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Health Care Costs in Rural NC

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Mark Holmes, PhD
Director, NC Rural Health Research Program,
Cecil G. Sheps Center for Health Services Research

Associate Professor, Health Policy and Management,
Gillings School of Global Public Health
University of North Carolina at Chapel Hill

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Outline

- Preliminaries
- Finances of Rural Hospitals, esp. CAH
- Expenditures/Variation
- Strategies

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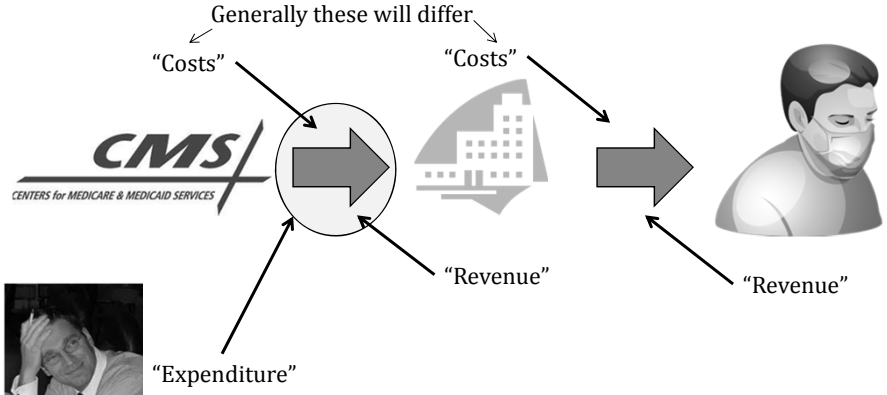
Nomenclature

Costs vs. expenditure vs. revenue



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Rural, defined

- Assume audience familiar with metro/micro/noncore ("rural", "neither")
- Generally, "noncore" used as "rural"

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Perspective

- Rural roots
  - Wasn't born here but got here as quick as I could ;-)
  - Hometown hospital = small, rural in Michigan
  - Dentist 27 minute drive
  - Specialist – every other Monday, MRI 3rd Wednesday
- NC RHRP
  - Funded by ORHP
  - Analyze hospital finances

CAH Financial Indicators Report 10th Issue
Caro Community Hospital
Caro, Michigan
Report Produced: Summer 2013

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Rural Hospital Programs

- In 1983, Medicare began reimbursing acute hospitals under the Prospective Payment System (PPS)
  - Largely built on "large teaching hospital" financing model (AC vs MC)
  - Small, rural hospitals negatively affected
- Panoply of specific designations designed to address negative impact
  - ~~Medicare Dependent Hospital~~
  - Sole Community Hospital
  - Rural Referral Center
  - ~~Low-Volume Hospital~~
  - Critical Access Hospital
- CAHs: supported by Medicare Rural Hospital Flexibility Program (Flex); motivated(?) by closures in 1990s

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Rural hospital finances

- Nationally, CAHs are most financially fragile
  - Rural hospitals, generally, more financially fragile (except RRCs)

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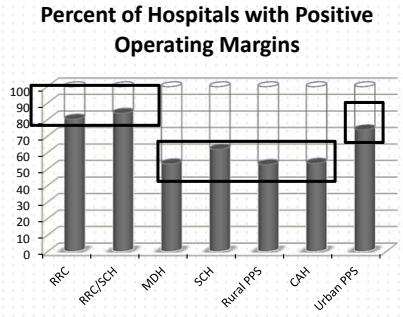
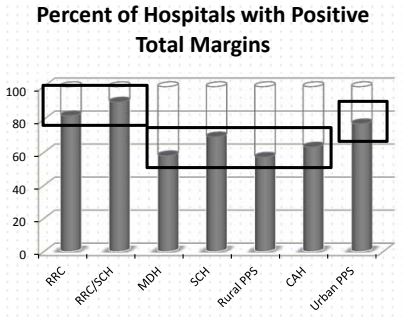
Rural hospital finances (national)





Pink and Freeman, NACRHHS, 2012.

