

Registered Nurse's Use of HIT, 2006: Findings from a National Survey

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Source: Vanderbilt School of Nursing/Massachusetts General Hospital/Harris Interactive Survey, 2006

Why is this important?

- Health information technology has the potential to improve health care
 - More accessible at the point of care, reducing errors, increasing adherence to guidelines, measuring and reducing health care disparities
 - Unintended consequences
- Understanding diffusion requires accurate measurement of where we are.
- RNS are responsible for a large portion of the health care provided in the U.S. (Current estimate: 2.3 million RNs)
 - Responsibilities range from providing direct patient care to managing and coordinating complex care processes and communications.
- Little is known about how this group uses HIT

Source: Vanderbilt School of Nursing/Massachusetts General Hospital/Harris Interactive Survey, 2006

Methodology

- Mail survey conducted from May 24, 2006 through July 26, 2006
- Field work conducted by Harris Interactive
- Eight page questionnaire
- Sample – 3,436 RNs drawn from a national database of RNs
- 1,392 completes
- 53 percent response rate
- Two analytic subgroups
 - RNs working in acute or specialty care hospitals and acute care settings
 - RNs working in a hospital setting in the past year
- Chi-square and ANOVA used for analysis
- Survey domains: job satisfaction, perceptions of quality of care; nursing shortage, working relationships between providers, quality improvement efforts, and use of an electronic health record.

Source: Vanderbilt School of Nursing/Massachusetts General Hospital/Harris Interactive Survey, 2006

Defining and Electronic Medical Record

- Definition grows out of earlier work by the HIT Adoption Initiative
- Goal of the Initiative was to provide guidance on the best way to determine the level of EHR adoption nationally
- Reviewed all extant survey data
- Reliance on a global measure is not sufficient
- Recommend the use of EHR functionality measures based on the Institute of Medicine framework.
- Created definition of a fully functional EHR

Source: Vanderbilt School of Nursing/Massachusetts General Hospital/Harris Interactive Survey, 2006

IOM Framework for EHRs

Core Components	Key Elements
Health Information & Data	Data needed for sound clinical judgments (medication lists, allergies, clinical narratives, demographics)
Results management	Ability to manage results of all types electronically (i.e. lab and radiology results)
Order entry management	Entry of medication and other care order, as well as ancillary services, direction into a computer
Decision support	Computer reminders/prompts to improve prevention, diagnosis and management of patient disease (i.e. dosing guidelines)
Electronic communication and connectivity	Online communication between providers, other partners, and patients
Patient support	Education and self testing
Administrative processes	Scheduling and billing
Reporting and population health management	Clinical data to meet public, private, and institutional requirements.

Source: Vanderbilt School of Nursing/Massachusetts General Hospital/Harris Interactive Survey, 2006

