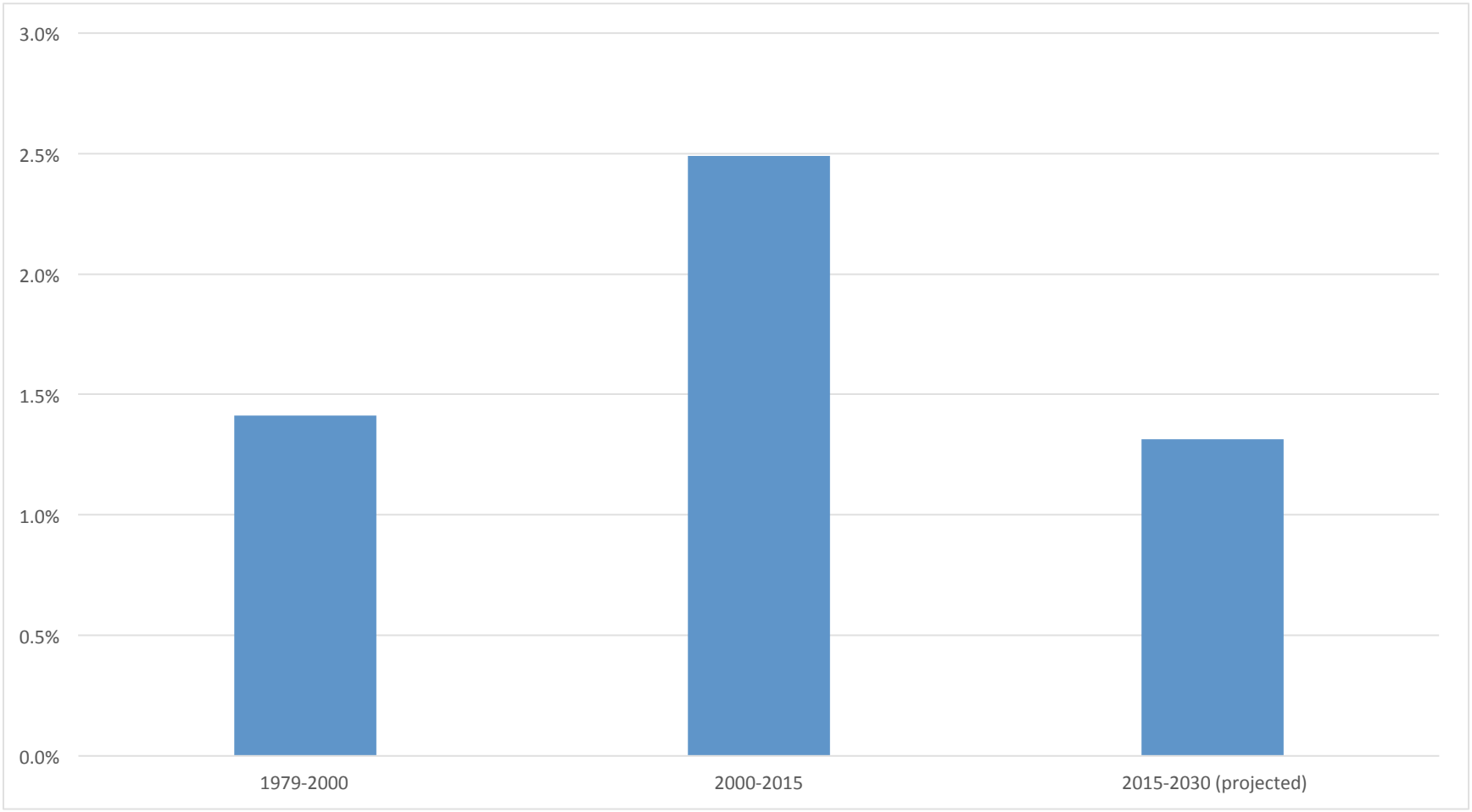
All of these challenges are occurring simultaneously!