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CAH program effective

Table 5 Percentage of CAHs With Negative Total and Cash Flow Margin: Simulation for 2009

	Percentage With Negative Total Margin		Percentage With Negative Cash Flow Margin	
	Under status Quo	as PPS	Under status Quo	as PPS
Pre-MMA CAHs	30.7%	42.6%	20.3%	20.7%
Post-MMA CAHs	23.2%	46.8%	12.7%	21.4%
All CAHs	28.2%	44.0%	17.8%	20.9%

Holmes and Pink, 2013

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North Carolina Data

- Analysis of NC hospital finances follows
- Source: CMS (Cost reports, Provider of Service file)
- Focus on profitability: total margin and operating margin

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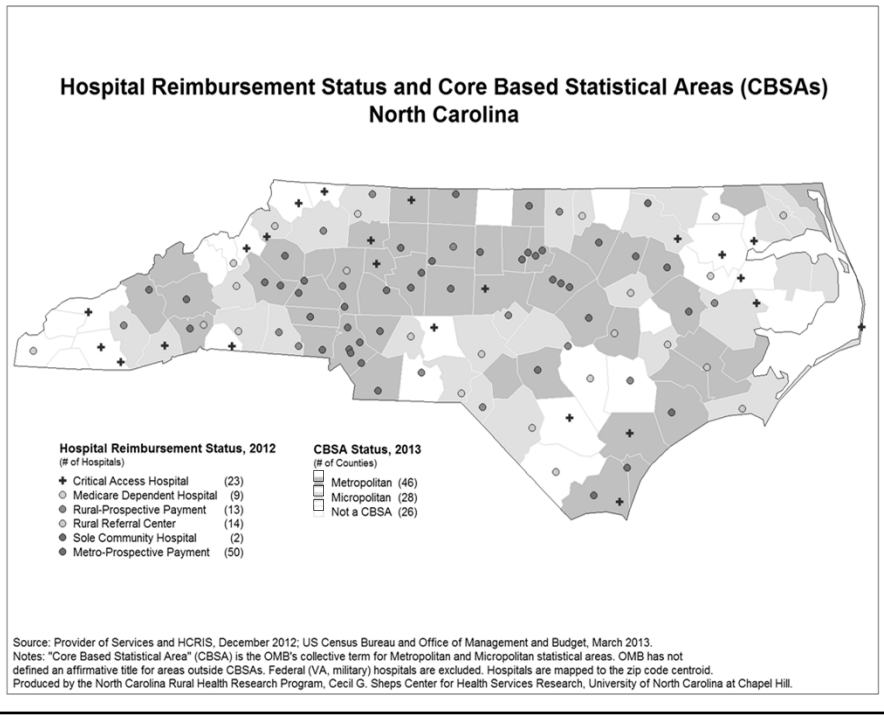
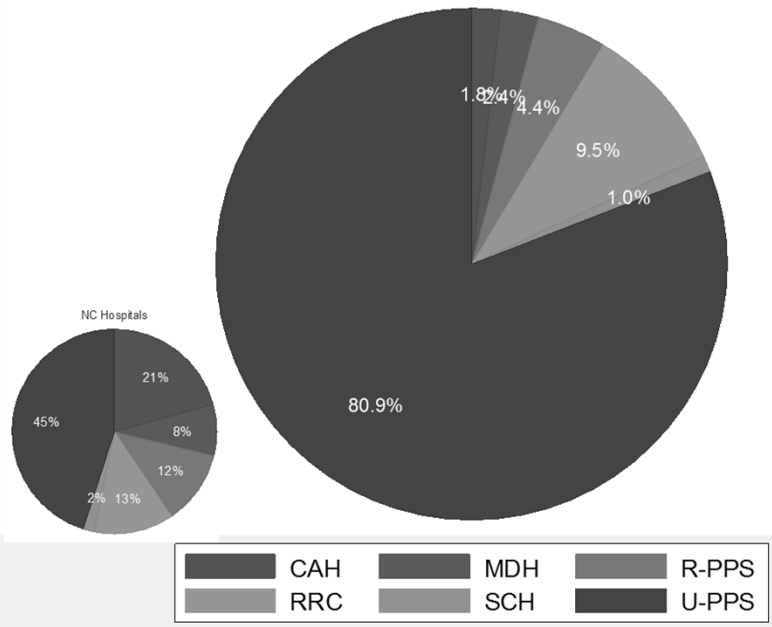
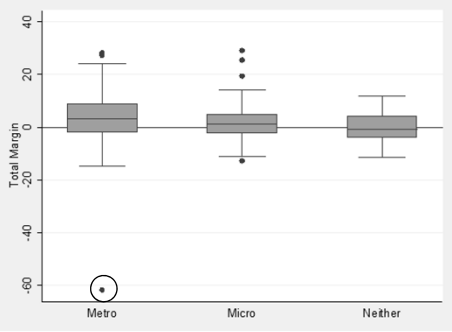


