

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

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Flex Monitoring Team

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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

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

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



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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



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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



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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



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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

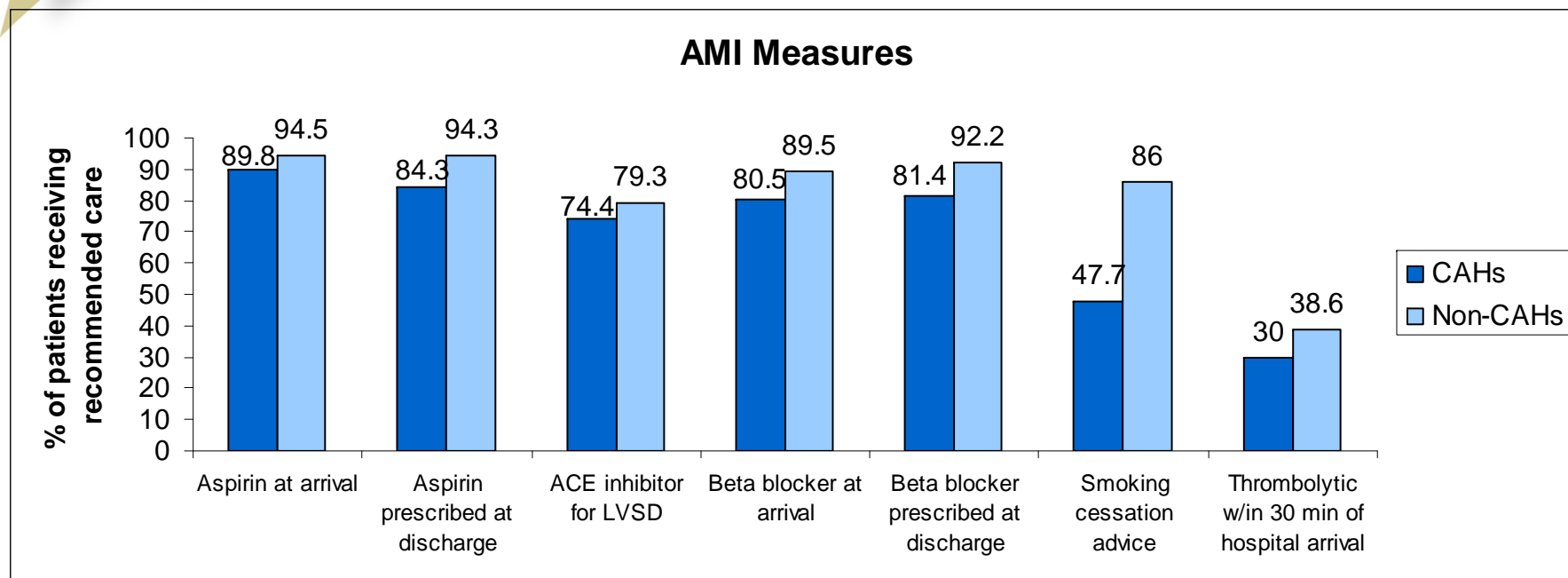
- Volume is an issue
 - More than half of participating CAHs reported data for 25 or more patients on 3 pneumonia measures
 - Less than 4% of participating CAHs reported data for 25 or more patients on all AMI measures and 2 heart failure measures
- Analyzed performance of CAHs as a group compared to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



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AMI Results for CAHs and non-CAHs