Despite replacing the one million RNs who will retire over the next 10 years, and adding one million additional RNs between now and 2030

1. The annual growth of the RN workforce will be much *less* than the past 15 years
2. Growth will be *uneven* throughout the country

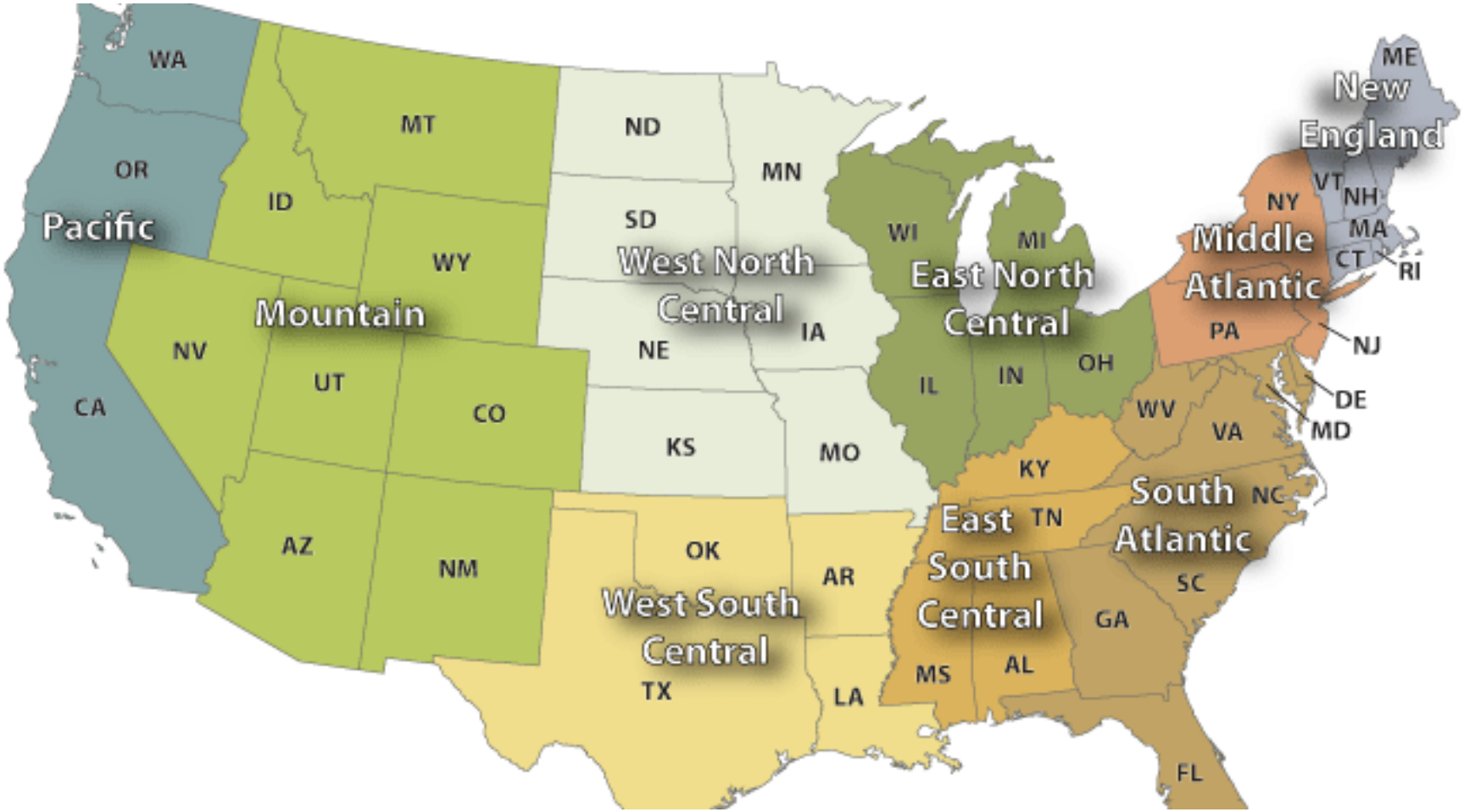
Auerbach, Buerhaus, & Staiger (2016). How Fast Will the RN Workforce Grow through 2030? Projections in Nine Regions of the Country. *Nursing Outlook,* 65(1):116-122.
Auerbach, Buerhaus, & Staiger. (2017). Millennials are becoming RNs at twice the rate of the baby boomers: yet the workforce will still grow more slowly. Health Affairs, 36(10), 1804-1807

