Quality Performance Measurement and Use of Health Information Technology in Critical Access Hospitals

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Flex Monitoring Team

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

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Flex Monitoring Team

- Rural Health Research Centers at Universities of Minnesota, North Carolina, Southern Maine
- Cooperative agreement with ORHP 2003-2008
- Collaboration with TASC
- National Advisory Committee
- Purpose: Assess impact of Flex Program on rural hospitals, communities and role of states in achieving overall program objectives

Flex Monitoring Team | University of Minnesota, University of North Carolina at Chapel Hill, University of Southern Maine

Overview of Flex Monitoring Team Activities

- Tracking CAH Conversions
- State Flex Program Activities
- CAH Financial Performance
- CAH Quality Performance
- Community Impact
- National CAH Surveys
  - Multiple topics, including HIT

Benefits of Flex Monitoring Efforts

- Data for federal and state policymaking on Flex Program
  - Support for ORHP National Performance Measures for Flex Program
- Development of tools and identification of best practices for states and CAHs to improve program performance

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Flex Monitoring Team Quality Performance Related Activities

- Development and Field Testing of Rural-relevant Quality Measures
- Analysis of CAH Participation in Hospital Compare and Initial Results
- Analysis of CAH Inpatient Hospitalizations and Transfers
- Summary of State Flex Program QI activities

Development and Field Testing of Rural-relevant Quality Measures

- Builds on University of Minnesota work to identify rural-relevant hospital quality indicators and initial field test in rural hospitals working with QIOs
- Continued work on developing new quality measures and refining the existing set of quality measures
- Current field test of quality measures related to transfer communications with CAHs

Developing Relevant Quality Measures for Rural Hospitals

- Evaluate existing quality indicator and performance measurement systems to assess their relevance for rural hospitals
- Convene expert panel to make recommendations for quality measures that are relevant for rural hospitals
- Develop and test a performance improvement system that provides a core set of quality measures for rural hospitals on an ongoing basis

Criteria Used for Evaluating Quality Measures

- Prevalence in rural hospitals with less than 50 beds
- Ease of data collection effort in rural hospitals with less than 50 beds
- Internal usefulness for rural hospitals with less than 50 beds
- External usefulness for rural hospitals with less than 50 beds

Relevant Quality Measures for Rural Hospitals with < 50 Beds

- 21 measures from existing measurement sets included:
  - Core measures related to pneumonia, heart failure, and AMI
  - Medication dispensing and education
  - Infection control
  - Emergency Department trauma vital signs

Relevant Quality Measures for Rural Hospitals with < 50 Beds

- Develop quality measures for core rural hospital functions not in existing measurement sets
  - Emergency Department
    - timeliness of care
  - Transfer Communication
    - patient demographics
    - patient care
    - patient management

Initial Field Test

- Partnership with 2 QIOs - Stratis Health and HealthInsight
- Rural hospitals with < 50 acute beds in MN, NV, UT recruited by Stratis Health and HealthInsight
- 22 rural hospitals including 13 CAHs collected data over 6 months (March – September 2004)

Conclusions Regarding Initial Field Test

- Relevant quality measures can be systematically collected from small rural hospitals that receive appropriate training and support from QIOs

- Further work needed to refine Emergency Department measures
  - Organize transfer communication measure elements by target area for interventions
  - Apply transfer communication measure to all transfer conditions
  - Limit ED chest pain/AMI measures to cardiac-related cases

Current Field Test of ED Measures

- Test “train the trainer” model
- Washington Rural Health Quality Network
  - 18 CAHs participating in field test
- Focus on Emergency Department timeliness and transfer communication measures
- Data collection – January to June 2006
- Data analysis and report completed by Fall 2006

CAH participation in CMS Hospital Compare

- CAHs do not have the same financial incentives as PPS hospitals to participate, however…
- Hospital Compare provides an important opportunity for CAHs to assess and improve their performance on national standards of care

Purpose of Project

- Estimate proportion of CAHs participating in Hospital Compare and assess key factors related to CAH participation
- Determine how many CAHs have sufficient sample sizes to calculate accurate hospital-level rates for specific measures
- Compare initial quality measure results for CAHs with other hospitals

