

The Power of Data to Illuminate the Challenges and Opportunities Facing the Nursing Workforce

National Forum of State Nursing Workforce Centers

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with the Nursing Workforce Team

Cecil G. Sheps Center for Health Services Research

University of North Carolina at Chapel Hill

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- This work was funded by a grant from the North Carolina Board of Nursing
- The content, conclusions and opinions expressed in this presentation are mine and should not be construed as the official policy, position or endorsement of my funders, employers or the University of North Carolina at Chapel Hill



This presentation in one slide

- I believe in power of data to shape policy
- We are in uncharted waters
- Data and evidence must be our north star
 - **Pre-Pandemic period**: shift to value, ambulatory settings, addressing SDOH and team-based care
 - **Pandemic period** : surge efforts, relaxation of SOP, telehealth and health disparities
 - **Post-pandemic period**: sustaining the nursing workforce; effect of burnout on pipeline and existing workforce
- How we document,* frame and message evidence matters if we aim to influence policy

*Brown LD. 1991. "Knowledge and Power: Health Services Research as a Political Resource" In Health services Research: Key to Health Policy, edited by Eli Ginzberg, 20-45, Cambridge MA: Harvard University Press

My Frame

- I am a student of the health professions—all professions
- Policy wonk who believes deeply in power of evidence to shape policy
- “Data agitator”—I like to use data to challenge prevailing narratives and to shape new narratives
- Work extensively with state and federal policy makers
- Best part of my job is mentoring students from nursing, medicine, social work, and health policy



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The context for our work: The Pre-pandemic Period

Pre-pandemic

Ongoing experimentation to transform the way health care is paid for, organized, and delivered

- Most health care systems still operating in fee-for-service model, but planning for value-based payment
- Increased focus on assessing and addressing social determinants of health
- Shift of care, and workforce, to ambulatory- and home-based settings



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Care is moving out of the hospital into outpatient, community and home settings

- Fines that penalize hospitals for readmissions and cost pressures are shifting care from inpatient to ambulatory and community-based settings
- In 2019, 400,000 new health care jobs were created, one-quarter were in hospitals and ***two-thirds were in ambulatory settings****



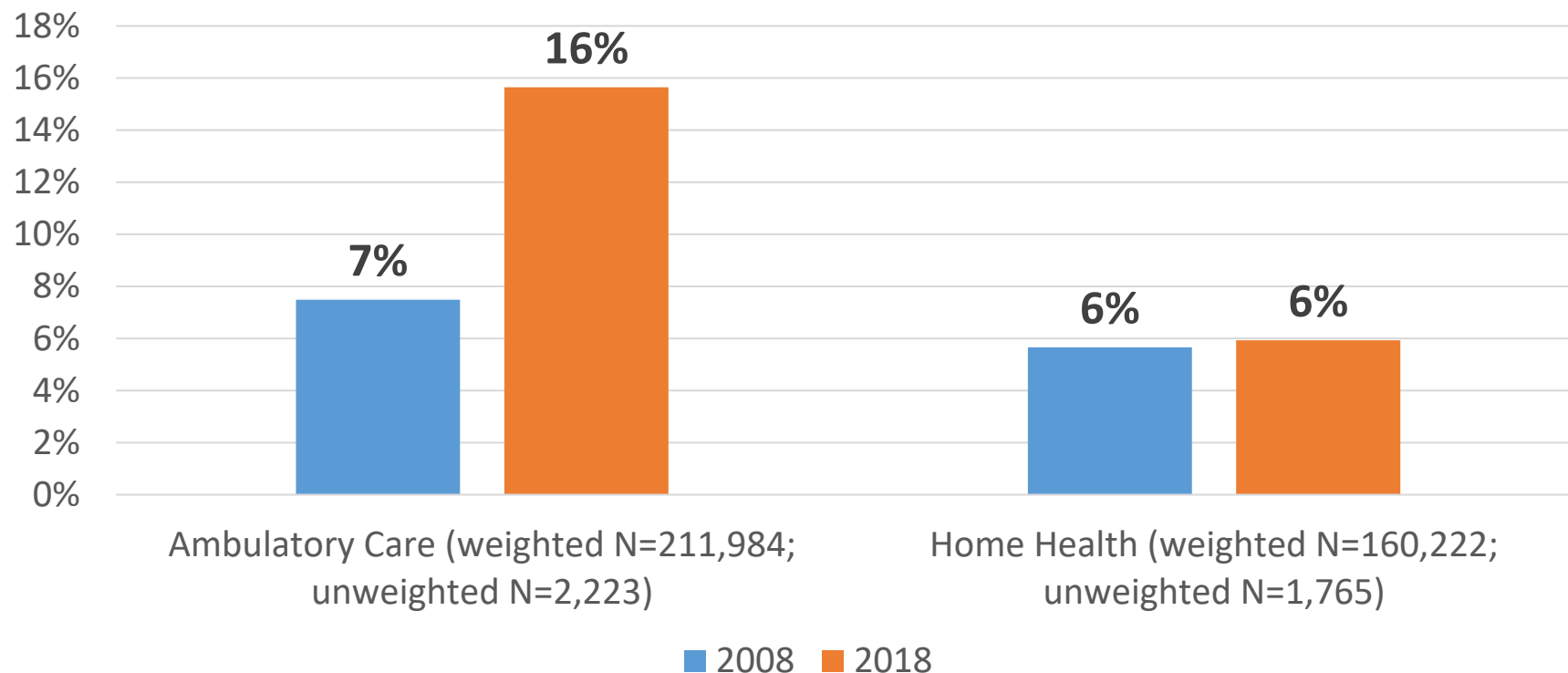
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**Insights from Monthly Employment Data through December 2019.*