Our definition of a functional EHR

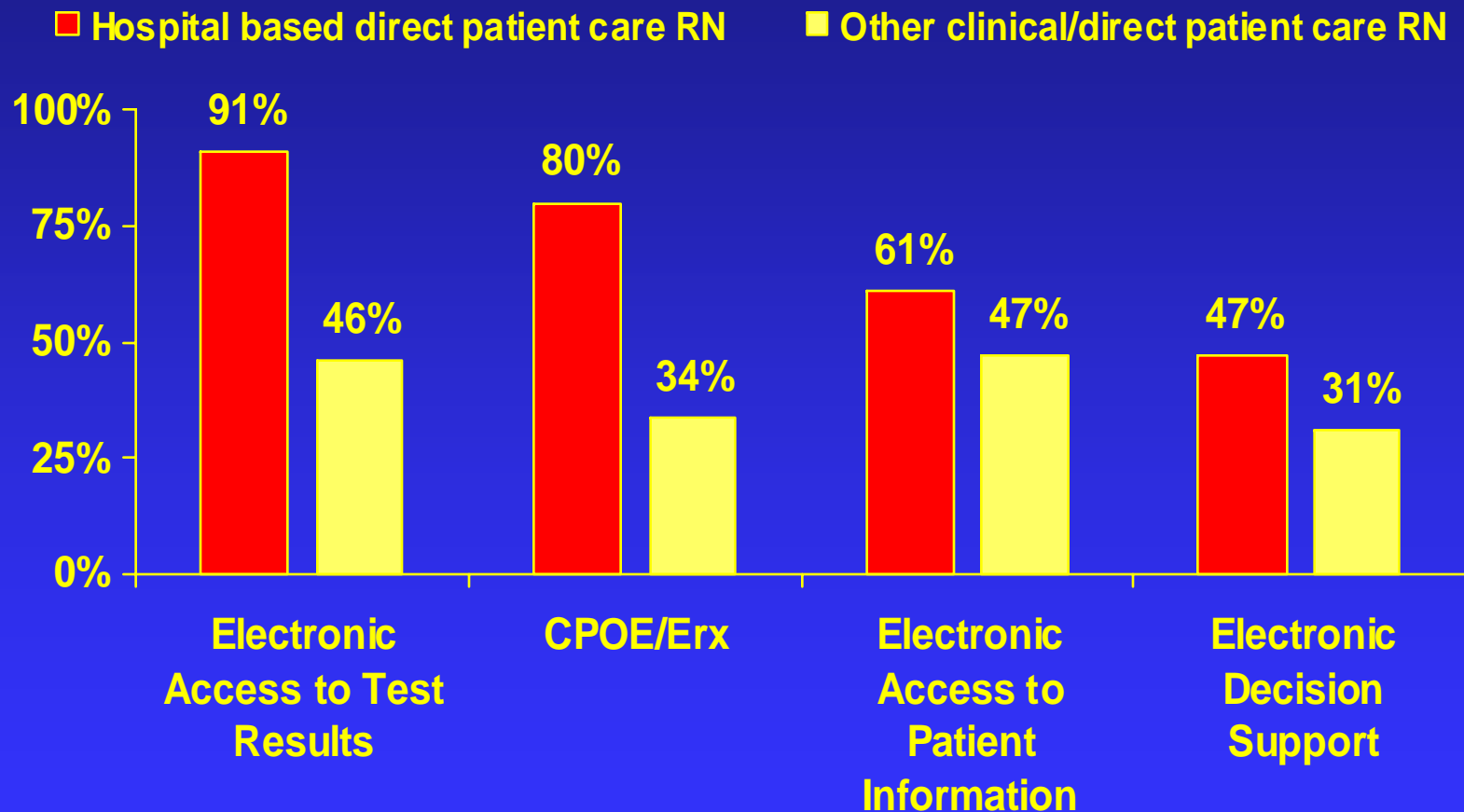
- “Please indicate whether the following technologies are routinely used by nurses and physicians in your hospital or organization:
 - **Electronic information about patients including problem lists, key patient demographics;**
 - **Electronic ordering of tests, procedures or drugs;**
 - **Electronic clinical patient notes;**
 - **Electronic access to test results;**
 - **Electronic decision support including clinical guidelines or pathways;**
 - Electronic communication between health professionals;
 - Patient support materials.”
- Response categories: routinely used by MDs, routinely used by RNs, routinely used by neither.

Source: Vanderbilt School of Nursing/Massachusetts General Hospital/Harris Interactive Survey, 2006

