Issue [1]: Special Needs in Rural America and Implications for Workforce Education and Training

Council on Graduate Medical Education
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This Presentation in One Slide

- Rural populations less healthy on almost every measure
- Need to foment a “Copernican Revolution” to reframe GME policy to put patients at center of discussions
- Need to align training and financing to address rural population’s “essential health care services”
  - Promote generalist training and practice
  - Encourage team-based models of care
  - Develop more community-based training to match shift in care
- Good news: we can build on “bright spots” and work already underway to address rural health needs and build rural workforce

Rural populations are less healthy across most metrics

- On nearly every measure, rural communities have poorer social determinants of health, access to health care, and health behaviors: all leading to worse health outcomes Exceptions: sexually transmitted infections (e.g. chlamydia) and alcohol use
- "Over-represented" causes of death in rural areas are motor vehicle accidents, other non-transport accidents, suicide by gun, acute myocardial infarction
- Note workforce implications (e.g. trauma/EMS, general surgery, behavioral health, primary care)

Sources: G. Mark Holmes PhD, Director, Rural Health Research Program, Cecil G. Sheps Center for Health Services Research, UNC-CH https://www.shepscenter.unc.edu/product/rural-health-snapshot-2017/

Figure 4: AHA Task Force on Vulnerable Communities Essential Health Care Services

Essential Health Care Service

Emerging Strategy	Primary Care	Psychiatric and substance use treatment services	ED and observation care	Prenatal care	Transportation	Diagnostic services	Home care	Dentistry services	Robust referral structure
Addressing the Social Determinants of Health					x				x
Global Budget Payments	x	x	x	x	x	x	x		x
Inpatient/Outpatient Transformation Strategy	x	x	x	x		x			x
Emergency Medical Center	x		x		x	x			x
Urgent Care Center	x					x			x
Virtual Care Strategies	x	x	x						x
Frontier Health System	x	x	x	x	x	x	x		x
Rural Hospital-Health Clinic Strategy	x	x	x	x		x		x	x
Indian Health Services Strategies	x	x	x	x	x	x	x		x

Source: American Hospital Association. (2018). Access to Care in Vulnerable Communities; *www.aha.org/vulnerablecommunities*

In 2016, the American Hospital Association completed a Task Force on Ensuring Access in Vulnerable Communities and identified ***essential health services*** in rural communities. Reflects balance of traditional health care services (e.g. primary care) but also enabling social services that are also important --- e.g. transportation.

Putting patients' essential health care services at the center of GME policy discussions

Need a Copernican revolution in GME that starts with different question. ***Not*** how many physicians do we need? But instead: what essential health care services are needed in rural areas?

- Primary Care
- Behavioral health and substance abuse/ opioid use disorders
- Obstetrics and prenatal care
- General surgery, trauma and procedural care
- Long-term and home health care

And acknowledges the interdependence of different physician specialties…

Source: National Geographic Society
https://goo.gl/images/j6Lh4G

"For the one-quarter of Americans who live outside metropolitan areas, general surgeons are the essential ingredient that keeps full-service medical care within reach. Without general surgeons as backup, family practitioners can't deliver babies, emergency rooms can't take trauma cases, and most internists won't do complicated procedures such as colonoscopies."

Washington Post, January 1, 2009

A focus on patients' essential health care requirements highlights need for teams of providers
Example: rural obstetric services

"From 2004 to 2014, 9 percent of all rural counties lost access to hospital obstetric services, and **more than half of all rural counties** in this country are now without a single local hospital where women can get prenatal care and deliver babies."[1]

"In rural US counties not adjacent to urban areas, loss of hospital-based obstetric services, compared with counties with continual services, **was associated with increases in out-of-hospital and preterm births**"[2]

Increasing access to obstetric and prenatal services in rural communities requires a range of health professionals that are all interdependent on one another

