Access to Healthcare in Rural North Carolina

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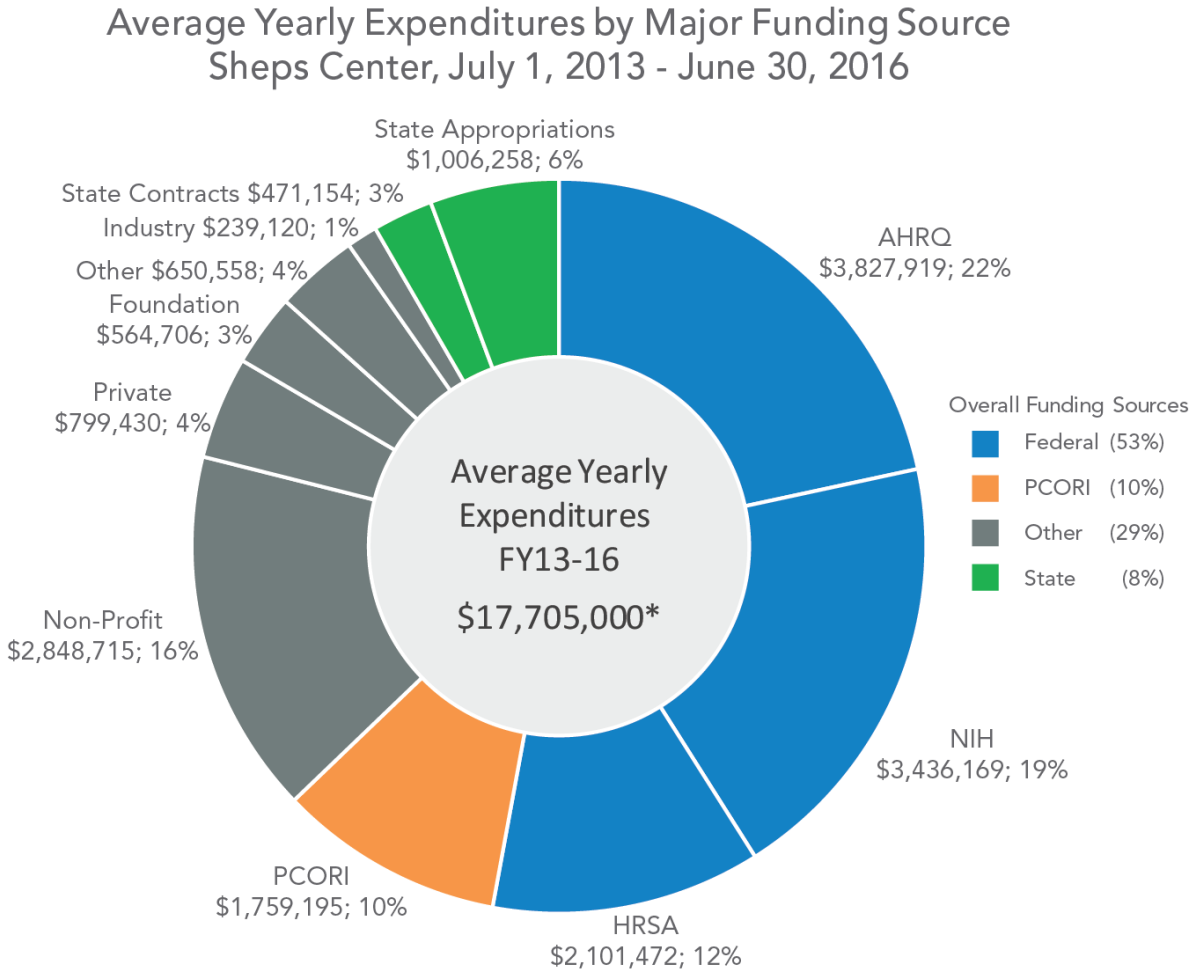
UNC
THE CECIL G. SHEPS CENTER
FOR HEALTH SERVICES RESEARCH

