Workforce Planning in a Rapidly Changing Healthcare System

Erin Fraher, PhD MPP

Director, Carolina Center for Health Workforce Research,
Cecil G. Sheps Center for Health Services Research,
Assistant Professor, Departments of Family Medicine and Surgery,
University of North Carolina at Chapel Hill

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- I declare no conflict of interest.

This presentation in one slide

- Current system is not sustainable—cost pressures will drive change

- Increased emphasis on population health requires expanded definition of health workforce

- Nursing workforce is critical to transformation.
  Need to shift dialogue from numbers to retooling

- Ditto for physicians—big issue is maldistribution by specialty and geography

- Workforce planning for rapidly changing health care system requires better connections between education and practice and a more flexible workforce

Forces Driving Change

Why do we care about the health workforce?

- Workforce is expensive: of **$2.6 trillion** spent on healthcare, **56%** attributed to wages*

- Expensive and inefficient to lurch from oversupply to shortage
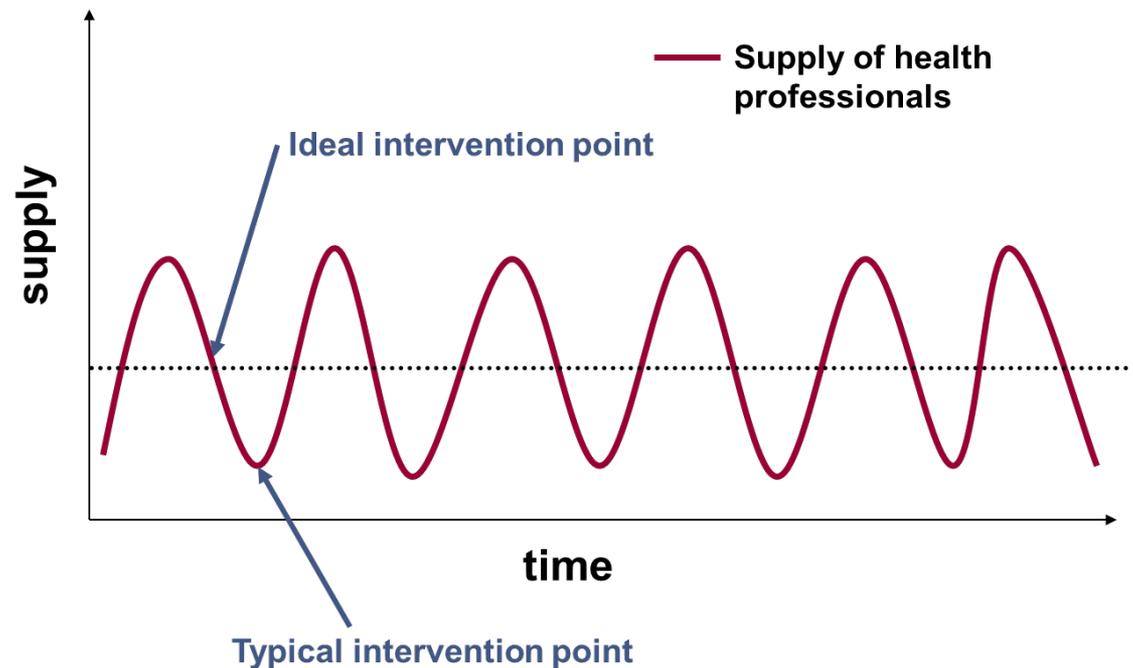
Need strategic workforce planning to "smooth" the cycle
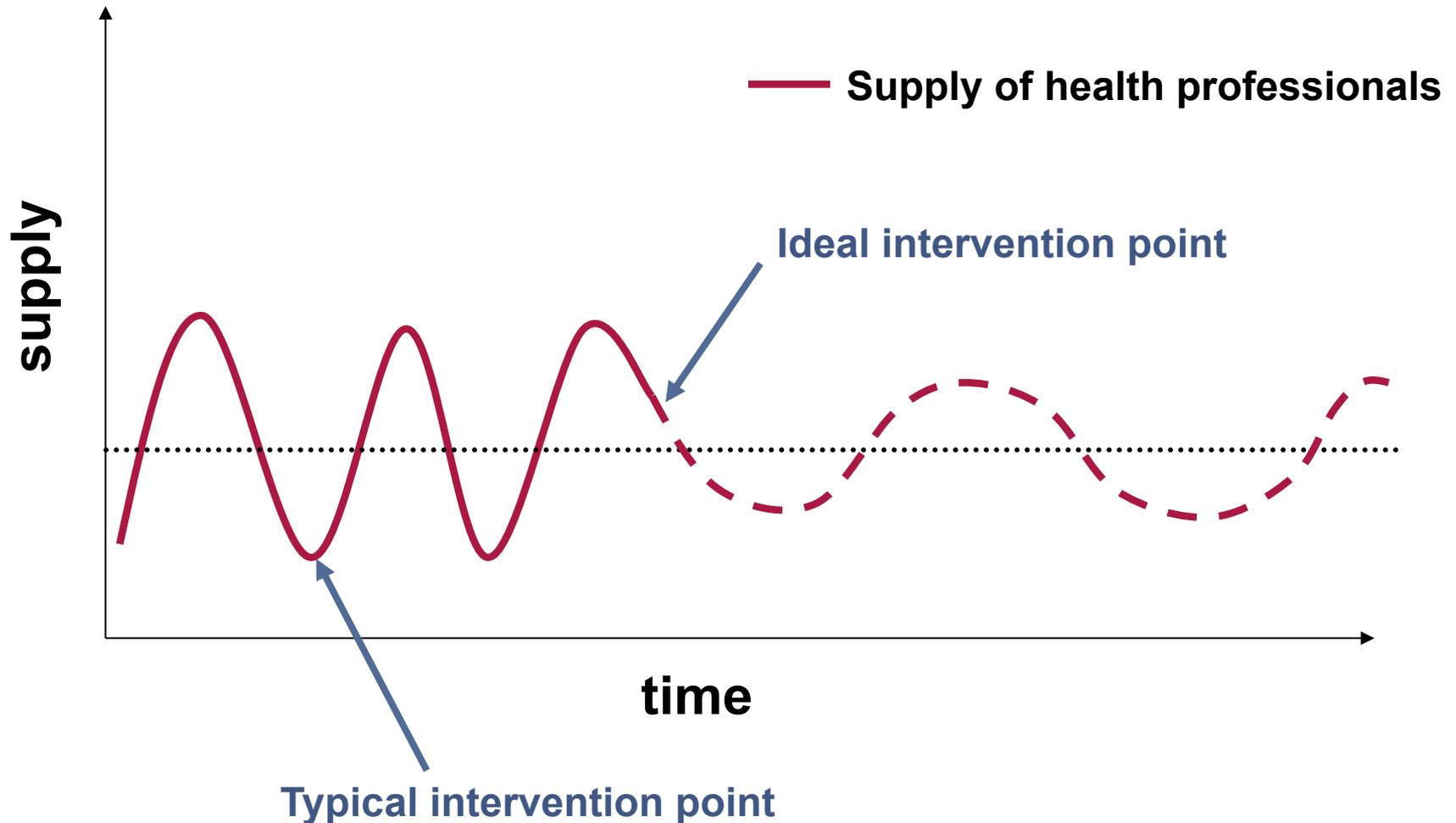
Let One Thousand Flowers Bloom: Experiments to reform health system

- *With* or *without* health reform, cost pressures are driving change

- New models of care aim to lower costs, enhance quality, improve population health and lower provider burnout

  – Patient Centered Medical Homes

  – Accountable Care Organizations

  – Clinically Integrated Networks

What are the key characteristics of new models of care?

