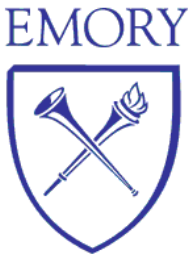
Examining implementation of a commercial pediatric inpatient EMR



Improving Quality of Care for Children through Health IT
AHRQ Conference
September 26, 2007
Bethesda, MD

Paula J. Edwards, Ph.D.
paula.edwards@hsi.gatech.edu
Georgia Tech Health Systems Institute &
Children's Healthcare of Atlanta

Collaborators and contributors

- Children's Healthcare of Atlanta
  - James Jose (PI)
  - Patricia Richardson
  - Tim Stacy
  - Helen Giannopoulos
  - Corrine Risch
- Emory University
  School of Public Health
  - Kimberly Rask (co-PI)
  - Steve Culler
  - Sue Kohler
  - Tracy Scott
- Georgia Institute of Technology
  Health Systems Institute
  - François Sainfort (co-PI)
  - Julie Jacko
  - Leanne Metcalfe
  - Sarah Shacter
  - Sofia Espinoza
  - David Huang

Funding for this research was provided by the Agency for Healthcare Research & Quality

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Topics

- Children's EMR Implementation
- Outcomes measurement approach
- Results: Nurse perceptions & acceptance

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- Pediatric healthcare system in metro-Atlanta
  - Three inpatient hospital
    - 450+ staffed beds
  - 16 satellite locations
  - 6,000+ employees
  - 1,400+ physicians
- Study setting
  - 2 largest hospitals during EMR implementation
    - 1 academic, 1 community
    - 23,000 hospital admissions
    - 128,000+ inpatient days

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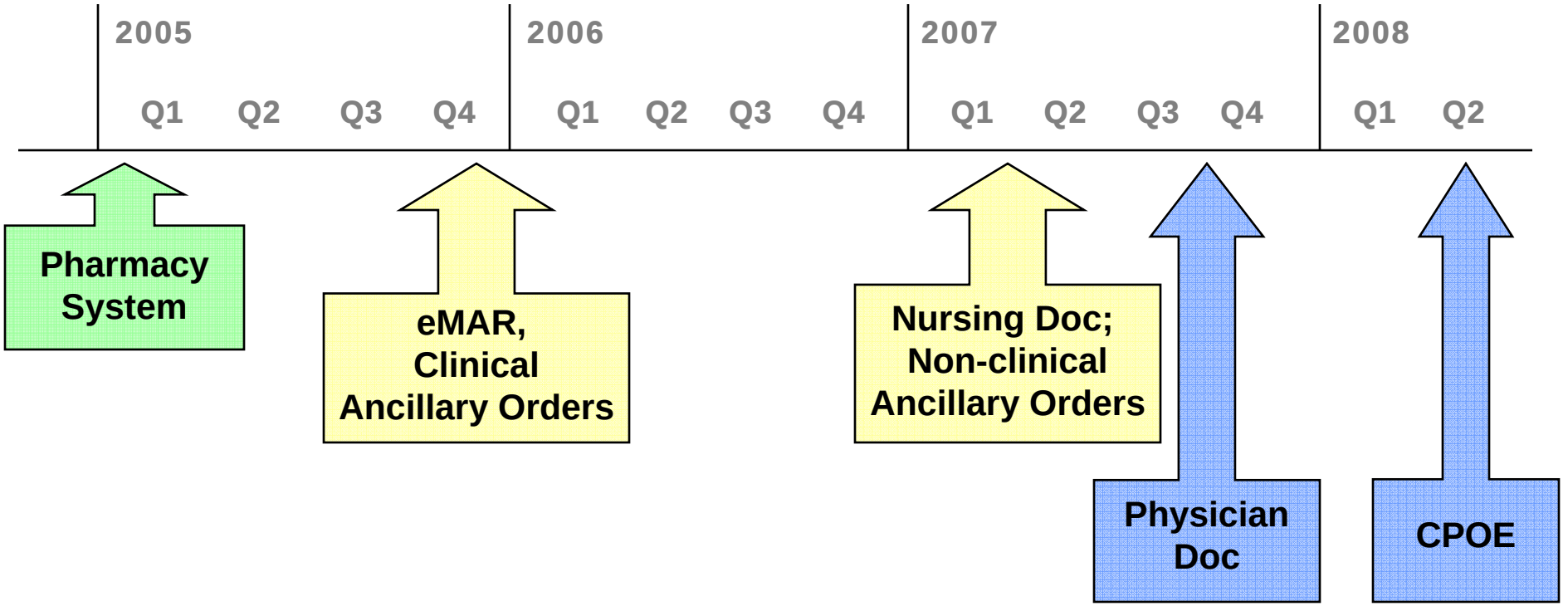
Children's EMR implementation