Altarum.org: Altarum Center for Value in Health Care; January 17, 2020 2020.

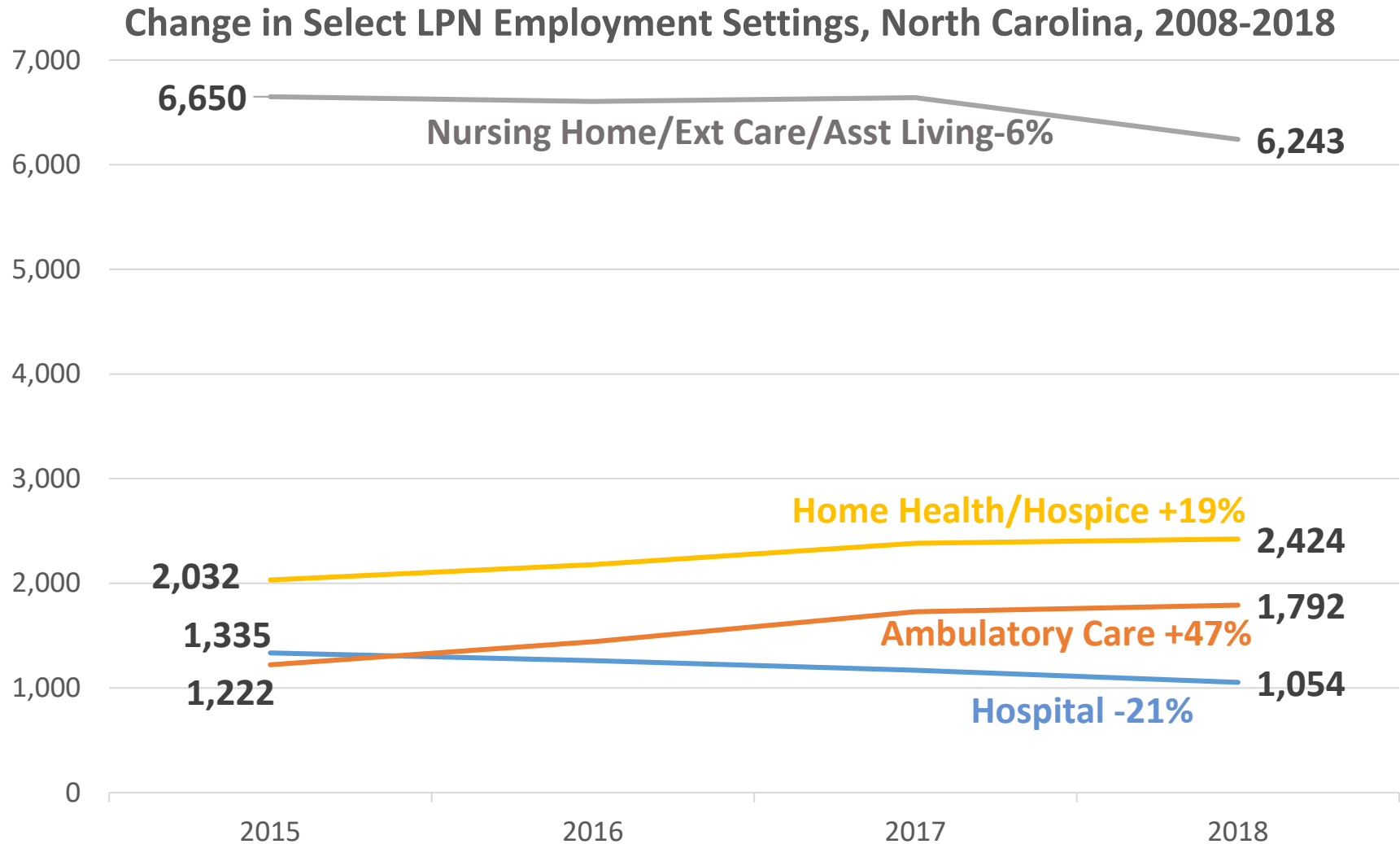
We see this shift to ambulatory care, but not so much to home health, in the NSSRN data