About the Cecil G. Sheps Center for Health Services Research

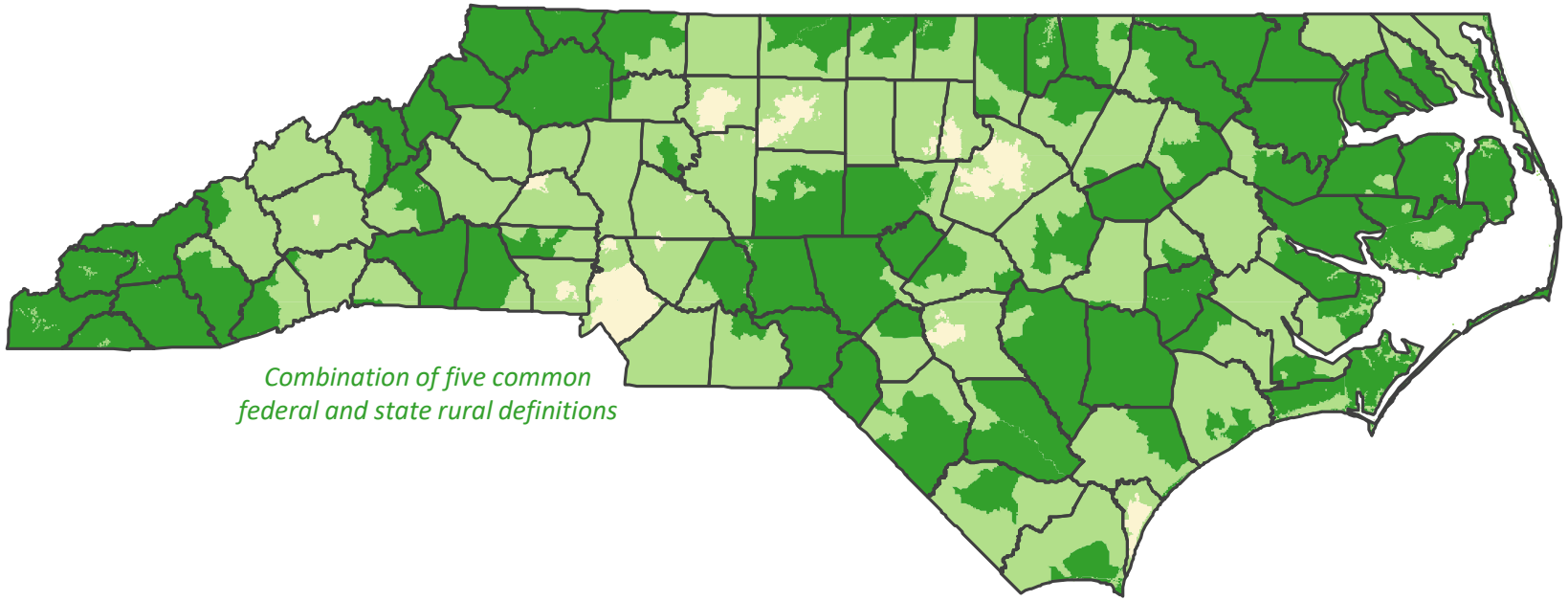
- Research Center at UNC-CH, focus: understanding the problems, issues, and alternatives in the design and delivery of health care services.
- Approximately 60-70 research and service projects and contracts at any time.
- Research is funded by NIH, AHRQ, PCORI, HRSA, foundations, and others.
- Annual budget ~$18 million, only ~6% state support (mostly “directed funding”).



Note: Data and chart do not include "Other Federal" funds of $14,979 expended in FY2015-16.
Source: Business Office, Cecil G. Sheps Center for Health Services Research, University of North Carolina at Chapel Hill.

What is “Rural”?

- *Rural* is a continuum, but we often think of as dichotomous (rural v. urban)
- Federal government has over seventeen definitions of “rural”: our use depends on context
- County-based: metro (Target), micro (Applebees), non-core
- Darker green = rural in more classifications



