Obesity Disparities

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Acknowledgments

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Overview

- Study Methods
- National Findings
- State Variation
  - By Race
  - By Income
  - By Insurance
- Strategies to address disparities
- Recommendations

Methods

- Data from 2003 National Survey of Children's Health PUF
- Age and gender specific weight status – underweight, normal, overweight and obese using CDC guidelines
- Examined age, gender, race/ethnicity, household income, education level, insurance, household where English is not primary language
- Four disparity indices calculated for each state & ranks developed
- States with estimates >30% relative standard error and/or less than 25 overweight/obese children eliminated from indices
- Correlation between overall ranks and specific disparity ranking determined

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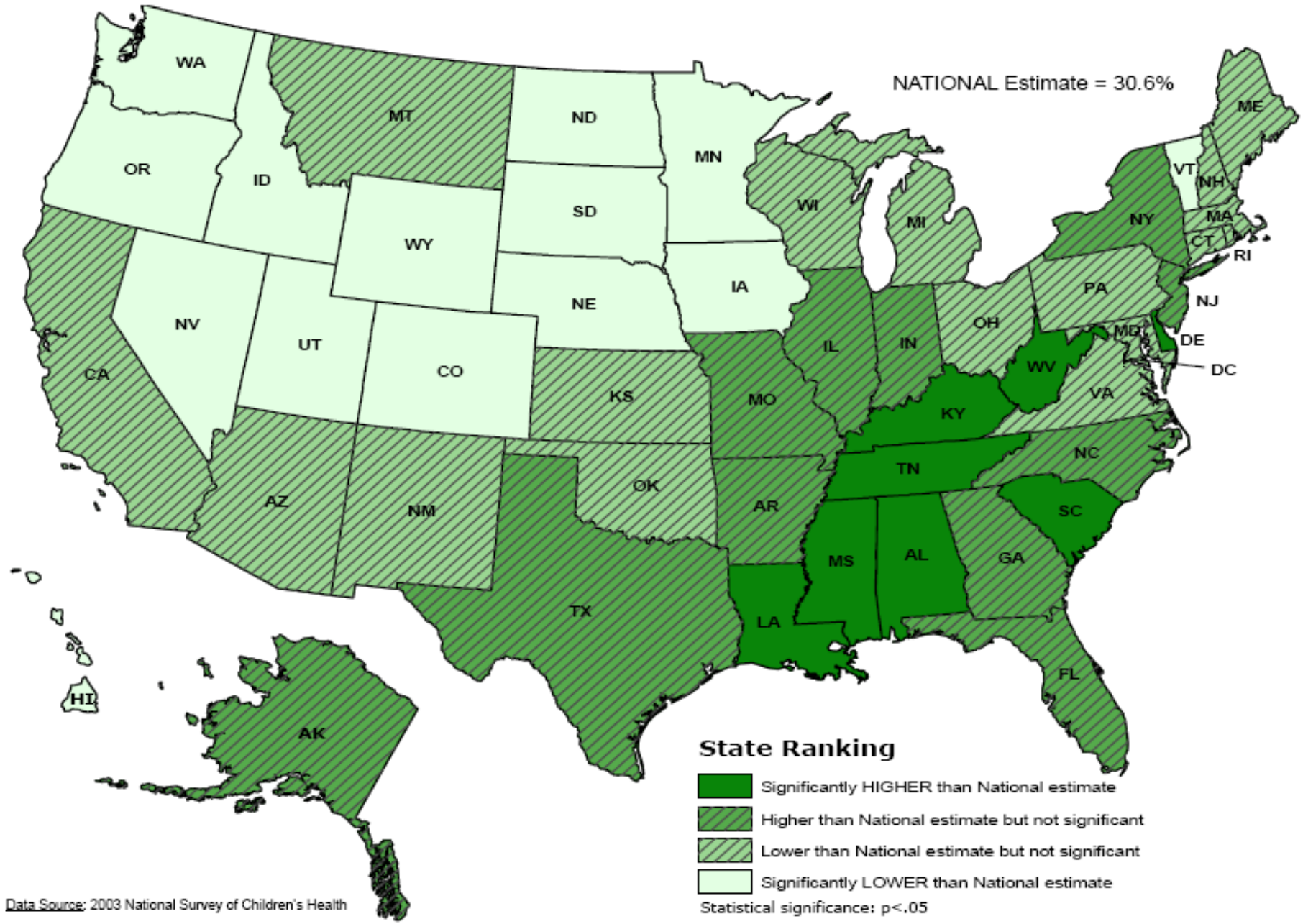
Figure 1:
US Map of State Level Overweight and Obesity Prevalence: Categorized by Significance of Differences from National Estimate (p<.05)



