Flex Monitoring Team

University of Minnesota
University of North Carolina at Chapel Hill
University of Southern Maine

Quality Peer Groups for CAHs: FMT Work in Progress

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July 20, 2016 | Flex Reverse Site Visit, Rockville, MD

Background

- FMT financial peer groups are defined by:
  - Net patient revenue, long-term care, provider-based rural health clinic, government ownership, Census Region
- Currently, FMT quality performance peer groups are defined by state and by HRSA region
  - Many measures have small patient volume for CAHs
- Useful for planning Flex Program activities, but…
  - Wide range in number of CAHs per state
  - Variation in CAH characteristics within states & regions

Research Question / Purpose

- What's the best way to compare CAHs on quality performance?
  - Is it fair to compare CAHs that have very different patient volumes, are structured differently, offer different services, etc.?

- **Purpose of Project: identify peer groups of CAHs for analyzing quality performance.**

Goals for Selecting Indicators

- Applicable to a range of quality measures
- Significantly related to quality performance
- Limited number of indicators (3-5) and categories (2-4) for each indicator
- Distribution of CAHs across categories
- Minimize high correlations between indicators

Methods

- Review of literature and information from quality measurement programs
- Analysis of AHA Annual Survey data, FMT CAH data, Hospital Compare data
- Expert opinion

Review of Literature

- Comparisons based on size/volume, CAH status, other hospital characteristics
- Many comparisons less relevant for CAHs (e.g., teaching status, specialty designation)

Quality Measurement Programs

- Minimum volume for reporting/making data public
- CAHs vs. other hospitals
- No evidence of peer groups within CAHs

Potential Indicators

- **Size/Volume** (e.g., inpatient admissions, emergency and outpatient visits)
- **Scope/Scale of Services** (e.g., OP & IP surgery, obstetrics, swing beds)
- **Staffing** (e.g., RN + LPN FTEs, physicians with privileges)
- **Payer Mix** (Medicare & Medicaid share of inpatient days)
- **Geographic Location** (Census Regions)
- **Other Hospital Characteristics** (e.g., system membership, accreditation)