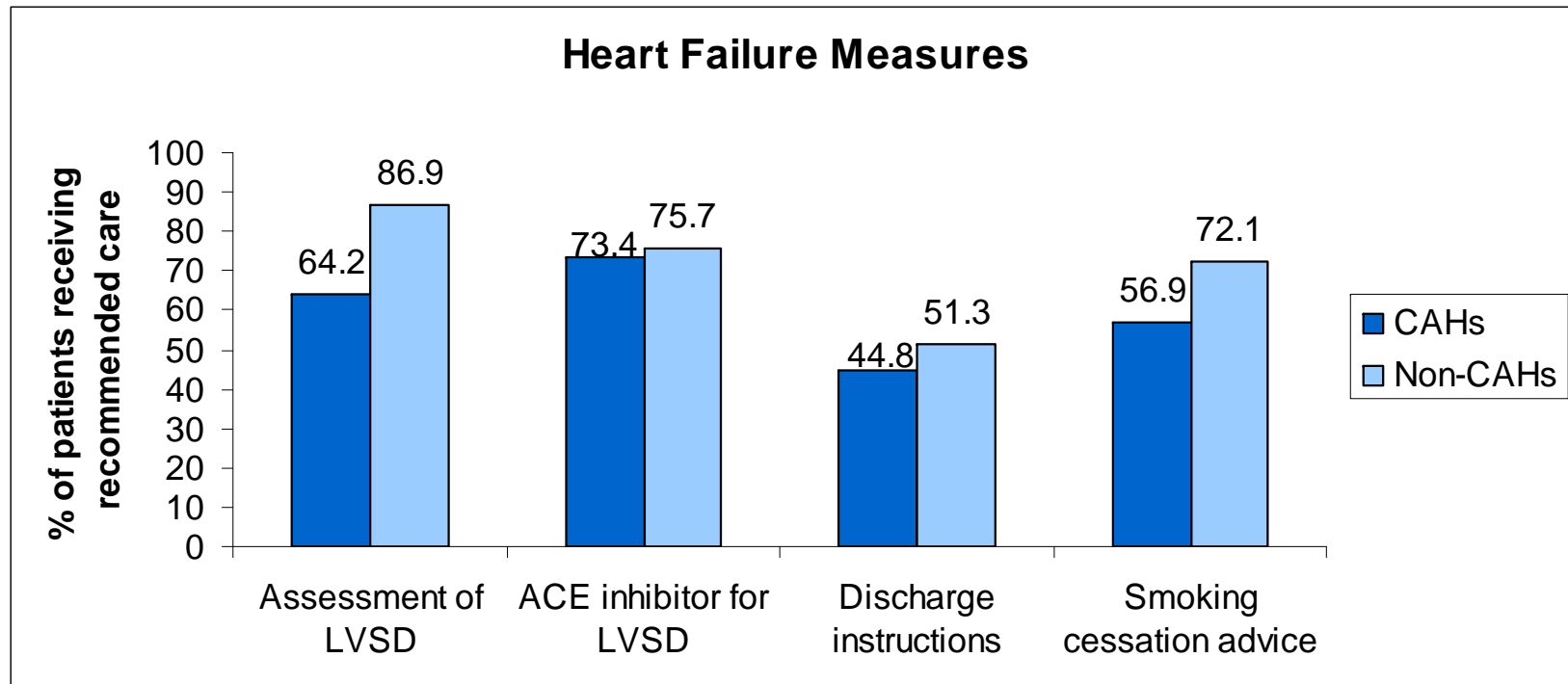




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Heart Failure Results for CAHs and non-CAHs