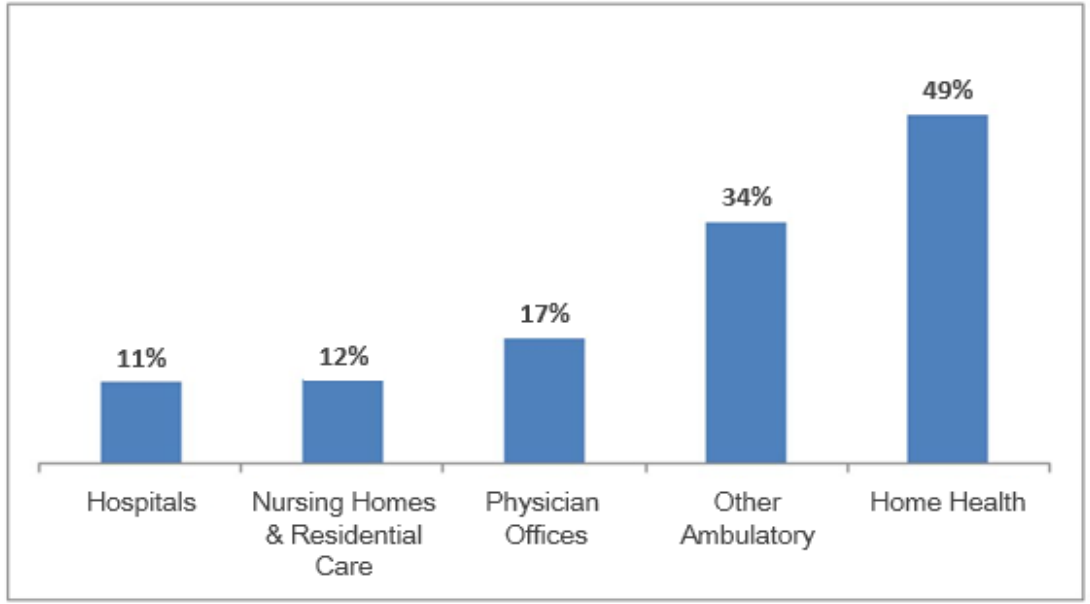
1 Pearson C & Taylor F. Mountain maternity wards closing, WNC women's lives on the line. *Carolina Public Press.* 25 September 2017. Accessed 10 Oct 2017 at: https://carolinapublicpress.org/27485/mountain-maternity-wards-closing/

2 Kozhimannil, KB et al. "Association between of Loss of Hospital-Based Obstetric Services and Birth Outcomes in Rural Counties in the United States". JAMA. 2018;319(12):1239-1247

Increased emphasis on social determinants of health and payment incentives are shifting care upstream to outpatient, community and home settings

- Shift from fee-for-service to value-based payments and fines that penalize hospitals for readmissions are shifting care from inpatient to ambulatory and community-based settings
- Medicare Advantage plans, Medicaid and Department of Veteran Affairs increasingly referring more patients for home health and community-based services
- But most GME funding goes to hospitals

Exhibit 1: Health Care Job Growth by Setting: December 2007–January 2017



Source: Authors' analysis of BLS Current Employment Statistics data.

Turner A, Roehrig C, Hempstead K. What's Behind 2.5 Million New Health Jobs? *Health Affairs* Blog. March 17, 2017. http://healthaffairs.org/blog/2017/03/17/whats-behind-2-5-million-new-health-jobs/

These shifts require investing in training in community-based settings and training teams of providers

- Need to enhance training in community-based settings
- Encourage GME training in team-based models of care that include “traditional” health professionals as well as other providers
- Example: Social workers in integrated behavioral health and primary care models who serve as*:
  - Behavioral health specialists: provide interventions for mental, behavioral health and substance abuse disorders
  - Care Managers: coordinate, monitor and assess treatment plans
  - Referral role: connect patients to community resources, transportation, food etc.