Results

Routine Use of EHR Functions by RNs

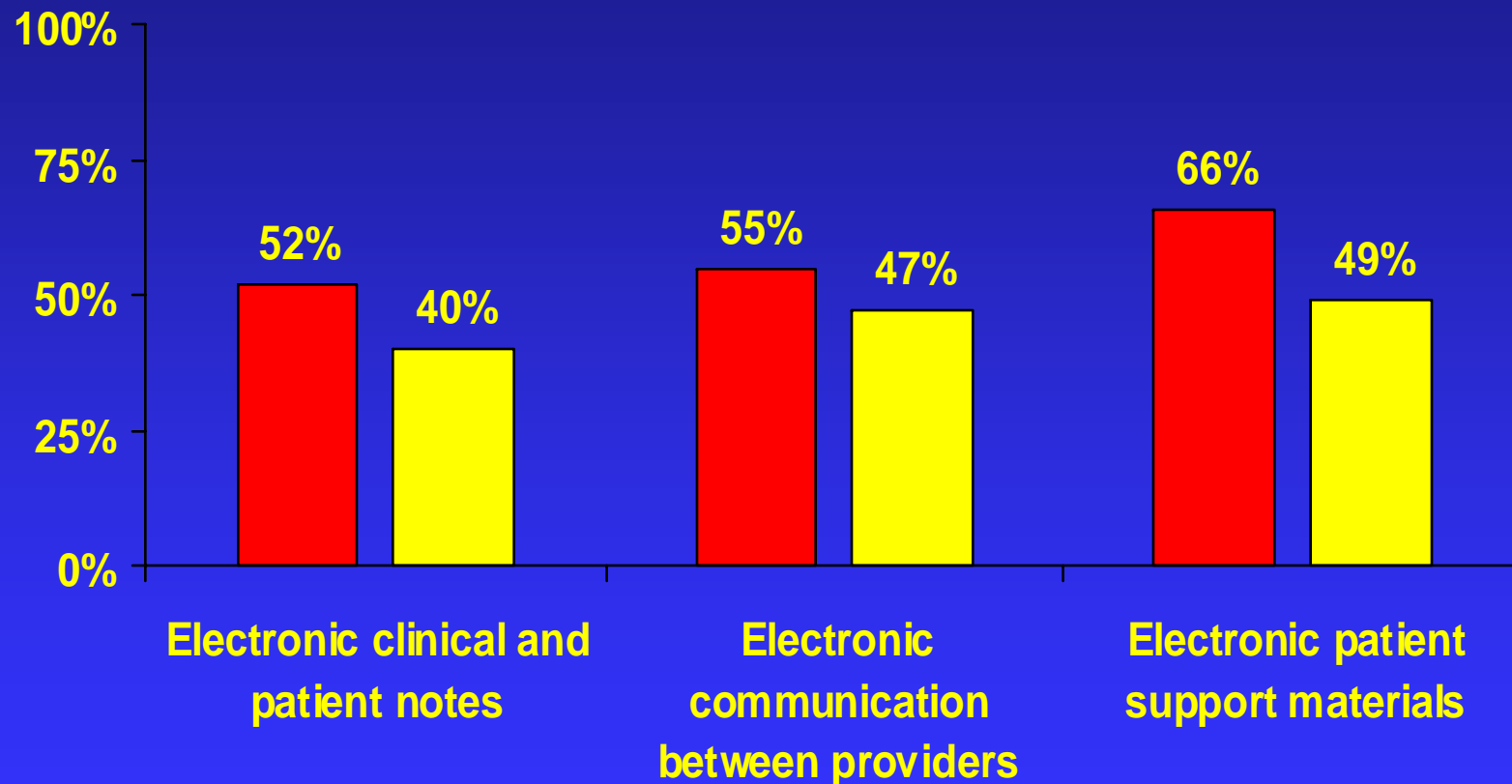
Percent of RNs



Source: Vanderbilt School of Nursing/Massachusetts General Hospital/Harris Interactive Survey, 2006

Routine Use of EHR Functions by RNs

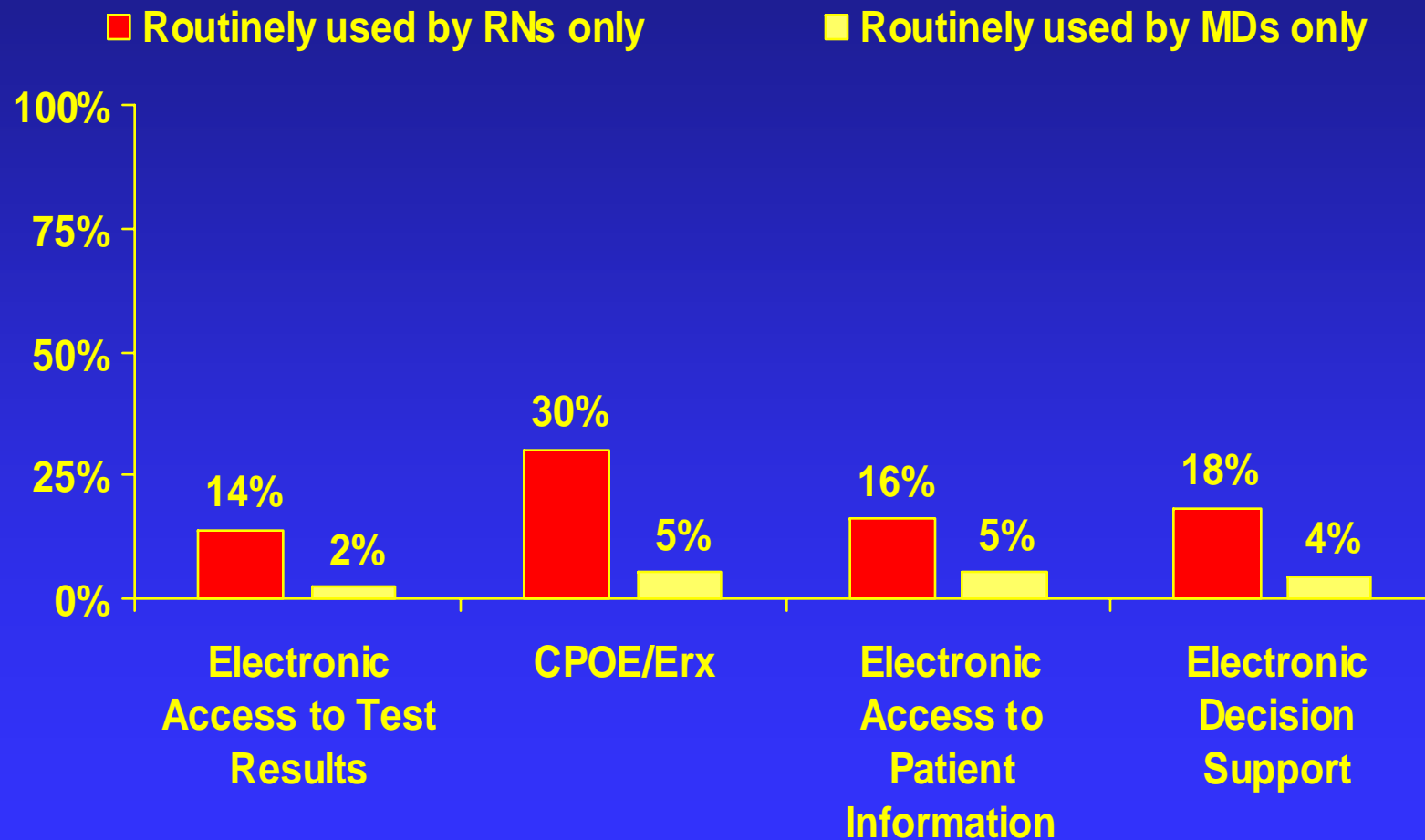
■ Hospital based direct patient care RN ■ Other clinical/direct patient care RN