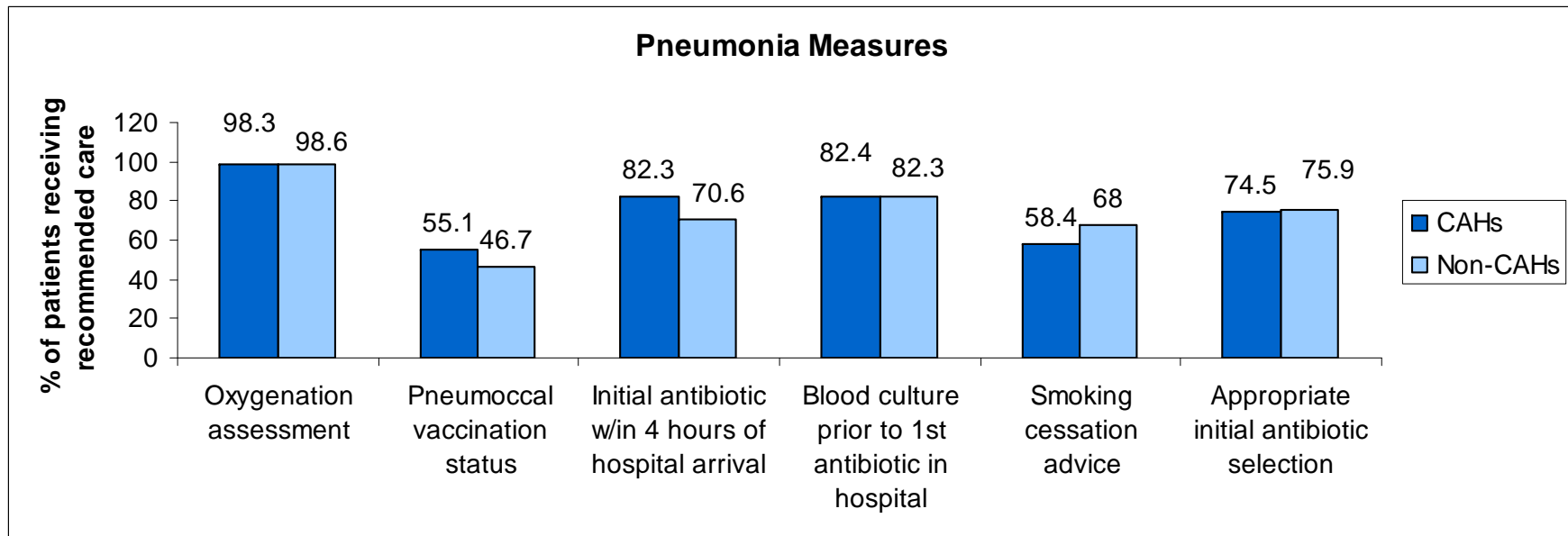




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Pneumonia Results for CAHs and non-CAHs



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



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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 completed 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
