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State Health Access Data Assistance Center
Bridging the gap between research and policy

Health Reform and Provider Capacity

Lynn A. Blewett, PhD

Director

State Health Access Data Assistance Center

University of Minnesota, School of Public Health

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Presentation Outline

- Importance of provider capacity analysis
- Key analytic steps
- Alternative ways to monitor and assess provider capacity issues
- Sample analysis using existing federal data

Importance of Provider Capacity Analysis

Health Reform and Provider Capacity

- Long-term concerns about adequacy of supply of primary care physicians in U.S.
  - Fewer physicians choosing primary care
  - Aging physician workforce
  - Growing health needs of aging population
- Likely exacerbated by coverage expansion under national health reform in 2014
  - Large, newly-covered population will seek care
  - Introduction of ACOs, medical home & payment reform may help in long-run but unlikely to help much by 2014

Analytic Questions (1)

- Newly eligible adults – *how many and..*
  - What is their current health insurance coverage?
  - What are their current health care needs and patterns of health care access and use?
  - Who are the providers that they currently rely on for care?
- Remaining uninsured – *how many and…*
  - What are their current health care needs and patterns of health care access and use?
  - Who are the providers that they are relying on for care now?

Analytic Questions (2)

- Access and use of services:
  - Variation across the states?
  - Variation across key population subgroups?
  - Variation by key characteristics, such as by age, income, or type of health insurance coverage?
  - Variation by community characteristics, such as population characteristics (poverty, linguistic isolation, race/ethnicity segregation)?

Analytic Questions (3)

- Provider and Facility Supply:
  - Variation across states?
  - Variation *within* states?
  - What level of supply (people per providers) needed?
  - Type and mix of providers (docs, nurses, etc.)?
  - Role of the safety net?

Analytic and Data Collection Initiatives

- Assessment of existing data – think outside the box!
  - Review state licensure and other regulatory data
  - Do provider organization/associations collect data they would share?
  - Are there data on all providers and entities of interest?
  - Do you have adequate practice information from providers?
- New data collection
  - Add questions or “surveys” to licensure process
  - Work with provider organization/associations to field a survey
- Use mapping to visualize different capacity data together to get a picture of overall capacity (e.g. provider location and uninsured)

Analysis Using Existing Federal Data:

Potential Gaps in the Availability of Primary Care Physicians under Health Reform

Measures of adequacy of primary care physician capacity in local area

- Ratio of local population size to number of primary care physicians in area
  - HRSA's current Health Professional Shortage Area (HPSA) definition
- Adequate supply
  - 1 physician per 1500 people
- Potentially inadequate supply
  - Definition 1: Moderate ≥1,500: 1
  - Definition 2: Low ≥ 3,500: 1

Analysis

- Identify number of primary care **physicians** by county
- Who is potentially impacted?
  - *Examine county characteristics (demographic, economic, health market) and different measures of adequate supply*
- Are there enough excess physicians in adequately supplied counties to cover the gap in inadequately supplied counties?
  - *Compare counties with potentially inadequate supply and adequately supply*
- Do potential shortage areas = potential areas of demand?
  - *Identify distribution projected Medicaid eligible population*
  - *Identify areas of high potential eligibility with areas of low adequacy*

Data: Primary care physician supply

- 2009/10 HRSA Area Resource File (ARF)
- 2008 Primary care physicians (PCP)
  - Includes general, family, or general internal medicine; general pediatrics, OB/GYN (M.D.’s and D.O’s)
  - Limited to active, non-federal, office-based, full-time physicians
- Local area defined as county

Data: County Population Estimates

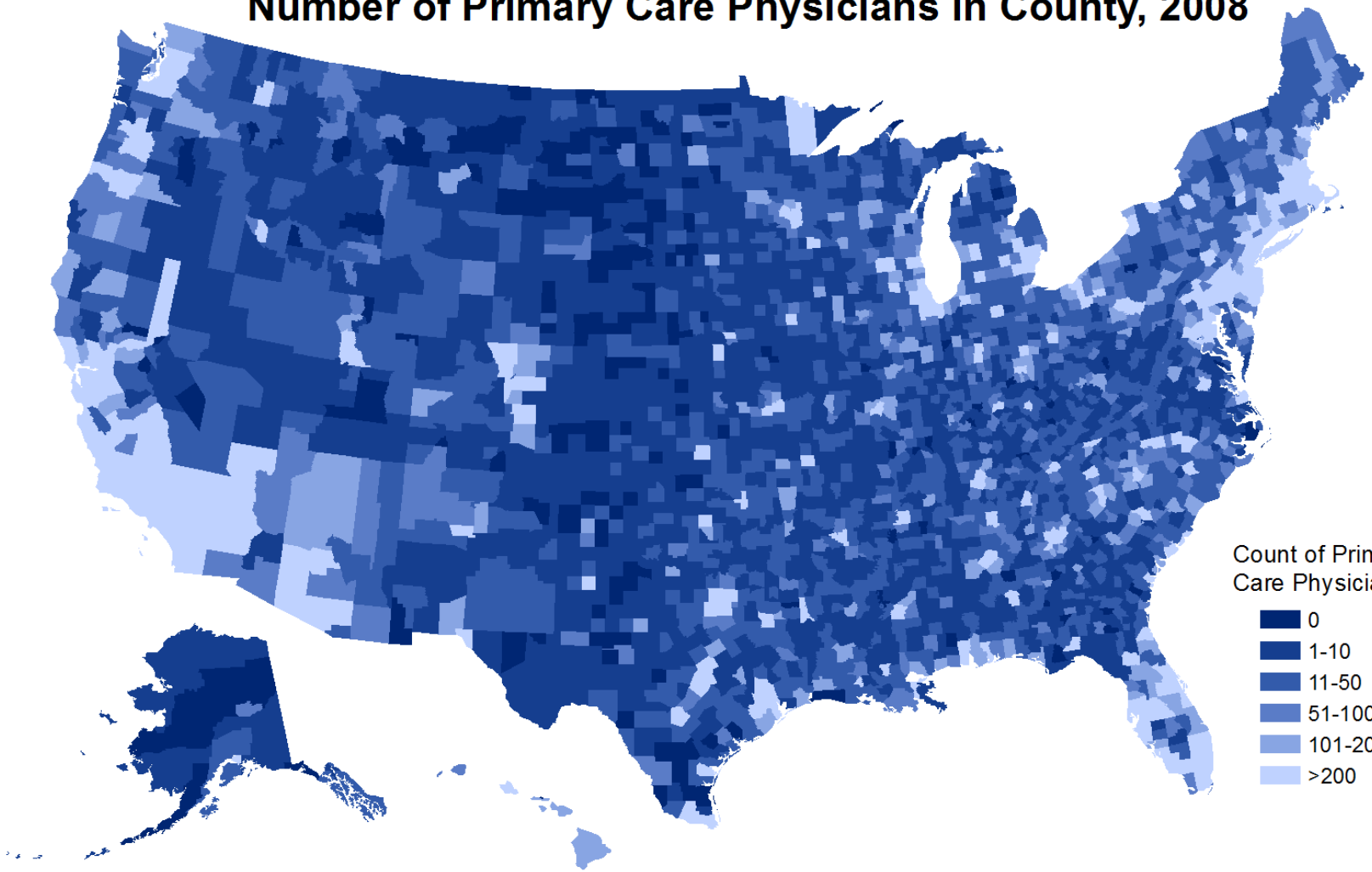
- American Community Survey (ACS)
  - Population size and characteristics
    - 2005-2009 pooled summary file
  - Estimate of 2014 Medicaid-eligible population
    - 19-64 year olds at or below 138% FPL
    - Pooled 2008-09 ACS PUMS