Combination of five common federal and state rural definitions

Rural Health at a Glance

Rural areas poorer health on almost every measure

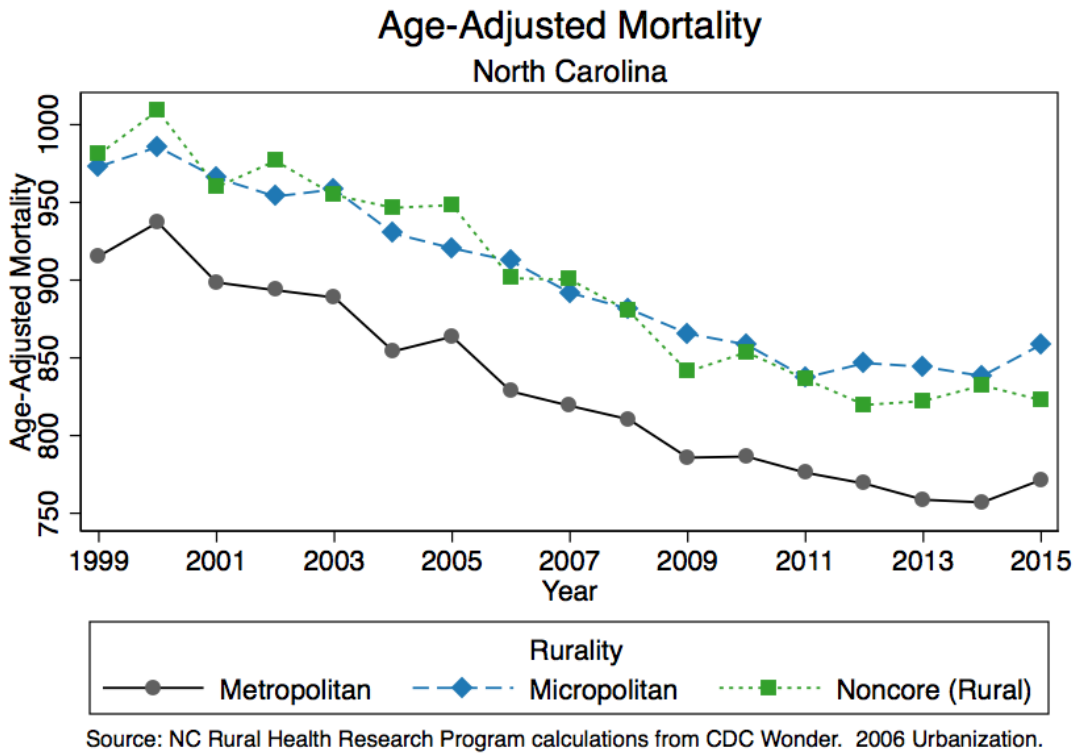
- Older, poorer, more isolated
- Persistently higher mortality

Less healthcare infrastructure

- Fewer docs, smaller hospitals
- Half of rural hospitals lose money

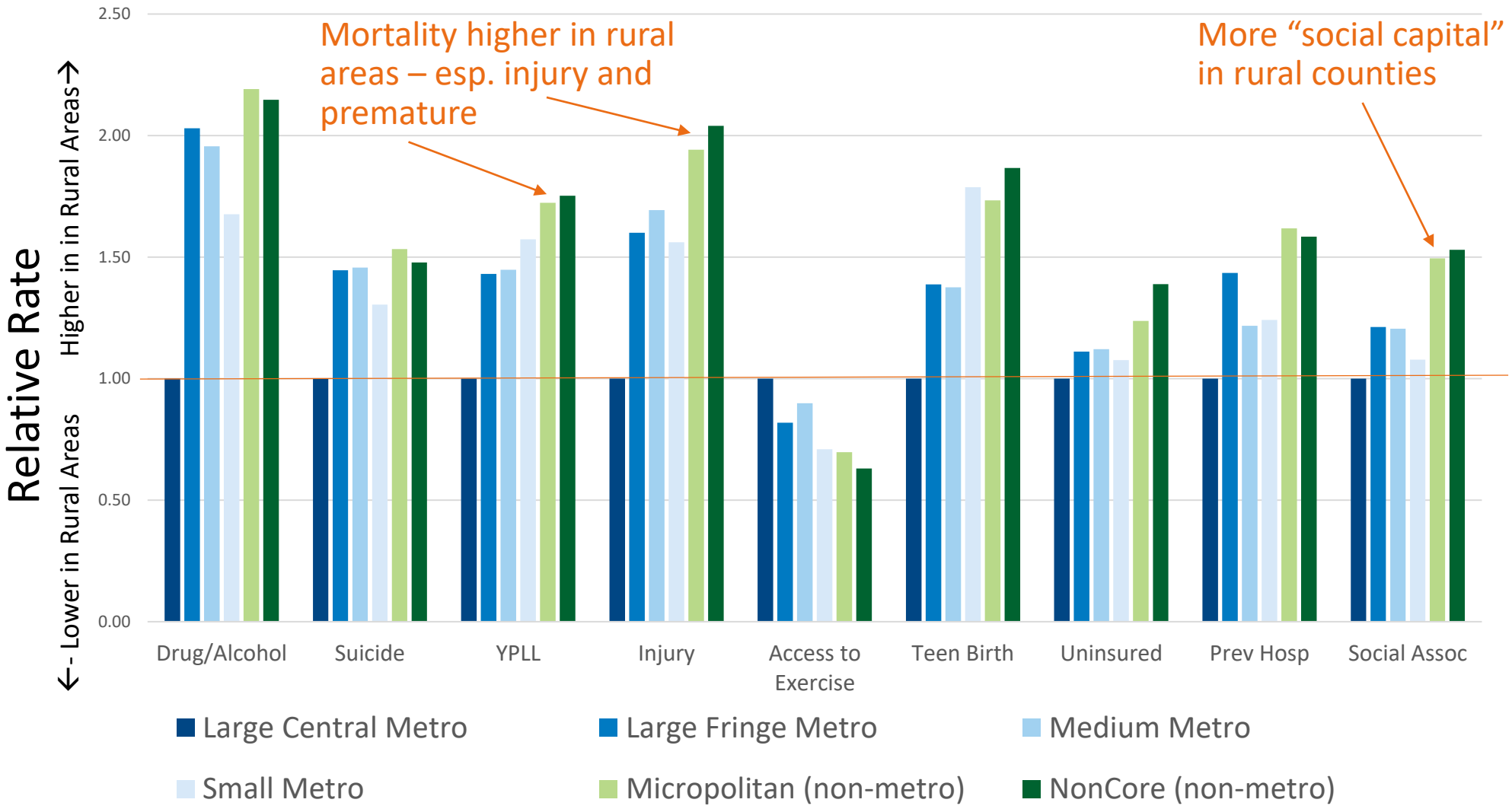
Nationally, 120 rural hospital closures since 2005