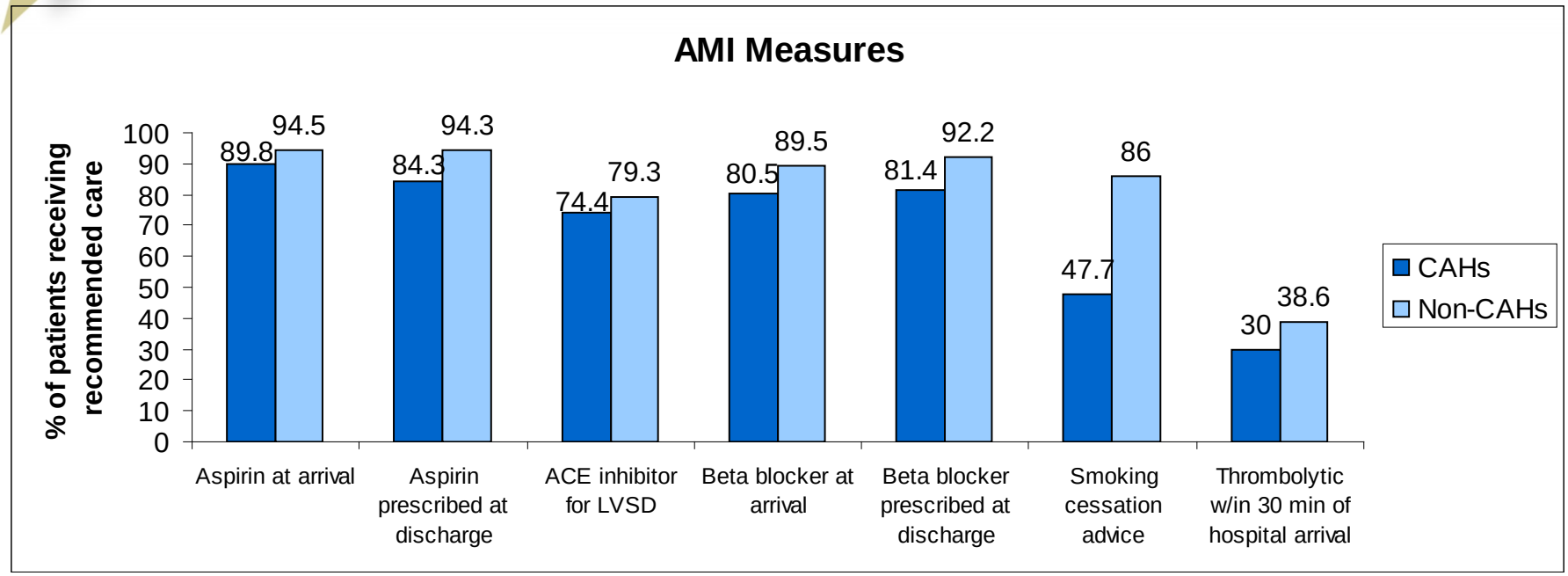
CAH Participation in Hospital Compare

- 41% of CAHs participating as of September 2005
- By state, participation rates range from 0% to 86%
- CAHs are more likely to participate if they are:
  - JCAHO accredited
  - Have larger number of admissions and inpatient days
  - System members
  - Later converters
  - Have private non-profit ownership