Provide patients with more comprehensive, accessible, coordinated and high quality care at lower costs

- Emphasis on primary, preventive and "upstream" care

- Care is integrated between:

  - Primary care, subspecialties, home health agencies and nursing homes

  - <u>Health</u> care system and <u>community</u>-based social services

- EHRs used to monitor patient and population health—increased use of data for risk stratification and hot spotting

- Interventions focused at both patient- and population-level

- Move toward risk-based and value-based payment models (***maybe?***)

Different health system means different workers

"A transformed health care system will require a transformed workforce.

The people who will support health system transformation for communities and populations will require different knowledge and skills... in prevention, care coordination, care process re-engineering, dissemination of best practices, team-based care, continuous quality improvement, and the use of data to support a transformed system."

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A Health Workforce or a Workforce for Health?

Who is throwing bodies into the river?

"I am standing by the shore of a swiftly flowing river and hear the cry of a drowning man. I jump into the cold waters. I fight against the strong current and force my way to the struggling man...I lay him out on the bank and revive him with artificial respiration. Just when he begins to breathe, I hear another cry for help...I fight against the strong current, and swim forcefully to the struggling woman...I lift her out onto the bank beside the man and work to revive her with artificial respiration. Just when she begins to breathe, I hear another cry for help....***Near exhaustion, it occurs to me that I'm so busy jumping in, pulling them to shore, applying artificial respiration that I have no time to see who is upstream pushing them all in....***"

(Adapted from a story told by Irving Zola as cited in McKinlay, John B. "A case for refocusing upstream: The political economy of illness." In Conrad and Kern, 2nd edition, 1986, *The Sociology of Health and Illness: Critical Perspectives*. pp. 484-498.)

This is the aim of Accountable Health Communities Model announced by CMS

"We recognize that keeping people healthy is about more than happens inside a doctor's office...we are testing whether screening patients for health-related social needs and connecting them to local resources like housing and transportation to the doctor will ultimately improve their health and reduce costs to taxpayers..."

Secretary Burwell,
http://www.hhs.gov/about/news/2016/01/05/first-ever-cms-innovation-center-pilot-project-test-improving-patients-health.html

Accountable Health Communities Model Announced

By Centers for Medicare & Medicaid Services , January 19, 2016

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The Department of Health and Human Services today announced a new funding opportunity of up to $157 million to test whether screening beneficiaries for health-related social needs and associated referrals to and navigation of community-based services will improve quality and affordability in Medicare and Medicaid.

The five-year program, called the Accountable Health Communities Model, is the first Centers for Medicare & Medicaid Services (CMS) Innovation Center model to focus on the health-related social needs of Medicare and Medicaid beneficiaries, including building alignment between clinical and community-based services at the local level.

The Accountable Health Communities Model will support up to 44 bridge organizations, through cooperative agreements, which will

Accountable Health Communities Goals and Aims

"The foundation of the model is universal, comprehensive screening for health-related social needs—including housing needs, food insecurity, utility needs, interpersonal safety and transportation difficulties—in all Medicare and Medicaid beneficiaries who obtain health care at participating sites"

Alley, DE, Asomugha CN, Conway PH, Sanghavi DM. (2016). Accountable Health Communities—Assessing Social Needs through Medicare and Medicaid. *New England Journal of Medicine.* 371; 1: 8-11.

Such an approach requires broader definition of the health workforce

Population health requires us to:

- Expand workforce planning efforts to include workers in community and home-based settings

- Embrace the role of social workers, patient navigators, community health workers, home health workers, community paramedics, dieticians and other community-based workers

- Plan for workforce needs of patients and communities, ***not*** for needs of professions

- Determine how to integrate the public health workforce into health workforce planning

Where does the public health workforce fit in?

- "Public Health 3.0" (Oct 2016) calls for "new era of enhanced and broadened public health practice that goes beyond traditional public health department functions"

- How will public health maintain traditional strengths **_and_** confront challenges of aging population with chronic disease?

- "Health-in-all-policies" are reshaping interface between public health and community partners

- Public Health 3.0 calls for a "Chief Health Strategist" to develop community partnerships

- Those partners include hospitals and physician practices

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Integrating public health and health workforce planning

- Recent survey by National Association of County and City Health Officials (NACCHO) found that 58% of local health departments were collaborating with hospitals on community health needs assessments

- But are CHNAs being used for workforce planning?

- Survey identified skill gaps in informatics

- Public health workforce of the future will increasingly need to use "big data" for surveillance, assessment and evaluation (and workforce planning!)

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Boundary spanning roles growing quickly

"Boundary spanning" roles reflect shift from visit-based to population-based strategies

Two examples:

Panel Managers	Health Coaches
Assume responsibility for patients between visits. Use EHRs and patient registries to identify and contact patients with unmet care needs. Often medical assistants but can be nurses or other staff	Improve patient knowledge about disease or medication and promote healthy behaviors. May be medical assistants, nurses, health educators, social workers, community health workers, pharmacists or other staff

Other new roles are emerging in evolving system

Emerging Roles

- Patient navigators
- Case managers
- Care coordinators
- Community health workers
- Care transition specialists
- Living skills specialists
- Patient family activator
- Peer and family mentors
- Peer counselors

Implications

➢ All play role in patient transitions between home, community, ambulatory and acute care health settings

➢ Evidence shows improved care transitions reduce unnecessary hospital admissions, lower costs and improve patient satisfaction

It's complicated

- New roles may be filled by existing staff or new hires

- Some roles have similar functions but different titles—**care managers** and **case managers**

- Other roles have different functions but same name—**patient navigators**

- Depending on setting and patient population, roles are often filled by different types of **providers—medical assistants, social workers, nurses, etc**.

Social workers play increasingly important boundary spanning roles

Social workers serving three functions on integrated behavioral health/physical health teams:

- <u>Behavioral health specialists</u>: provide interventions for patients with mental health, substance abuse and other behavioral health disorders

- <u>Care Managers</u>: coordinate care of patients with chronic conditions, monitor care plans, assess treatment progress and consult with primary care physicians

- <u>Referral role</u>: connect patients to community resources including housing, transportation, food, etc.

