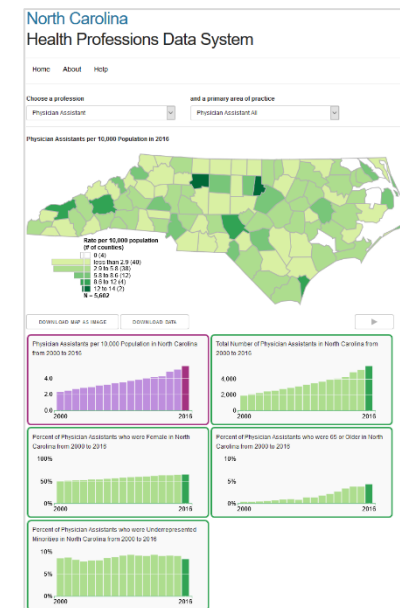
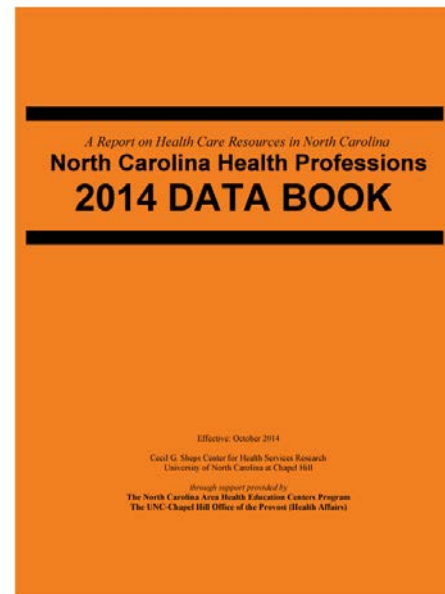


Developing Interactive Data Visualizations for State Workforce Planning and Policy

Evan Galloway
Data Visualization Analyst
Program on Health Workforce
Research and Policy

December 7, 2017



UNC
THE CECIL G. SHEPS CENTER
FOR HEALTH SERVICES RESEARCH

The data book has been the signature product of the HPDS

A Report on Health Care Resources in North Carolina
**North Carolina Health Professions
2010 DATA BOOK**

Effective: October 2010

Cecil G. Sheps Center for Health Services Research
University of North Carolina at Chapel Hill

through support provided by
The North Carolina Area Health Education Centers Program
The UNC-Chapel Hill Office of the Provost (Health Affairs)

Durham

MSA county designation: Metropolitan

AHEC Region: Wake AHEC



■ 2013 ACTIVE HEALTH PROFESSIONALS* ■

Physicians[§]

Non Federal Physicians	2,131
Primary Care Physicians	525
<i>Family Practice</i>	65
<i>General Practice</i>	5
<i>Internal Medicine</i>	156
<i>Obstetrics/Gynecology</i>	34
<i>Pediatrics</i>	124
<i>Other Primary Care</i>	141
Other Specialties	1,606
Physicians per 10,000 Population	74.5
Primary Care Physicians per 10,000 Population	18.4
Federal Physicians**	159

Dentists and Dental Hygienists

Dentists	203
Dental Hygienists	142

■ DEMOGRAPHICS ■

Nurses

Registered Nurses	6,851
<i>Nurse Practitioners</i>	409
<i>Certified Nurse Midwives</i>	12
Licensed Practical Nurses	627

Other Health Professionals

Chiropractors	50
Occupational Therapists	191
Occupational Therapy Assistants	46
Optometrists	38
Pharmacists	738
Physical Therapists	355
Physical Therapist Assistants	32
Physician Assistants	333
Podiatrists	10
Practicing Psychologists	289
Psychological Associates	32
Respiratory Therapists	240

