

The Carolina Health Workforce Research Center: Contributions to the Field of Health Workforce Research and Policy 2013-2017

March 13, 2017

The Carolina Health Workforce Research Center (HWRC) at the University of North Carolina at Chapel Hill (UNC-CH) conducts and disseminates timely, policy-relevant research on the flexible use of health care workers to support health system transformation. Since 2013, our HWRC researchers have produced research, data, and analyses that have shaped policy; developed new methods and tools to analyze workforce data; built the science of workforce research by disseminating findings; and mentored the next generation of health workforce researchers. Specific projects, a list of peer-reviewed publications and a summary of products are included in Tables 1-3.

Shaping policy

Our research on the emerging topic of redesigning graduate medical education has been used by HRSA, COGME, MedPAC, GAO, the National Health Policy Forum, the National Academy of Medicine, the National Governors Association and other policy makers. Our GME work has also benefitted state policy makers as they draw on the lessons learned and best practices identified through our HRSA-funded study of state efforts to reform GME.

Developing new methods and tools

We have developed innovative methodologies that have advanced the field of workforce research in two key areas: methods for allocating GME dollars based on workforce data and developing new approaches to estimating physician migration patterns for use in projection models. Our DocFlows mapper — a web-based, interactive mapping tool showing flows of residents and physicians between states — is an example of how we have used HRSA funding to develop new tools that allow policy makers to interact with workforce data and understand trends in the supply, distribution, and specialty mix of the health workforce.

Building the science of workforce research

From 9/1/13-8/31/16, our HWRC produced 66 products from 13 funded projects and 6 NCHWA rapid response requests. We have published our research in the peer-reviewed literature and have also disseminated our findings through presentations, webinars and policy briefs. These include numerous keynote presentations at national meetings, participation on American Hospital Association workforce committees, and co-chairing a National Academy of Medicine Workshop on Global Approaches to Financing Health Professions Education.

Educating the next generation

We have mentored a future generation of researchers who will continue to build the science of workforce research and shape the future of health workforce policy. Nine students, including graduate students in health policy, medicine, nursing and social work, medical residents, and undergraduates, have been members of our HWRC research team.

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Table 1. HWRC Funded Research Studies & Associated Peer-Review Publications

Completed Research Studies by Year

Year 1, 2013-14

Workforce Transformations Needed to Staff Value-Based Models of Care

- Fraher E, Ricketts TC. Building a Value-Based Workforce in North Carolina. *NC Med J.* 2016; 77(2):94-8.
- Fraher EP, Ricketts TC, Lefebvre A, Newton W. The Role of Academic Health Centers and Their Partners in Reconfiguring and Retooling the Existing Workforce to Practice in a Transformed Health System. *Acad Med.* 2013; 88(12):1812-1816.
- Ricketts TC, Fraher EP. Reconfiguring health workforce policy so that education, training, and actual delivery are closely connected. *Health Affairs.* 2013 November; 32 (11).

Comparison of Specialty Distribution of Nurse Practitioners & Physician Assistants in North Carolina, 1997-2013

- Fraher E, Morgan P and Johnson A. A Comparison of the Specialty Distribution of NPs and PAs in North Carolina 1997-2013. *JAAPA.* 2016; 29(4):38-43.

Assessing Shifts in Outpatient Visits to Physicians of Other Specialties in Rural Areas with Shortages of Specialists: A Preliminary Analysis

Year 2, 2014-15

Pathways to a Nursing Career: Transitions of LPNs Who Become RNs in North Carolina

- Jones CB, Toles M, Knafel GJ, Beeber AS. An untapped resource in the nursing workforce: Licensed Practical Nurses who transition to become registered nurses. Submitted to *Nurs Outlook.* January 2017.

A Methodology for Using Workforce Data to Decide Which Specialties and States to Target for GME Expansion

- Holmes GM, Fraher EP. Developing physician migration estimates for workforce models. *HSR.* 2017 Feb; 52 Suppl 1: 529-545.
- Fraher EP, Knapton A, Holmes GM. Making Use of Workforce Projections to Inform the Graduate Medical Education Policy Debate in the United States. *HSR.* 2017 Feb; 52 Suppl 1: 508-528

Use of Physical and Occupational Therapists in the Acute Care to Community Transition Following Stroke

- Freburger J, Li D, Johnson A. Physical and Occupational Therapy in Acute and Community Settings After Stroke: Are Patients Getting the Care They Need? *Arch Phys Med & Rehab* (in press).
- Freburger J, Li D, Johnson A, Fraher E. Community Use of Physical and Occupational Therapists After Stroke and Risk of Hospital Readmission. Submitted to *J Am Geriatrics Soc*, 2016.