Most healthcare expenditures are in U-PPS hospitals

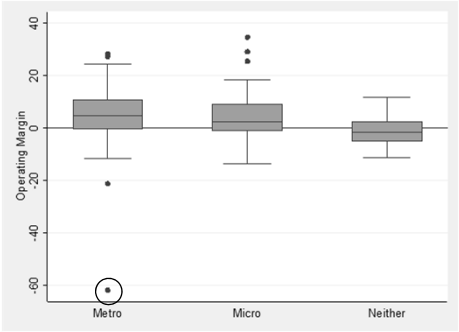


NC rural hospitals have lower total and operating margins

Total margin



Operating margin



Source: Analysis of March 2013 HCRIS (primarily 2011 and 2012 finances)

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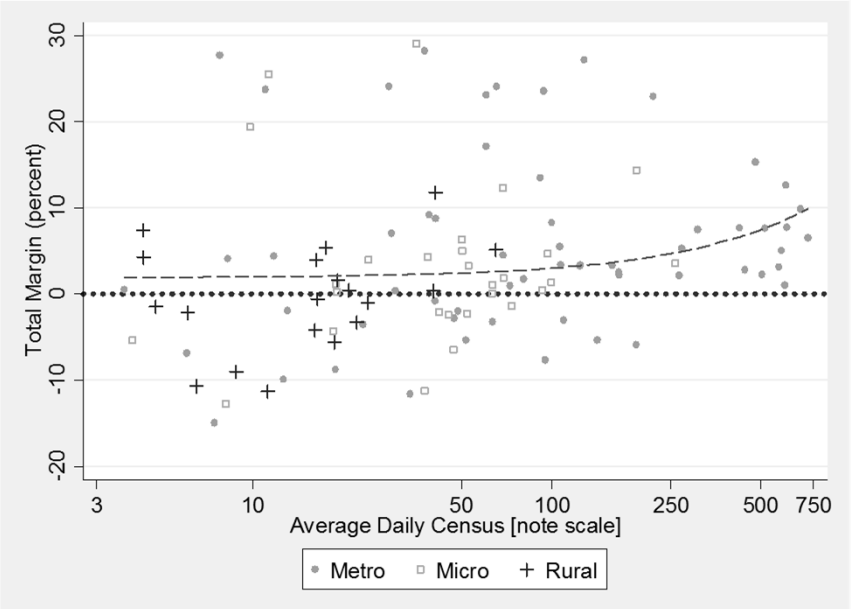
Size matters