Variation by Family Income (39 states)

Low: <100% Federal Poverty Level

High: >400% Federal Poverty Level

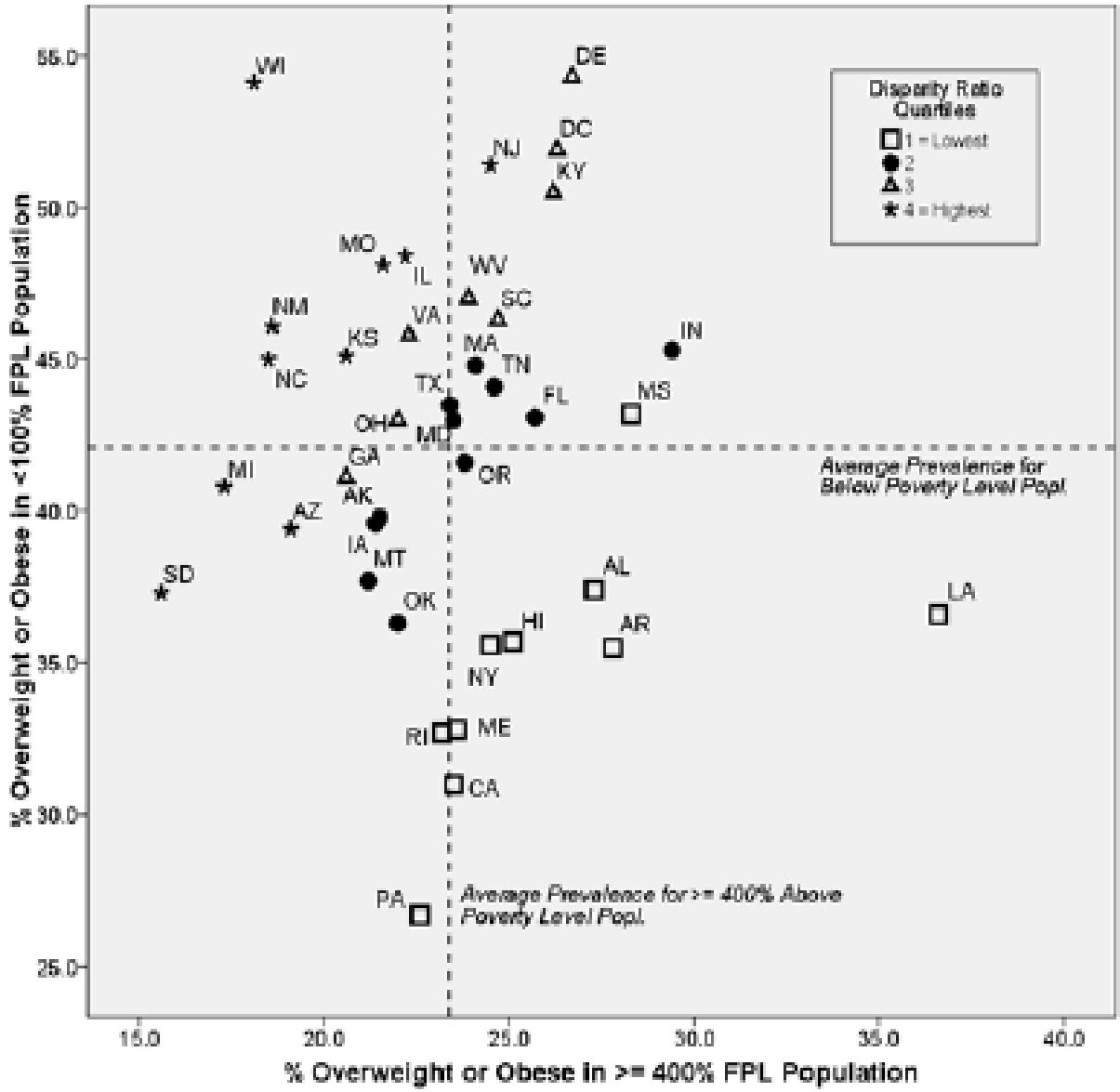
National Index of Disparity between Low and High:

Overall: 1.74

State Range: LA – 1.00 to WI – 2.98

- Low
  - Overall – 39.8%
  - Low: PA - 26.7%
  - High: DE – 54.3%
  - Ratio of High vs. Low: 2.03
- High
  - Overall – 22.9%
  - Low: SD – 15.6%
  - High: LA – 36.6%
  - Ratio of High vs. Low: 2.35