Source: Vanderbilt School of Nursing/Massachusetts General Hospital/Harris Interactive Survey, 2006

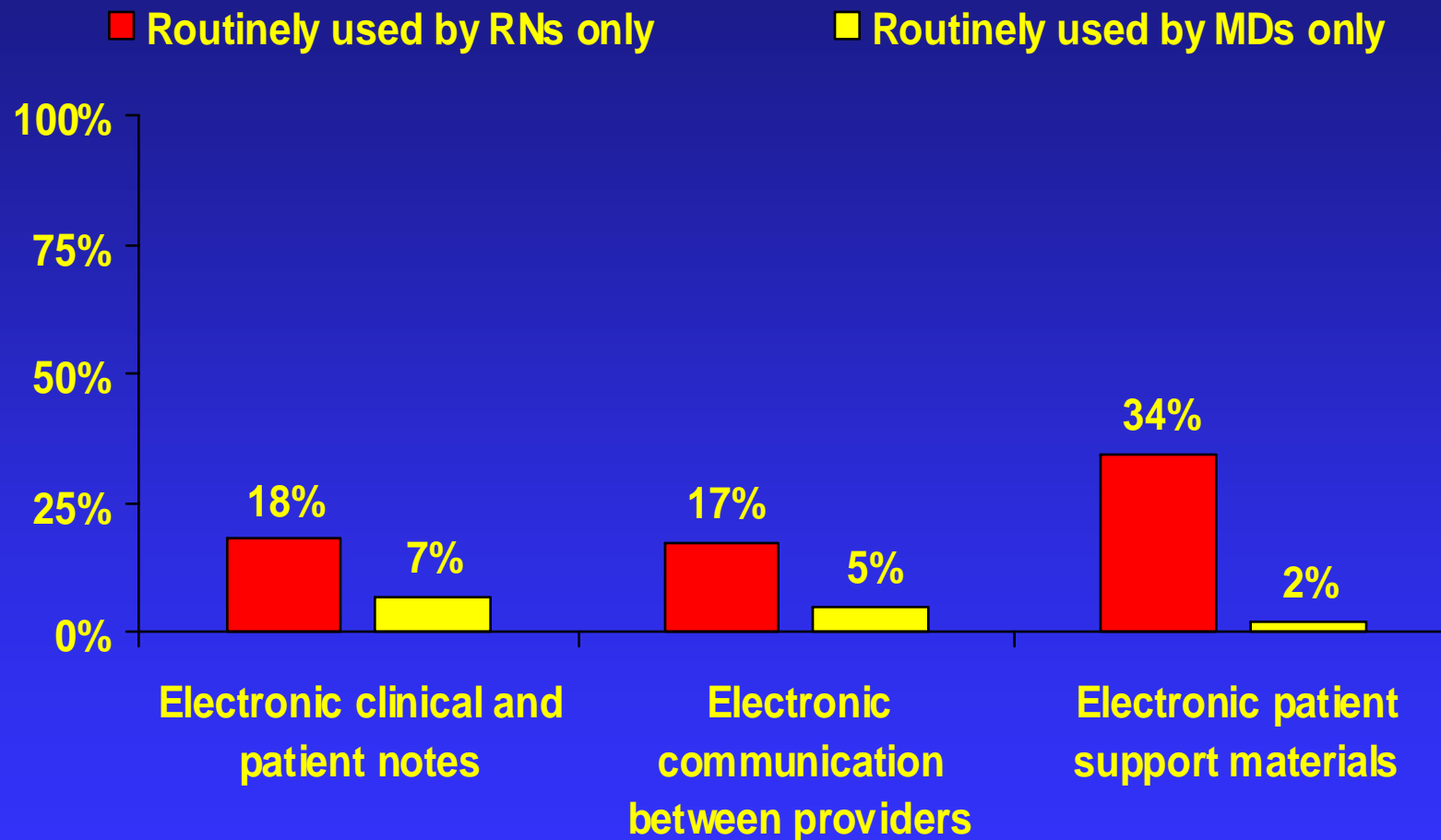
Differences in EHR Use Among Providers

Percent of RNs



Source: Vanderbilt School of Nursing/Massachusetts General Hospital/Harris Interactive Survey, 2006