Percent of the RN Workforce in Ambulatory Care and Home Health Settings, United States, 2008 and 2018



Credit: Dr. Esita Patel PhD RN, postdoctoral fellow, Johns Hopkins University

In my home state of North Carolina, growth of LPNs in ambulatory care has been significant



Data from the American Board of Family Medicine reflect this same trend

Upcoming report and commentary (July 6th publication date) will highlight significant growth in Family Medicine Physicians working with LPNs in community-based practices in the United States

POLICY BRIEF

The Evolving Family Medicine Team

Yalda Jabbarpour, MD; Anuradha Jetty, MPH; Mingliang Dai, PhD; Michael Magill, M

Corresponding Author: Yalda Jabbarpour, MD; The Robert Graham Center for Policy Studies. *Email:* yjabbarpour@aafp.org

Publication: July 6, 2020

A decade of practice transformation, consolidation, and payment experimentation have highlighted the need for team-based primary care, but little is known about how team composition is changing over time. Surveys of Family Physicians (FPs) from 2014-18 reveal they continue to work alongside inter-professional team members and suggest slow but steady growth in the proportion of FPs working with nurses, behaviorists, clinical pharmacists, and social workers.



Implications for nursing practice

Shift will challenge educators, health systems, and practices to build to:

- Develop curriculum and clinical placements that better prepare nurses to provide primary, behavioral and geriatric care in community-based settings
- Retool existing nursing workforce to undertake new roles (population health, care coordination etc)
- Develop team-based models of care that “share the care” (Bodenheimer et al) between physicians, RNs, LPNs, social workers, medical assistants and other team members



But this assumes there is a shared understanding of roles and a strategic “optimization” teams

- A 2001 study of community-based family medicine practices¹ found RN, LPN and other roles were determined by physician expectation rather than education, training or licensure of team members
- Suggests opportunities for more deliberate staffing models that maximize nurses’ contributions
- This may prove challenging. Leach et al² found primary care team structures were often not result of explicit plan but evolved organically
- Shaped by provider preferences and factors outside the practices’ control, including lack of reimbursement and scope of practice restrictions

1. Aita V, Dodendorf DM, Lebsack JA, Tallia AF, Crabtree BF. Patient care staffing patterns and roles in community-based family practices. *J Fam Pract.* 2001;50(10):889.

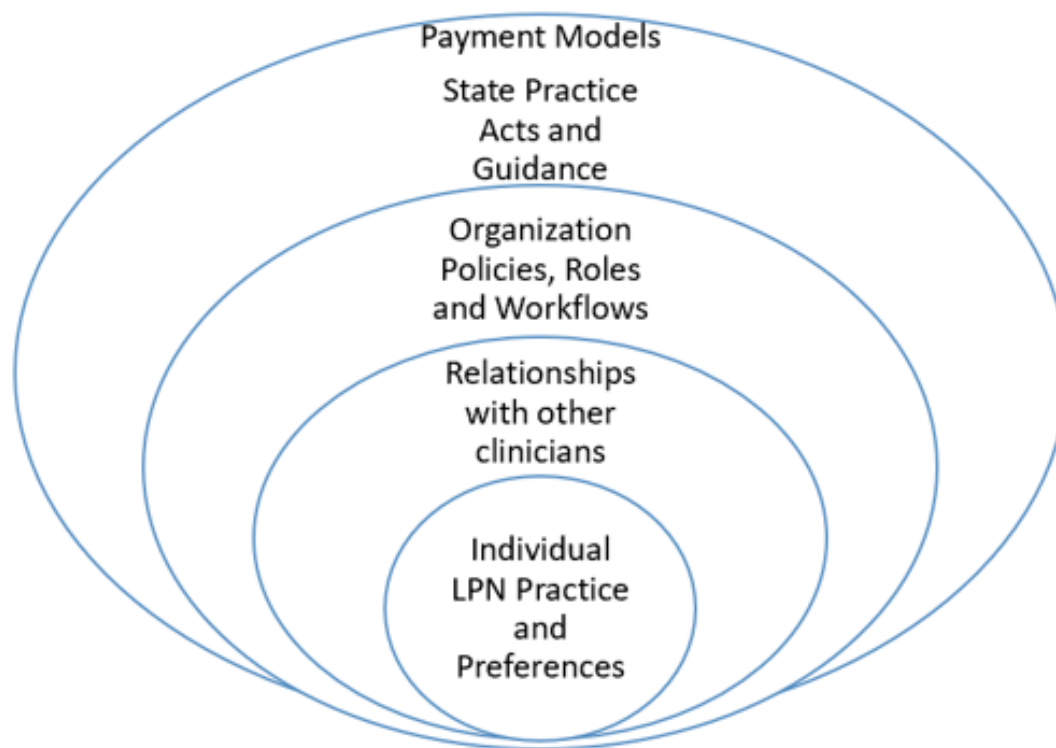
2. Leach B, Morgan P, Strand de Oliveira J, Hull S, Østbye T, Everett C. Primary care multidisciplinary teams in practice: a qualitative study. *BMC Fam Pract.* 2017;18(1):115.