Annual growth rate (nationally) in number of registered nurses (FTE) per capita

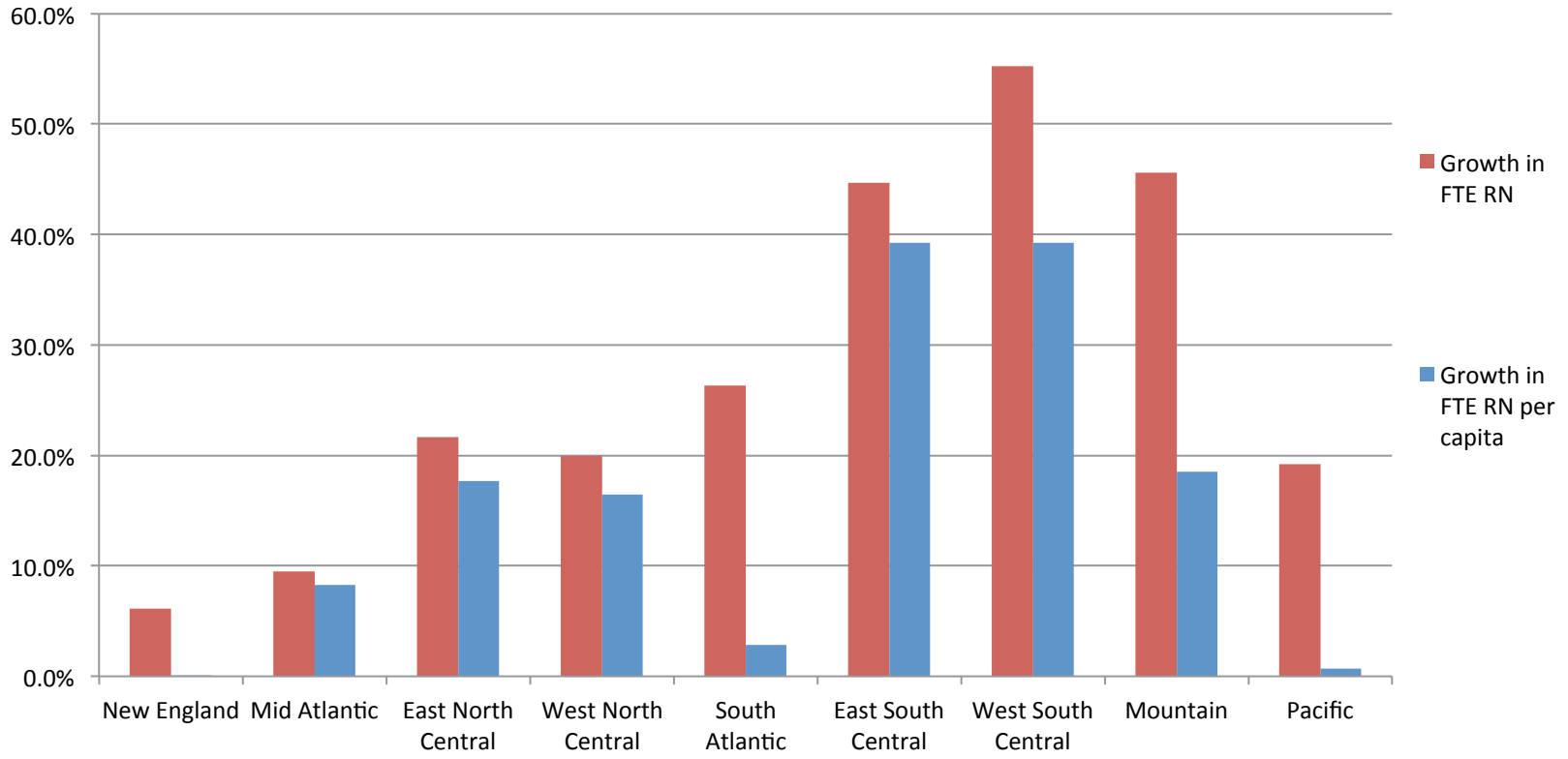


Auerbach, Buerhaus, & Staiger. Millennials are becoming RNs at twice the rate of the baby boomers: yet the workforce will still grow more slowly. Health Affairs, Oct 2, 2017 36(10), 1804-1807.

Uneven Growth Across Nine US Census Regions



Total and per capita growth in FTE RNs 2015-2030



Auerbach, Buerhaus, & Staiger (2016). How Fast Will the RN Workforce Grow through 2030? Projections in Nine Regions of the Country. *Nursing Outlook,* 65(1):116-122.

2. Challenges Nurses and the Health Organizations that Employ them will Face Over Next 10 Years

1. Uneven growth of RN workforce across the US
2. *Many (most?) nurses are unprepared for value based care and payment*
3. RNs will face
   - Aging baby boom generation
   - Physician shortages
   - Retirement of RN workforce
4. Public and market disruptions
   - Implementation of new health reforms
   - Provider and non-provider consolidations
   - Digital care

All of these challenges are occurring simultaneously!

Value
(From an organizational perspective)

- Value = Health *outcome(s)* achieved for patients relative to the *costs* of achieving the outcome(s)
- Think of it as O/C

For nurses this means

Value = O/C

- Focus on improving outcomes that are important to the *organization that employs you,* and
- Outcomes connected to nurses
  - Today's examples: lower mortality, avoiding readmissions and adverse clinical outcomes, preventing errors, infections, satisfaction, etc.
- Decrease costs of nursing care – actual reduction in amount/cost of resources, and/or avoid lower payment/loss of reimbursement

Nurses' Value can be enhanced in 3 ways

Value = Outcome(s)/Cost