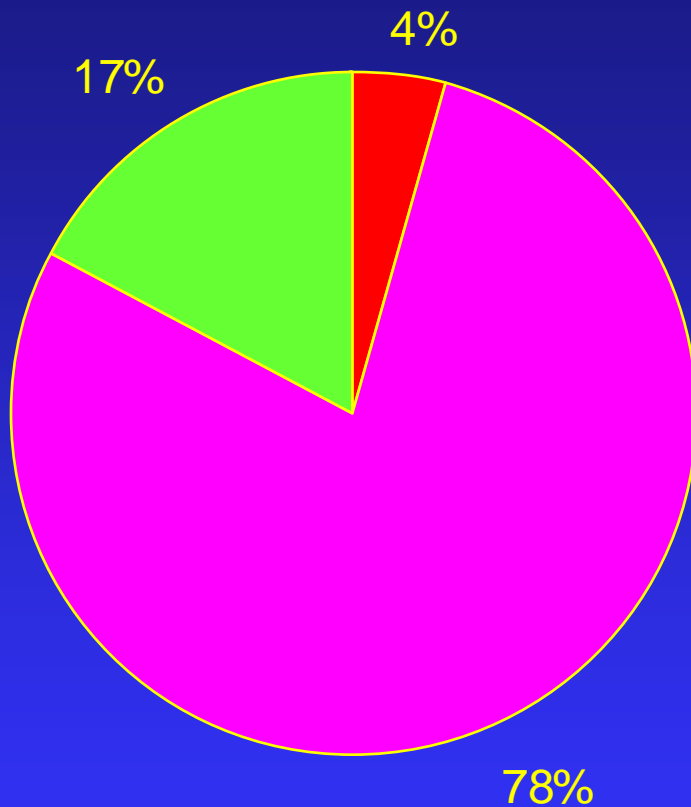
Differences in EHR Use Among Providers (con't)



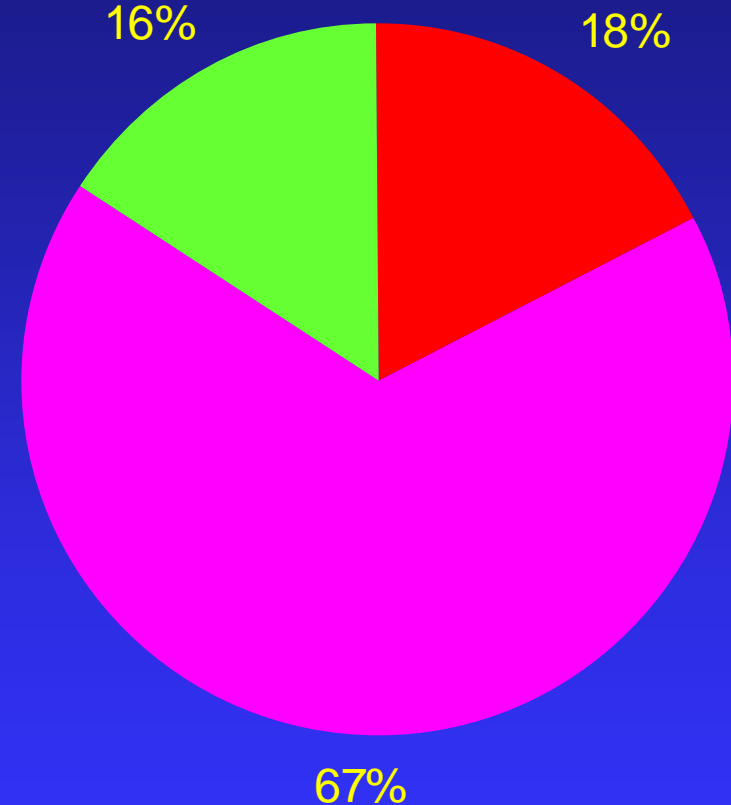
Source: Vanderbilt School of Nursing/Massachusetts General Hospital/Harris Interactive Survey, 2006