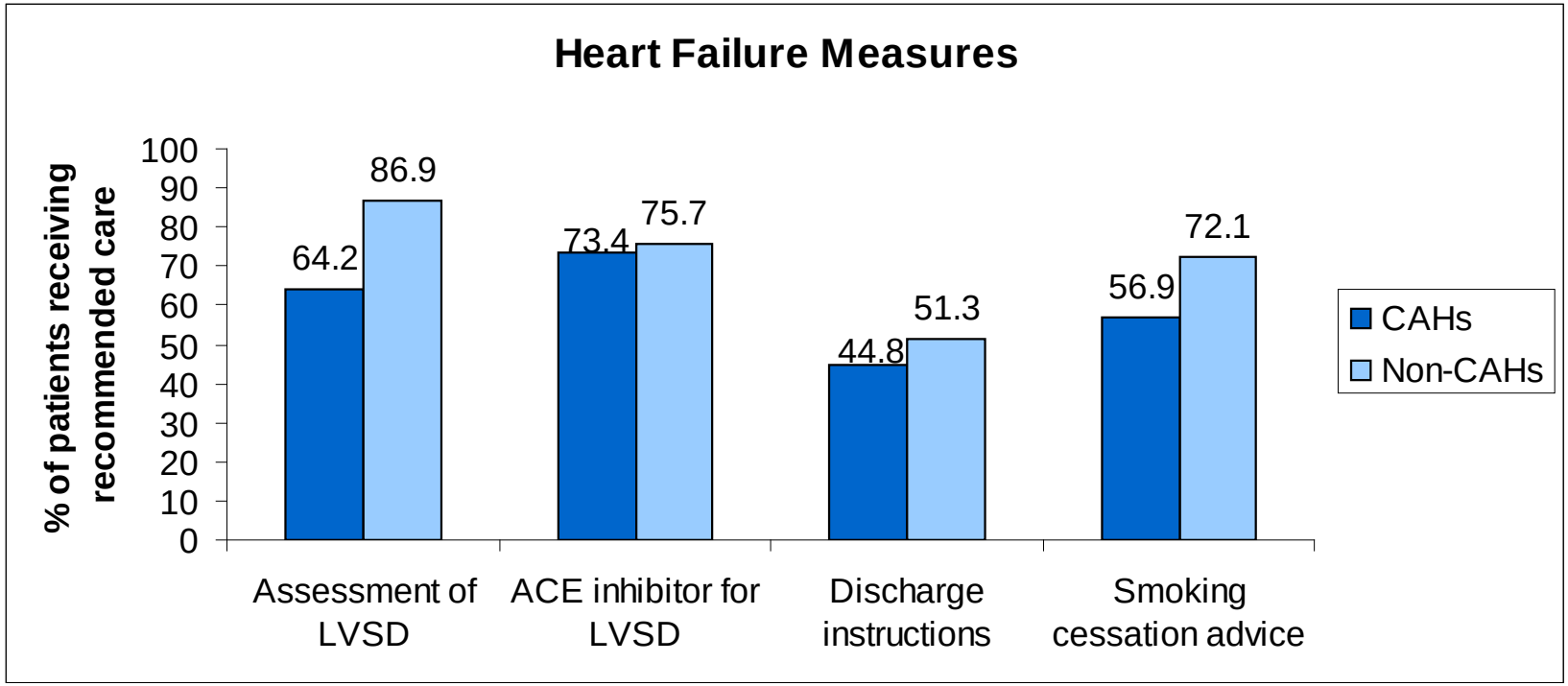
CAH Participation in Hospital Compare

- Volume is an issue
  - More than half of participating CAHs reported data for 25 or more patients on 3 pneumonia measures
  - Less than 4% of participating CAHs reported data for 25 or more patients on all AMI measures and 2 heart failure measures
- Analyzed performance of CAHs as a group compared to other groups of hospitals on initial 10 measures