1. Improve outcomes (quality or quantity) without changing the costs of producing the outcomes (↑O)
2. Decrease the cost of producing the outcomes without changing the quantity or quality of the outcome(s) (↓$)
3. Improve outcomes at the same time decrease their costs (↑O and ↓ $)

Value = **outcome(s)**/cost

1. *Improve outcomes (*quality or quantity) without changing the costs of producing them

Baseline example: If outcomes currently = 10, and costs are $4, then value 10/4 = 2.5

Now, if *outcomes are increased* from 10 to 14, while holding the costs the same, then value increases 14/4 = 3.5

Value = outcome(s)/**cost**

2 . *Decrease the costs* of producing the outcomes, without changing the quantity or quality of outcomes

Same baseline example: If outcomes currently = 10, and costs are $4, then value 10/4 = 2.5

Now, if *decrease costs* from $4 to $2, keeping outcomes the same, then value increases 10/2 = 5.0

Value = **outcome(s)/cost**

↑ ↓

3. *Improve outcomes* and *decrease costs* simultaneously

Same baseline example: If outcomes currently = 10, and costs are $4, then value 10/4 = 2.5

Now, if *improve outcomes* from 10 to 14, and simultaneously *decrease costs* from $4 to $2, then value increases 14/2 = 7.0!

But many (most?) nurses don't seem to understand value or consciously try to produced it

- It is not in nurse's self interests *or their employers* for nurses to be unprepared for value based care and value based payment
- Managers need to develop effective messages, find a way to communicate the core ideas of value in a way that nurses "get it" … and reward those who respond positively
- **Nursing education programs must teach quality improvement and principles of economics!**
  - *Future nurses must be conscious of and competent in providing value*

In the imaginary Book ….