Routine Use of a Minimally Functional EHR

Inpatient work settings



Outpatient work settings



■ 0 Components ■ 1 - 4 Components ■ 5 Components

*EHR components: Electronic medical information about patients including problem list, key patient demographics; Electronic ordering of tests, procedures, or drugs; Electronic clinical and patient notes; Electronic access to test results; Electronic decision support including clinical guidelines and pathways, knowledge sources, reminders, and alerts.

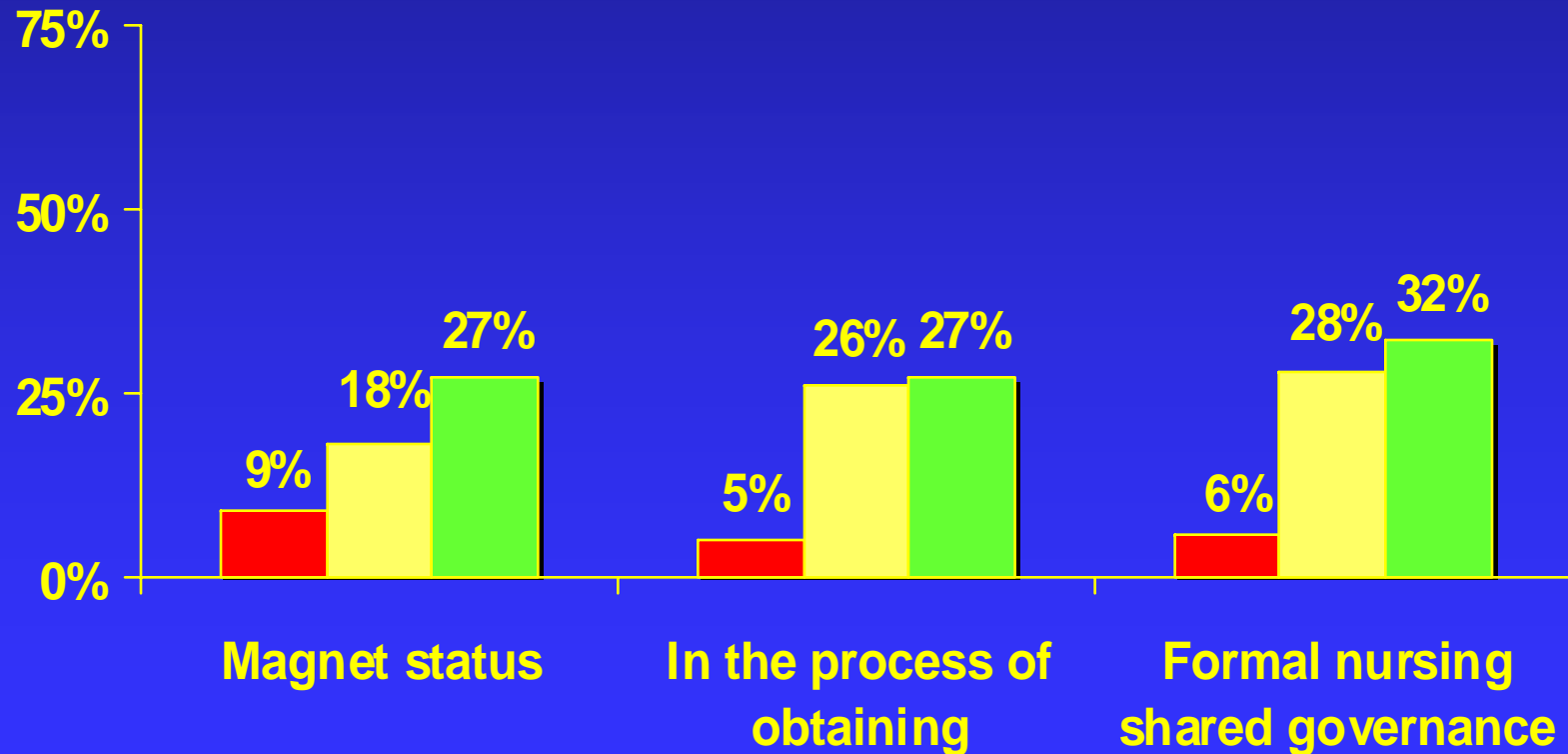
Source: Vanderbilt School of Nursing/Massachusetts General Hospital/Harris Interactive Survey, 2006

Hospital or Organization Characteristics

Hospital or Organization Has.....