Figure 3: Prevalence of Overweight or Obesity for Children Age 10-17 yrs Living in Households with Incomes <100% FPL vs. ≥ 400% FPL by Disparity Ratio Quartiles (n = 39 states)



Variation by Health Insurance (49 states)

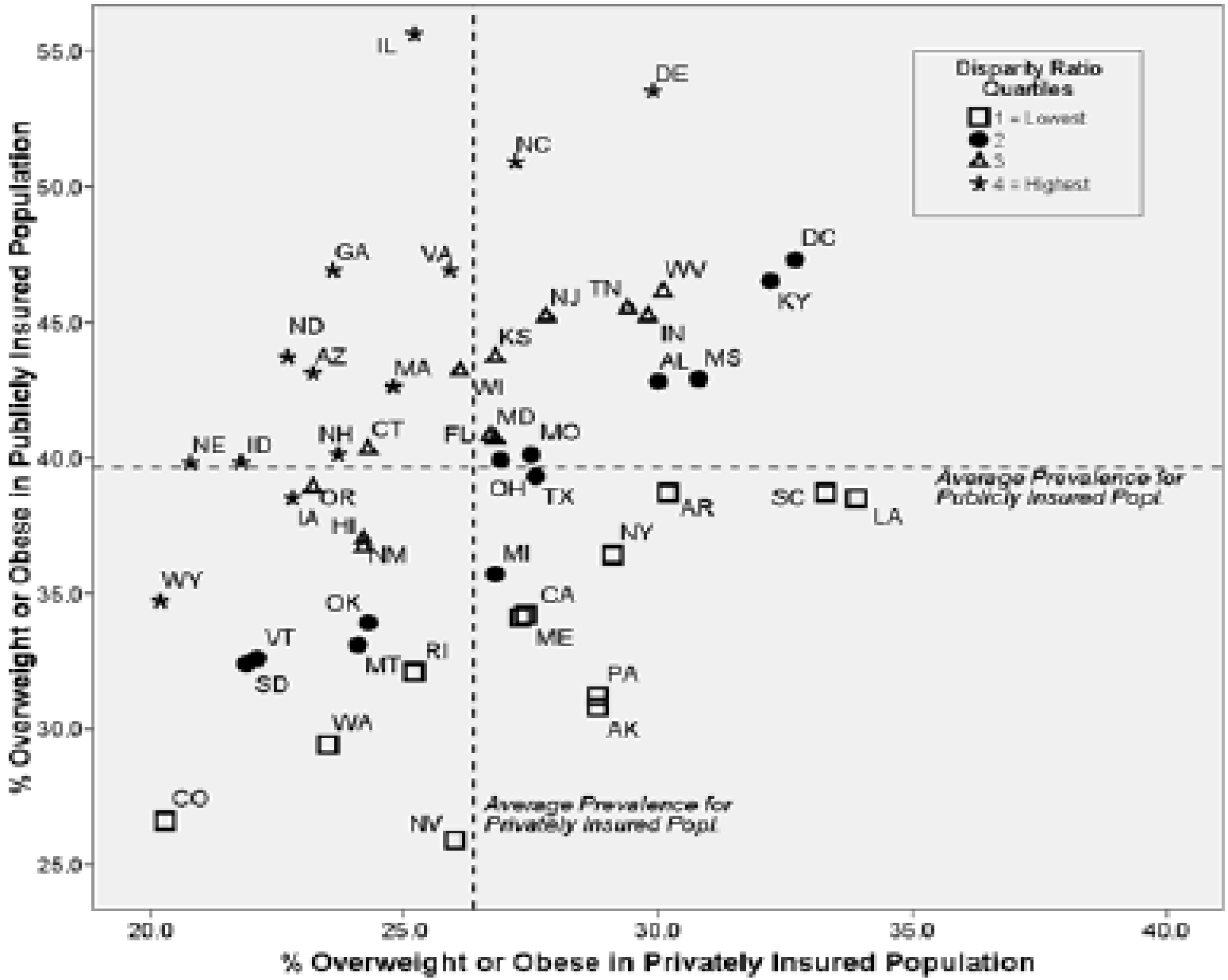
National Index of Disparity between Public and Private:

Overall: 1.48

State Range: NV – 1.00 to IL – 2.20

- Public
  - Overall – 39.6%
  - Low: NV - 25.9%
  - High: IL – 55.6%
  - Ratio of High vs. Low: 2.15
- Private
  - Overall – 26.7%
  - Low: WY – 20.2%
  - High: LA – 33.9%
  - Ratio of High vs. Low: 1.68