Fraser M, Lombardi B, Wu S, Zerden L, Richman E, Fraher E. Social Work in Integrated Primary Care: A Systematic Review. Program on Health Workforce Research and Policy, Cecil G. Sheps Center for Health Services Research. September 2016. http://www.shepscenter.unc.edu/wp-content/uploads/2016/12/PolicyBrief_Fraser_y3_final.pdf

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And new health care teams are emerging: Community Aging in Place—Advancing Better Living for Elders (CAPABLE) Teams

- An Occupational Therapist, a Registered Nurse, and a handyman form team allowing seniors to age in homes

- Provide assistive devices and make home modifications to enable participants to navigate their homes more easily and safely

- After completing five-month program, 75 percent of participants (n=281 adults age 65+) had improved their performance of ADLs

- Symptoms of depression and ability to perform instrumental ADLs such as shopping and managing medications also improved

- Health systems are testing CAPABLE on a larger scale

http://nursing.jhu.edu/faculty_research/research/projects/capable/

Where does nursing fit in?
Will we face a nursing shortage?

Shortage? No shortage?
Do we really know?

- National nursing models mixed: some suggest shortage, others excess supply

- Even recently, graduates in states predicted to be in shortage were not getting their first, or even second, employment choice

- HRSA projects South Carolina will basically be in balance in 2025 (600 nurses short on base supply of 54,000)

- Does this projection "feel right"?

Number of new NCLEX takers increasing rapidly

Between 2001-2011:

- Number of bachelor's prepared RN candidates taking the NCLEX-RN exam more than doubled

- Associate degree candidates taking the NCLEX-RN exam experienced a 99% growth

Figure 19: Growth in NCLEX-RN First-Time Test Takers, by Bachelor's and Non-Bachelor's Degree Status, 2001 to 2011

Associate's Degree: 99.1% Growth, 2001–2011

Bachelor's Degree: 134.6% Growth, 2001–2011

Bachelor's — Associate's
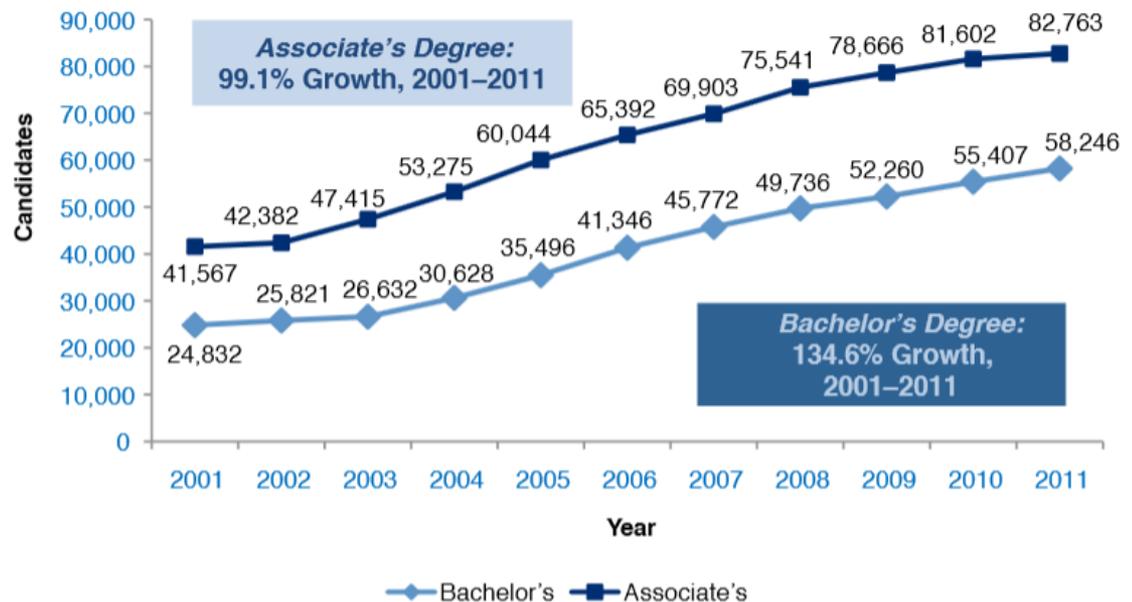
Data Sources: HRSA compilation of data from the National Council of State Boards of Nursing, Nurse Licensure and NCLEX Examination Statistics Publications, 2002-2012, and from the National Council of State Board of Nursing, "Number of Candidates Taking the NCLEX Examination and Percent Passing, by Type of Candidate," https://www.ncsbn.org/Table_of_Pass_Rates_2011.pdf

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But on the ground, we're hearing about nursing shortages. Why?

Could it be that our models are not accurate (*GASP!*)?

- We model overall supply and not supply/demand in specific practice areas like ICU, ER, L&D and OR

  – Are there shortages for specialty nurses?

- Retirement assumptions have LARGE effect on models. Maybe our models don't have it "right"?

  – Are baby boomers now beginning to retire in larger numbers?

Maybe we're not modeling demand correctly?

- Demand may be up due to a better economy, increased insurance coverage and aging population

- Demand has increased in outpatient settings and inpatient nursing - which has always been popular - is now competing with other settings

Maybe there is a mismatch between what educators produce and employers want?

- Hospitals want experienced nurses and are not hiring new grads because they are not graduating with the clinical expertise that hospitals want

- Health systems are seeking nurses for new roles in patient engagement, care coordination, informatics and other functions in new models of care (more on that later….)

Attrition seems to be on the rise, FTE on the decline

- Attrition of new nurses seems to be increasing. Why?

- BSNs are not staying the workforce—they want to become advanced practice nurses and are leaving the workforce to go back school

- Millennials don't want to work as many hours and are not taking on extra shifts

Other reasons why our models may not be correct

- Hiring internationally trained nurses has become more difficult

- Payment models are changing—maybe value-based payment models employ more nurses?

- Other?

But let's shift the dialogue

Focusing on whether we have a nursing shortage distracts us from a more important question:

Will we have the right mix of nurses in the *right locations*, *specialties* and *practice settings* with the *skills* and *competencies* needed to meet the demands of a transformed health care system?

The future nursing workforce: New roles in a transformed health system

Why the nursing workforce is critical to health system transformation

- With nearly 3 million nurses in active practice, nursing is **by far** the largest licensed health profession *(about four times as many nurses as physicians)*

- Nursing care linked to quality and satisfaction measures that will increasingly be tied to value-based payments

- Nurses provide whole-person care across health and community-based settings

- Nurses are the ultimate "flexible" workforce taking on new roles in transformed health system

Workforce is shifting from acute to community settings

- Changes in payment policy and health system organization:
  - Shift from fee-for-service toward risk- and value-based models
  - Fines that penalize hospitals for readmissions

- Will increasingly shift health care — *and the health care workforce* — from expensive inpatient settings to ambulatory, community and home-based settings

- But we generally educate nurses in inpatient settings

- Current workforce not adequately prepared to work in ambulatory settings and patients' homes

While the overall percent of South Carolina nurses employed in hospitals hasn't changed

Percent of Registered Nurse Workforce Employed in Hospitals, South Carolina, 2004-2014