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- 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

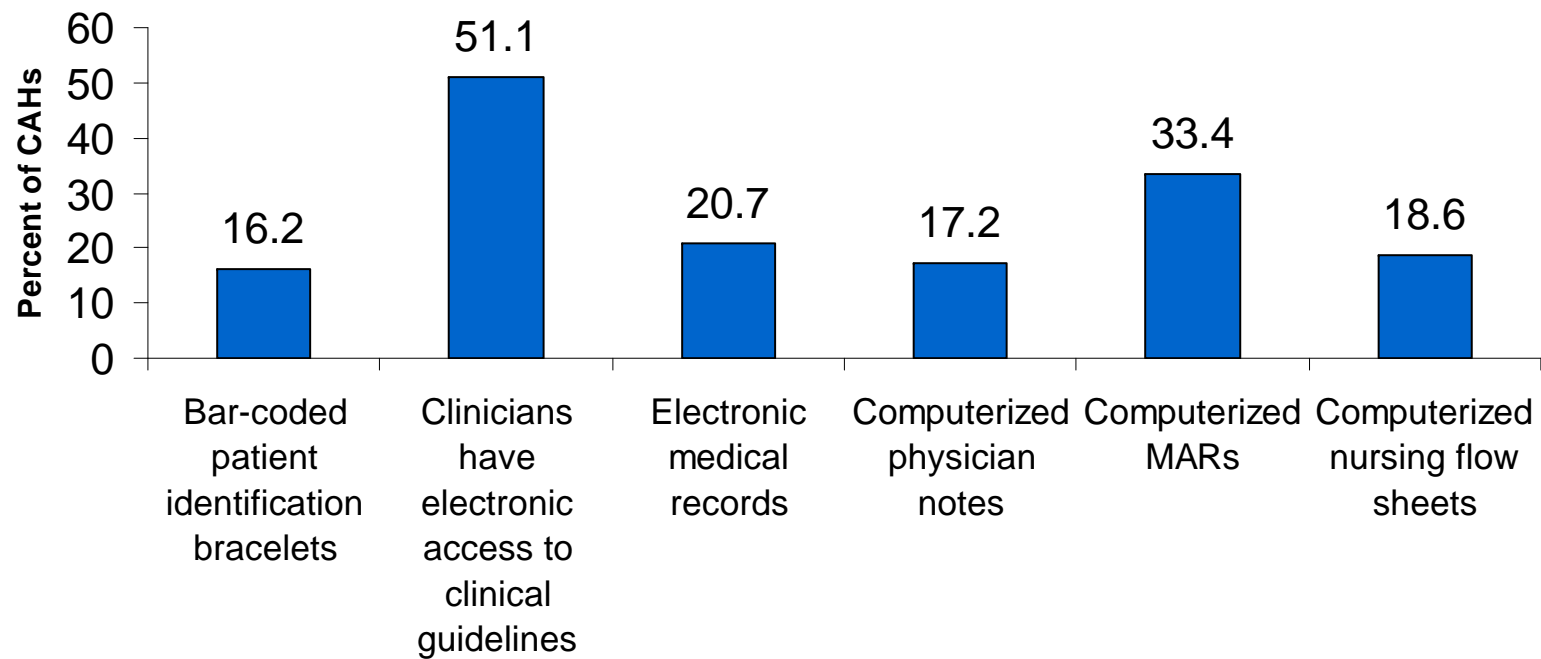
- CAHs have high use rates for many administrative and financial HIT applications
 - 95% or more have computerized claims submission, patient billing, accounting, payroll, and patient registration/admission processes
 - 73% have computerized patient discharges
 - 44% have computerized scheduling of procedures