*Fraser MW, Lombardi BM, Wu S, Zerden LD, Richman EL, Fraher EP. Social work in integrated primary care: A systematic review. Journal of Social Work and Research. 2018; 9(2):0-36.

Rural communities use "asset-based" approach and adjust team structures and services to make use of local providers

1. Providers in rural communities are generally more "plastic"
2. Key plasticity concepts:
   - Scope of services provided by different physician specialties and professions ***overlap*** and are ***dynamic***
   - Two types of plasticity:
     - **Between plasticity**: describes differences in scope of services between specialties and professions
     - **Within plasticity**: describes differences in scope of services within same profession or specialty

Article

The Contribution of "Plasticity" to Modeling How a Community's Need for Health Care Services Can Be Met by Different Configurations of Physicians

George M. Holmes, PhD, Marisa Morrison, Donald E. Pathman, MD, MPH, and Erin Fraher, PhD, MPP

Abstract

This article introduces the concept of "plasticity" to health care workforce modeling and policy analysis. The authors define plasticity as the notion that individual physicians within the same specialty each provide a different scope of service, while the scope of service of physicians in different specialties may overlap. This notion represents a departure from the current, silo-based conception of physician supply as physician headcounts by specialty; the implication is that multiple configurations of physicians (and, by further application, other health care professionals) can meet a community's utilization of health care services.

Within-specialty plasticity and between-specialty plasticity are two facets of plasticity. Within-specialty plasticity is the idea that individual physicians within the same specialty may each provide a different mix and scope of services, and between-specialty plasticity is the idea that patterns of service provision overlap across specialties. Changes in physician specialty supply in a community affect both the between-specialty and within-specialty plasticity of that community's physicians. Notably, some physician specialties are more "plastic" than others.

The authors demonstrate how to implement a plasticity matrix by assessing the sufficiency of physician supply in a specific community (Wayne County, North Carolina). Additional literature and data can provide further insights into the influences on (and of) plasticity, improving this approach and expanding it to include task-shifting across health care professions.

A common approach in physician workforce modeling and policy analysis is to assess whether there is a physician shortage by considering each individual specialty to be distinct, defined by the different training experienced by and unique scope of services provided by its practitioners.[1-4] This "siloed" conception of specialties ignores the reality that the scope of medical services that physicians of different specialties provide often overlaps. This traditional approach also treats all physicians within a single specialty as identical and therefore interchangeable, even though individuals within a given specialty offer different mixes of services because of their particular training and interests.

An alternative health care workforce modeling approach exists. (In this article, we refer to "physicians" for expositional simplicity, although the model could easily be extended to other clinicians such as physician assistants and advanced practice nurses. We use "providers" or "workforce" to refer to this broader group.) The for multiple combinations of physician specialties to provide a specified group of medical services but still recognizes that certain specialties are more likely to provide certain types of health care services.

Heterogeneity in the services provided within a specialty also characterizes physician practice. For instance, some internists devote a greater proportion of their visits to respiratory conditions, whereas others focus more on circulatory conditions. Few researchers have conducted scholarly work exploring either within-specialty heterogeneity or between-specialty service overlap, despite the importance of these realities to the solutions that could flow from physician workforce models. We suggest that these related concepts represent two facets of *physician plasticity*. This article's objective is to describe the concept of plasticity