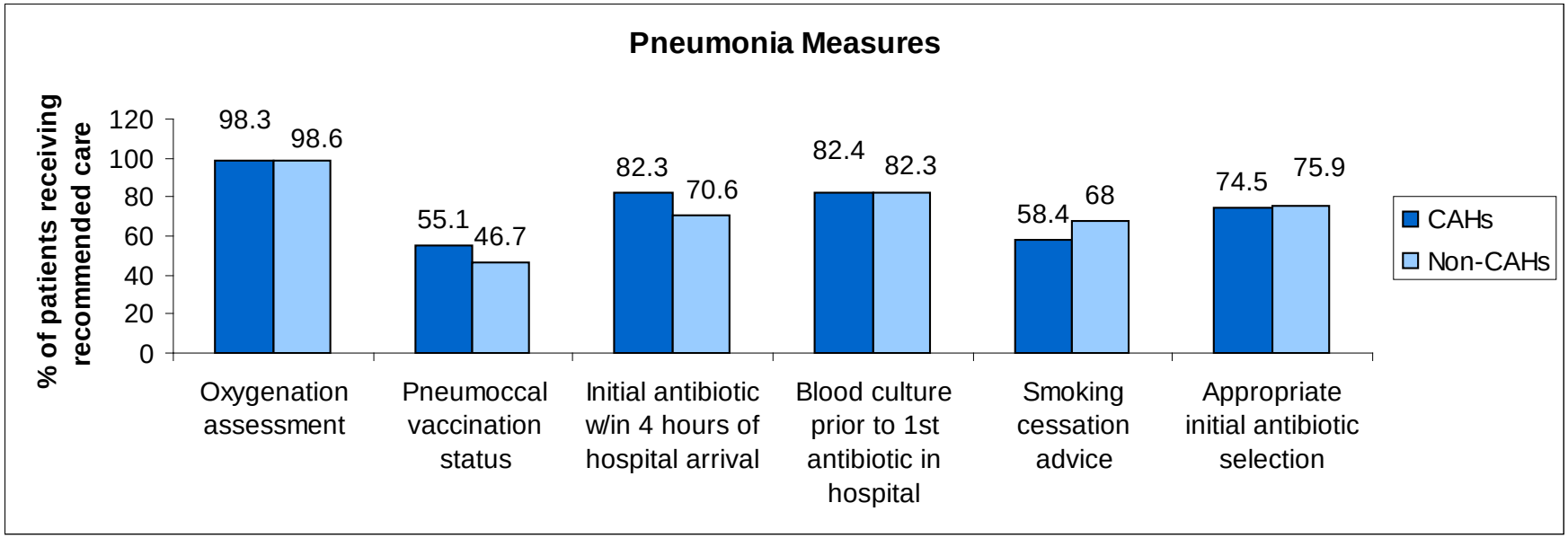
AMI Results for CAHs and non-CAHs



Heart Failure Results for CAHs and non-CAHs



Pneumonia Results for CAHs and non-CAHs



Summary of Hospital Compare Results

- CAHs perform as well or better than non-CAHs on several pneumonia measures
- CAHs do not perform as well as non-CAHs on AMI and heart failure measures
- Compared to non-CAHs with < 50 beds, CAHs perform as well or better on most AMI and pneumonia measures, but not as well on heart failure measures

Potential Reasons for CAH Hospital Compare Results

- Documentation issues
- Availability of specialists and technology
- Use of clinical and administrative guidelines/protocols
- QI/Continuing education programs
- Systems issues
- Bottom line: opportunities for improvement in documentation and care processes in CAHs

Implications of CAH Hospital Compare Results

- Variation within group of CAHs – it will be important to examine individual CAH performance when sample sizes are sufficiently large
- QIO 8th Scope of Work has a goal of 50% increase in CAH reporting of quality measure data to QualityNet Exchange, the national QIO data warehouse
- ORHP is encouraging state Flex programs to work with CAHs in their states on quality improvement and to increase their Hospital Compare participation

Additional Quality Related Projects

- Analysis of hospital discharge data from 9 State Inpatient Databases with hospital identifiers
  - How many and what type of patients are being transferred from CAHs to other hospitals and to other types of care?
- Summary of State Flex Program QI Initiatives
- Analyses to be competed Fall 2006

National CAH Surveys

2004 National CAH Survey
- Stratified sample of 500 CAHs, 95% response rate
- Topics: quality, patient safety, scope of services, capital, community involvement
- National reports on website, state-specific reports sent to states with 5 or more respondents

- Special survey of Health Information Technology Use in CAHs – Spring 2006

- National CAH survey scheduled for fielding in Fall 2006
  - Community involvement/community benefits
  - Quality, capital

Health Information Technology Use in CAHs

- Purpose: to assess level of HIT use in CAHs for a national performance measure
- Collaborative effort of Flex Monitoring Team, TASC and ORHP
- Web-based and phone survey
- March –April 2006
- Random national sample of 400 CAHs
- 333 CAHs (83.3%) responded
  - 210 by web, 123 by phone