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Evidence on macro-level factors affecting practice is still evolving

Example: Conceptual Model of Factors Affecting LPN Practice



Source: Vicki Quintana, MSPH, RN, The Licensed Practical Nursing Workforce in North Carolina

Many of these themes are echoed in “Nursing Health Services Research Agenda for the 2020s”

Interdisciplinary group of nurse and non-nurse researchers, led by Peter Buerhaus, suggested need to enhance nurses’ skills in health services research to build data and evidence on:

- characteristics of high performing teams and nurses’ roles on these teams
- nurses’ value and productivity on behavioral health and primary care teams, as well as in care for older people and frail adults

Buerhaus, P,
Martsof G,
Donelan K, Clarke
S, Barnes H,
Cohen CC, Cooley,
HT. Nursing
Health Services
Research Agenda
for the 2020s.
Report, November
2019.

<https://healthteams4frail elders.files.wordpress.com/2020/01/final-blue-nhsr-nov-2019.pdf>



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Then the pandemic hit

Pandemic Period

- Focus on surging nursing workforce
- Significant, but potentially time-limited, relaxation of scope of practice for Nurse Practitioners
- Dramatic shift toward telehealth
- Exposure of deep, and long-standing health disparities and gaps in public health infrastructure



The nursing workforce surge

What did the surge teach us about:

- Bringing new and retired nurses back into the workforce quickly
- Surge staffing models
- Retraining the existing workforce to quickly be deployed to different specialties, settings and geographies

HEALTH AFFAIRS BLOG

RELATED TOPICS:

NURSES | NURSING | COVID-19 | PANDEMICS | PATIENT CARE | INTENSIVE CARE UNITS | HEALTH PROFESSIONALS
| HEALTH CARE PROVIDERS | HOSPITAL MEDICAL STAFF | ACCESS TO CARE

There Are Not Nearly Enough Nurses To Handle The Surge Of Coronavirus Patients: Here's How To Close the Gap Quickly