64.2%

63.2%

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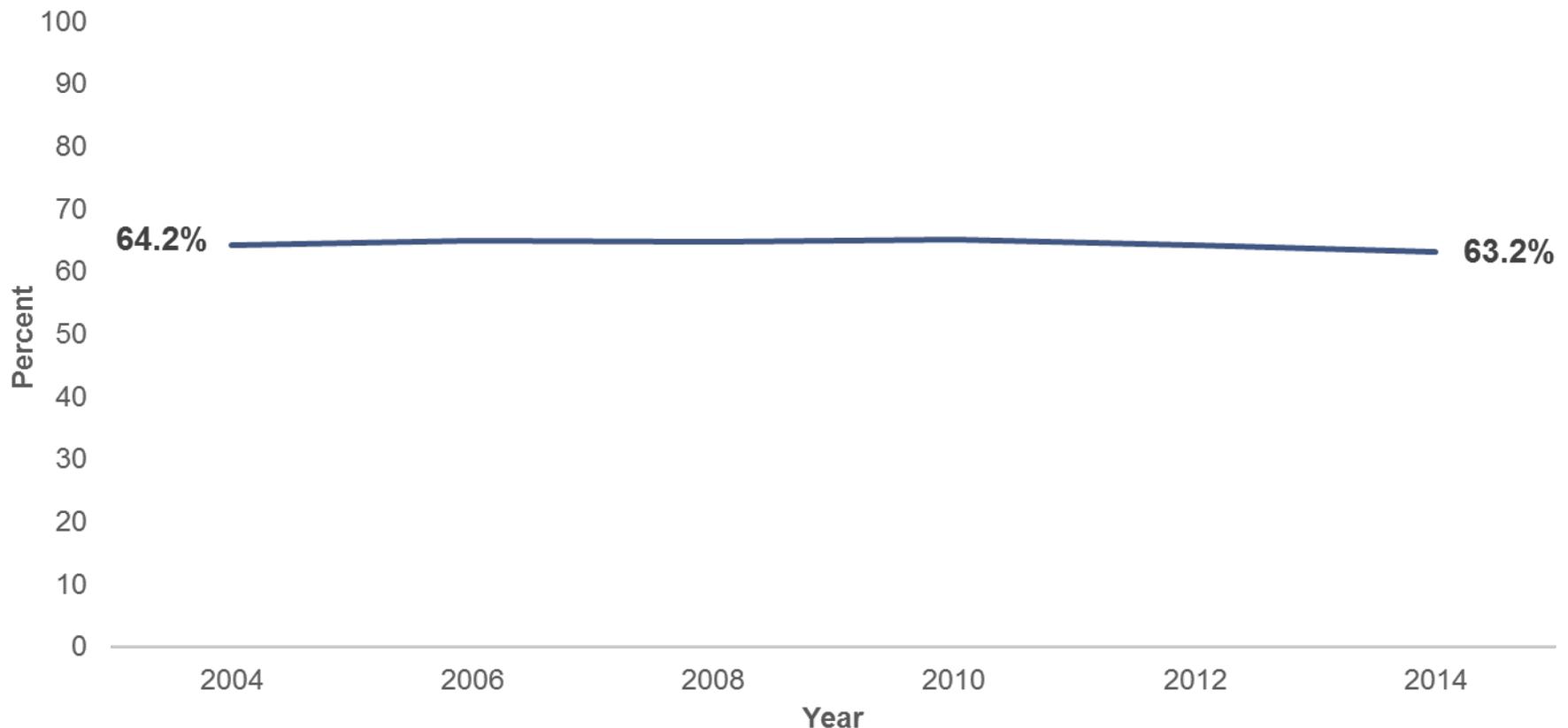
The percent working inpatient has decreased, and percent in "hospital-wide" roles has increased

Percent of Registered Nurse Workforce Employed in Hospitals by Category South Carolina, 2004-2014

- Hospital In-Patient: 47.2% (2004) → 36.9% (2014)
- Hospital Out-Patient: 8.9% (2004) → 9.6% (2014)
- Hospital Wide: 8.1% (2004) → 16.7% (2014)

Legend: Hospital In-Patient, Hospital Out-Patient, Hospital Wide

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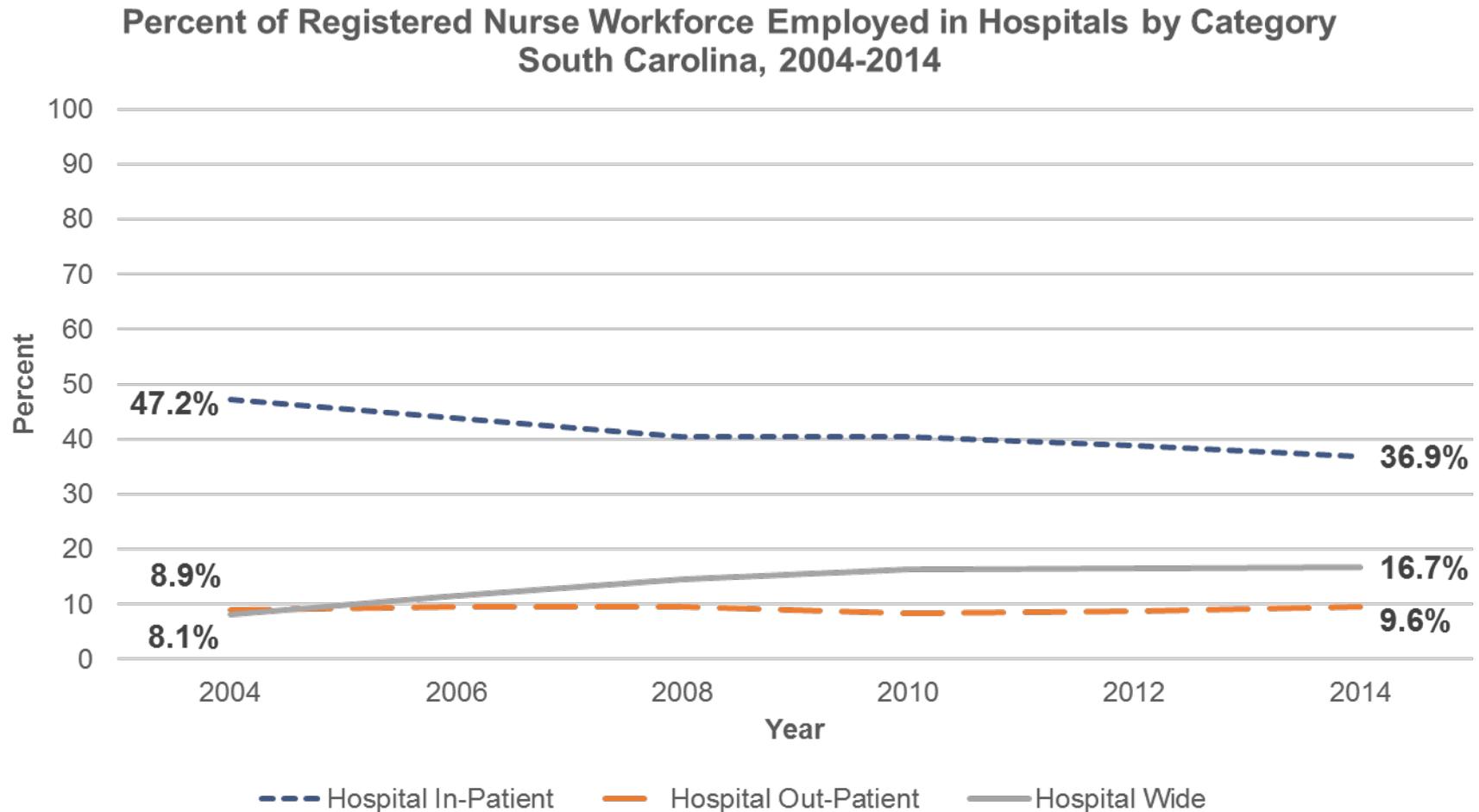
Nursing workforce: New roles, new rules

"What will it take to optimize contributions of nurses?