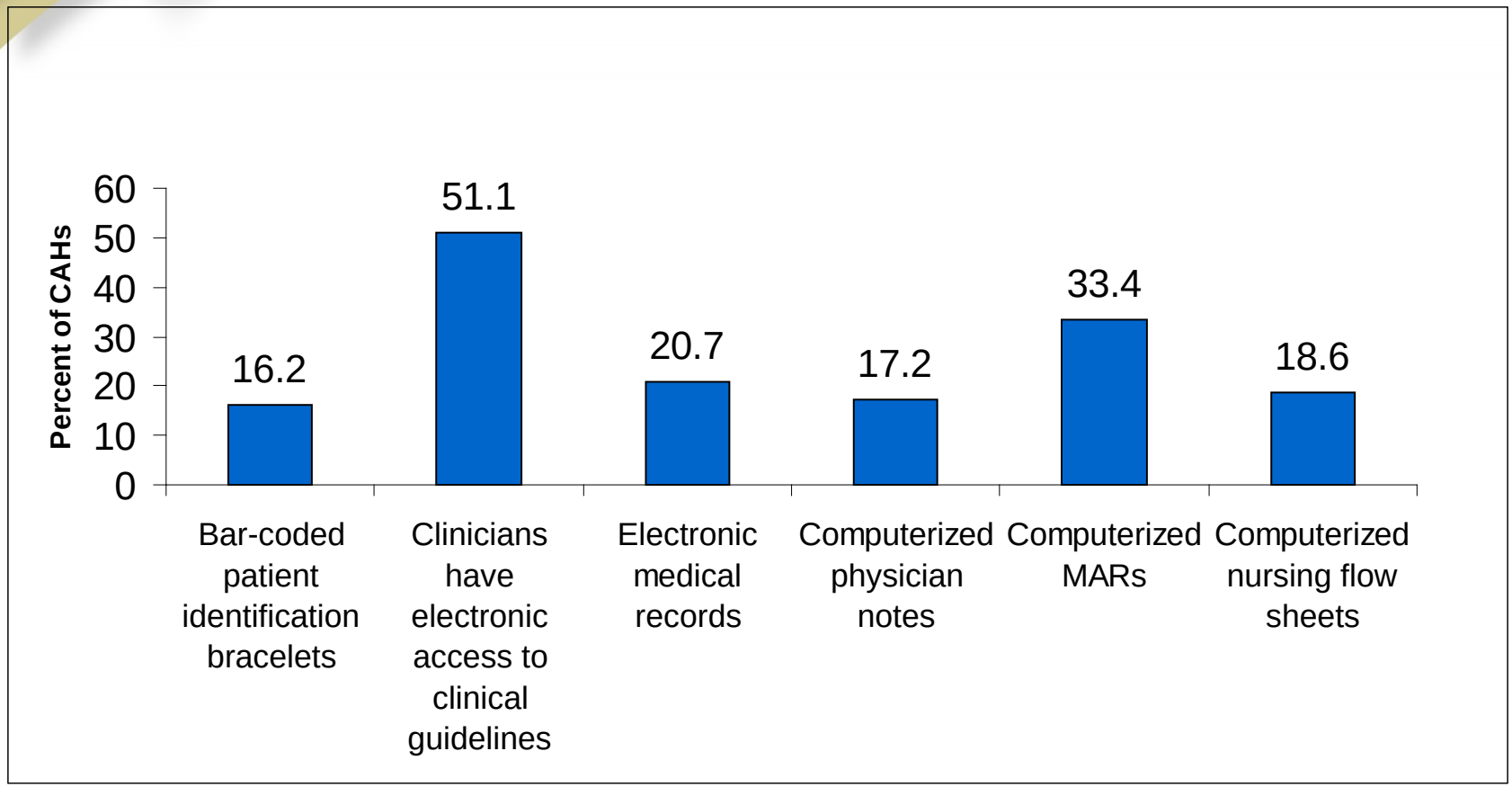
HIT Survey Results: Infrastructure

- Half of CAHs have a formal IT plan
- 76% of CAH budgets include IT funding
- 78% have hospital web sites
- All CAHs have some type of Internet access
- In 36% of CAHs, clinicians use PDAs for patient care