Percent of RNs

■ 0 Components ■ 1 - 4 components ■ 5 components

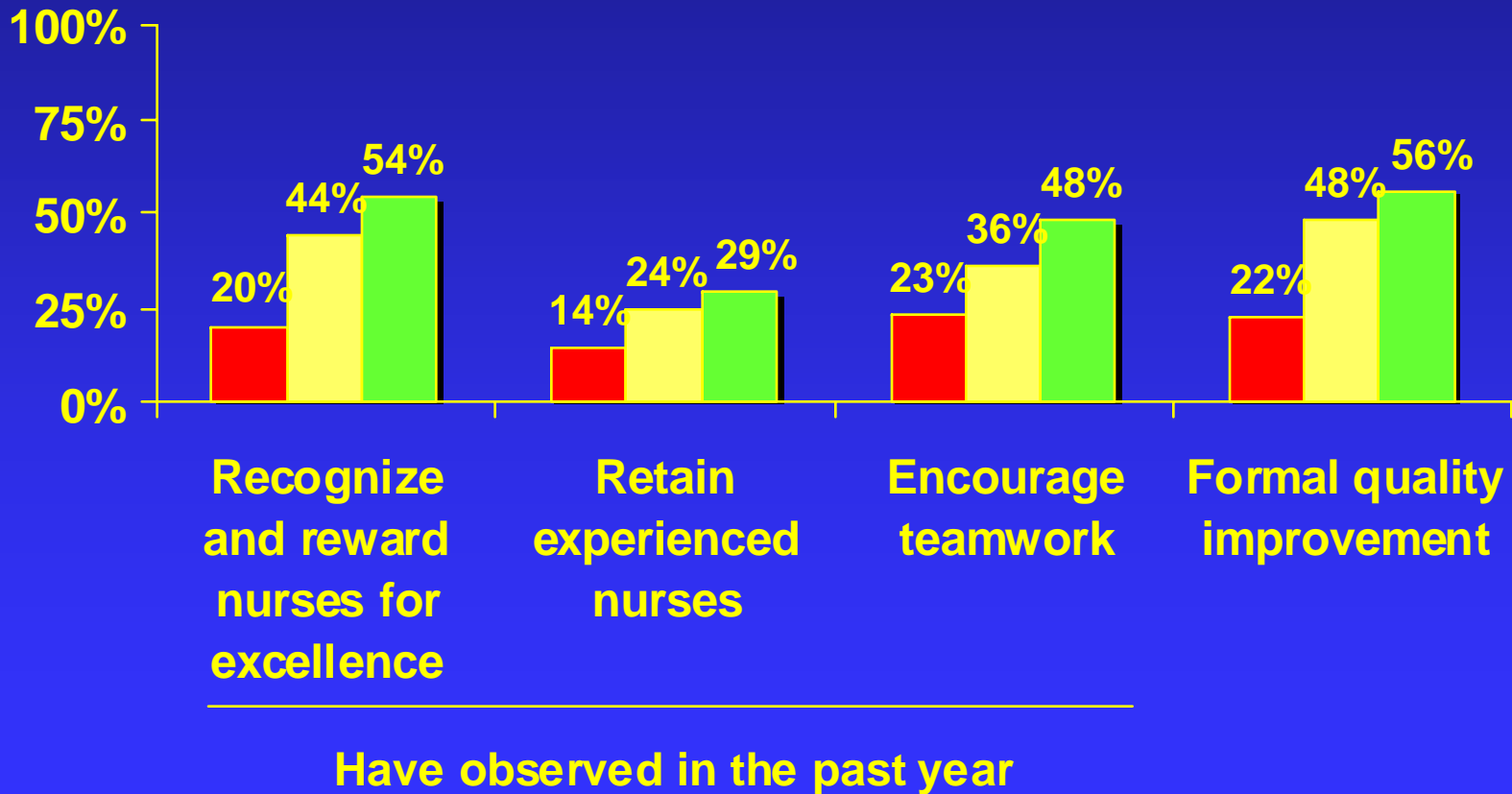


Source: Vanderbilt School of Nursing/Massachusetts General Hospital/Harris Interactive Survey, 2006