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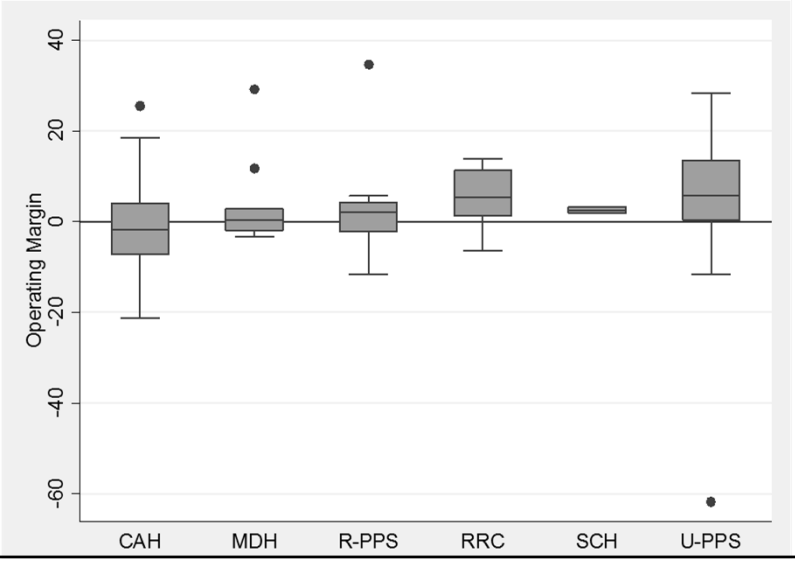
Operating margin varies by hospital "type"



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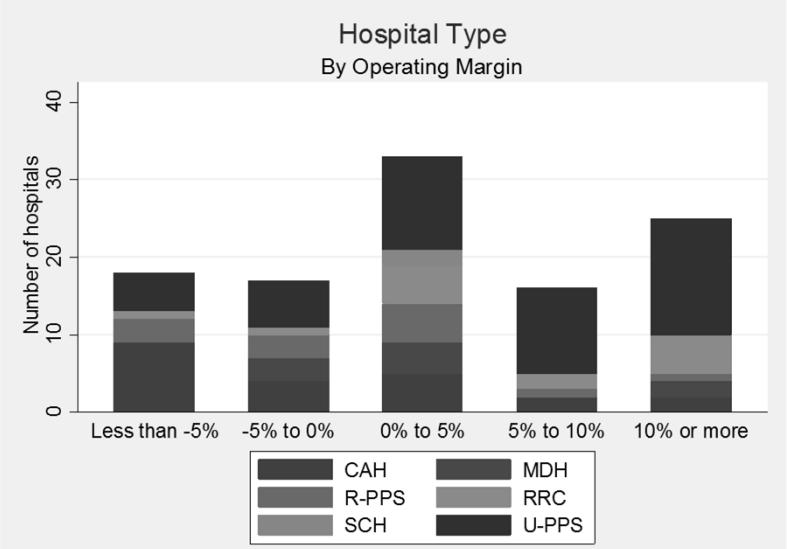
CAHs and other rural hospitals more likely to be operating at loss



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Importance of rural hospital viability

- In addition to community health benefits, rural hospitals major economic driver
  - Often largest or second largest employer
  - Hospital closure => bad economic effects
    - 4% decrease in PCI, unemployment + 1.4% if no alternative

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Holmes *et al*, 2006

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Expenditures

- Dartmouth: annual data on utilization by Medicare beneficiaries (2010)
  - Can be disaggregated by provider type
- County-level, by bene residence (20% sample)
  - nb: May be small number for some counties
- Age-sex-race adjusted
  - Price-adjusted also avail. (urban have higher price)

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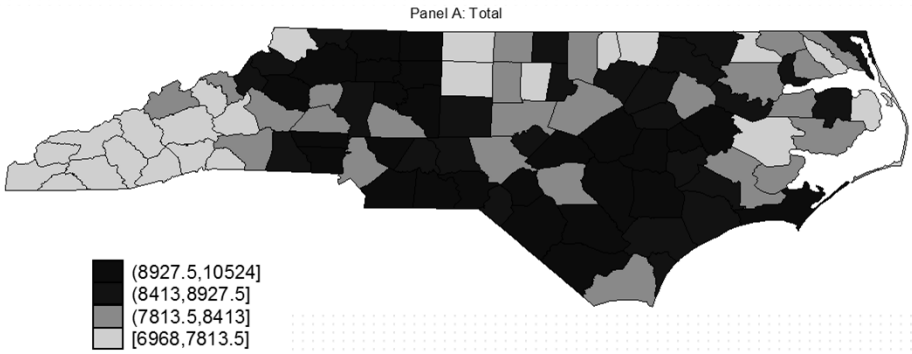
Rural beneficiaries have comparable total Medicare expenditure
(but geographic variation)