•*Redesign* the nursing curriculum to educate nurses with new competencies;

•*Retrain* existing nurses with new skills and knowledge;

•*Revamp* licensing examination and requirements to reflect the new curriculum; and

•*Restructure* the state regulatory system to allow flexible deployment of the nurse workforce."

*-Quoted from **Janet Weiner, MPH**. Penn LDI Voices Blog. "Re: Nurses". June 25, 2015. http://ldi.upenn.edu/voices/2015/06/25/re-nurses*

http://www.shepscenter.unc.edu/wp-content/uploads/2015/07/inqri-ldi-brief-nursing.original.pdf

Registered Nurses are underutilized in primary care

1. Culture change needed to elevate primary care in RN education

2. Practices should redesign care delivery models to better utilize RN skills

3. Educators need to put more emphasis on primary care content

4. Lifelong learning opportunities needed to support RNs in primary care

5. Better alignment needed between RN education and practice

6. More interprofessional education and teamwork needed in curricula

CONFERENCE RECOMMENDATIONS

June 15–18, 2016 | Atlanta, GA

Registered Nurses: Partners in Transforming Primary Care

Recommendations from the Macy Foundation Conference on Preparing Registered Nurses for Enhanced Roles in Primary Care

Primary care in the United States is in urgent need of transformation. The current organization and capacity of our primary care enterprise are insufficient to meet the healthcare needs of the

teams. Teams can increase access to care; improve the quality of care for chronic conditions; and reduce burnout among primary care practitioners, including physicians, physician assistants, and

http://macyfoundation.org/docs/macy_pubs/
201609_Nursing_Conference_Exectuive_
Summary_Final.pdf

# Physician Workforce Issues & Graduate Medical Education

Experts disagree about whether the United States will face a shortage

- AAMC projects shortfalls of between 12,500 and 31,000 primary care physicians and 46,100 and 90,400 total physicians by 2025[1]

- Federal government (HRSA) forecasts shortage of 6,400 primary care physicians in 2020[2] with increased use of NPs and PAs

- We released model in July 2014 that suggests overall supply will be adequate, more pressing issue is maldistribution by specialty and geography

https://www2.shepscenter.unc.edu/workforce
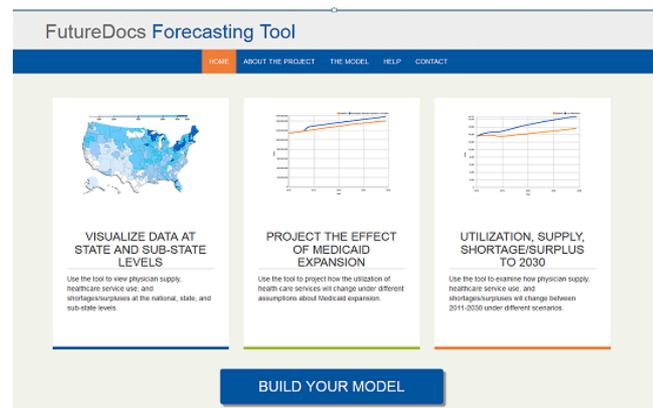
[1] AAMC, https://www.aamc.org/download/426242/data/ihsreportdownload.pdf?cm_mmc=AAMC-_-ScientificAffairs-_-PDF-_-ihsreport
[2] HRSA, http://bhpr.hrsa.gov/healthworkforce/supplydemand/usworkforce/primarycare/projectingprimarycare.pdf