Nursing and Quality of Care

- Chapter 2: Producing and Measuring Nursing Value

Challenges Nurses and the Health Organizations that Employ them will Face Over Next 10 Years

1. Uneven growth of RN workforce across the US
2. Many (most?) nurses are unprepared for value based care and payment
3. *Simultaneously, RNs will face*

   ➔*Aging baby boom generation*

   - Physician shortages
   - Retirement of RN workforce
4. Public and market disruptions
   - Implementation of new health reforms
   - Provider and non-provider consolidations
   - Digital care

Buerhaus, Skinner, Auerbach, & Stagier. (2017). Four challenges facing the nursing workforce in the US. *Journal of Nursing Regulation* 8(2), 40-46

Aging of the baby boom generation

- 76 million Americans gaining eligibility for Medicare – about 10,000 each day
- Will go on for more than 2 decades
- Medicare at 54m today, 80m by 2030
- Multiple chronic and degenerative conditions
- Will increase the overall demand for RNs and the *intensity* of nursing care required in inpatient, outpatient and community settings

Must Acknowledge

- Nursing clinical workforce can't, by itself, provide all the care that will be required
- Nursing education unlikely to develop geriatric programs
- Professional workforce not prepared – RNs, MDs, social workers, others

Leadership needed to form partnerships with …

- Social workers, pharmacists, community health departments, primary care and other physicians, community health workers, hospitals, churches, home health care agencies, long-term care facilities, and emerging health care delivery systems, etc. … To:
  - Understand breadth and depth of needs among aging baby boomers in community and determine how best providers and social resources can be organized to provide a more coordinated and efficient “system” of care delivery

Nursing academia needs to lead formation of partnerships with other disciplines in universities and colleges

- Community housing planners, schools of engineering, business and architecture, developers of wearable digital sensors, and others to …

- Modify physical environments, develop business ventures, and enable digital devices to ease the burdens on aging boomers, providers and family care givers

Challenges Nurses and the Health Organizations that Employ them will Face Over Next 10 Years

1. Uneven growth of RN workforce across the US
2. Many (most?) nurses are unprepared for value based care and payment
3. *Simultaneously, RNs will face*
   - Aging baby boom generation

   ➔*Physician shortages*
   - Retirement of RN workforce
4. Public and market disruptions
   - Implementation of new health reforms
   - Provider and non-provider consolidations
   - Digital care

Buerhaus, Skinner, Auerbach, & Stagier. (2017). Four challenges facing the nursing workforce in the US. *Journal of Nursing Regulation* 8(2), 40-46

Shortages and uneven distribution of primary care physicians

- By 2030, total physician shortages estimated up to 105,000 nationally[1]
  - Between 25,000 and 36,000 primary care physicians
  - *In 2018, 84 million people without adequate access to primary care, and HRSA reported 7,181 primary care Health Professional Shortage Areas*
  - Number of rural MDs/capita decreasing

[1] Kirch & Petelle (2017). Addressing the physician shortage. *JAMA* https://doi.org/10.1001/jama.2017.2714

What to do?

Two levels

- *NP and physicians*
- RNs in primary care

For NPs, acknowledge the perspective of some physicians

- Concern over quality
- Economic threat

How would increasing NP supply affect quality?

IOM and Triple Aims for Improving Quality Care Systems	Make Better		Make Worse	
	MDs	NPs	MDs	NPs
Safe	21%	77%	31%	1%
Timely	73	91	4	-
Effective	24	82	36	1
Efficient, cost-effective	35	86	23	1
Equitable	29	80	19	1
Patient-centered	41	91	10	*
Access to healthcare for uninsured	52	81	4	*
Decease health care costs	31	77	19	2

Donelan, K., DesRoches, C., Dittus, R., Buerhaus, P. (May 16, 2013) Perspectives of physicians and nurse practitioners on primary care practice. *The New England Journal of Medicine* 368(20):1898-1906