- 5 in NC since 2010



Source: NC Rural Health Research Program calculations from CDC Wonder. 2006 Urbanization.

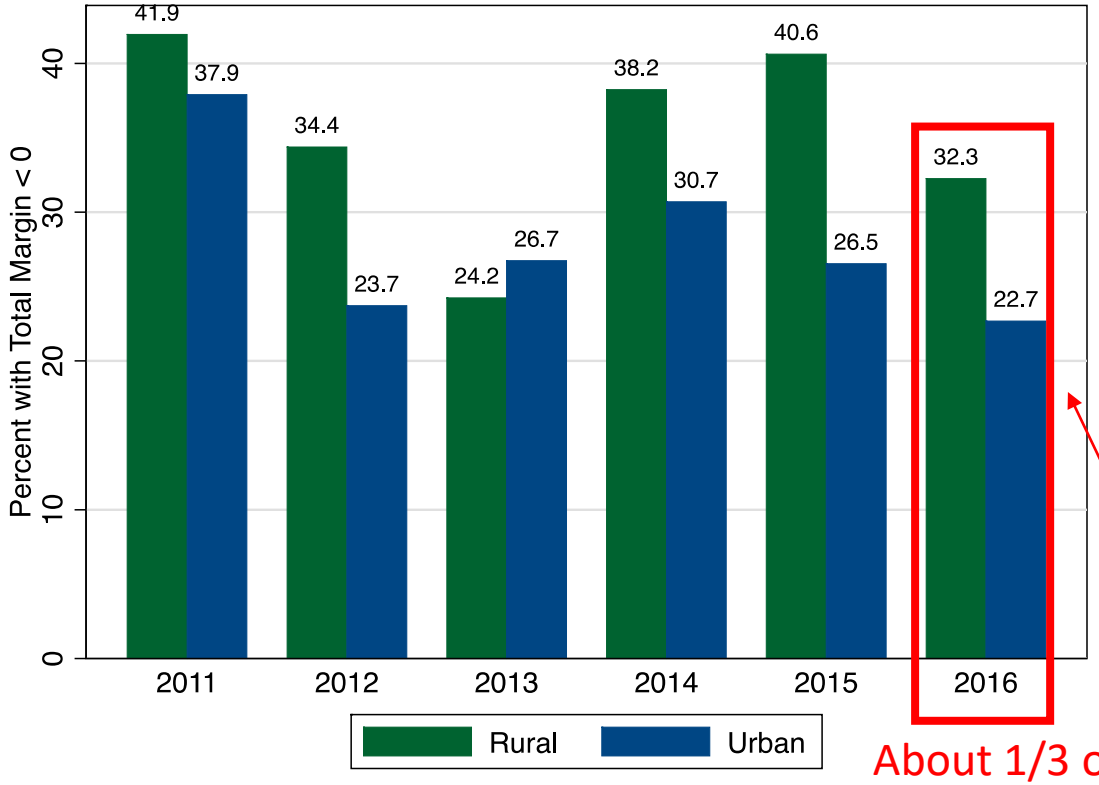
Health Factors: Urban-Rural Health Disparities in NC