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Electronic Access to Guidelines and Patient Data



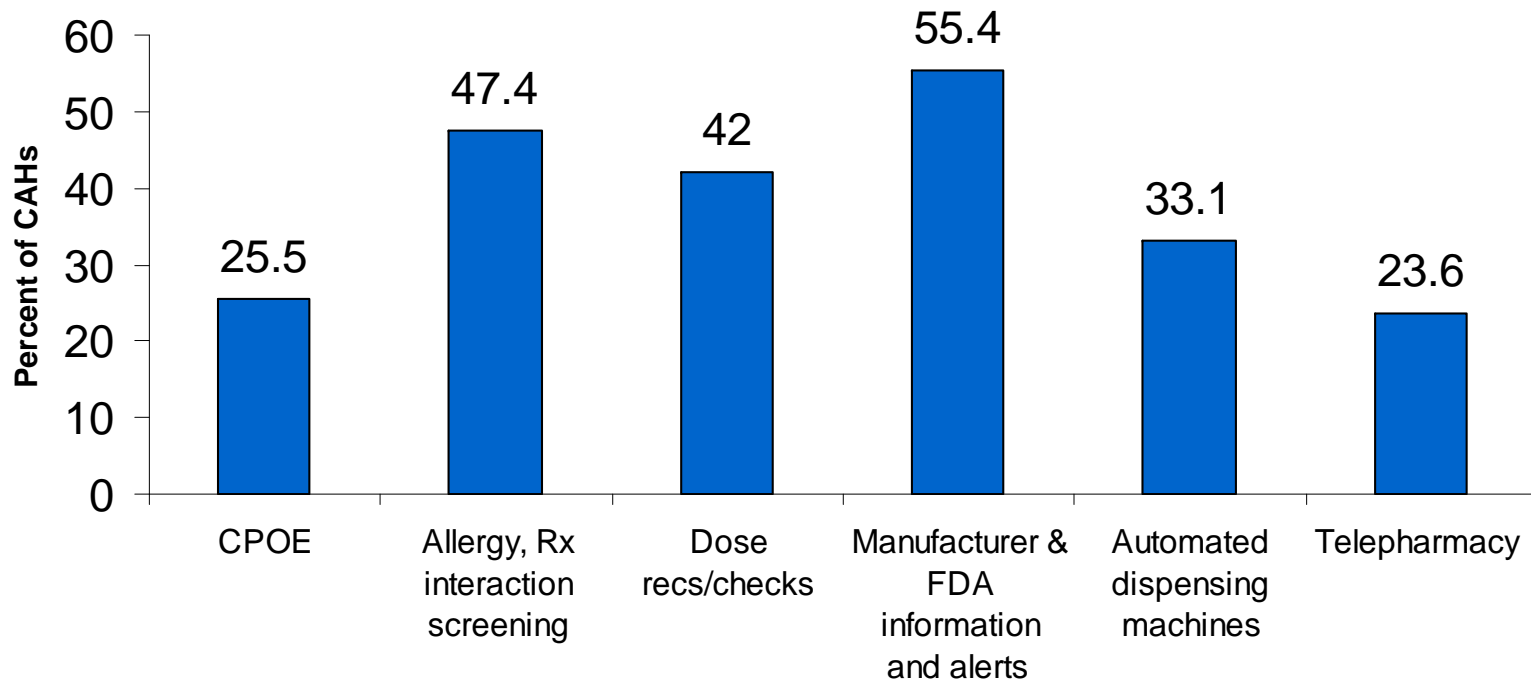


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Use of Pharmacy Technology

Computerized Pharmacy Functions



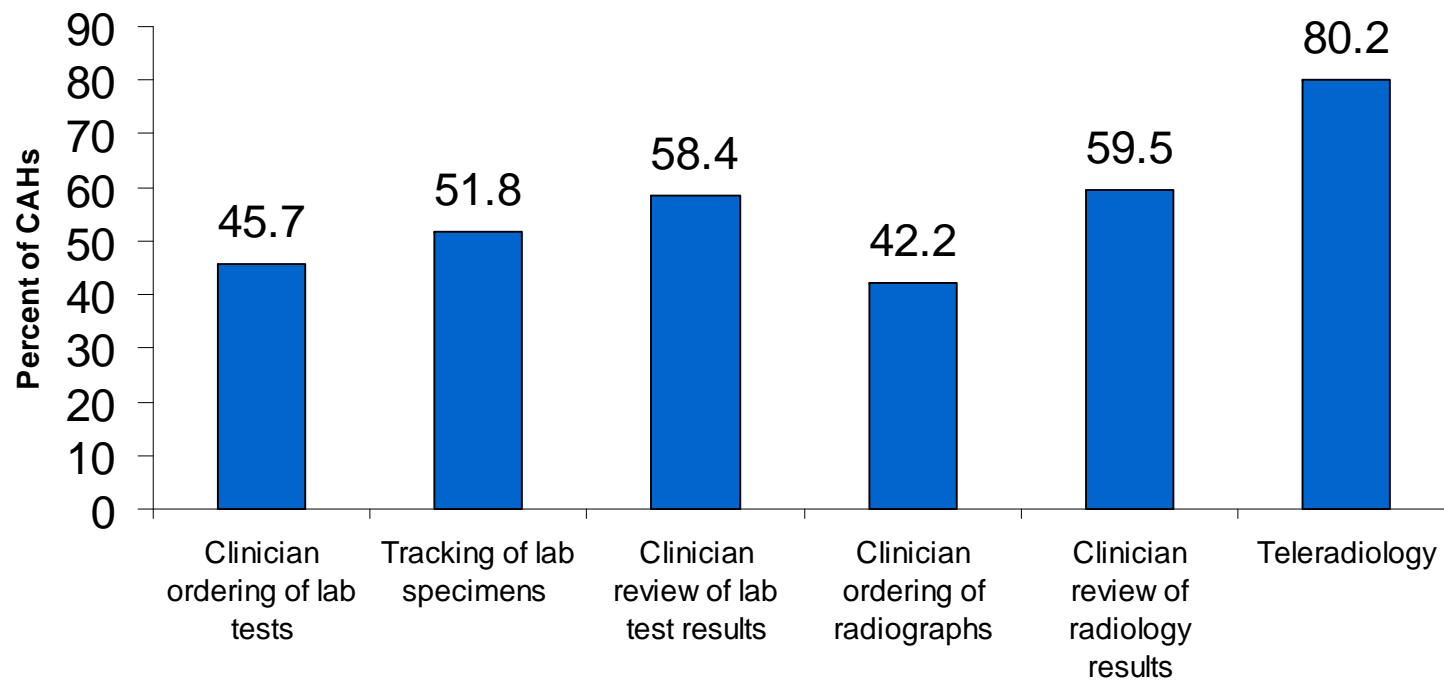