Figure 2: Prevalence of Overweight or Obesity for Publicly vs. Privately Insured Children Age 10-17 yrs by Disparity Ratio Quartiles (n = 49 states)



Variation by Race (23 states)

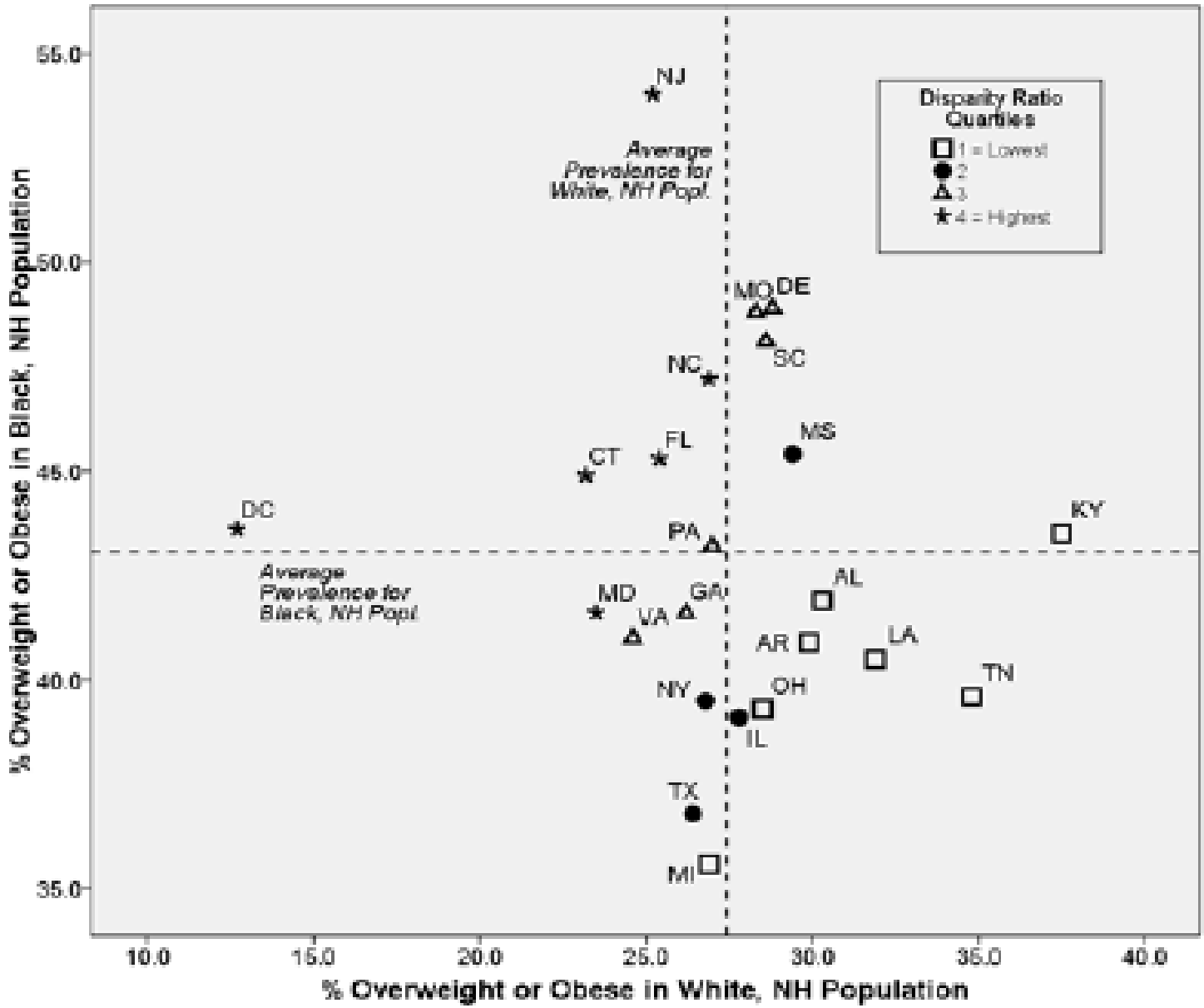
National Index of Disparity between Black, NH and White, NH:

Overall: 1.55

State Range: TN – 1.00 to DC – 3.44

- Black, NH
  - Overall – 41.2%
  - Low: MI – 35.6%
  - High: NJ – 54.0%
  - Ratio of High vs. Low: 1.52
- White, NH
  - Overall – 26.6%
  - Low: DC – 12.7%
  - High: KY – 37.5%
  - Ratio of High vs. Low: 2.95

Figure 4: Prevalence of Overweight or Obesity for Black, NH vs. White, NH Children Age 10-17 yrs by Disparity Ratio Quartile (n = 23 states)



Key Points

- Across all states variation:
  - Significant variation for each of the subgroups
  - Black NH have the most consistently high prevalence rate across states
  - Nationally, disparities highest for household income
  - Less variation across states in rates among the lowest income families than in rates among the highest income families.