Overview Descriptive

- 3,139 counties (or county equivalent areas) in U.S. with average population of 96,000

- 235,771 primary care physicians in US, for average of 75 in each county
  - 186 counties with no primary care physicians

Number of Primary Care Physicians in County, 2008



Source: 2009-2010 Area Resource File and 2005-2009 American Community Survey.
Notes: Primary care physicians are defined as M.D.'s that are non-Federal, active, office-based M.D.'s in general, family, or general internal medicine; general pediatrics, or OB/GYN as of 2008; and office based primary-care non-federal D.O.'s that are in general/family care, internal medicine, general pediatrics, or OB/Gyn as of 2007. The count of office based D.O.'s was determined by applying the share of all D.O.'s that were office-based to the count of primary care D.O.'s. All providers are counted as 1 FTE. Population counts are the average population in county between 2005 and 2009.

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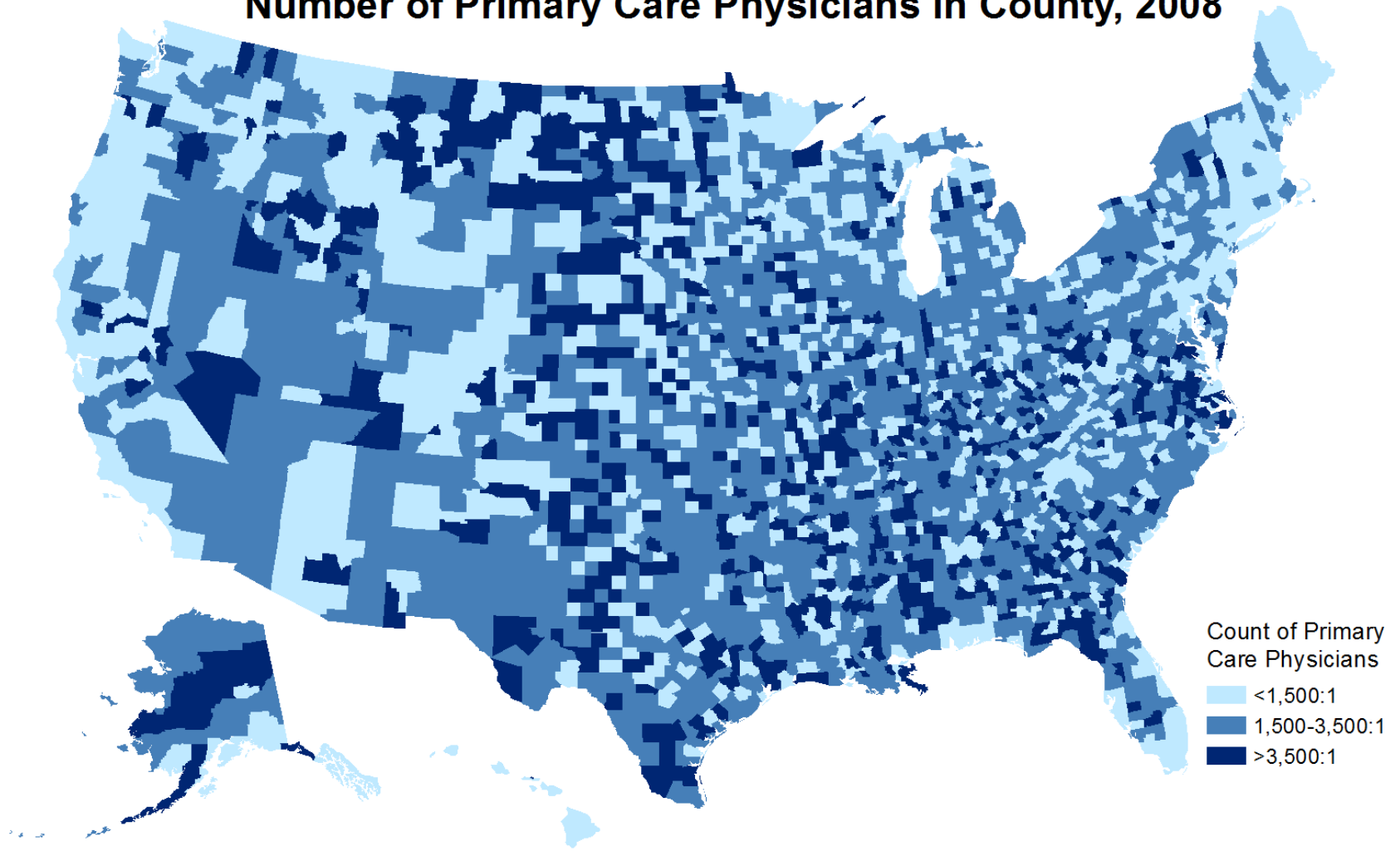