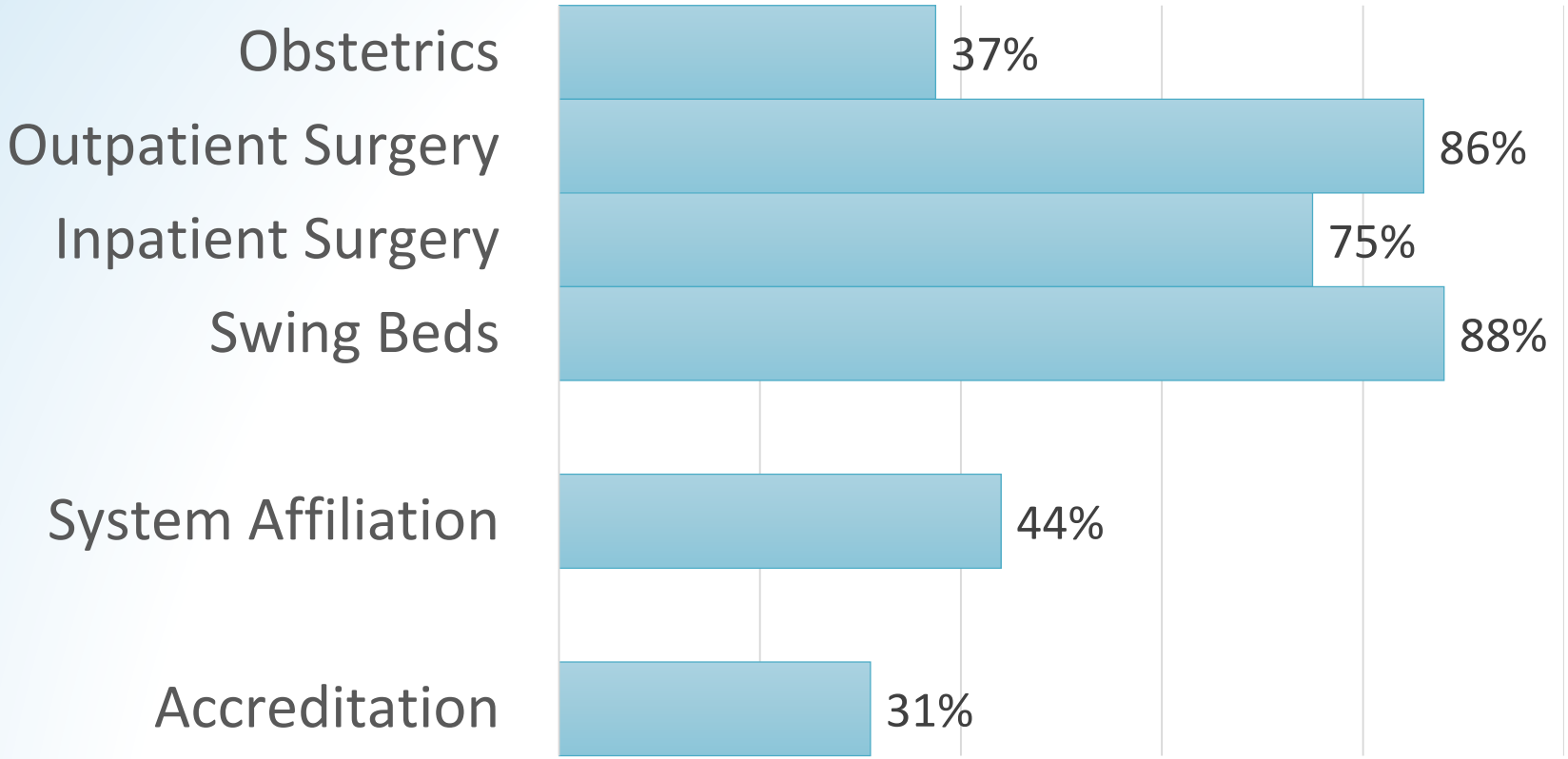
Analysis

- Step 1: Analyze distribution of CAHs for potential indicators
- Step 2: Select potential indicators for further analysis
- Step 3: Compare performance on quality measures among CAHs *by categories* of indicators and variation *within categories* of selected indicators

Step 1: Analyze CAH Distribution

- **Annual inpatient admissions**
  - Categories: ≤300, 301-700, and 701+
- **Annual outpatient/ER visits**
  - Categories: ≤17k, >17k-35k, and >35k
- **Annual inpatient surgery volume**
  - Categories: none, 1-60, 61-180, and 180+
- **Census Region**
  - NE (5%), West (21%), South (26%), Midwest (47%)
- **Nurse FTE (RN+LPN) per 1000 patient days**
  - Categories: ≤2, 2.1-4, and 4.1+
- **Medicare + Medicaid share of patient days**
  - Categories: <70%, 70.1-80%, >80%