Attitudes about Scope of Practice

Agree that …	PCNP	PCMD
Nurse practitioners should practice to the full extent of their education and training	95%	77%
A primary care practice that is led by a nurse practitioner should be eligible to be certified as a medical home	82	18
Nurse practitioners should be legally allowed hospital admitting privileges	86	11
Nurse practitioners should be paid the same as physicians for providing the same services	64	4

Donelan, K., DesRoches, C., Dittus, R., Buerhaus, P. (May 16, 2013) Perspectives of physicians and nurse practitioners on primary care practice. *The New England Journal of Medicine* 368(20):1898-1906

Would increasing the number of NPs in primary care

	NPs	MDs
Decrease MD income	24%	57%
Increase replacement of MDs with NPs	53	75

Donelan, K., DesRoches, C., Dittus, R., Buerhaus, P. (May 16, 2013) Perspectives of physicians and nurse practitioners on primary care practice. *The New England Journal of Medicine* 368(20):1898-1906

Definitely or Probably Recommend Career in Primary Care		
Given what you know about the state of health care, would you advise a qualified high school or college student to pursue a career as a …	PCNP	PCMD
Primary care physician	65%	51%
Primary care nurse practitioner	88%	66%

DesRoches, C, Buerhaus, P, Dittus, R, Donelan, k. 2014 Primary Care Workforce Shortages and Career Recommendations from Practicing Clinicians. *Academic Medicine, February*

For physicians, need to acknowledge

- There is increasing support among policy making community to remove SoP restrictions
- Large and growing number of studies providing evidence of positive contributions of NPs
- NPs are providing significant amounts of care and management in many academic medical centers, community and rural access hospitals
- Majority (82%) work w physicians, only 13% work independent – competitive threats are misguided

What to do? NP and Physician Leaders

- Rather than viewing the expansion of NPs as a fight between NPs and physicians over autonomy, NPs and physician leaders can work together to first better understand each other as a step toward envisioning a different future built on relationship that allows
  - For the *evolution* of roles and practices that make sense to both clinicians
  - *Respects* each other's strengths, and ultimately
  - Leads to a *reconfiguration of the workforce* that is more responsive to the health needs of the population/ community served, particularly in rural areas and among vulnerable populations

Responding to physician shortages at the RN level – expand productive capacity

- Carefully consider the Macy Report, urging among other things
  - Expanding the number of RNs and their roles throughout the primary care delivery system

- ***Nursing educators: Increase primary care content and clinical experience in undergraduate and graduate nursing education***

Macy Foundation report, Registered Nurses: Partners in Transforming Primary Care (2017)

Challenges Nurses and the Health Organizations that Employ them will Face Over Next 10 Years

1. Uneven growth of RN workforce across the US
2. Many (most?) nurses are unprepared for value based care and payment
3. *Simultaneously, RNs will face*
   - Aging baby boom generation
   - Physician shortages

   ➔*Retirement of RN workforce*
4. Public and market disruptions
   - Implementation of new health reforms
   - Provider and non-provider consolidations
   - Digital care