# Our model highlights that we are a nation of "haves" and "have-nots"

Shortage/Surplus for All Visits, All Settings, 2014

Bangor, ME

Boston, MA

New York, NY

Washington, DC
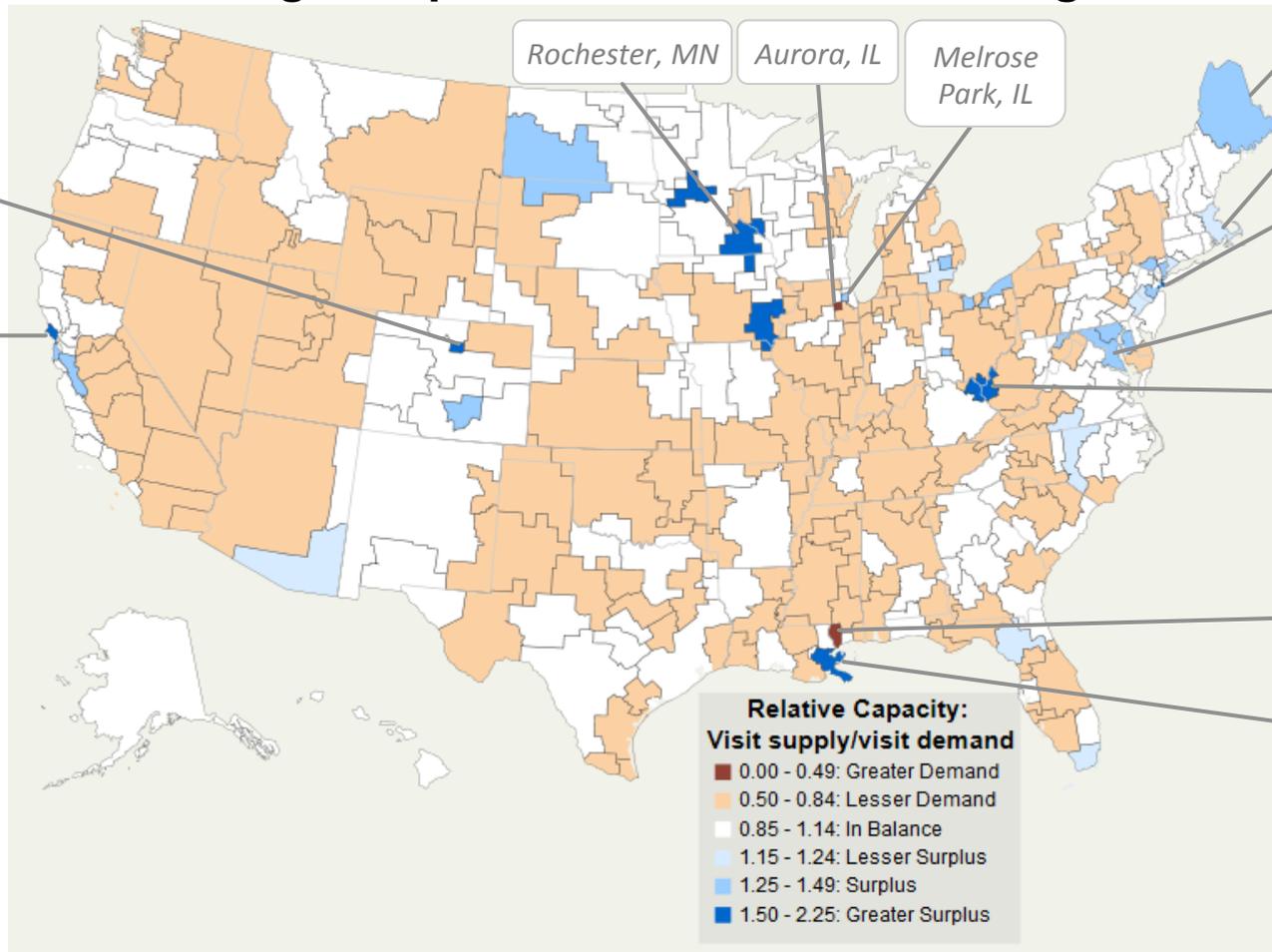
Huntington, WV

Rochester, MN

Aurora, IL

Melrose Park, IL

Boulder, CO

San Francisco, CA

Slidell, LA

New Orleans, LA

**Relative Capacity:
Visit supply/visit demand**
- 0.00 – 0.49: Greater Demand
- 0.50 – 0.84: Lesser Demand
- 0.85 – 1.14: In Balance
- 1.15 – 1.24: Lesser Surplus
- 1.25 – 1.49: Surplus
- 1.50 – 2.25: Greater Surplus

And that expected growth in NPs and PAs will offset physician shortages
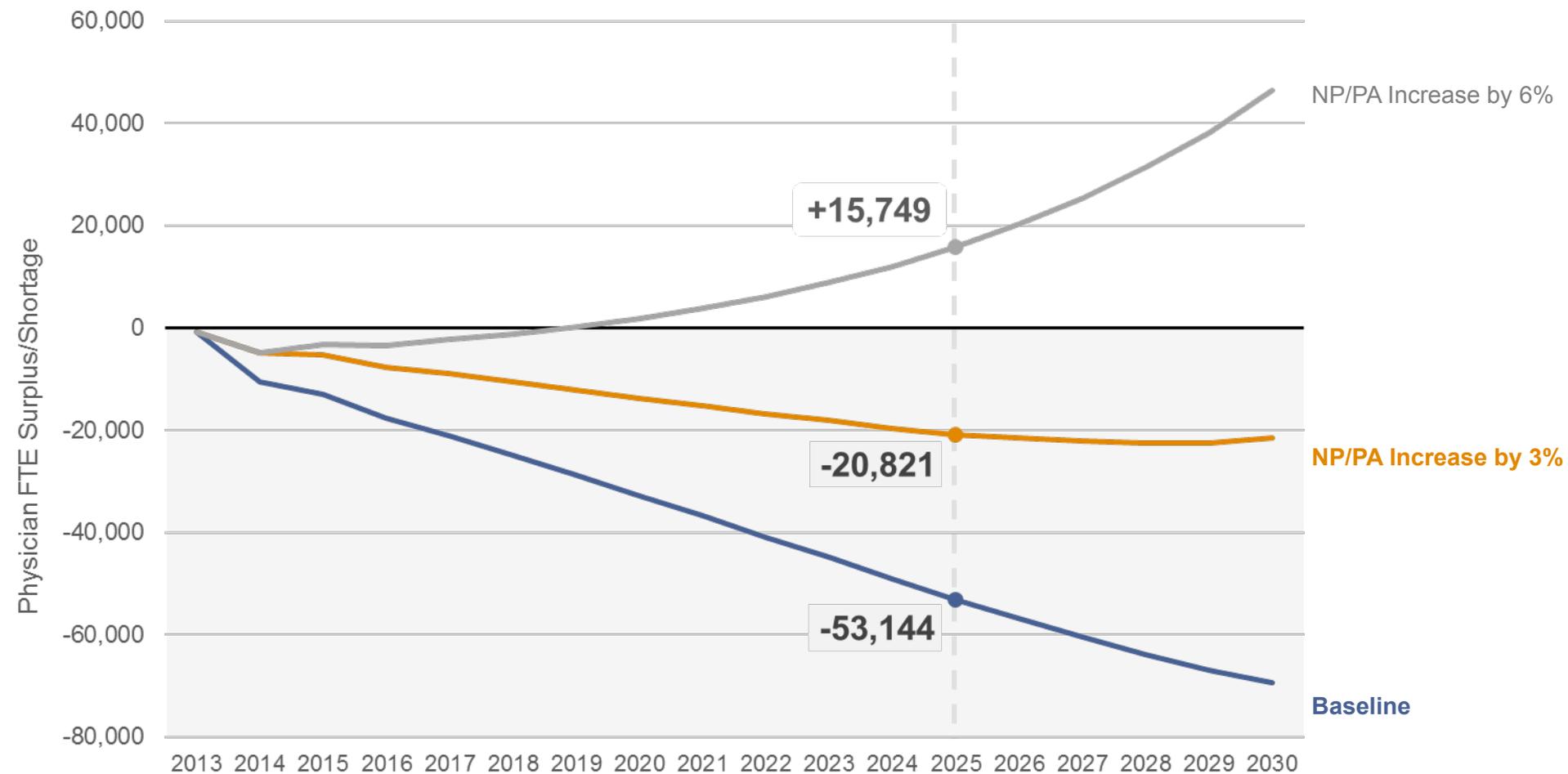
Growth in Nurse Practitioner Graduates* 2001 - 2015

Growth from 2014 to 2015 : 20.3%

Data points:
- 2001: 7,261
- 2002: 6,979
- 2003: 6,611
- 2004: 6,526
- 2005: 6,900
- 2006: 7,583
- 2007: 8,014
- 2008: 8,865
- 2009: 9,698
- 2010: 11,135
- 2011: 12,273
- 2012: 14,310
- 2013: 16,031
- 2014: 18,484
- 2015: 22,240