Step 1: Analyze CAH Distribution



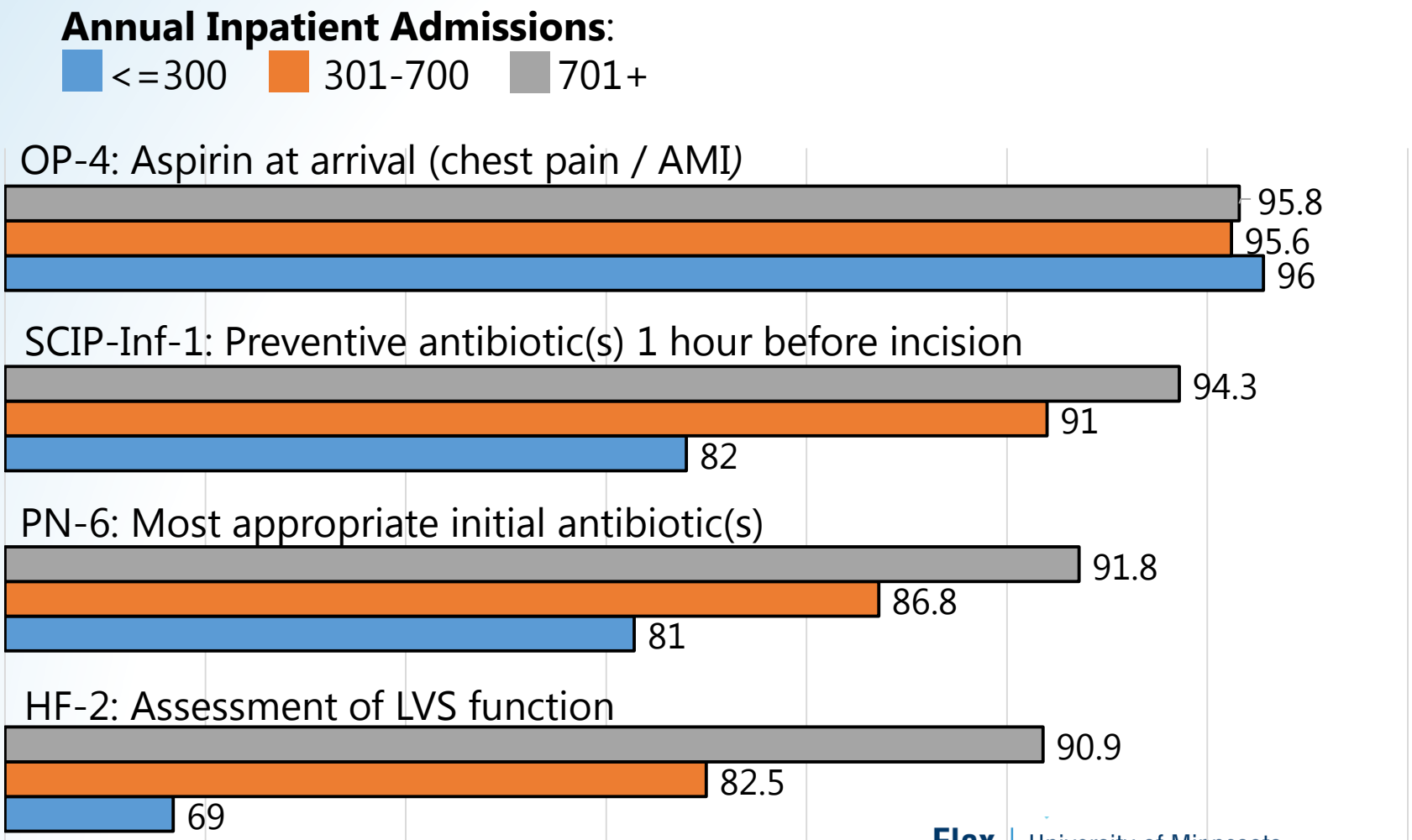
Step 2: Indicators for Further Analysis

- **Patient volume**
  - Inpatient admissions
  - Outpatient / ER visits
  - Inpatient Surgery
- **Staffing**
  - RN+LPN FTEs/adjusted patient days
- **Geography**
  - Census Region
- **Other Hospital Characteristics**
  - System membership
  - Accreditation
- **Payer Mix**
  - Medicare +Medicaid share of IP days

Step 3: Compare CAH Performance on Process Measures

- Better performance is significantly related to:
  - higher volumes of inpatient admissions (13 measures); inpatient surgery (15), and OP/ER visits (13)
  - Location in Northeast census region (worst in South)
  - Affiliation with system (7 measures)
  - Accreditation (10 measures)
- No consistent relationship found for:
  - Medicare + Medicaid share of IP days
  - Nurse staffing and performance