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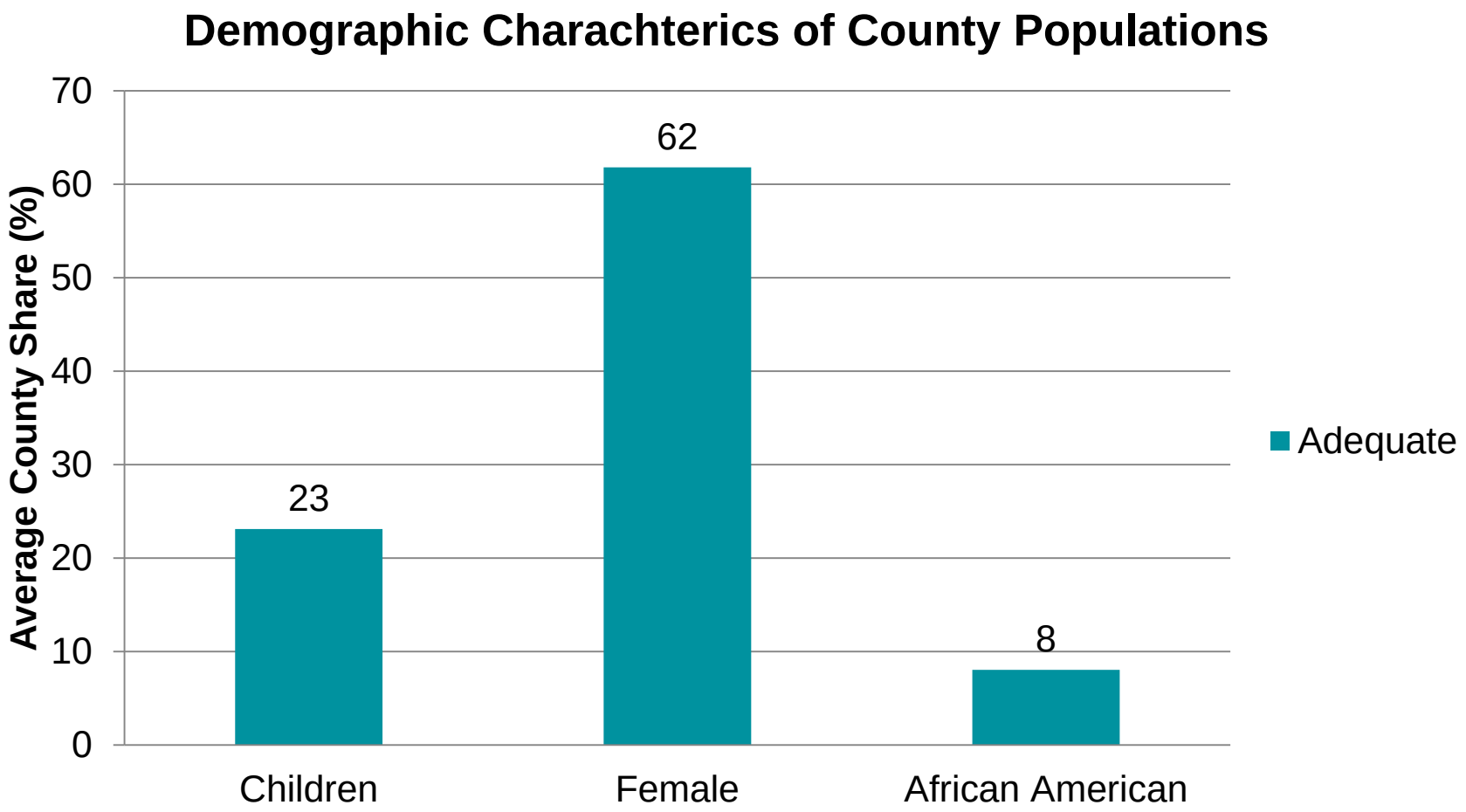
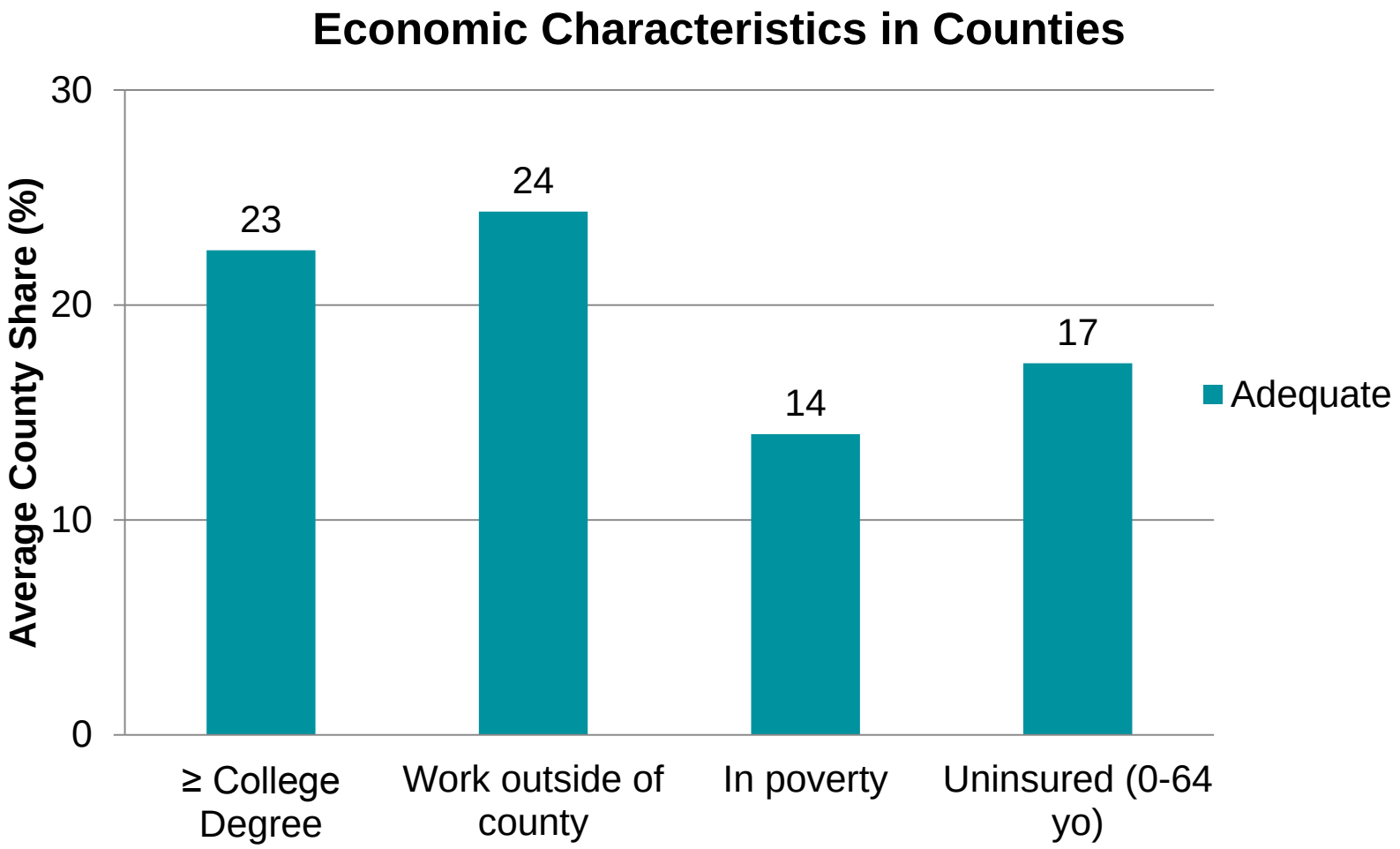
Key Points