CDC: 5 county types: **Large central** (Wake, Mecklenburg); **Fringe of large** (e.g., Union, Lincoln); **Medium metro** (e.g., Guilford, Madison); **Small metro** (e.g., Pitt, Onslow+Jones); **Micropolitan** (e.g., Harnett, Tyrrell); **NonCore/Rural** (e.g., Columbus, Ashe)

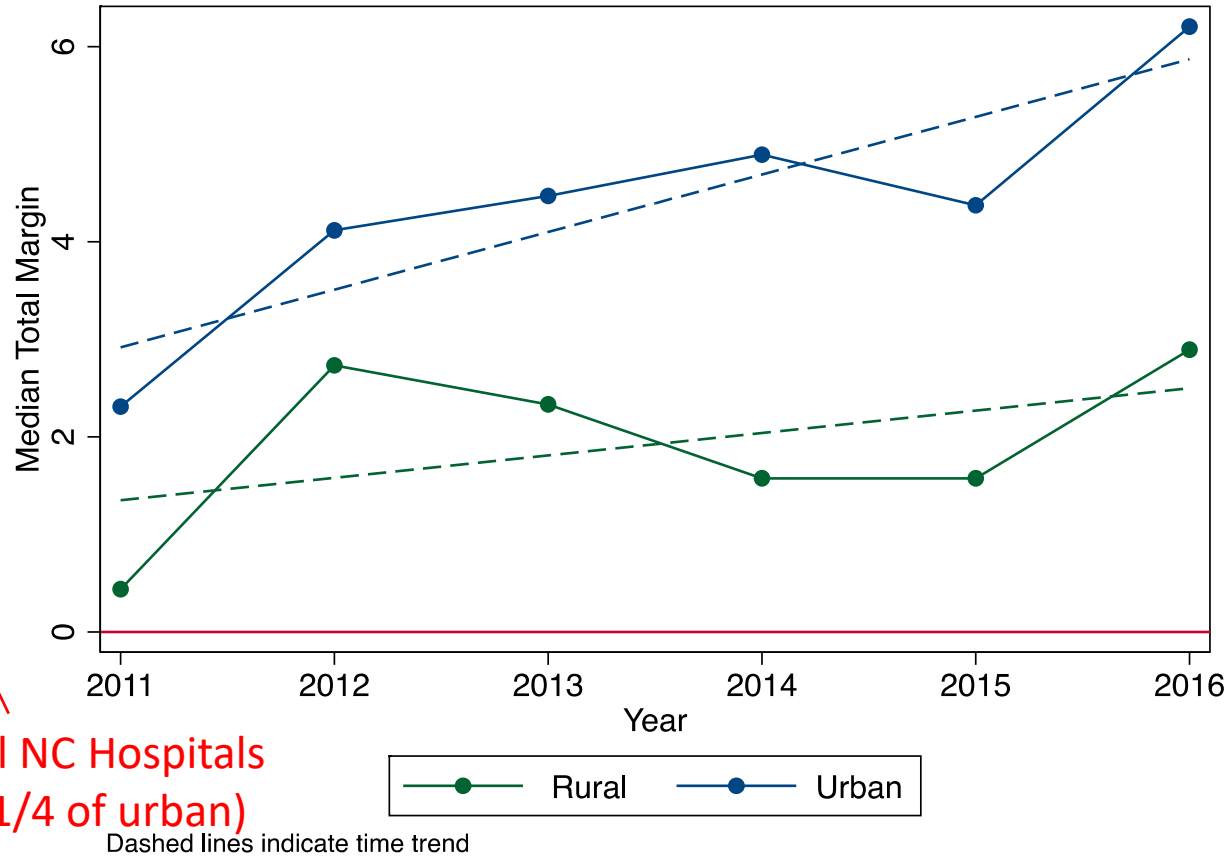
Hospital profitability is increasing, but more slowly in rural areas

Percent NC Hospitals with Negative Total Margin



About 1/3 of rural NC Hospitals losing money, vs.1/4 of urban)