CAH Performance on Process Measures



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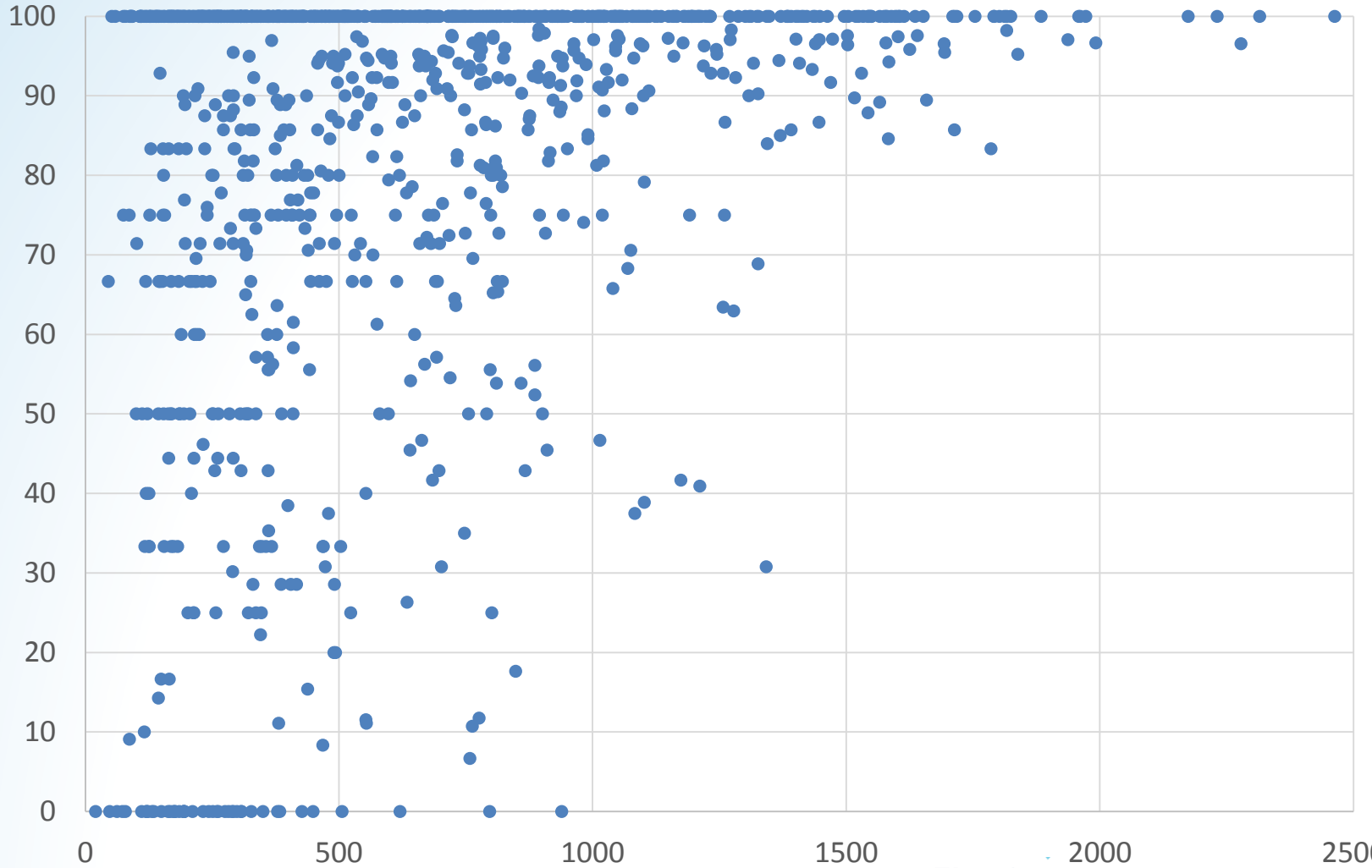
HF-2 Performance by Admissions