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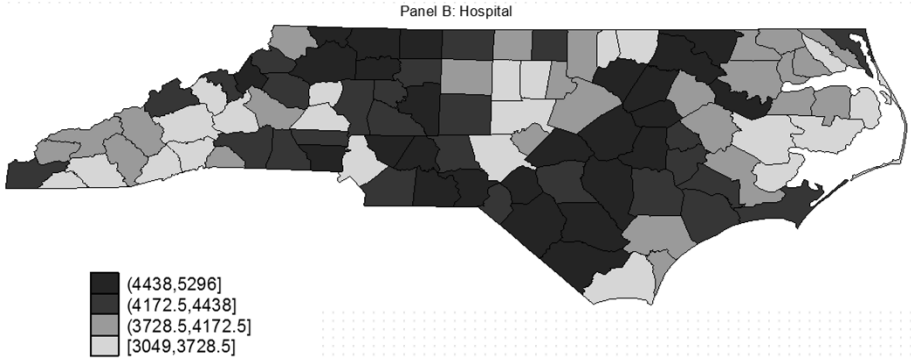
Rural beneficiaries have comparable hospital Medicare expenditure



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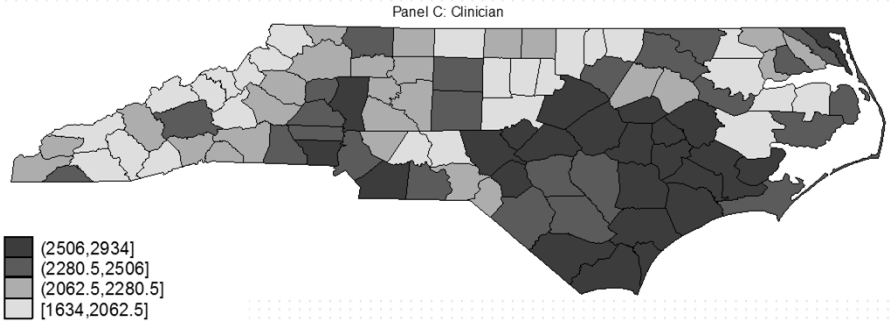
Rural beneficiaries have lower average Medicare expenditure on clinicians

(but driven by western)



If metro beneficiaries spent what rural beneficiaries did, Medicare expenditure in NC would decrease $139m (2010)