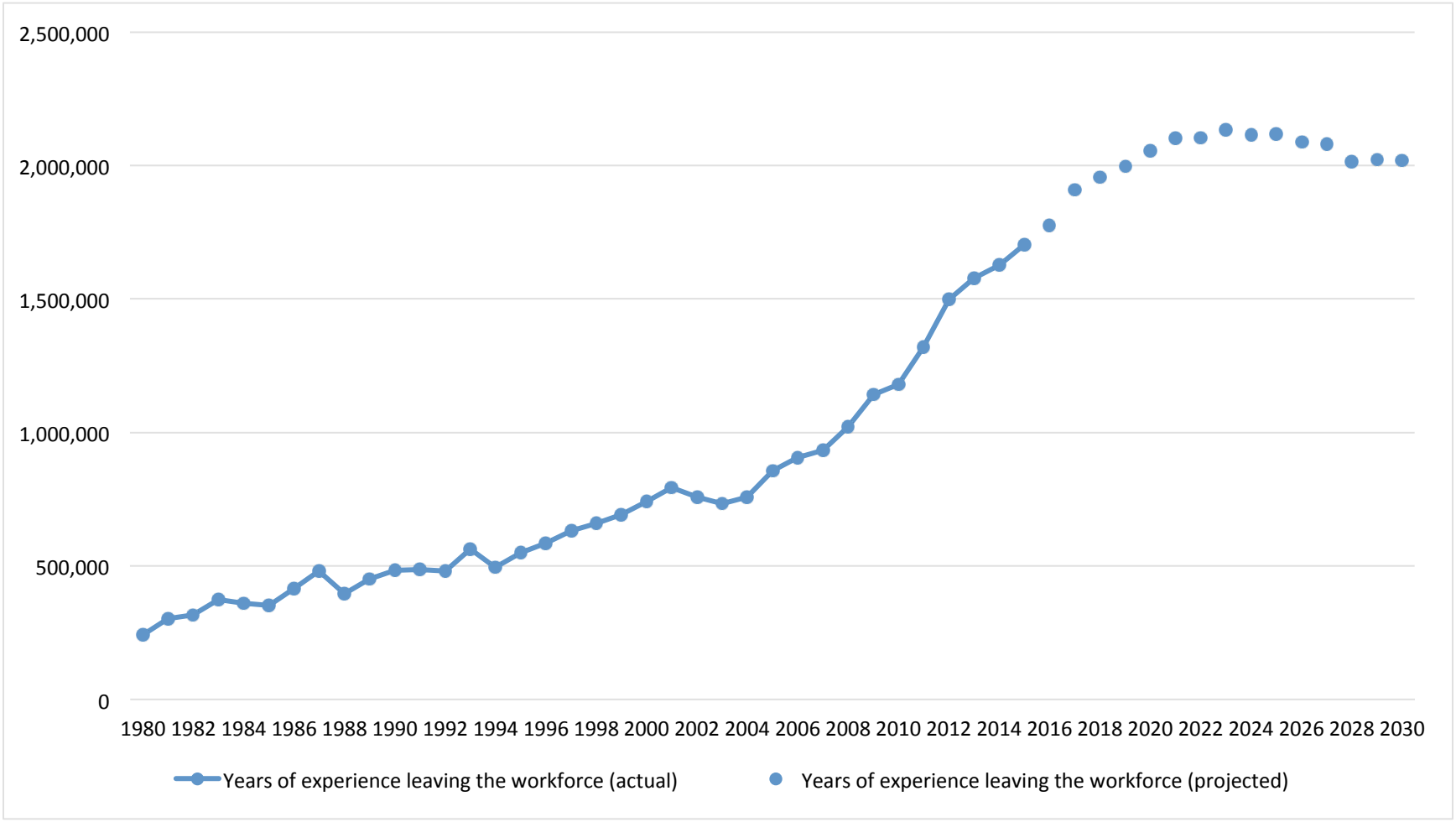
Buerhaus, Skinner, Auerbach, & Stagier. (2017). Four challenges facing the nursing workforce in the US. *Journal of Nursing Regulation* 8(2), 40-46

One million RNs expected to retire by 2030

- One-third of the RN workforce
- Millions of years of nursing experience leaving the workforce each year

Buerhaus, Auerbach, & Staiger, May 3, 2017.
http://healthaffairs.org/blog/2017/05/03/how-should-we-prepare-for-the-wave-of-retiring-baby-boomer-nurses/

Number of Years of Experience Lost to the Registered Nurse Workforce, 1979-2030



Hospital CNOs, patient care unit managers, and human resource officers must …

- Anticipate and act to prevent the negative consequences that could ensue as RN retirement accelerates
  - Gather information on nursing workforce to ascertain when and how many RNs are expected to retire and identify the nursing units, departments and patient populations that will be affected
  - Share this information with physicians and other clinicians who will be affected and seek their involvement in mitigating potential harmful consequences