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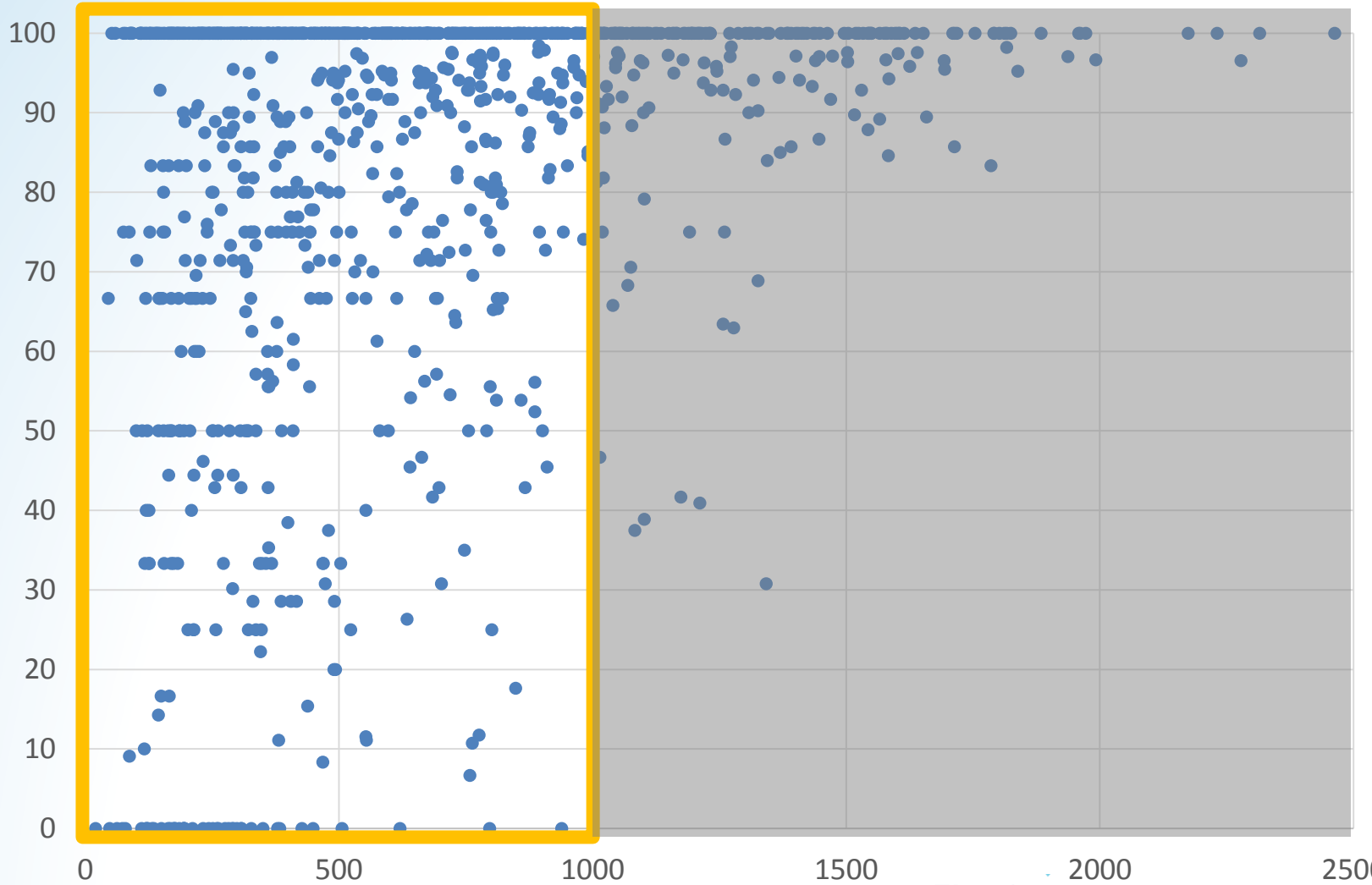
HF-2 Performance by Admissions