- Adequate Supply
  - 956 counties < 1,500:1
  - 62% of the population
  - 52% non-metro
- Inadequate Supply
  - 2,183 counties > 1,500:1 (38% of population and 70% non-metro)
  - 680 counties > 3,500:1 (3.5% of population and 71% non-metro)

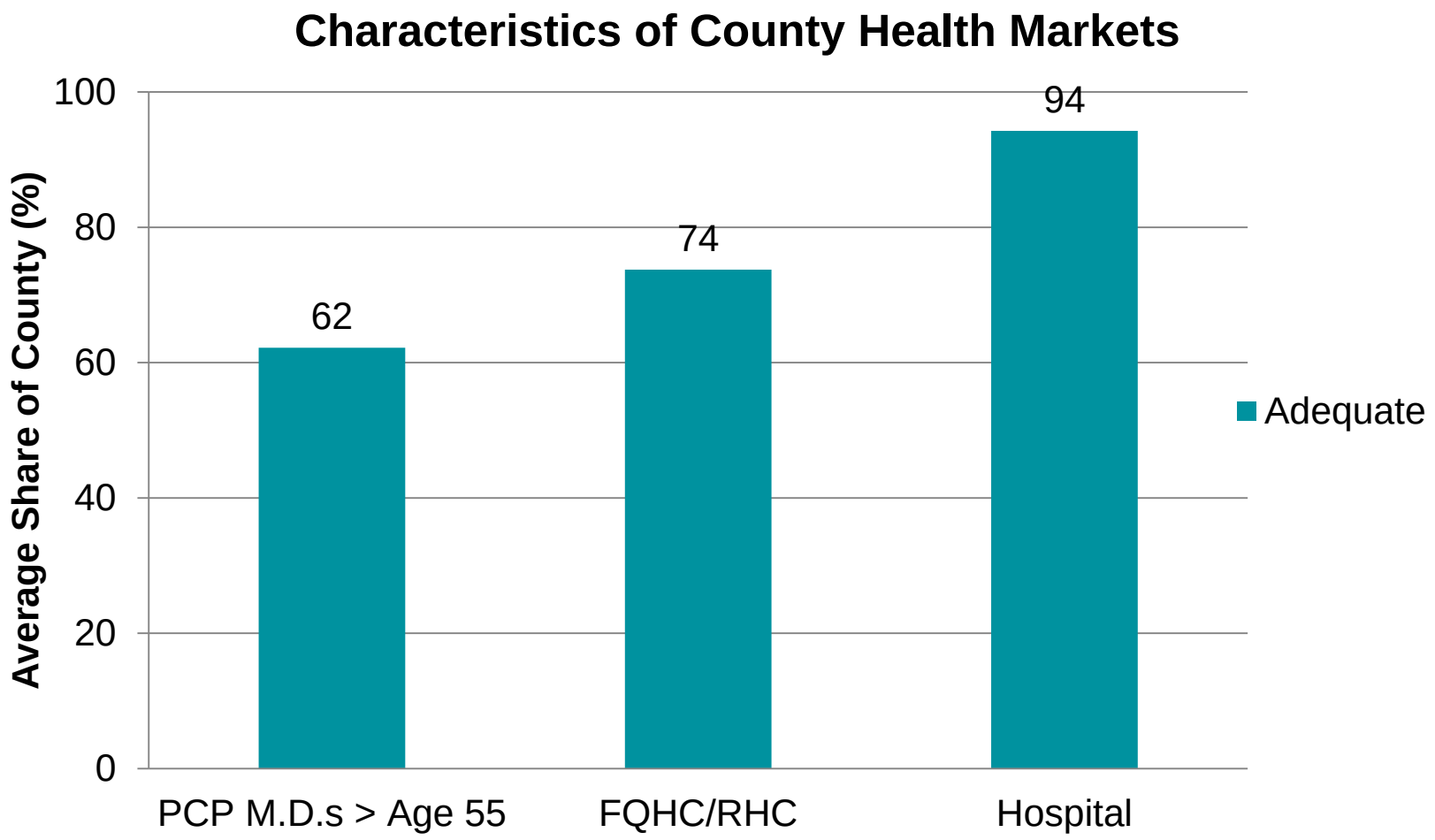
County Demographic Characteristics



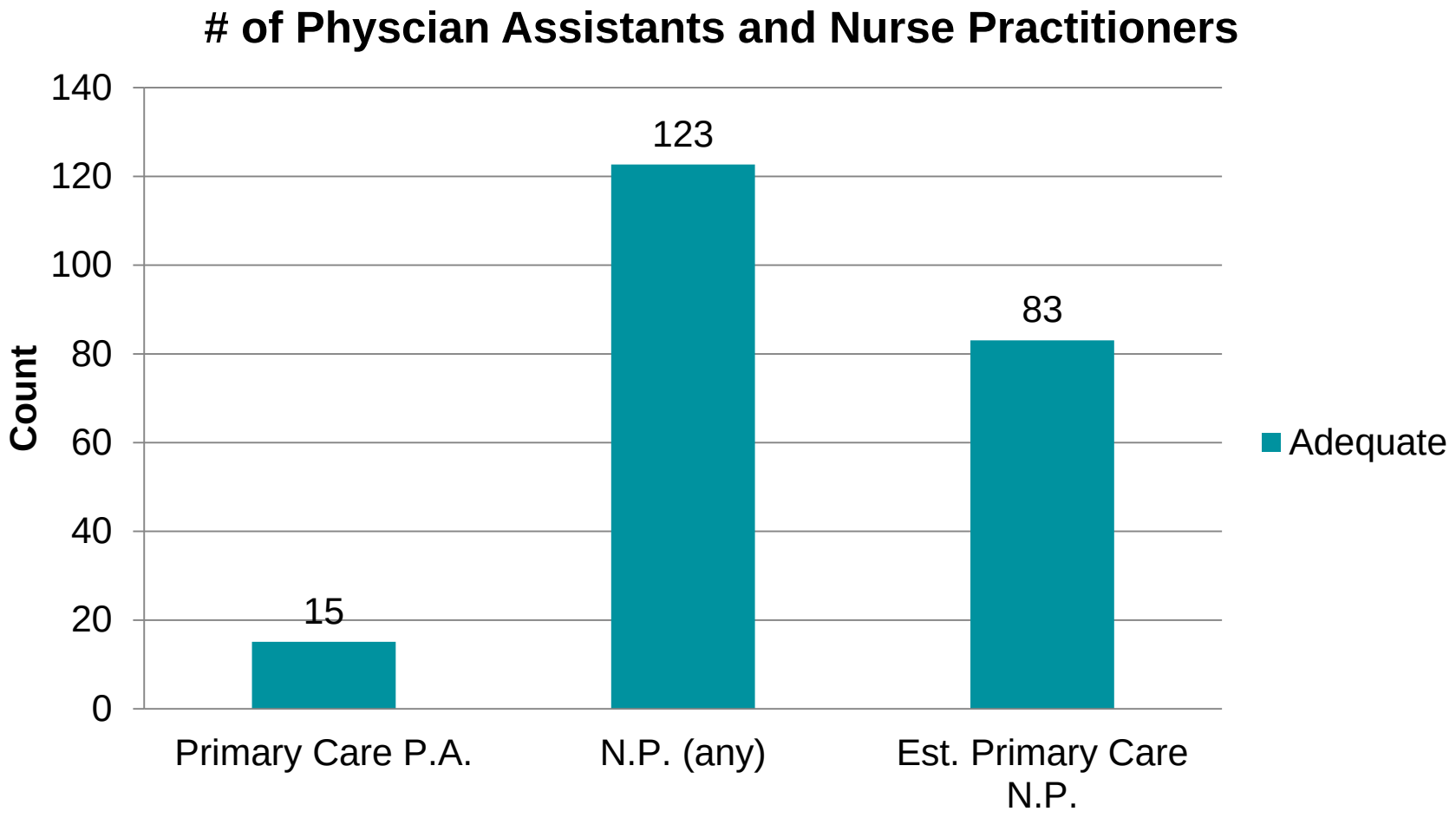
County Economic Characteristics



Health Market Characteristics



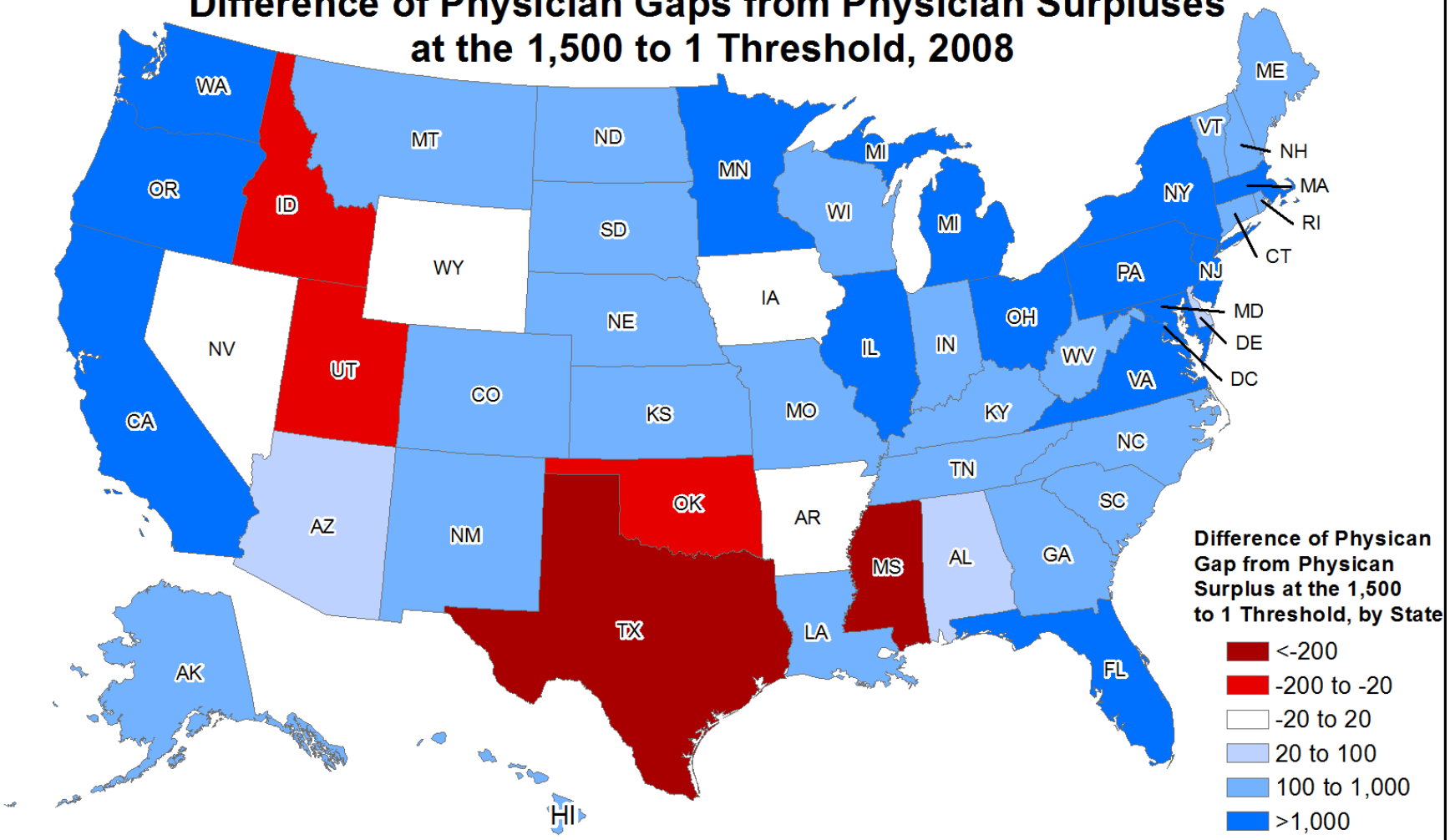
Health Market Characteristics (2)



How do primary care physician “gaps” and “surpluses” play out within states?

- There is evidence that work-force shortages are due to “geographic mal-distribution” rather than a lack of providers
- Calculated the size of the physician gap in counties with potentially inadequate supply and the physician surplus in adequately supplied counties
- At state level, determine if reallocating physicians from surplus counties to gap counties could eliminate the primary care physician shortage

Difference of Physician Gaps from Physician Surpluses at the 1,500 to 1 Threshold, 2008