Buerhaus, Auerbach, & Staiger, May 3, 2017.
http://healthaffairs.org/blog/2017/05/03/how-should-we-prepare-for-the-wave-of-retiring-baby-boomer-nurses/

Fostering organizational leadership

- Work w department and unit leaders to engage soon-to-be retiring RNs to learn what can be done to delay their retirement
- Create programs that bring older and younger RNs together to identify the knowledge and skills needed by rising RNs that can be imparted by older and more experienced RNs
- Strengthen succession planning to assure that retiring nursing managers will be replaced by RNs who are well-prepared to assume management of clinical and administrative operations on patient care units
- Offer opportunities to retiring RNs to fill new roles in community engagement, patient navigation, or education and prevention

Buerhaus, Auerbach, & Staiger, May 3, 2017.
http://healthaffairs.org/blog/2017/05/03/how-should-we-prepare-for-the-wave-of-retiring-baby-boomer-nurses/

Challenges Nurses and the Health Organizations that Employ them will Face Over Next 10 Years

1. Uneven growth of RN workforce across the US
2. Many (most?) nurses are unprepared for value based care and payment
3. Simultaneously, RNs will face
   - Aging baby boom generation
   - Physician shortages
   - Retirement of RN workforce

➔*Public and marketplace disruptions*

- Implementation of new health reforms
- Consumerism, mergers of non-providers, technology, and mega hospital/system consolidation

Buerhaus, Skinner, Auerbach, & Stagier. (2017). Four challenges facing the nursing workforce in the US. *Journal of Nursing Regulation* 8(2), 40-46.

Slide Removed

Copyrighted material

Consumerism

- Consumer expectations are changing, and providers are struggling to keep up

Source: Mark Grube, Managing Director, Kaufman, Hall & Associates, LLC, Presentation given at The Governance Institute's Leadership Conference –Fort Lauderdale, Florida, February 18–21, 2018

Slide Removed

Copyrighted material

Slide Removed

Copyrighted material

Slide Removed

Copyrighted material

Provider Consolidation

- Annual number of hospital/health system transactions has almost doubled between 2007-2017
- At same time investing in micro hospitals, outpatient, population health and even some in behavioral health

Source: Mark Grube, Managing Director, Kaufman, Hall & Associates, LLC. Presentation given at The Governance Institute's Leadership Conference – Fort Lauderdale, Florida, February 18–21, 2018

Slide Removed

Copyrighted material

The Recent Partnership

Amazon, Berkshire Hathaway, and JPMorgan join to disrupt health care

"The ballooning cost of health care act as a hungry tapeworm on the American economy. Our group does not come to this problem with answers. But we also do not accept it as inevitable" Warren Buffet

Source: Mark Grube, Managing Director, Kaufman, Hall & Associates, LLC. Presentation given at The Governance Institute's Leadership Conference – Fort Lauderdale, Florida, February 18–21, 2018

Implications of Disruptions

1. For legacy hospitals and healthcare systems
   - Struggle to compete on cost, price, and access
   - Loss of market relevance with payers and purchasers
   - Exclusion from key provider networks and products serving local populations
   - Increasing vulnerability
2. For the big consolidating hospitals and systems
   - Monopolistic pricing
3. For nursing: If educators can't/won't produce the types of nurses needed, develop own education programs
   - What does this mean for certification?

Challenges indeed, but don't forget about the strengths of the nursing workforce

1. Increasing education, steady employment growth, RN compensation better than most
2. Hospitals have linked value to BSN-prepared RNs
3. Nurses' contribution to inpatient quality and safety engrained in quality improvement
4. Increasing evidence of positive contributions of primary care nurse practitioners
5. Strong public perceptions of nursing
6. Improving projections of the future supply of RNs

Buerhaus, P., Skinner, L., Auerbach, D., Staiger, D. State of the Registered Nurse Workforce as a New Era of Health Reform Emerges. *Nursing Economic$* 2017 (*In press*).

Thank you