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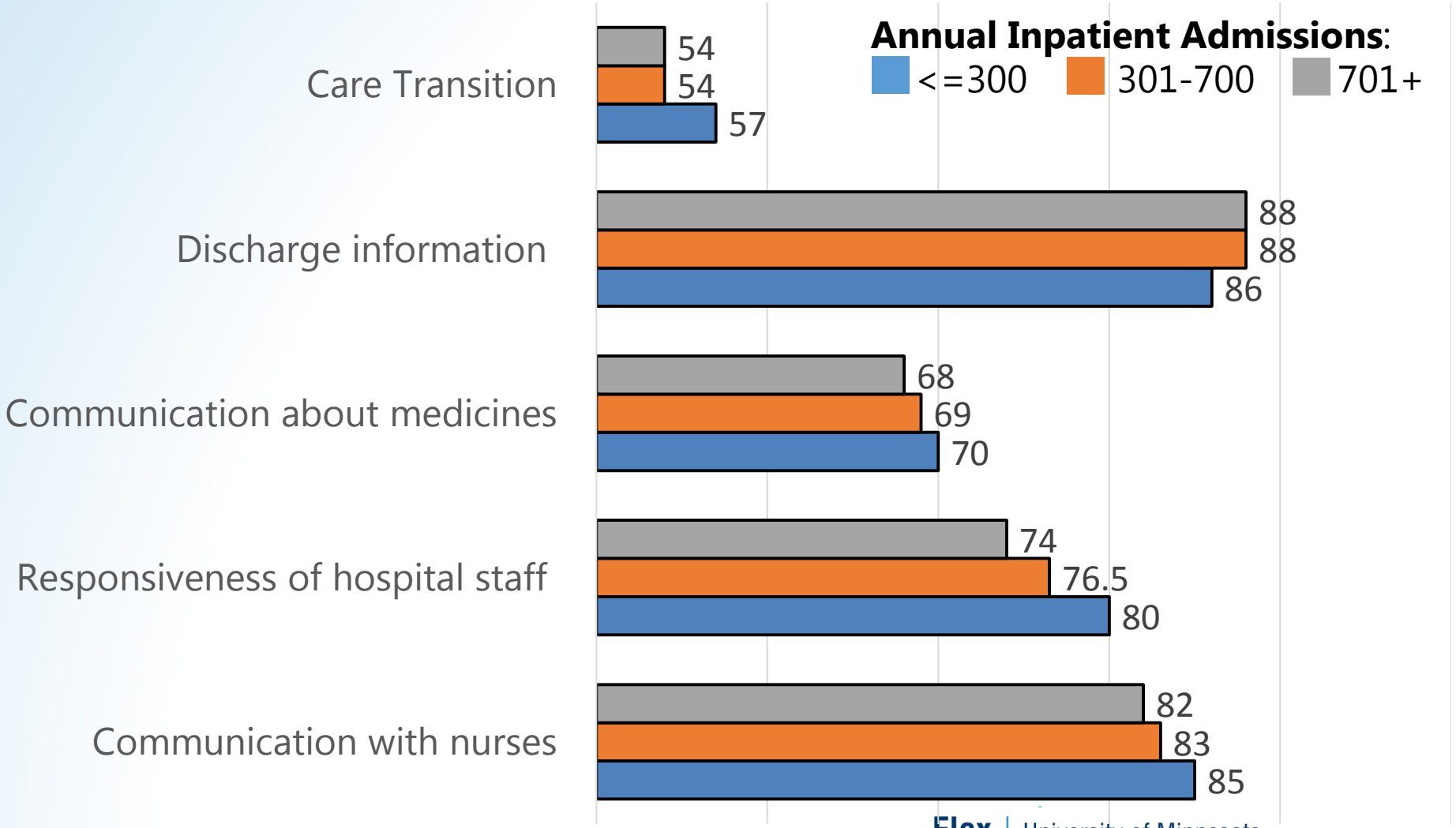
Step 3: Compare CAH Performance on HCAHPS

- Lower volumes of IP admissions and IP surgery = significantly higher HCAHPS scores *except* for discharge info measure
- Significant differences by Census Region on 9 measures; West has lower performance on 8 measures
- Mostly insignificant relationships between HCAHPS performance and system affiliation or accreditation
- Trend for higher nurse staffing to be related to higher HCAHPS performance, but small differences