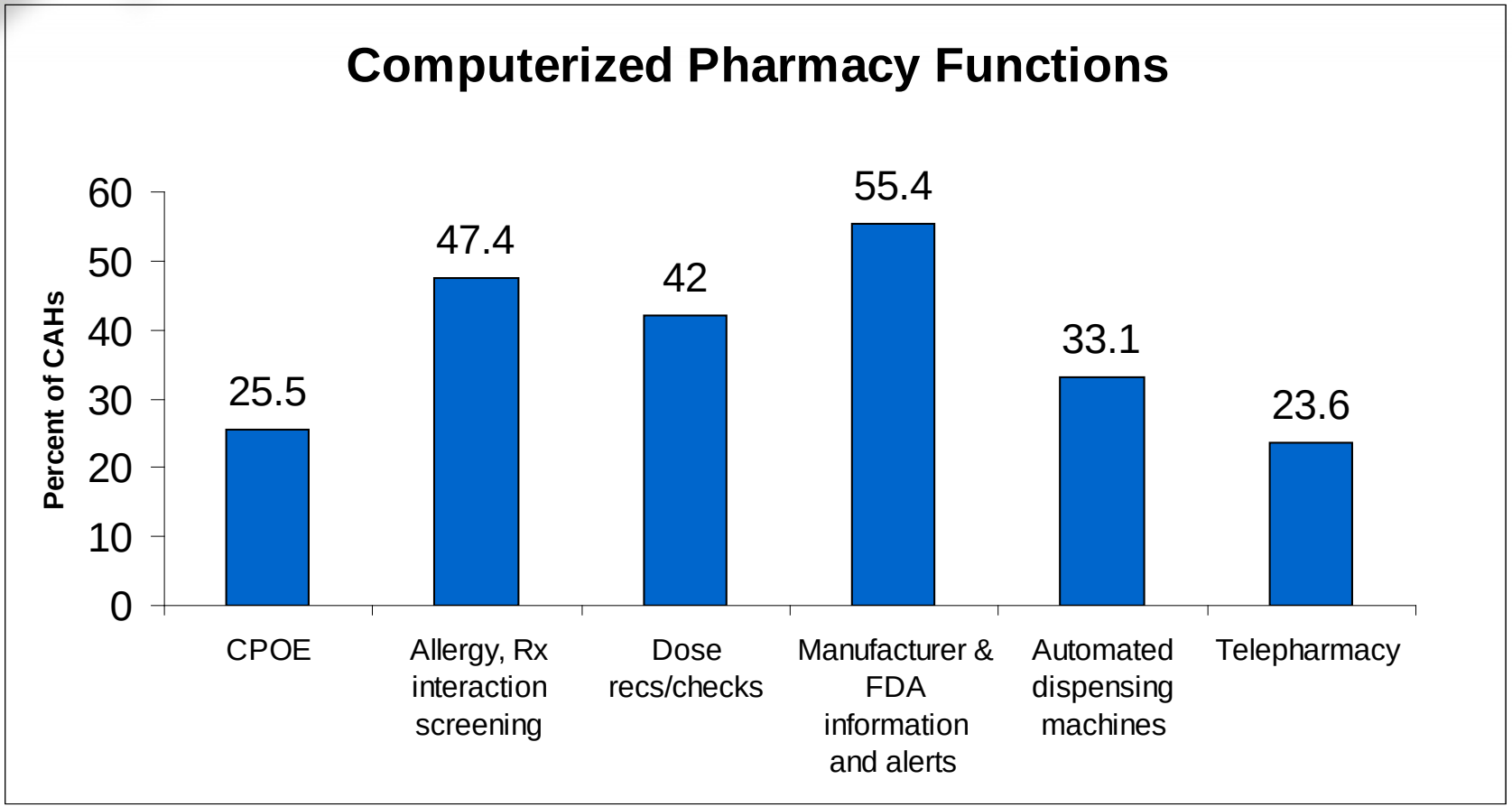
Administrative and Financial Applications

- CAHs have high use rates for many administrative and financial HIT applications
  - 95% or more have computerized claims submission, patient billing, accounting, payroll, and patient registration/admission processes
  - 73% have computerized patient discharges
  - 44% have computerized scheduling of procedures