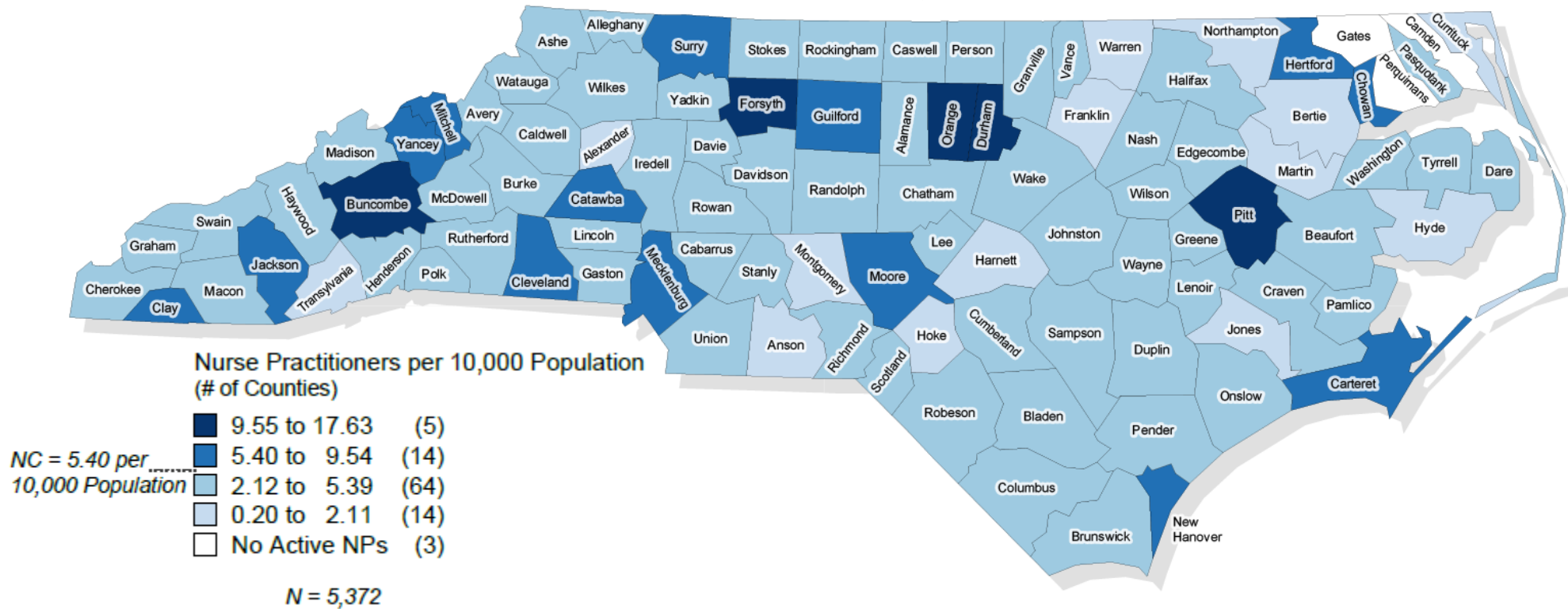


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The data book also contains maps of provider rates

Nurse Practitioners per 10,000 Population North Carolina, 2014



Note: Data include active, in-state NPs licensed in North Carolina as of October 31, 2014. **Source:** North Carolina Health Professions Data System, with data derived from the North Carolina Board of Nursing, 2014. **Produced by:** Program on Health Workforce Research and Policy, Cecil G. Sheps Center for Health Services Research, University of North Carolina at Chapel Hill.



How can we increase access to and interest in these data?

- Put it online
- Make it interactive
- Allow people to take images and data with them
- More maps!
- Add new dimensions for the data
 - Longitudinal data
 - Profession specialties
 - Demographic data (age, sex, underrepresented minorities)



Who do we want to use these data?

External

- Policymakers
- AHECs
- Researchers
- Licensing boards
- Educators
- Employers

Internal

- Our team
 - Auditing data
 - New research questions



How was this tool created?

Tools

- SAS for data cleaning and construction of longitudinal files
- LAMP stack for hosting data and website
- d3/javascript for frontend

Team

- Julie Spero – HPDS director
- Jim Terry – SAS programmer
- Evan Galloway – web developer
- Health workforce team
- Sheps Center Web Services



Thank you to our partners!

North Carolina Board of Nursing

North Carolina Board of Optometry

North Carolina Board of Pharmacy

North Carolina Board of Podiatry Examiners

North Carolina Medical Board

North Carolina Psychology Board

North Carolina Respiratory Care Board

North Carolina State Board of Chiropractic Examiners

North Carolina State Board of Dental Examiners

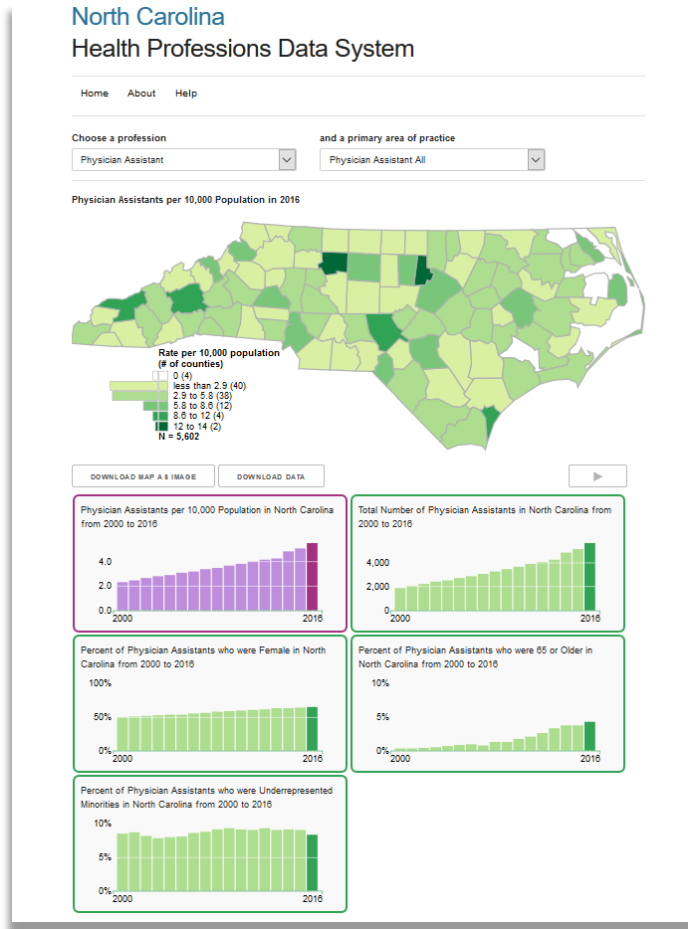
North Carolina Board of Occupational Therapy

North Carolina Board of Physical Therapy

North Carolina Area Health Education Centers (NC AHEC)



NC HPDS demo



<https://nchealthworkforce.sirs.unc.edu/>



Working on version 2 of the NC HPDS website. . .

- Your feedback is important and could help shape the direction of the data visualization
- Email to evan.galloway@unc.edu