Joanne Spetz

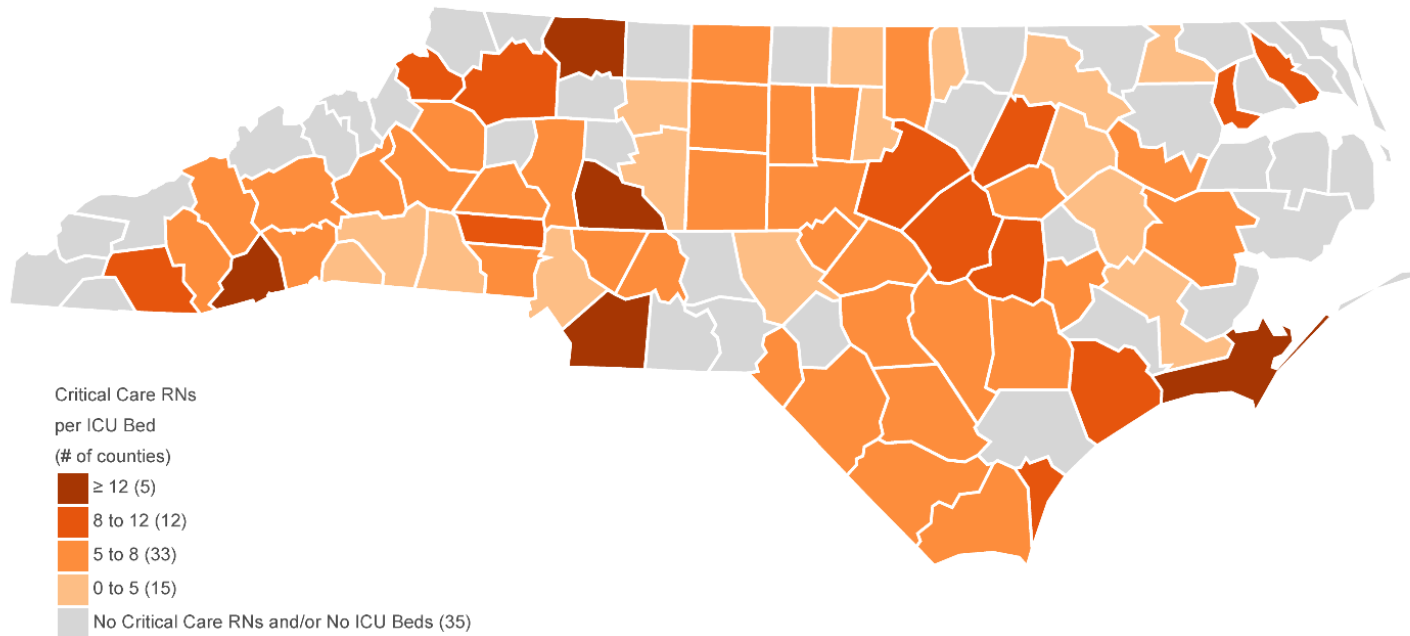
MARCH 31, 2020

10.1377/hblog20200327.714037



It wasn't just about numbers, distribution of workforce relative to ICU beds was critical

Critical, Acute and Emergency Care Registered Nurses per ICU Bed, North Carolina, 2018



Notes: Data include active, licensed registered nurses in practice in North Carolina as of October 31, 2018. Data are derived from licensure data from the North Carolina Board of Nursing. County estimates are based on primary practice location, and includes registered nurses who reported a specialty of "Acute Care/Critical Care/Emergency Care" and a setting of "Hospital". Data from the Centers of Medicare & Medicaid Services (CMS) Healthcare Cost Report Information System (HCRIS) was used to calculate intensive care unit beds for hospitals (Personal communication G. Mark Holmes). ICU beds includes intensive care unit, coronary care unit, and surgical ICU beds.

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Lots of focus on surging acute care nurses. What can (and should) we learn from what is happening in long term care?

Hundreds of nursing homes ran short on staff, protective gear as more than 30,000 residents died during pandemic

The new report comes after months of refusal by states to release information about the pandemic's impact in eldercare facilities



A person is loaded into an ambulance at the Life Care Center in Kirkland, Wash., in March. The nursing home was the first in the nation to experience an outbreak of the coronavirus, which later spread to thousands of homes across the country. (Ted S. Warren/AP)

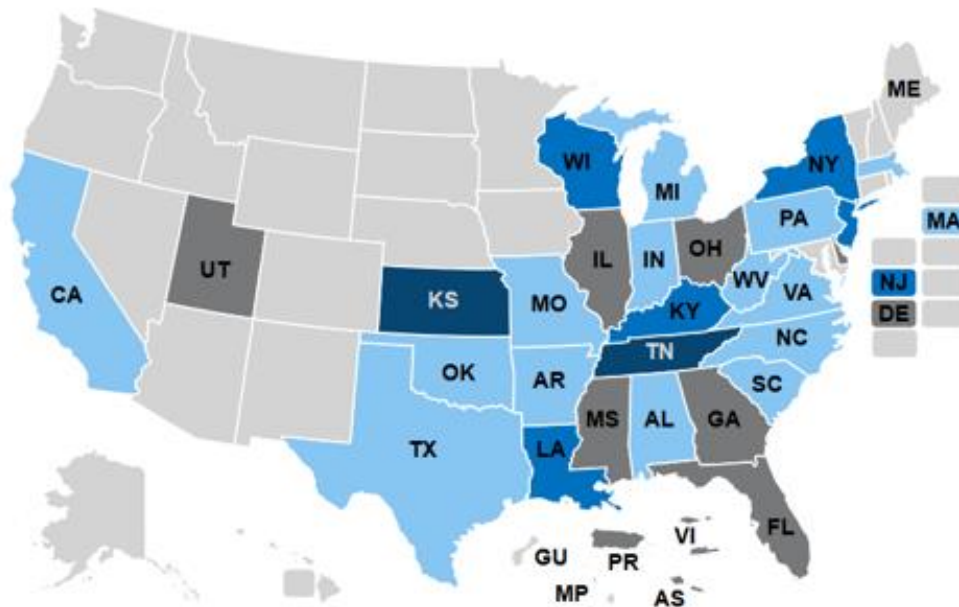
Pandemic revealed glaring issues in long term care

- Understaffed
- Underpaid (working more than one job)
- Underprepared (infection plans, PPE)
- Little integration and planning with acute care

Part of surging workforce was flexing Scope of Practice for Nurse Practitioners

COVID-19 State Emergency Response: Temporarily Suspended and Waived Practice Agreement Requirements

Maps are updated as information becomes available. This map was last updated on: June 1, 2020.