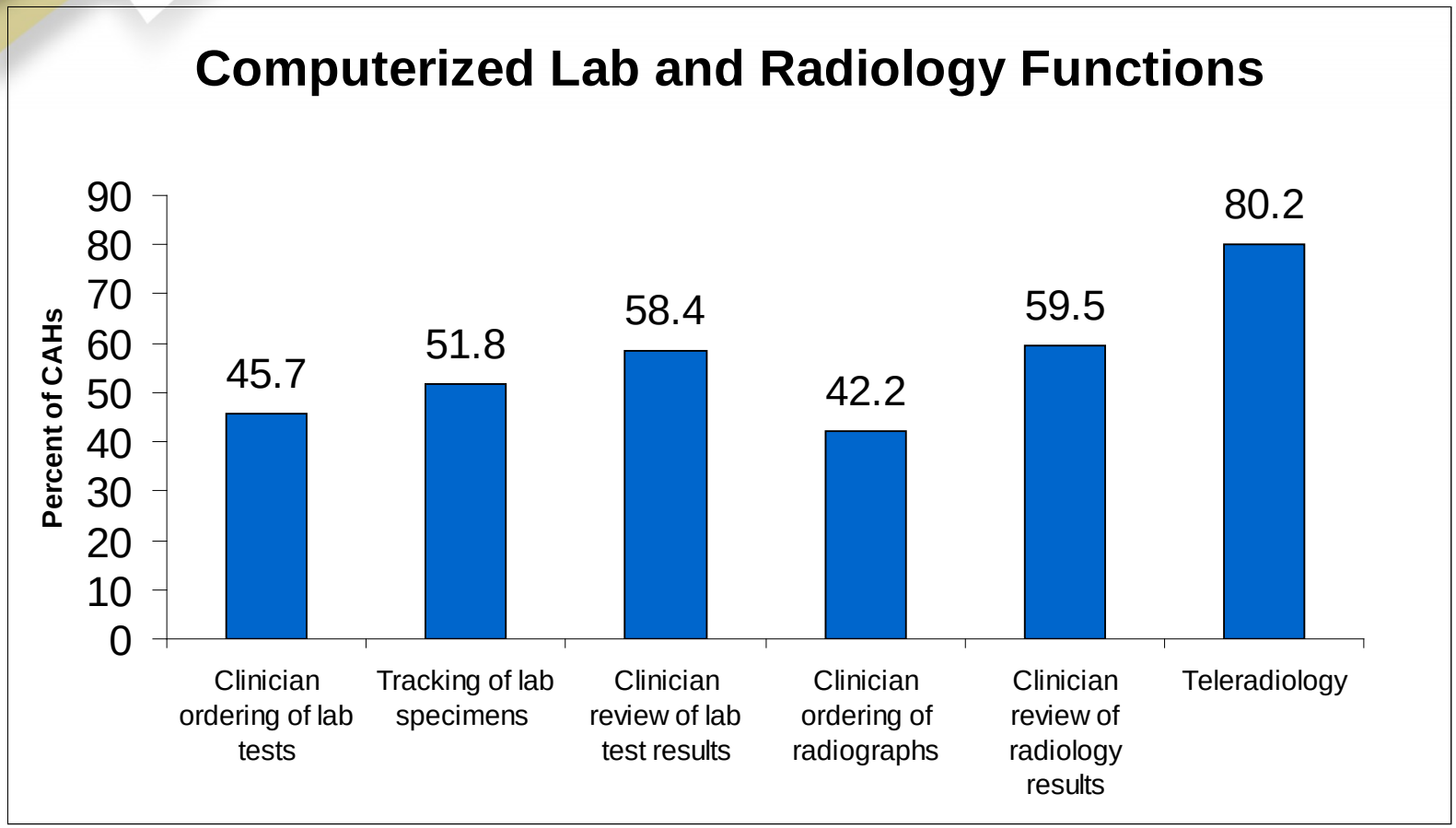
Electronic Access to Guidelines and Patient Data