Source: 2009-10 Area Resource File

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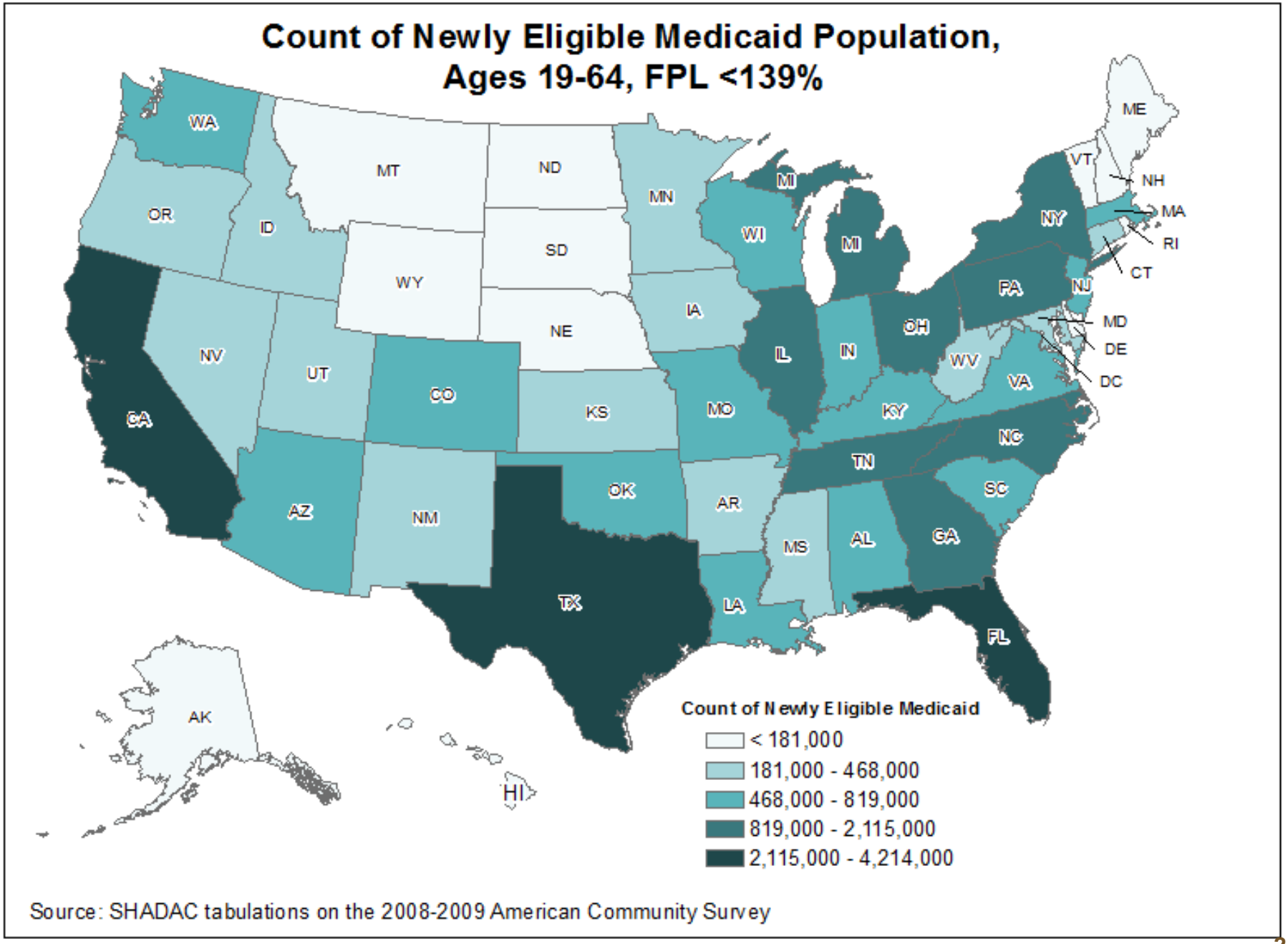
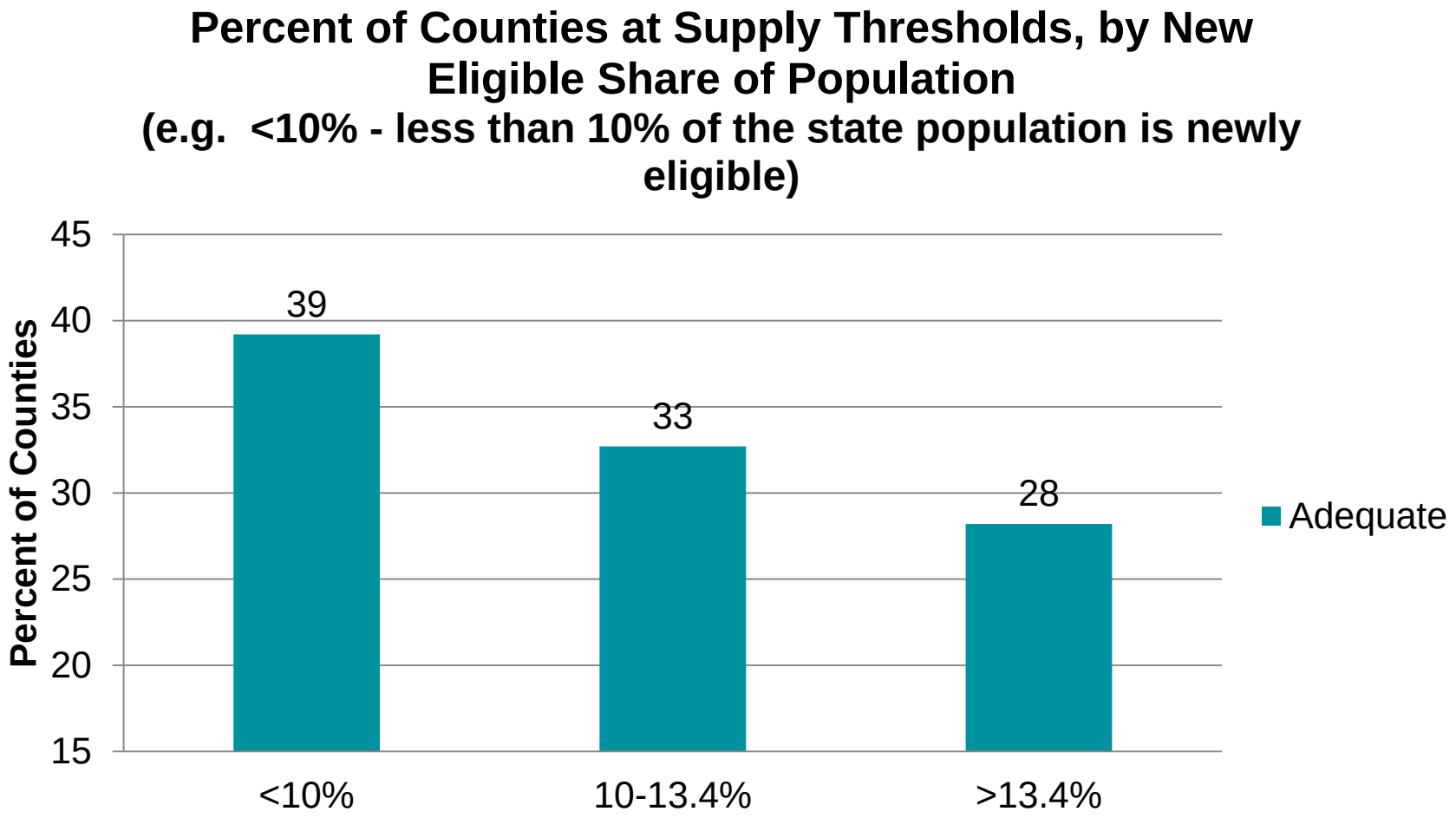
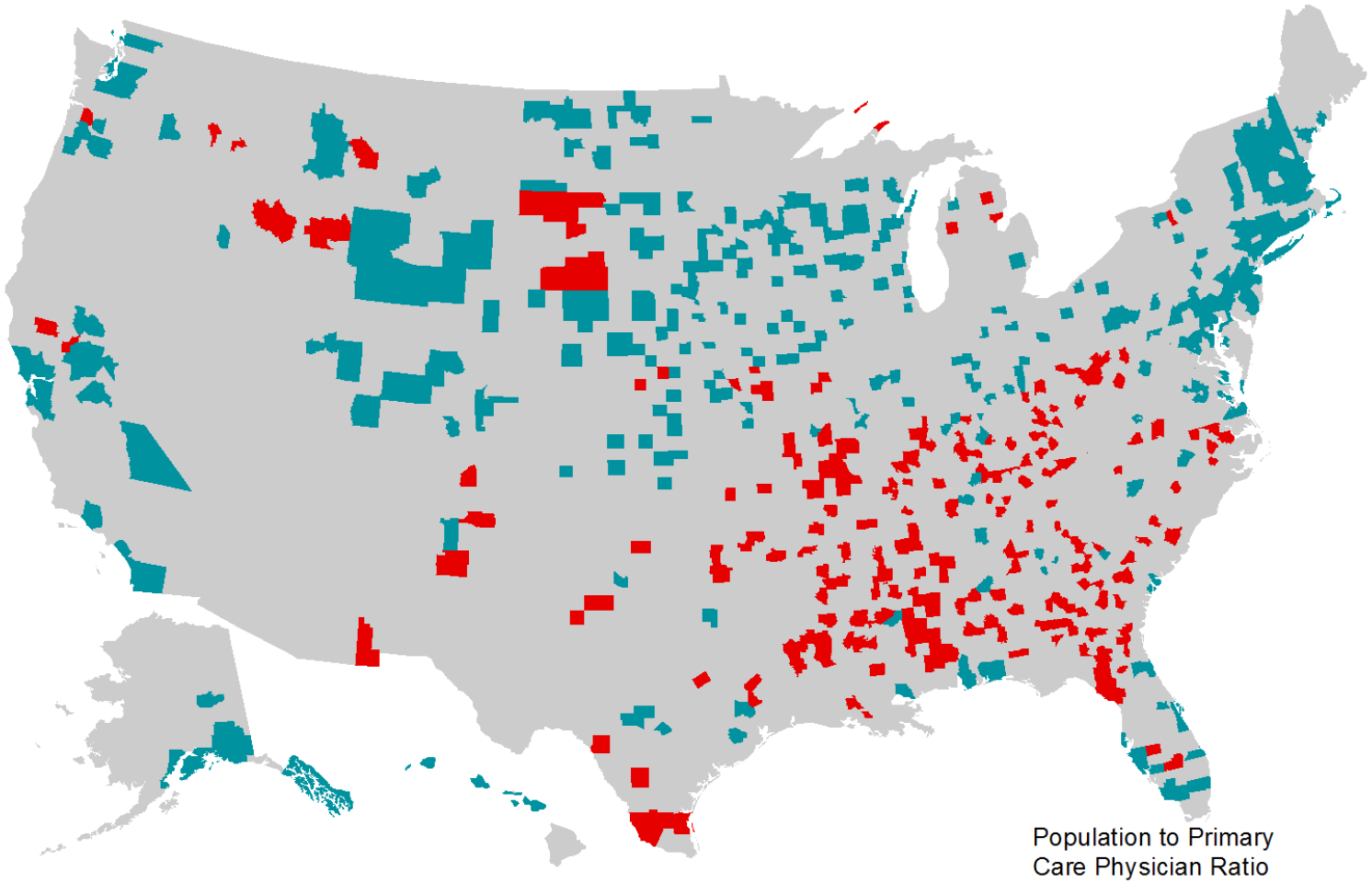