"Children with similar individual level characteristics vary in their probability of being overweight or obese depending upon the state in which they live."

Key Points

- Within state variation:
  - Lack of correlation between overall state rank and subgroup ranks
    - E.g. Michigan has 4th lowest race disparity index and 5th highest income disparity index
  - States with lower prevalence have higher disparity indices
    - Oregon (11th) and South Dakota (9th) in overall prevalence but are among states with highest income disparities index scores
    - Targeted interventions
  - States with higher prevalence have lower disparity scores (e.g. Louisiana)
    - Generalized interventions

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Addressing Disparities

- Effectively addressing ethnic and socioeconomic disparities in childhood obesity requires understanding which causes of obesity might be especially prevalent or intensified in ethnic minority and low-income populations; understanding how aspects of the social, cultural, and economic environments of minority and low-income children might magnify the effects of factors that cause obesity; and determining which changes in those environments would help most to reduce obesity".

Kumanyika S, Grier S. Targeting interventions for ethnic minority and low-income populations. Future of Children, 2006; 16:187-207.

What is the opportunity for the health system?

- Identifying obesity among most at risk
- Access to specialty & referral services
- Addressing health literacy and language barriers
- Cultural and linguistic competence

Recommendations

- GOAL 1: Assure delivery of evidence based obesity related services to all populations
- GOAL 2: Create a positive policy environment to address disparities in childhood obesity
- GOAL 3: Support research, demonstrations, & data development on effective approaches to overcoming disparities

Goal 1: Assure delivery of evidence based obesity related services to all populations

- Strategy 1: Raise awareness & understanding among providers of obesity disparities
- Strategy 2: Apply, and adapt where needed, quality improvement approaches
- Strategy 3: Provide culturally and linguistically competent services to maximize the effectiveness of services delivered
  - Health professional training
  - Legal, regulatory & certification approaches
  - Identify and spread innovations

GOAL 2: Create a positive policy environment to address disparities in childhood obesity

- Strategy 1: Support health professional advocacy, especially at the state level
- Strategy 2: Develop relevant information and tools on disparities for use in advocacy
- Strategy 3: Support communities, states and national social marketing approaches

GOAL 3: Support research, demonstrations, & data development on effective approaches

- Strategy 1: Compare the effectiveness of different models of care delivery
- Strategy 2: Expand the availability of state based data on subgroups
- Strategy 3: Capitalize on recent SCHIP reauthorization to develop and spread effective models for addressing childhood obesity

Conclusions

- Childhood obesity disparities are widespread and vary by state and subgroup
- Providers have an opportunity and responsibility to address children most at risk
- Providers can and should be active in advocating for strategies appropriate to their state for overcoming disparities

Questions?

Childhood Obesity Action Network & Policy Program

What is the NICHQ Childhood Obesity Action Network (COAN)?

- **Over 2,500 Health Professionals**
- **50 States**
- **5 Countries**
- **5 Major Sponsors**
  - Robert Wood Johnson
  - The California Endowment
  - Nemours
  - Kaiser Permanente
  - The HSC Foundation

What are its goals?

- 10-Year Goal - To reverse the childhood obesity epidemic in all 50 states
- 5-Year Goals
  - To improve the quality of care for over 20 million children in all 50 states concerning the assessment, prevention and treatment of childhood obesity
  - To identify and disseminate successful practices in preventing and treating childhood obesity
  - To facilitate health care professionals becoming advocates for environmental improvements in their communities
  - To build the network as the recognized “go to resource” for healthcare’s role around childhood obesity

Policy Activities

- Develop policy **recommendations** to promote the prevention, identification, and management of childhood obesity.
- Develop strategic **partnerships** at all policy levels, including national, state, city and county, to move these recommendations forward.
- Principal foci and activities:
  - **Health care** policy but may expand to include other aspects of policy
  - Initial foci:
    - Role of health policy
    - Coverage & reimbursement
    - Disparities
  - Range of policy “products” to meet diverse audience needs