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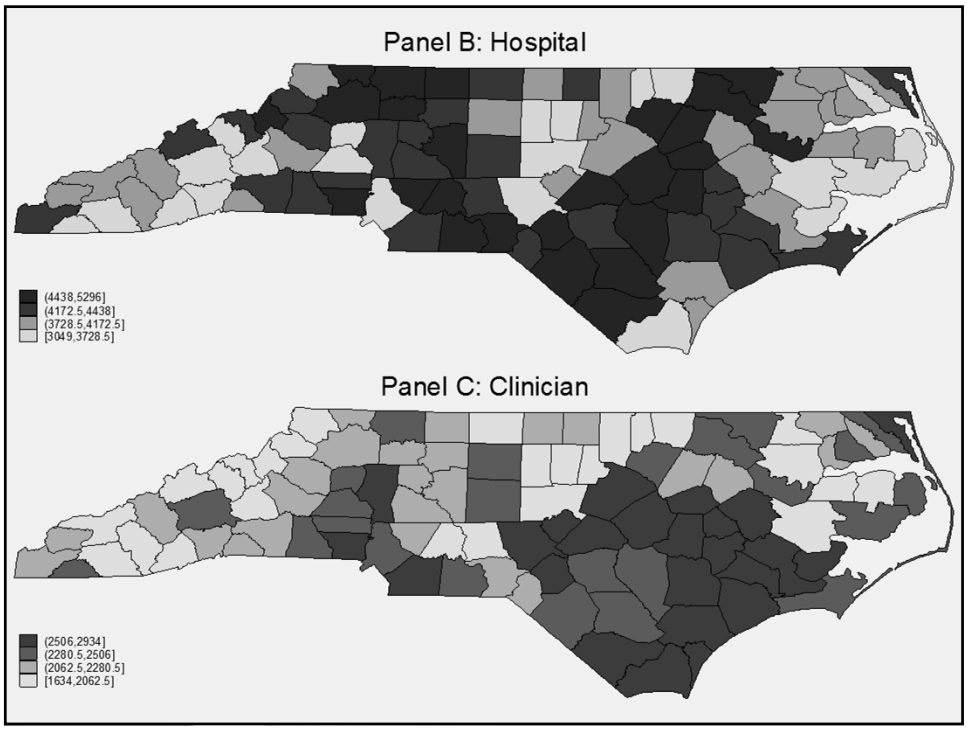
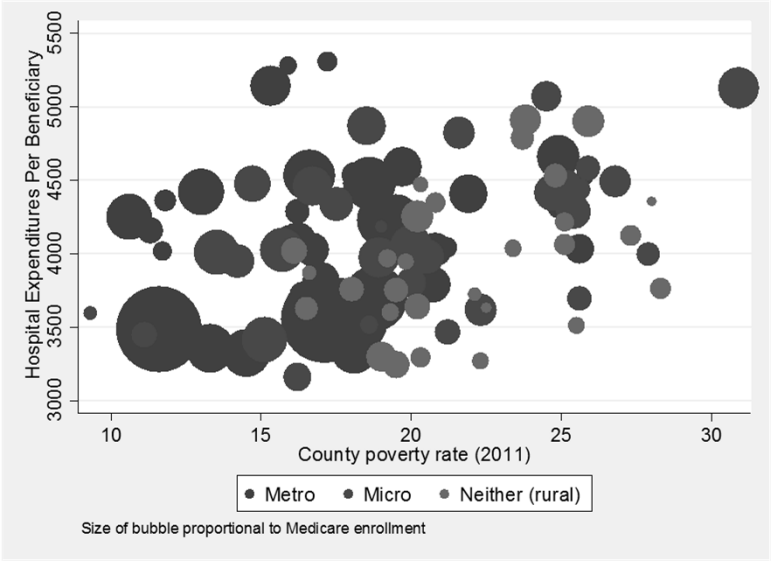


Counties with more poverty have higher expenditures on hospitals



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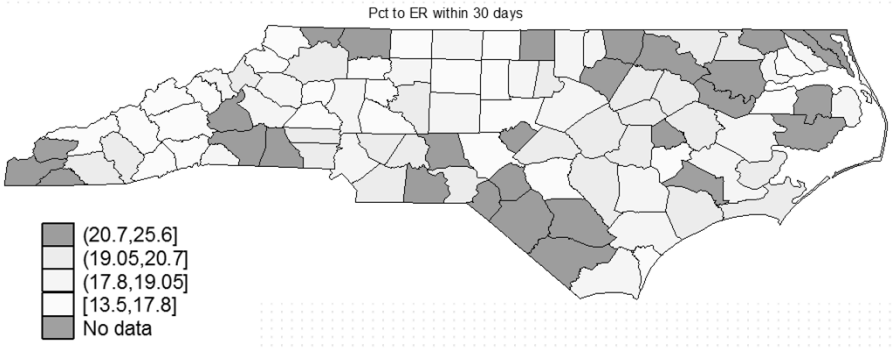
Rural beneficiaries more likely to visit ED w/in 30 days post-discharge