(Y-axis: Graduates, ranging 5,500 to 23,500)
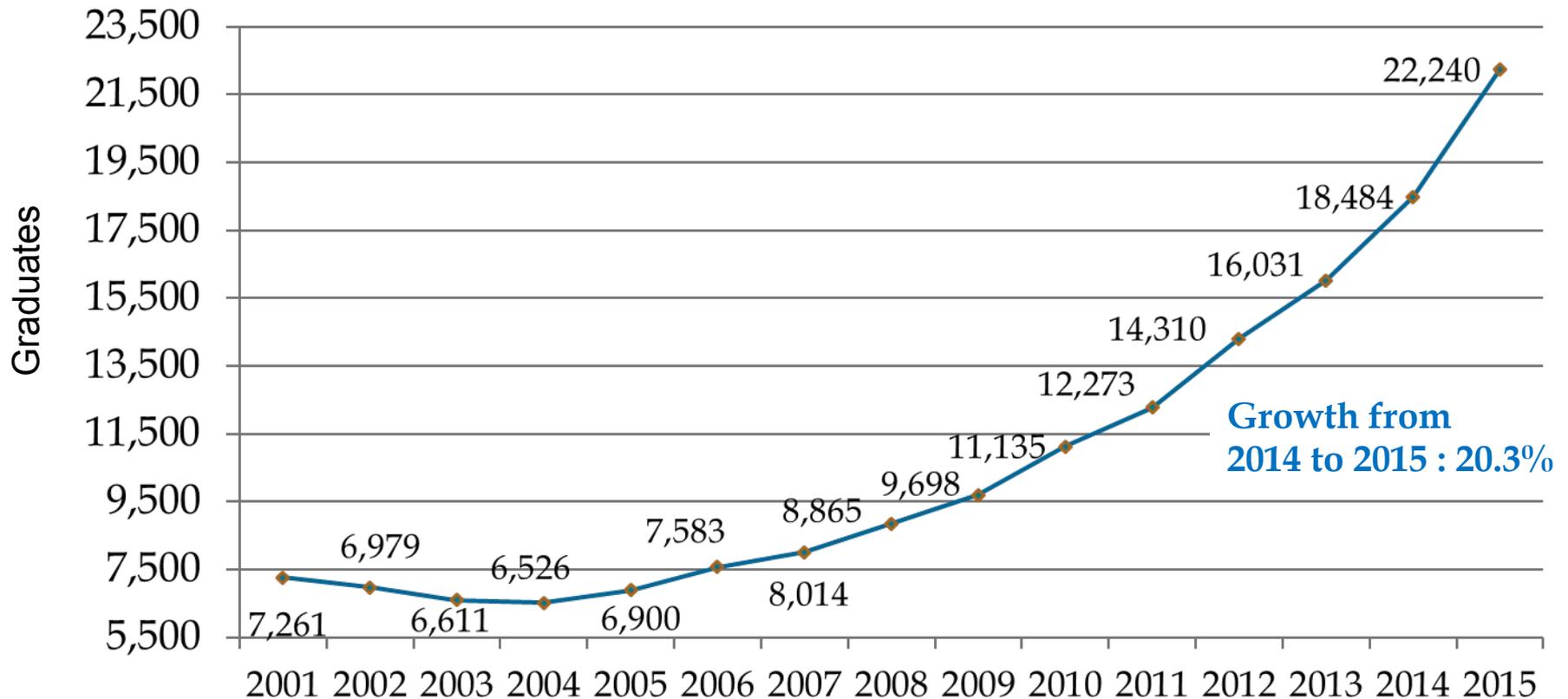
* Counts include master's and post-master's NP and NP/CNS graduates, and Baccalaureate-to-DNP graduates.

Source: American Association of Colleges of Nursing (AACN) and National Organization of Nurse Practitioner Faculties (NONPF) Annual Surveys

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For SC, our model forecasts stable overall supply but declining supply in primary care

Physician Supply, FTE per 10,000 Population, South Carolina, 2013-2030

All specialties


Primary Care
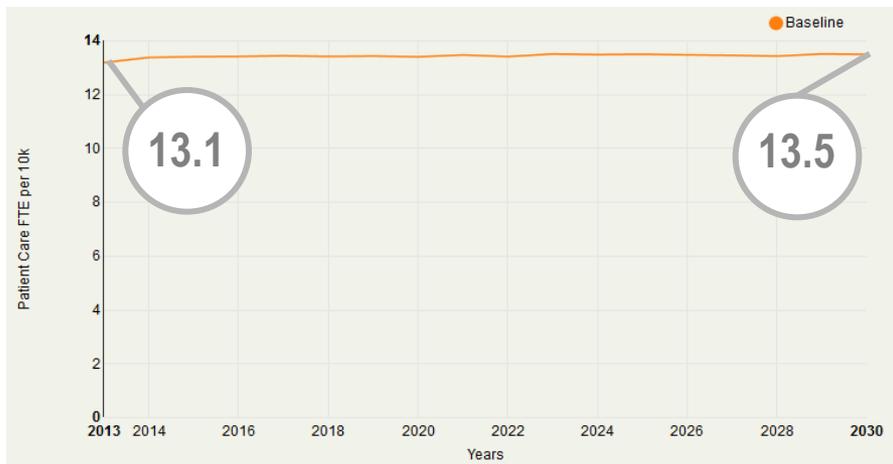
https://www2.shepscenter.unc.edu/workforce
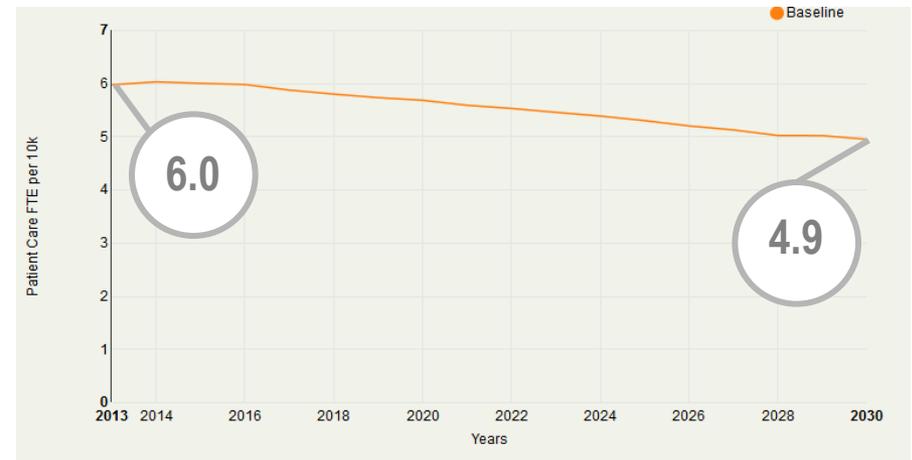
South Carolina likely to face excess demand for health care visits

Relative Capacity of Physician Supply to Meet Demand for Visits, South Carolina, 2013-2030

= supply of visits physicians can provide / utilization of visits needed by population