Legend

Executive Orders Expired

Temporary suspension of all
practice agreement
requirements

Temporary waiver of select
practice agreement
requirements

Currently no action on this issue

Which provides a rich natural experiment

- States may revert back to restrictive SOP without evidence demonstrating value and impact of these changes
- “We implore health services researchers to elucidate the impact of these policy changes on...cost, quality, access, and clinician wellbeing”*
- Unit of analysis is important—not all organizations may have implemented changes. Lusine Poghosyan’s work suggests investigating effects at hospital- or practice-level

* Germack, Norful, Riman. Surge in Policies Expanding Nurse Practitioner Scope of Practice in Response to COVID-19 Provide an Important Research Opportunity. Academy Health blog post, 2020. <https://academyhealth.org/blog/2020-05/surge-policies-expanding-nurse-practitioner-scope-practice-response-covid-19-provide-important-research-opportunity>

Nurses and Telehealth

- Dramatic changes in CMS reimbursement for video and telephonic visits significantly altered workflows
- What roles did nurses have in telehealth in acute and community-based settings?
- Did they feel prepared? What barriers existed?
- Effect of changes:
 - More productive nurses?
 - Improved access?
 - More satisfied patients?
 - More satisfied nurses?



Looking toward (and forward to!) The Post-Pandemic Period



Some things I worry about:

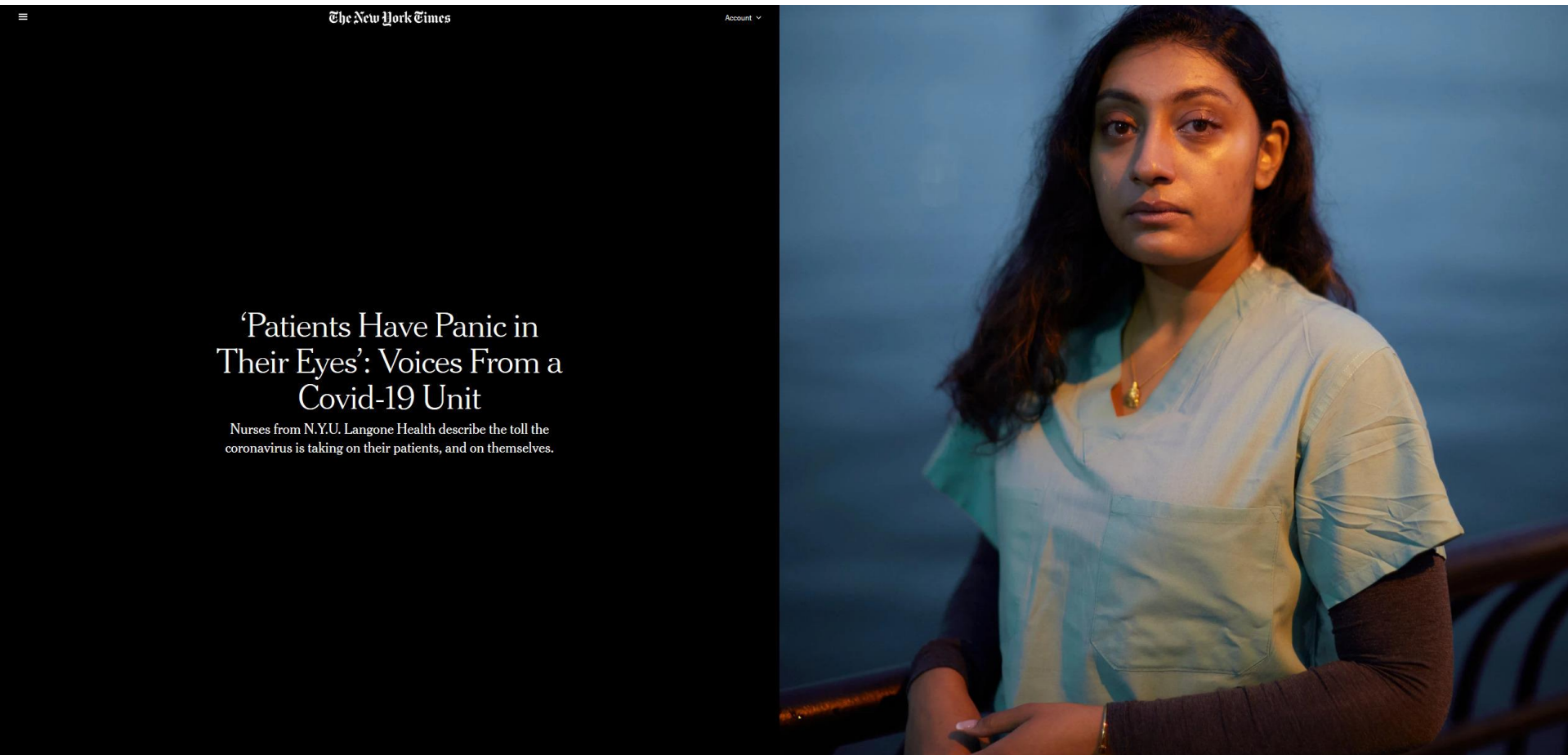
1. The pipeline
2. Burnout, moral distress and risk of infection
3. The availability of national nursing data