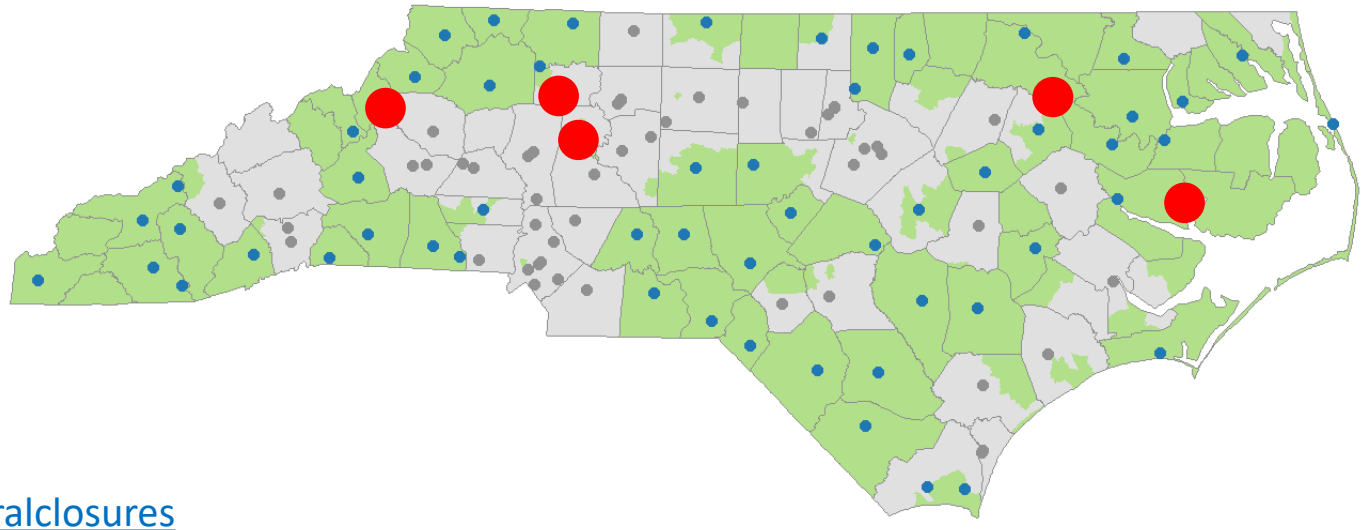
Median Total Margin



Rural/urban defined by RUCA

Rural Hospital Closures

- Nationwide increase in last five years in rate of rural hospital closures, decrease as of late?
- Causes multi-factorial
  - Contextual: Declining population, economics, industry trends/technology
  - Policy: Medicaid, ACA, reimb./regs
- Five (rural-ish) closures in NC since 2010 (although “rural closure” definition is debatable)