Phased implementation employing user-centered methods

Measurement Approach

- Patient Safety
  - Medication error rates
    - Trigger-based chart review
    - Self-reporting trends
- Efficiency
  - Pharmacy order turn-around time study
  - Physician & staff self-reports
- Quality
  - Physician & staff self-reports
- Satisfaction & acceptance
  - Users
    - Surveys
    - Qualitative interviews
  - Customers
    - Press Ganey trends

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Nurse satisfaction and acceptance surveys

- Survey distributed before and after each go-live
  - Survey items based on Technology Acceptance Model (TAM) measured perceived usefulness
  - Open-ended questions: advantages & disadvantages
- Survey population: inpatient nursing staff
  - Before eMAR (n=245), after eMAR (n=268)
  - ~45% work in ICU
  - ~50% have worked 1-5 years in their current work area

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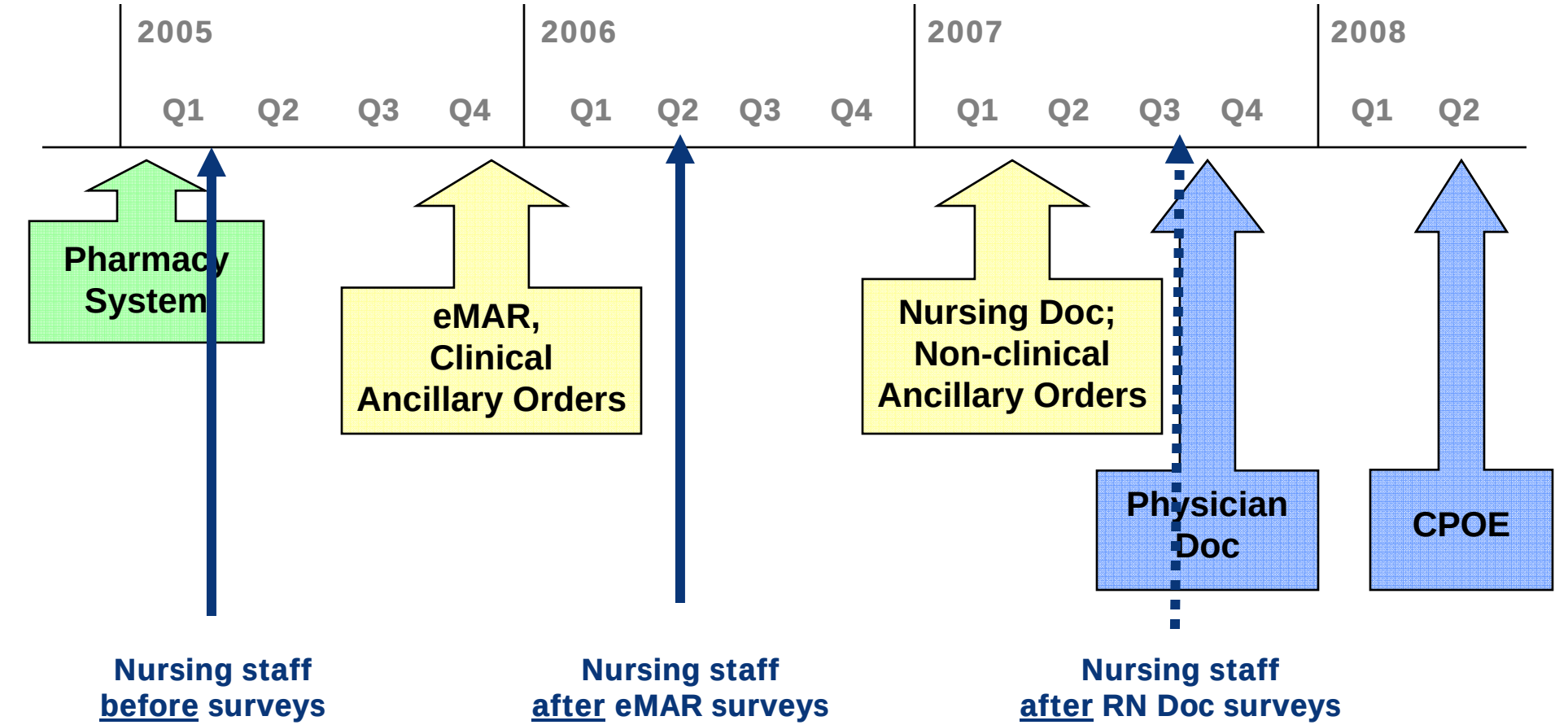
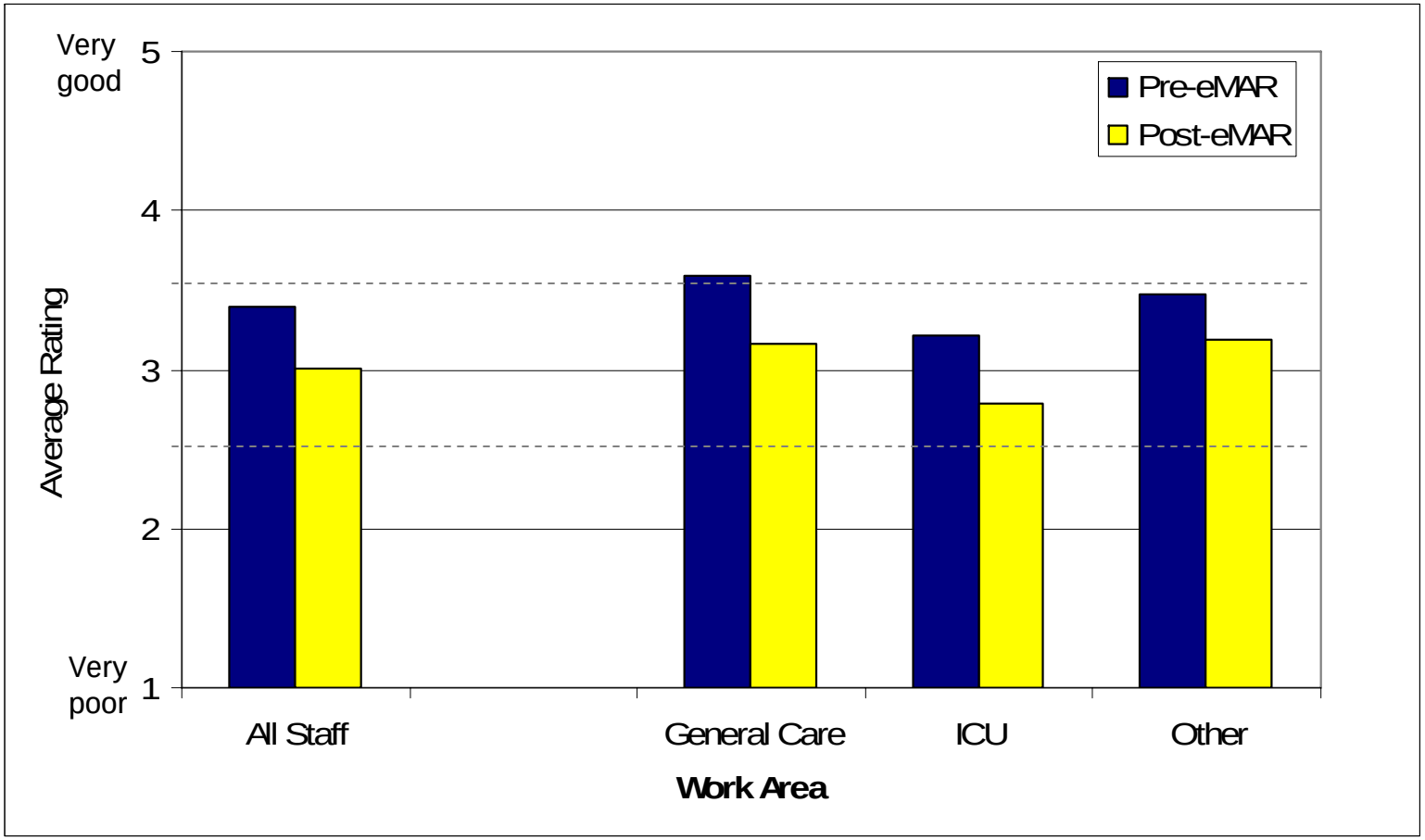
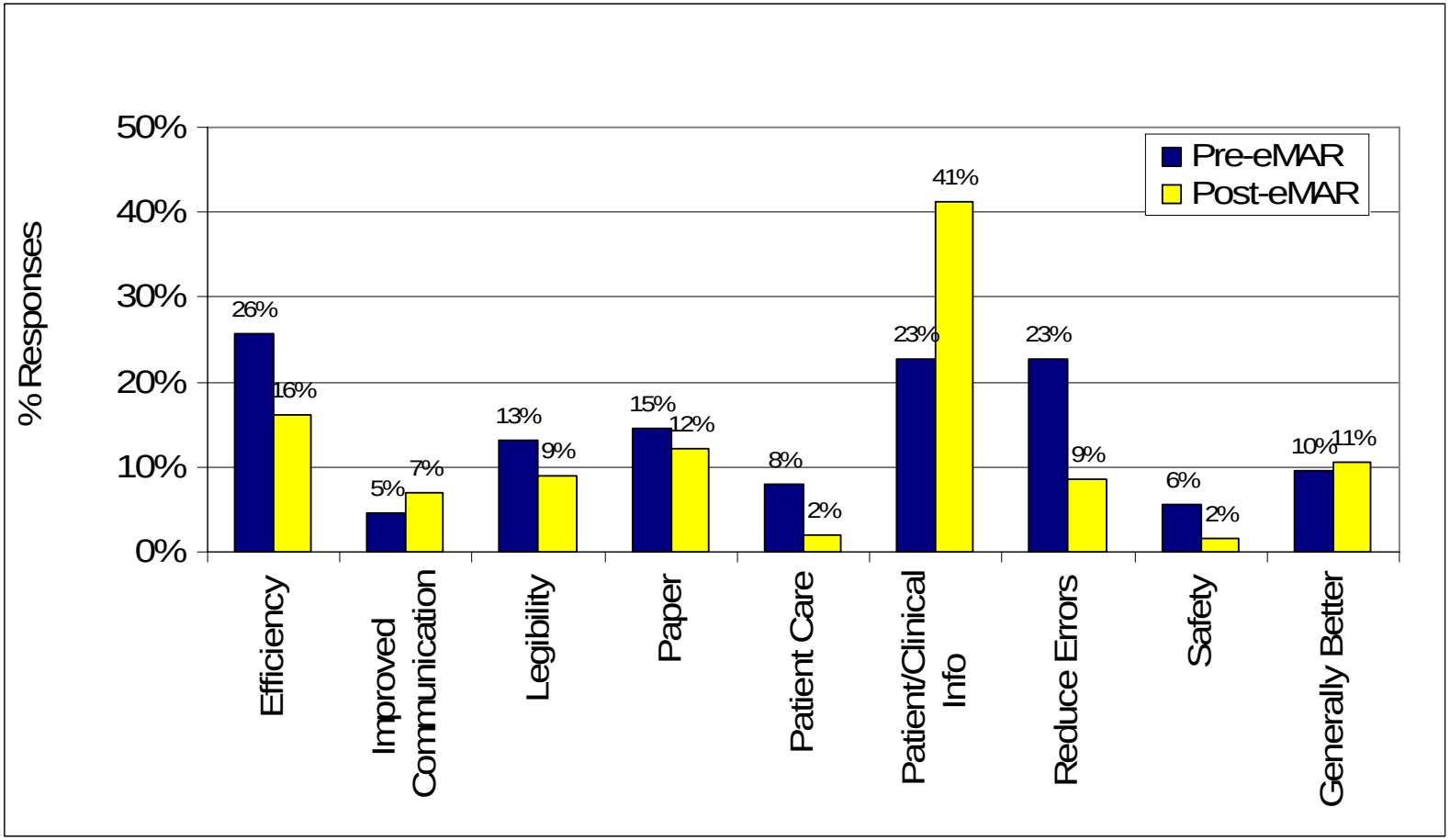
Children's EMR implementation