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Use of Lab and Radiology Technology

Computerized Lab and Radiology Functions



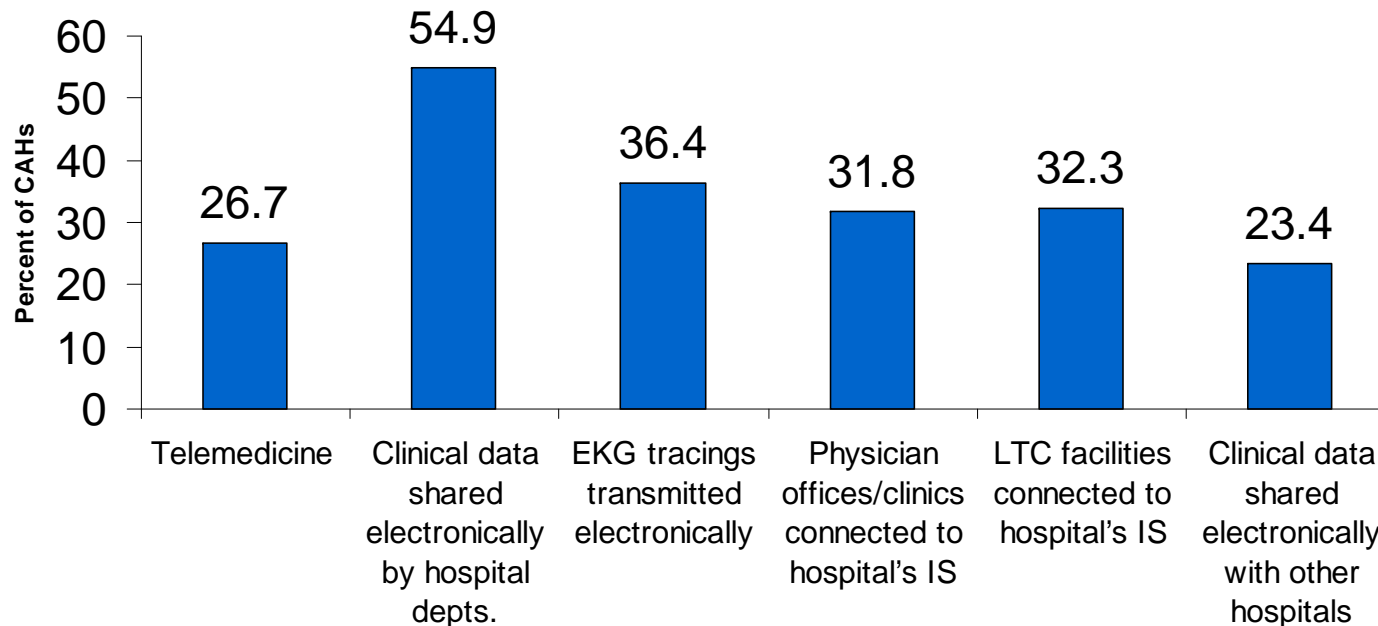


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Telemedicine and Electronic Sharing of Data

Telemedicine and Electronic Sharing of Clinical 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