https://www2.shepscenter.unc.edu/workforce
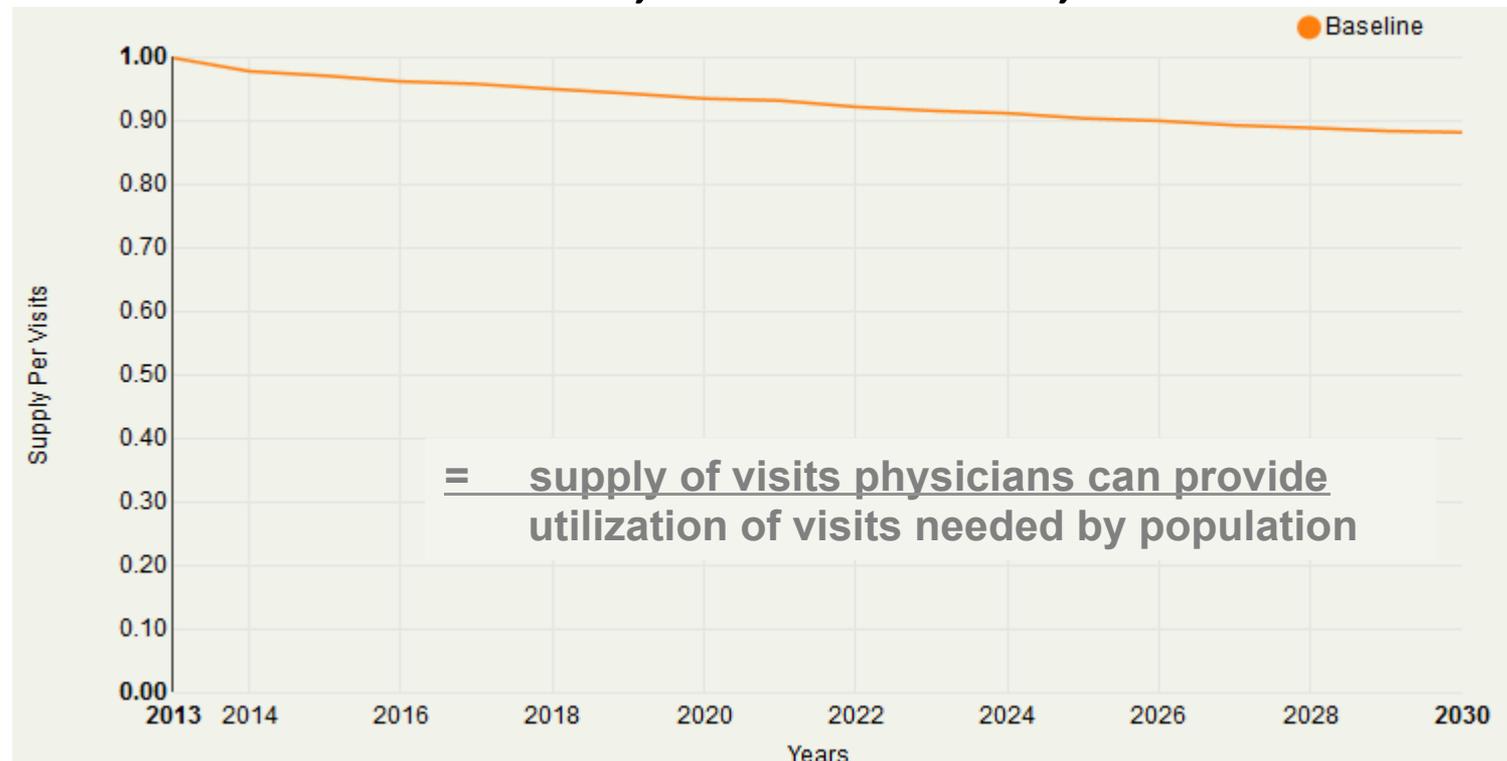
What if we actually used workforce data to determine where to invest in GME?

We used model to determine how to target proposed 3,000 PGY 1 slots to meet anticipated shortages

- Findings suggest expanding GME in states with:
  - Poor health outcomes and high health care utilization (Arkansas, Mississippi and Alabama)
  - Large, growing populations (Texas and California)
  - Aging populations (Florida)
  - Low resident/population numbers (Idaho, Wyoming, Montana, Alaska and Nevada)
- 5 states (Connecticut, Delaware, New Hampshire, Rhode Island and Vermont) and the District of Colombia receive no GME slots because they are already well supplied

South Carolina would receive 64 new PGY 1 positions

Model proposes 64 new PGY 1 positions in South Carolina

Specialty	# PGY1 Slots
Cardiology	6
Dermatology	2
Emergency Medicine	3
Family Medicine	6
Gastroenterology	3
General Pediatrics	3
Gynecology/Obstetrics	2
Infectious disease	4
Internal Medicine	9
Nephrology	2

Specialty	# PGY1 Slots
Oncology	5
Other Physician Specialty	2
Pediatric Non-Surgical Specialties	3
Plastic Surgery	2
Psychiatry	2
Pulmonology	2
Surgery	4
Thoracic Surgery	2
Urology	2
New PGY1 Slots	**64**

We recently completed study of ten states' efforts to reform Medicaid GME

Why study states?

- Federal GME reform efforts have stalled

- States are "policy laboratories" for GME innovation

- Many states investing in GME with Medicaid dollars:

  – In 2015, 43 states and DC made Medicaid GME payments

  – Total Medicaid GME payments increased 10% from $3.87 billion in 2012 to $4.26 billion in 2015

http://www.shepscenter.unc.edu/programs-projects/workforce/projects/carolina-health-workforce-research-center/

Study is timely

- With change of federal administration, policy window may be opening for increased state involvement in GME

- Potential for Medicaid block grants or per capita allotments could accelerate state-level GME reform

- States facing budget constraints and pressure to identify return on investment for public funds spent on GME

- This study sought to:

  – Investigate how states are reforming Medicaid and state-funded GME financing

  – Identify innovations and challenges

What we found

- High level of interest, limited reform of Medicaid GME

- Most states seeking new GME appropriations, not redistributing existing funds

- Oversight bodies play critical role in educating legislature and navigating competing GME interests

- We heard loud call for increased accountability/transparency

- Critical need for better data and metrics to measure workforce outcomes of residency training

http://www.shepscenter.unc.edu/programs-projects/workforce/projects/carolina-health-workforce-research-center/

Workforce planning the future: How do we get there from here?

It's not just about retooling the workforce. We need to retool the system that supports the workforce: education, practice and regulation needs to be more responsive to changes in front-line health care delivery

We need to better connect education to practice

"Revolutionary changes in the nature and form of health care delivery are reverberating backward into… education as leaders of the new practice organizations demand that the educational mission be responsive to their needs for practitioners who can work with teams in more flexible and changing organizations…"

- But education system is lagging because it remains largely insulated from care delivery reform

- Need closer linkages between health care delivery and education systems

On practice side: redesign human resource infrastructure to support new roles

- Need to minimize role confusion by clearly defining and training for new functions

- Job descriptions have to be rewritten or created

- Work flows have to be redesigned

- Lack of standardized training and funds to support training is big obstacle

- Existing staff won't delegate or share roles if don't trust other staff members are competent

- Time spent training is not spent on billable services

How do we redesign structures to support new roles? ➡ Education

- Retrain and upgrade skills of the 18 million health care workers already in the system – *they are the ones who will transform care*

- Training must be convenient – timing, location, and financial incentives must be taken into consideration

- Need to prepare faculty to teach new roles and functions

- Clinical rotations need to include "purposeful exposure" to high-performing teams in ambulatory settings

- Need to redesign education system so workforce can flexibly gain new skills and competencies throughout career

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Goal: flexible workforce that can adapt to rapidly changing health care system

Both new entrants to the workforce

And our "seasoned workers"

How do we redesign structures to support new roles? ⟹ Regulation

> *"The workforce innovations needed to implement ACA programs require an adaptable regulatory system capable of evolving with the health care environment. The health profession regulation system in place today does not have the flexibility to support change*

To create a more dynamic regulatory system, we need to:

- develop evidence to support regulatory changes, especially for new roles

- evaluate new/expanded roles to understand if interventions improve health, lower costs and enhance satisfaction

- remove regulatory barriers to let workforce utilize skills to max benefit of patients

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Health Workforce Planning the Traditional Way

We need to be like Wayne Gretsky

"I skate to where the puck is going to be, not to where it has been."
–*Wayne Gretsky*

….but how do we know where the puck is going to be?

Contact info

Erin Fraher

erin_fraher@unc.edu

(919) 966-5012

Program on Health Workforce Research and Policy
http://www.healthworkforce.unc.edu