Physician Assistants & Nurse Practitioner Roles in PCMHs

Diffusion of Physicians and Access to Primary Care: The Role of Person, Program, and Place

- Ricketts TC, Fraher EP, Spero JC. Counting Physicians in Specialties: By What They Do or How They Train? *J Med Reg.* 2016 April; 102(2):13-20.

Year 3, 2015-16

Predicting Professional Transitions from the LPN-to-RN in NC

The Future of Medicaid-Funded GME under Fee-for-Service and Value-Based Payment Models

- Fraher E, Spero J, Bacon T. State-Based Approaches to Reforming Medicaid-Funded Graduate Medical Education. Manuscript submitted in March 2017.

Determining the Value and Outcomes of the Doctor of Nursing Practice

Toward a Better Understanding of Social Work Roles and Functions on Integrated Care Delivery Teams

- Fraser MW, Lombardi BM, Wu S, Zerden L, Richman EL, Fraher EP. Social Work in Integrated Primary Care: A Systematic Review. Under revision at *PLOS ONE.* March 2017.

The Role of Practice Facilitators in Meeting the HIT Needs of Rural Practices

Table 2. Productivity and Dissemination of Completed Projects

Completed Research Studies by Year	Journal Article – Accepted*	Journal Article – Submitted*	Research Brief	Policy Brief	Refereed Conference Paper	Poster	Invited Presentation	Webinar	Rapid Response Request	Total
Year 1, 2013-14	4	0	3	3	2	2	10	2	1	27
Workforce Transformations Needed to Staff Value-Based Models of Care	3		1	1	1	1	10	2		19
Comparison of Specialty Distribution of NPs and PAs in NC, 1997-2013	1		1	1	1	1				5
Assessing Shifts in Outpatient Visits to Physicians of Other Specialties in Rural Areas with Shortages of Specialists: A Preliminary Analysis			1	1						2
Rapid Response Requests									1	1
Year 2, 2014-15	4	2	2	5	2	3	1	1	2	22
Pathways to a Nursing Career: Transitions of LPNs Who Become RNs in NC			1	1						2
A Methodology for Using Workforce Data to Decide Which Specialties and States to Target for GME Expansion	2			1			1			4
Use of Physical and Occupational Therapists in the Acute Care to Community Transition Following Stroke	1	1		1	2	3				8
Physician Assistants & Nurse Practitioner Roles in PCMHs				1	1					2
Diffusion of Physicians and Access to Primary Care: The Role of Person, Program, and Place	1		1	1				1		4
Rapid Response Requests									2	2
Year 3, 2015-16	0	2	3	5	1	0	3	0	3	17
Predicting Professional Transitions from the LPN-to-RN in NC			1	1						3
State-Based Approaches to Reforming Medicaid-Funded Graduate Medical Education		1		1			3			5
Determining the Value and Outcomes of the Doctor of Nursing Practice			1	1						2
Toward a Better Understanding of Social Work Roles and Functions on Integrated Care Delivery Teams		1		1	1					3
The Role of Practice Facilitators in Meeting the HIT Needs of Rural Practices			1	1						2
Rapid Response Requests									3	3
Total	8	4	8	13	5	5	14	3	6	66

Notes: Products do not include progress or final administrative reports submitted to HRSA. *See peer-reviewed articles listed in Table 1. **Includes products and activities completed through 3/13/17. Abbreviations: GME = Graduate Medical Education; HIT = Health Information Technology; LPN = Licensed Practical Nurse; NC = North Carolina; NP = Nurse Practitioner; PA = Physician Assistant; PCMH = Patient Centered Medical Home; RN = Registered Nurse.

Table 3. Currently Funded Research Studies and Productivity to Date*, Year 4, 2016-17

Research Studies In Progress and Products to Date

Year 4, 2016-17

Exploring the Magnitude and Timing of Physician Specialty Changes

Integration of Rehabilitation Care from the Acute to Community Setting: The Role of Physician Referral

Barriers and Facilitators for the LPN-to-RN Transition: Perspectives from Practicing LPNs

Developing a Better Understanding of Medical Assistants' Roles and Functions in Primary Care Settings

- Fraher E. Developing a Better Understanding of Medical Assistants' Roles and Functions in Primary Care Settings. Plenary panel discussion at the Hitachi Learning and Design Session on Primary Care Improvement and the Front-Line Workforce. Washington DC. November 9, 2016.

Mapping GME Location and Practice Location by Specialty

- Galloway E, Richman E, Knapton A, Fraher E. DocFlows Mapper: Beta Version. docflows.sirsdemo.unc.edu. January 2017.

Rapid Response Requests

- October 2016, November 2016, March 2017
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**Includes products and activities completed through 3/13/17.*

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