(18.1 metro, 20.2 rural)



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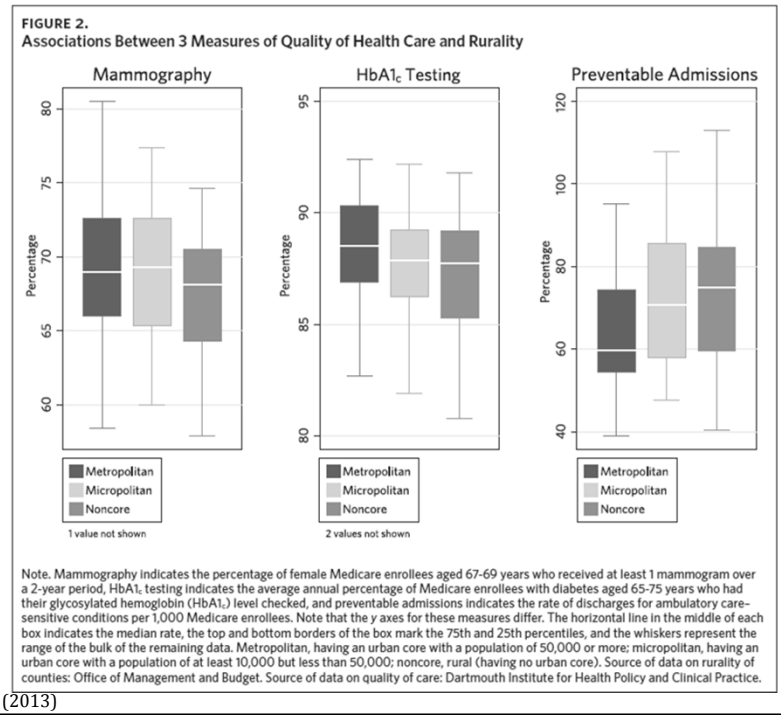

Holmes, NCMJ (2013)

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Improvement Strategies

- Collaboratives sharing best practices (e.g. LEAN – TDE & NCHA)
- Statewide investment in technical assistance/resources
  - Big data (Case study: Colorado)
- Reimbursement policy: rural hospitals more dependent on public insurance programs

Holmes and Pink 2011; Kirk, Holmes, and Pink 2012

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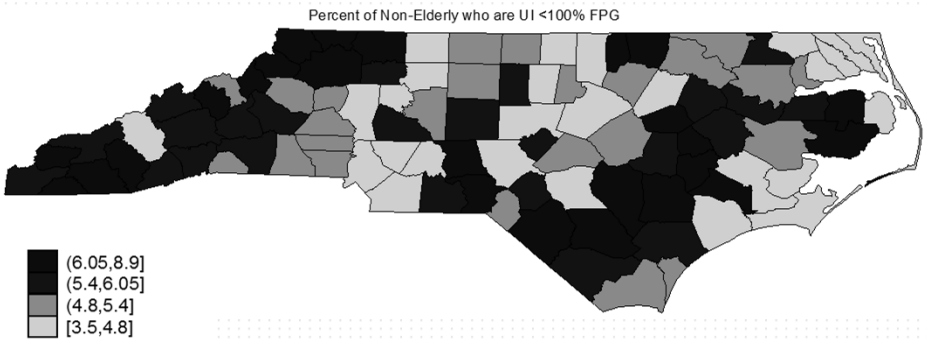
Rural populations would benefit more from Medicaid expansion



Estimates derived from SAHIE (US Census Bureau)

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Conclusion

- Rural hospitals more financially fragile, largely due to size and payer mix
- Some evidence of lower costs in rural areas, but quality may be lower for some types of complex care
  - Cheapest care is no care
- Strategies may be effective

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Acknowledgements:

Randy Randolph provided excellent data analysis.
George Pink and Victoria Freeman presented related work in 2012.

Contact info:
Mark Holmes
mark_holmes@unc.edu; 919-807-1532
http://go.unc.edu/ncrhrc

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