COVID-19 and the Making of Nurse Heroes and Warriors



Will we see increased interest in nursing careers?

Or will new entrants be dissuaded by sense that nursing workforce was not cared for and expendable?



Was it the nurses who weren't prepared? Or hospitals and health care systems and educators?

Why America's Nurses Were Not Prepared For The Coronavirus Pandemic

Tener Veenema, a fellow at the American Academy of Nursing; and Diane Meyer, an analyst at the Johns Hopkins Center for Health Security explain why nurses were not prepared for Covid-19, and how systems can change to better handle future public health emergencies.



Authors suggest:

1. Nurses currently lack emergency preparedness education
2. The public health system has not drilled nurses on emergency situations
3. Staffing shortages and a lack of cross-training left nurses ill-prepared to help their patients
4. Despite stress, anxiety and long hours, nurses aren't provided with adequate mental health care

So much focus on surging. We're going to be in this for a long while—need to invest in sustaining the workforce



‘I Can’t Turn My Brain Off’: PTSD and Burnout Threaten Medical Workers

Before Covid-19, health care workers were already vulnerable to depression and suicide. Mental health experts now fear even more will be prone to trauma-related disorders.

What will be the longer-term effects on the nursing workforce?

- Impact of psychological trauma, infection, burnout and moral distress on current workforce
- How do we document the toll the pandemic has had on the nursing workforce?
- Will we see higher attrition rates? Early retirement? A reduction in hours worked?
- Will higher attrition and burnout in hard hit communities negatively affect patient outcomes in longer term?
- How will it affect populations and groups that have shouldered disproportionate impact of the pandemic?

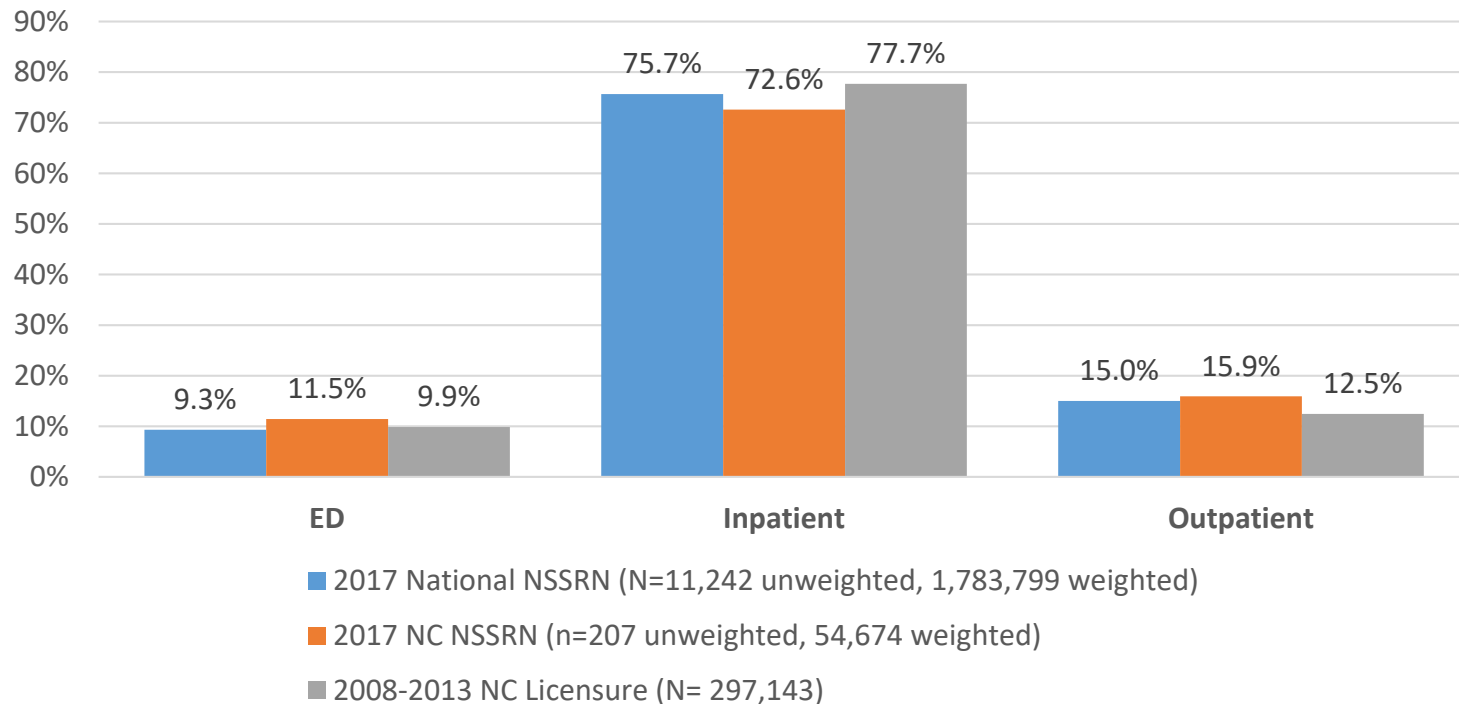
Pandemic has highlighted deep inequities and galvanized action to address structural racism