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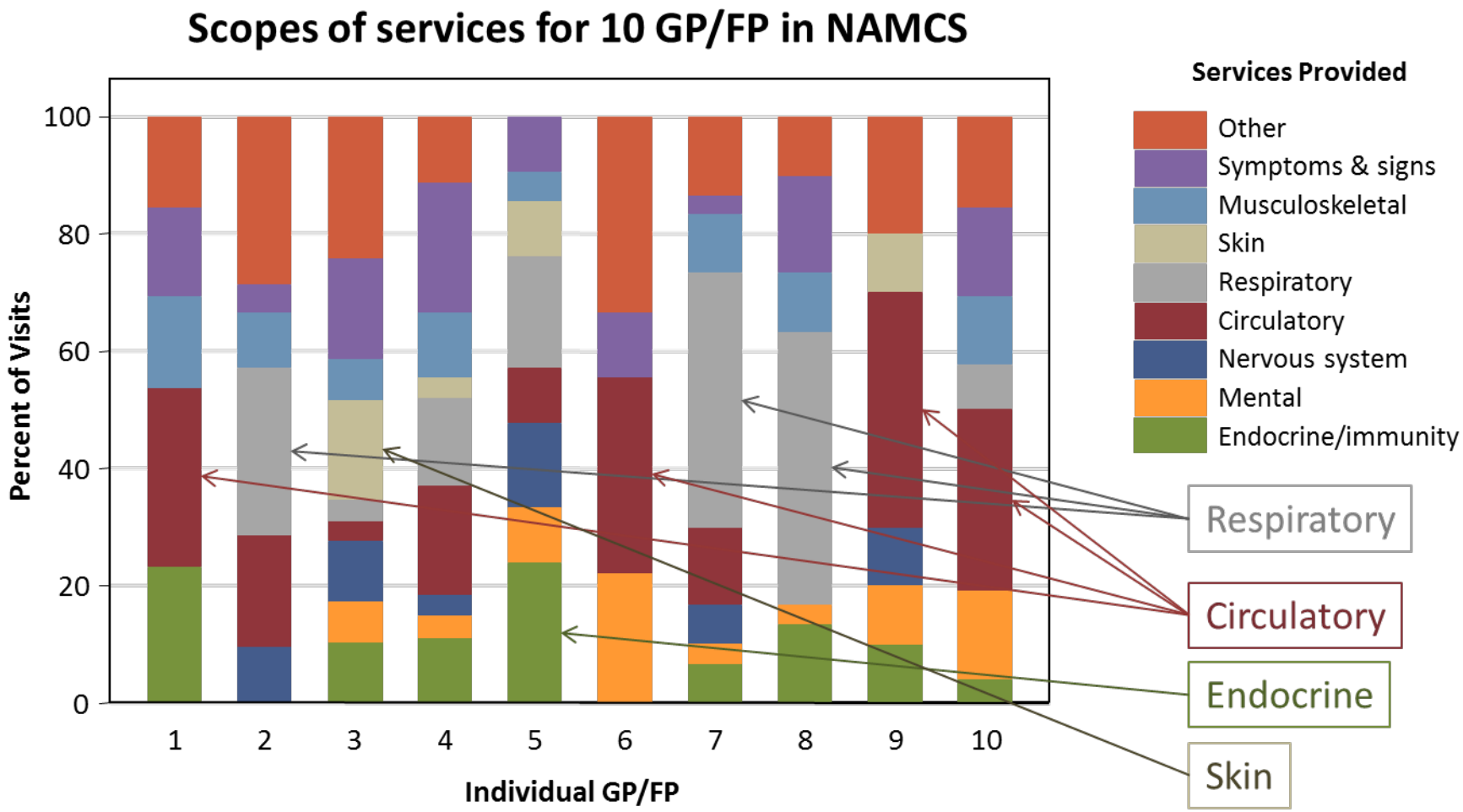
Holmes GM, Morrison M, Pathman DE, Fraher E. The Contribution of "Plasticity" to Modeling How a Community's Need for Health Care Services Can Be Met by Different Configurations of Physicians. *Academic Medicine*. 2013; 88(12): 1877-1882.

Family Physicians are Very “Plastic”, as are other generalists



What determines a health professional's plasticity?

- Density/availability of other providers with similar/competing scopes of practice
- Local geography
- Patient population
- Payment model
- Model of care and referral patterns
- Personal preferences and demographic characteristics
- Regulation
- Hospital executives, practice managers and HR decisions about deployment and payment
- **Professional's education and training (initial and ongoing)**

Conclusions

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