HCAHPS Performance by Admissions



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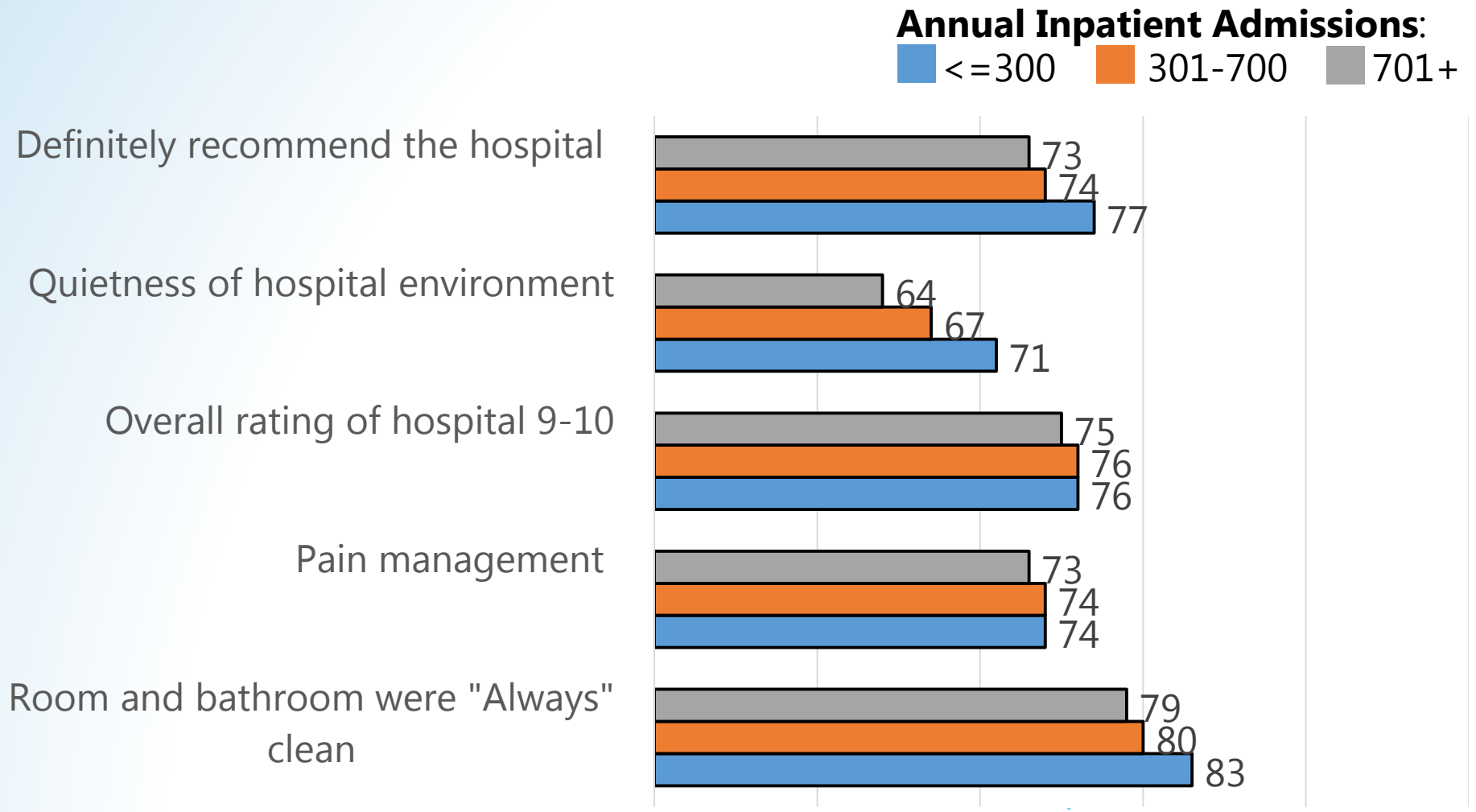
HCAHPS Performance by Admissions