http://bit.ly/ruralclosures

Impact of closures

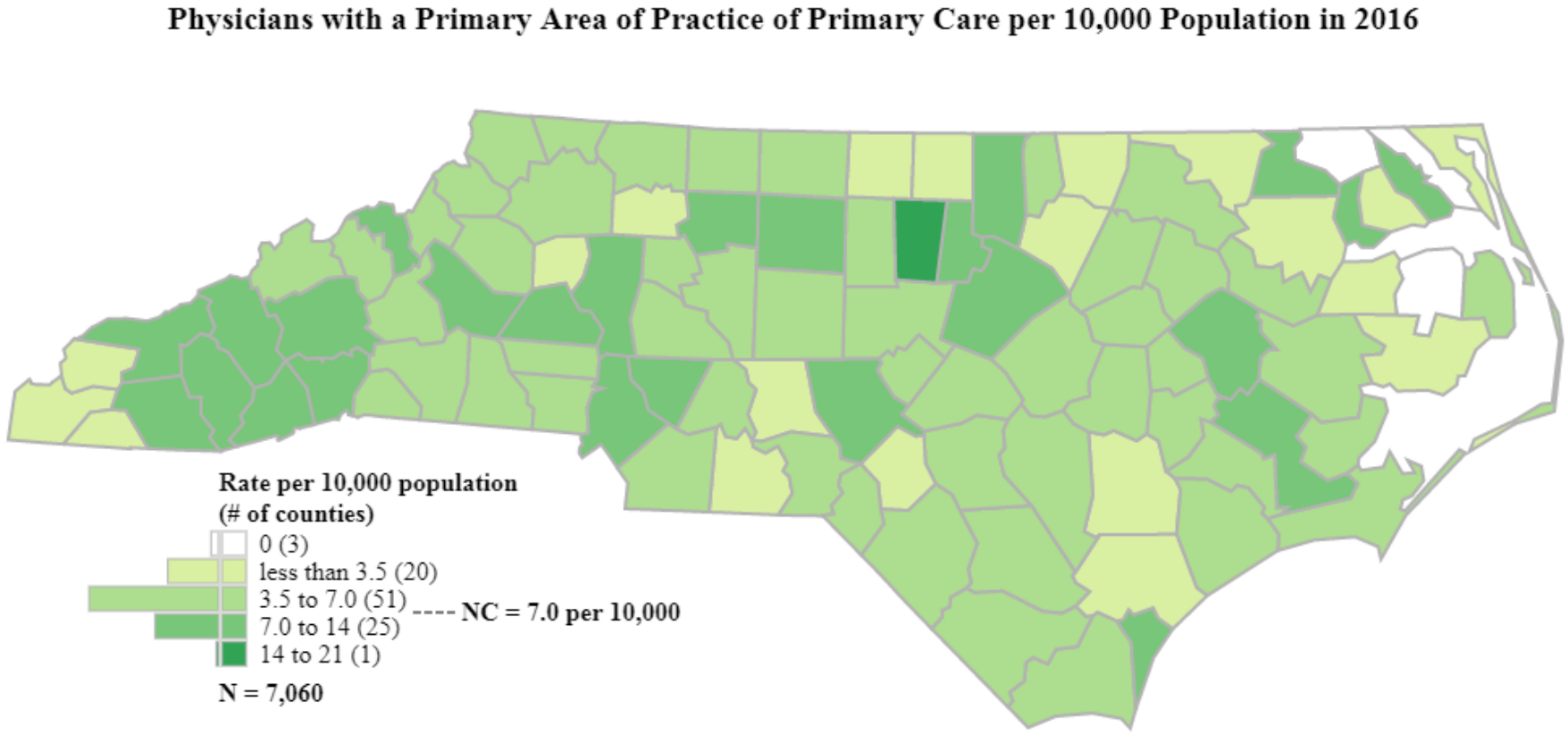
- Not much evidence that hospital closures lead to poorer health outcomes
  - Small sample / power problems?
  - OIG: surveys revealed few reported access problems post-closure
  - Literature suggests some access decrease, but magnitude mixed
  - Joynt et al (2015) found no effect, but mostly urban hospitals
- Economic cost:
  - Often one of top two employers
  - Magnet effects – hospital close, other clinics close?
  - Losing the only hospital in a county implies a decrease of about $1300 (today's dollars) in per capita income (Holmes et al 2006)

Fast facts on physician supply in NC

- For most specialties, the major issue is not total supply, but distribution – they cluster in affluent urban areas
  - Shortages do exist for general surgeons, mental health providers, geriatricians
- "Growing our own" with a wider training funnel has low ROI: 3% of 2008 NC medical school grads doing primary care in rural NC
- Increasing shortage of health professionals performing deliveries → closure of rural obstetric units
  - Nationwide trend
- The promise (potential?) of non-traditional (read: face-to-face w/ physician) model
  - Telehealth – e.g. MAT for opioids, tele-psych
  - New models: community health workers, "outreach teams" (SW, OT, handyman)
  - PA/NP

Source: Program on Health Workforce Research and Policy,
Cecil G. Sheps Center for Health Services Research, University of North Carolina at Chapel Hill

20 counties have relatively few primary care physicians; 3 counties have none



Notes: Data include active, licensed physicians in practice in North Carolina as of October 31 of each year who are not residents-in-training and are not employed by the Federal government. Physician data are derived from the North Carolina Board of Medicine. County estimates are based on primary practice location. Population census data and estimates are downloaded from the North Carolina Office of State Budget and Management via NC LINC and are based on US Census data. Source: North Carolina Health Professions Data System, Program on Health Workforce Research and Policy, Cecil G. Sheps Center for Health Services Research, University of North Carolina at Chapel Hill. Created October 05, 2017 at https://hpds.sirsdemo.unc.edu/.

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

Residents trained in community based settings more likely to practice in rural counties

Urban versus rural location for community-based vs. non-community-based residents

Number

	Urban	Rural	Total
Not Community - Based	6,363	711	7,074
Community -Based	68	14	82
Total	6,431	725	7,156