Quality Improvement Initiatives

Percent of RNs

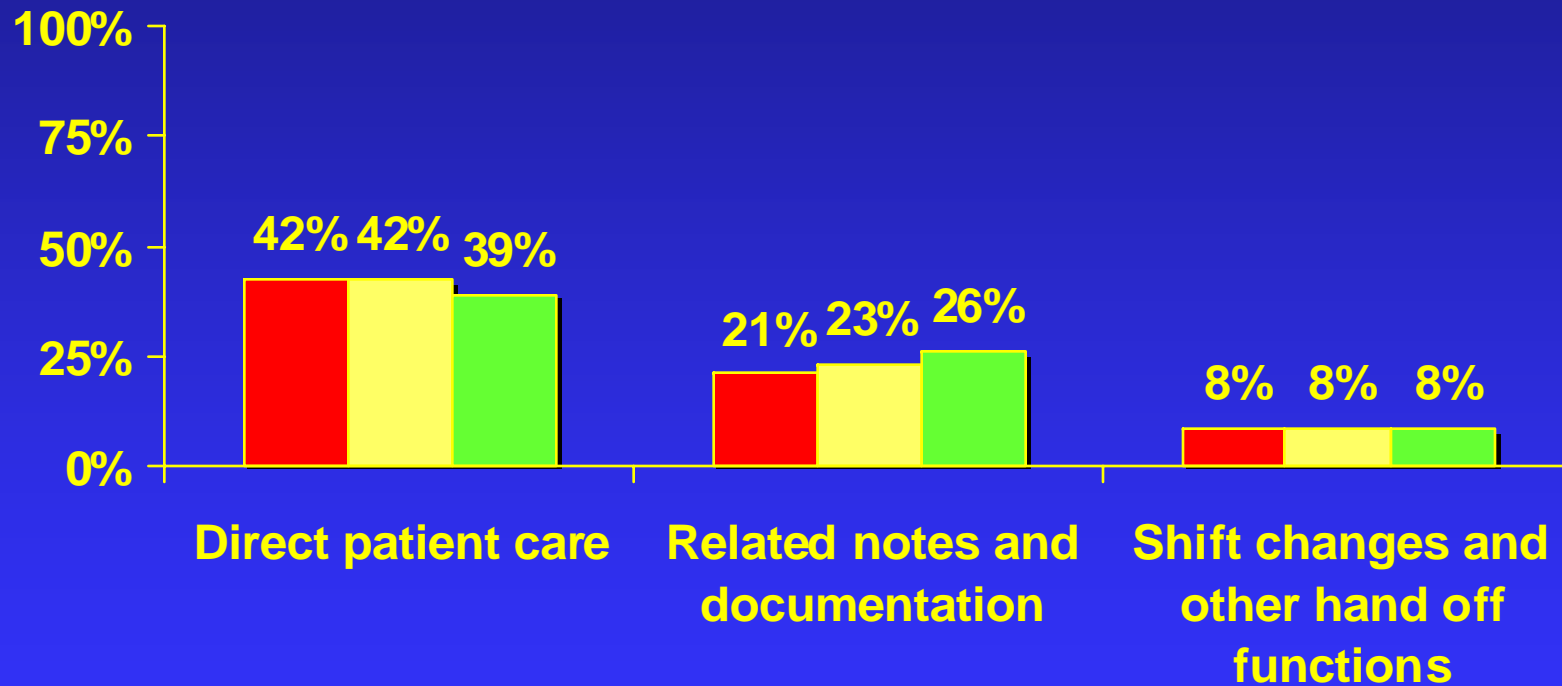
■ 0 Functionalities ■ 1 - 4 Functionalities ■ 5 Functionalities



Source: Vanderbilt School of Nursing/Massachusetts General Hospital/Harris Interactive Survey, 2006

Time Spent on Specific Nursing Tasks

■ 0 Functionalities ■ 1 - 4 Functionalities ■ 5 or more functionalities



MEAN PERCENTAGE OF TIME SPENT ON

Source: Vanderbilt School of Nursing/Massachusetts General Hospital/Harris Interactive Survey, 2006

Conclusions

- The use of a minimally functional EHR (one that may have a real impact on quality of care) by RNs or physicians is not common.
- Use of a minimally functional EHR is more commonly reported in organizations that engage in other quality improvement initiatives.
 - Unanswered question: Are organizations that do “quality” well more inclined to adopt and use an EHR OR did the use of an EHR lead to greater efforts at quality improvements?
- Use of an EHR does not appear to have a significant impact on how RNs spend their time during the day.
 - We may have expected to see a greater amount of time spent in documentation. On the other hand, the use of an EHR may, in the end, decrease the amount of time spent in

Source: Vanderbilt School of Nursing/Massachusetts General Hospital/Harris Interactive Survey, 2006