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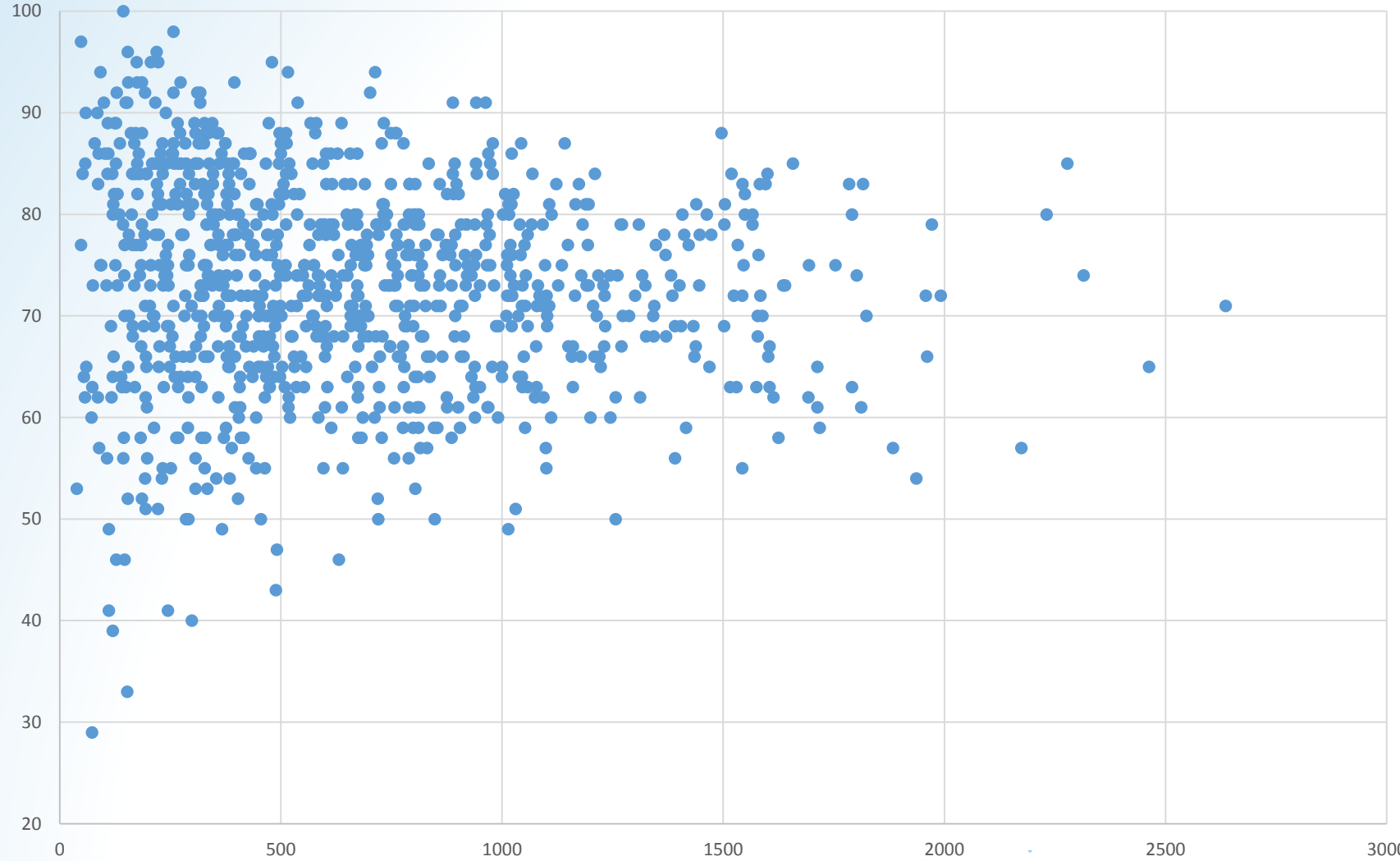
Patients Who Definitely Recommend the Hospital by Admissions (N=921 CAHs)



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Conclusions

- High correlations between some characteristics
- Several hospital characteristics are significantly related to performance on process and HCAHPS measures
- Volume is positively related to process performance and negatively related to HCAHPS performance
- Considerable variation in quality performance *within* groups of CAHs

Questions for Discussion

- Does your State Flex Program, hospital association, or CAH quality network use any peer group indicators to analyze CAH quality performance?

- How do you think quality peer group indicators should be used?

Questions for Discussion

- Which of the proposed indicators would be useful for comparing the quality performance of CAHs in your state with similar CAHs?
  - Inpatient admissions
  - Outpatient / ER visits
  - Inpatient Surgery
  - System membership
  - Accreditation
  - Census Region
- Are there any alternative indicators that you think would be useful?

Additional Information:

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This work was supported by the Federal Office of Rural Health Policy (FORHP), Health Resources and Services Administration (HRSA), U.S. Department of Health and Human Services (HHS) under cooperative agreement # U27RH01080. The information, conclusions and opinions expressed in this presentation are those of the authors and no endorsement by FORHP, HRSA, or HHS is intended or should be inferred.