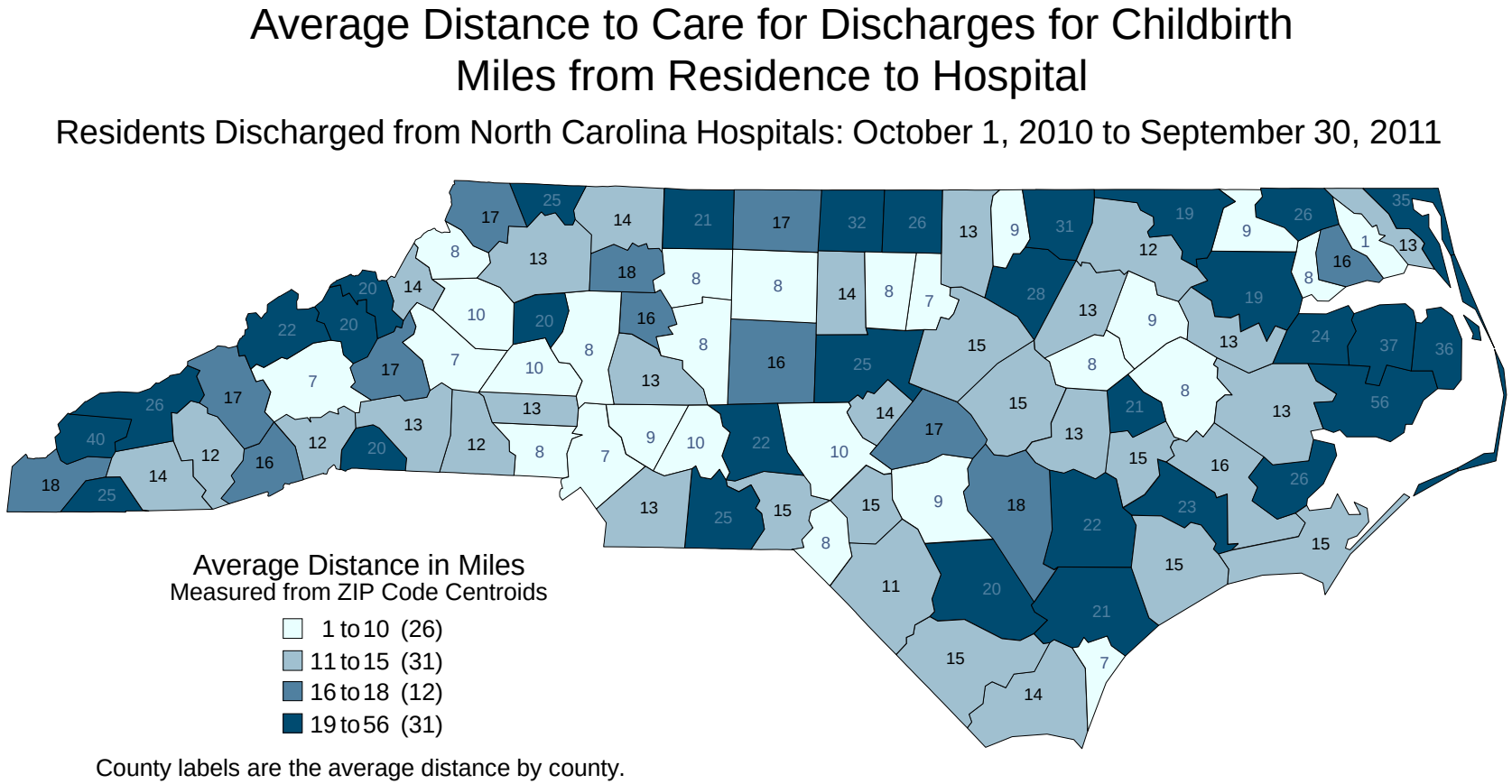
Percent

	Urban	Rural	Total
Not Community - Based	90%	10%	100%
Community -Based	83%	17%	100%
Total	90%	10%	100%

Note: 2 residents missing information. Pearson $chi^2(1)=4.3902$, Pf=0.036

Source: NC Health Professions Data System, Cecil G. Sheps Center for Health Services Research, University of North Carolina at Chapel Hill, with data derived from the NC Medical Board , 2012.

Significant variation in travel times to birth, high travel times in counties with no obstetric care providers



Note: Childbirth discharges include DRGs 765-768, 774, 775. Data exclude North Carolina residents delivering babies in facilities across state lines.
Source: Truven Health Analytics (formerly Thomson Healthcare), Fiscal Year 2011. **Produced By**: Cecil G. Sheps Center for Health Services Research, University of North Carolina at Chapel Hill.

More information

Sheps Center:

- http://shepscenter.unc.edu

NC Rural Health Research Program

- http://go.unc.edu/ncrhc

NC Health Professions Data System

- http://www.shepscenter.unc.edu/programs-projects/workforce/projects/hpds/

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