We need more and better data to highlight nurses' value in “tackling our nation’s most devastating health crises, which are often interwoven with factors related to discrimination, substance use, homelessness, and other conditions”



Good news: NSSRN data are available for national and state analysis

**Nurse Employment in Hospitals,
NSSRN vs NC licensure Data**



Credit: Dr. Esita Patel PhD RN, postdoctoral fellow, Johns Hopkins University

The Not-So-Good News

- Nursys from the National Council of State Boards of Nursing is potentially powerful tool to create minimum data set for nurses in the United States
- But “hospital” employment setting does not break out inpatient, outpatient and emergency room settings
- There is no mental health setting



Moving from data/research to messaging

- Understandable cynicism about role of data and evidence in policy
- Facing ever expanding “know-do gap” between growing body of rigorous nursing workforce research and policy
- Gap arguably larger for health workforce research because rife with vested professional interests and turf wars
- Documentation is critical to identify trends requiring attention of government officials (Brown 1991).

Brown LD. 1991. “Knowledge and Power: Health Services Research as a Political Resource” In Health services Research: Key to Health Policy, edited by Eli Ginzberg, 20-45, Cambridge MA: Harvard University Press

Disseminating that documentation requires different forms of communication

“...more can be done to expand the scope of consumable morsels of evidence, to house them in accessible archives....to make sure that those with policy-making authority know where to look and how to access this information *as they need it*, and to experiment with varied methods and technologies to enhance communication (without nursing any delusional expectations of creating a new world of evidence-driven policy making).”

*Peterson MA. “In the Shadow of Politics: The pathways of research evidence in policy making”. *Journal of Health Politics Policy and Law*. 2018; 43(3): 341-376.

And courage

- Speaking truth to power requires courage (Wildavsky, 1979)
- You must master the dual art of communicating your findings and **listening** so you can situate your findings in current policy context
- If you find yourself squeamish about entering political fray, remember if you don't message your findings to policy makers, others may twist your messages to suit their purposes



Caveats: this isn't easy nor quick

- Difficult to invest time in crafting policy messages. Drafting policy briefs and engaging with policy makers is “time sink” when academic promotion processes generally don't reward these activities
- Speaking truth to power can be risky
- Policy change is frustratingly slow and incremental, requires patience
- But growing an evidence base and persevering in messaging **does change** way policy makers understand an issue and influences the policy options they identify to address it



We hope to influence nursing workforce policy with our new workforce supply/demand model

In collaboration with North Carolina Board of Nursing, building three visualizations to display nursing workforce data (creating morsels of evidence!)

1. Descriptive data on LPN and RN demographic, education, and practice characteristics
2. Supply/Demand forecasts for LPNs and RNs
3. Geographic diffusion of new graduates from training to practice

Check our website in late summer

In the meantime: Find us, Follow Us, Sign up For our Newsletter



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