Source: SHADAC tabulations on the 2008-2009 American Community Survey

Location of “2014” Medicaid Eligible Population



Location of Highest and Lowest Risk Counties



Source: 2009-10 Area Resource File and 2009-09 Public Use American Community Survey

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Limitations

- Provider supply is measured with error, particularly when considering providers who will see Medicaid population
- Little consensus on appropriate measure of adequate primary care physician supply
- County is not necessarily relevant market area for primary care

Summary of Key Findings (1)

- Counties with potentially inadequate PCP supply…
  - Exist everywhere, but have a greater concentration in the South and non-metropolitan areas
  - Similar demographics, although higher concentration of African-American residents
  - Worse off on socioeconomic characteristics of the population, including lower education, higher poverty and more uninsurance

Summary of Key Findings (2)

- PCP supply gap largely a spatial mismatch
  - Encouraging movement of PCP from surplus counties to gap counties would eliminate problem in all but 5 states
- Non-physician providers could address part of problem, but have similar spatial mismatch
  - Counties with potentially inadequate supply less likely to have non-physician providers
- Important variation at local level in 2014 eligible population relative to provider supply

Policy Implications

- Findings suggest policies aimed at encouraging movement primary care providers, not simply increasing supply
- Population eligible for Medicaid under ACA more heavily concentrated in counties with potentially inadequate supply
  - Will face additional barriers from modest provider participation in Medicaid

Future Work with National Data

- Better provider data: more refined geographic information; more refine practice characteristics
- Better population data: Census 2010 SF-1
- Adopt barrier free method currently being considered by the HRSA neg. rule making cmte.

State-Specific Analysis

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- Provide state-level information on adequacy thresholds shown above
- Map state data against data presented today (e.g. potentially newly eligible)
- Help identify strategies for monitoring capacity issues, including use of existing data and need for new data

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Contact Information

Lynn A. Blewett, PhD

Professor and Director

blewe001@umn.edu

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University of Minnesota, Minneapolis, MN

www.shadac.org

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