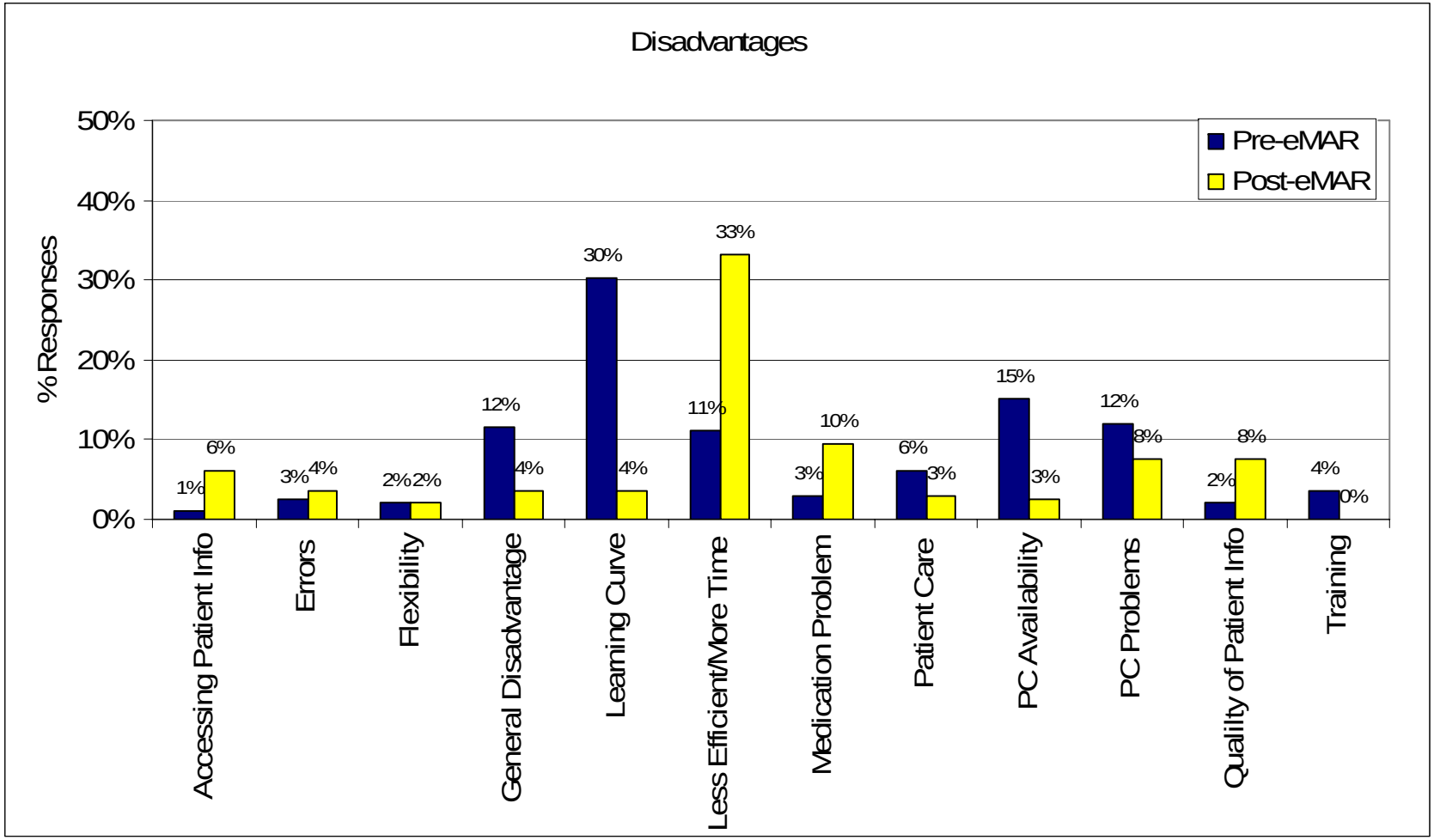
Perceived usefulness ratings



Perceived advantages



Perceived disadvantages



Next Steps

- CPOE!

- Post-Nursing Documentation surveys
- Continue iterative improvements to the system
  - Focus on problem areas identified through the surveys and other feedback
- Physician Documentation surveys

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