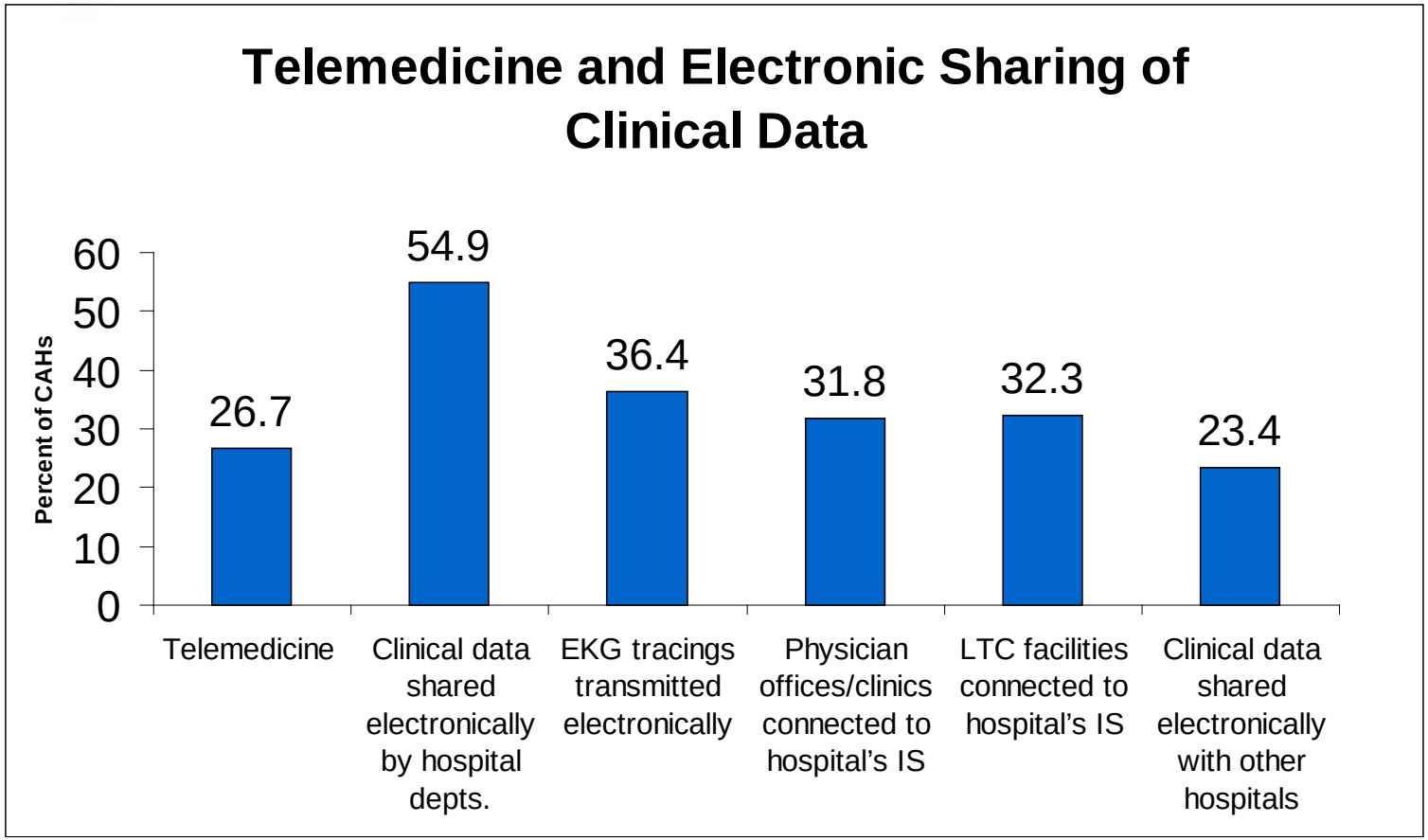
Use of Pharmacy Technology



Use of Lab and Radiology Technology



Telemedicine and Electronic Sharing of Data



HIT Survey Conclusions

- Medicare cost-based reimbursement has permitted many CAHs to make initial investments in HIT infrastructure
- CAHs have high use rates for administrative and financial HIT applications, but much lower rates for clinical applications
- CAH HIT use rates are lower than overall rates for hospitals
- Future efforts need to focus on increasing use of clinical applications and interconnectivity of CAHs and other health care providers

Additional Information

Flex Monitoring Team website
www.flexmonitoring.org

- List and map of CAHs
- Descriptions of projects
- Contact information
- Copies of reports and presentations