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# **Medical Informatics and HIT Systems**

**David Lubliner**

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# What is wrong with this picture?



# Outline

- **What kinds of HIT systems are there?**
- **What major trends are emerging?**
- **What are the benefits to adoption?**
- **What are the barriers to adoption?**
- **What is the current state of adoption?**
- **How can you learn more?**

# **HIT Applications**

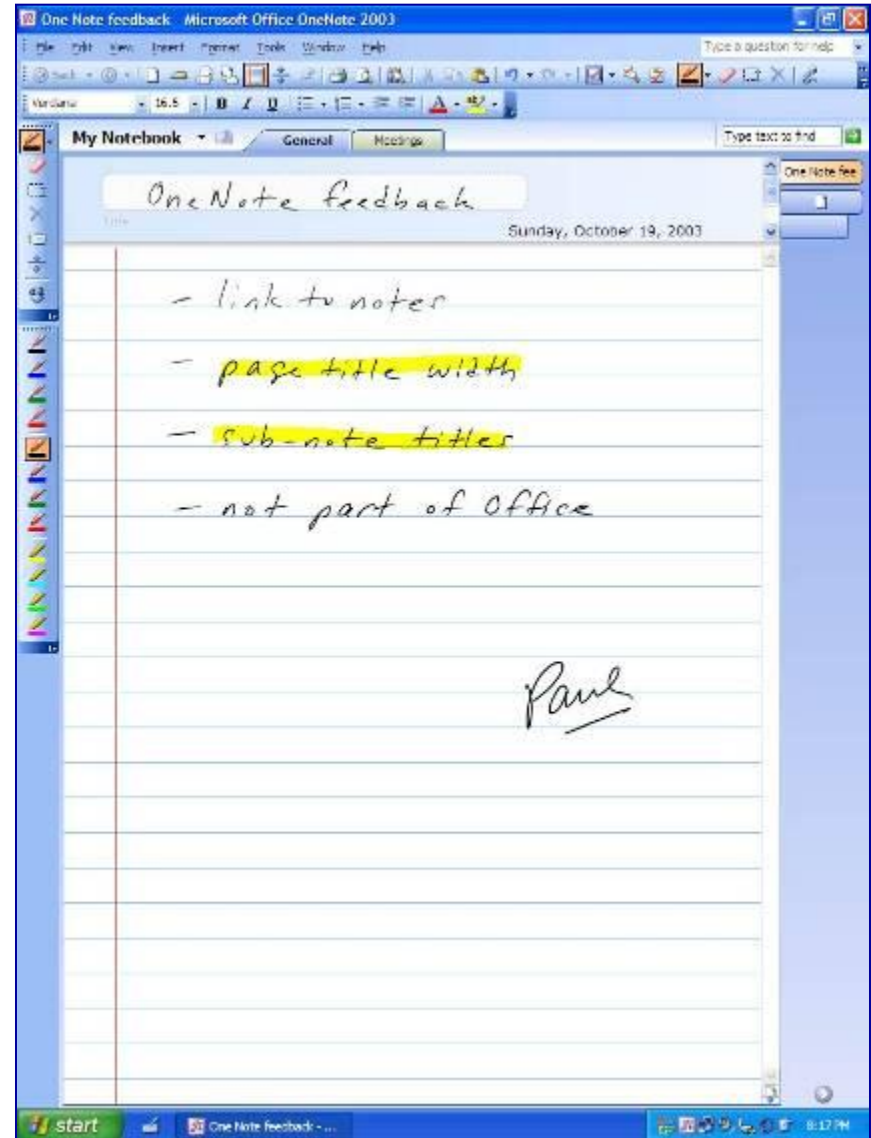
- **Patient registration/  
demographics**
- **Insurance validation**
- **Billing systems**
- **Appointment systems**
- **Computerized  
Physician Order Entry  
(CPOE)**
- **EMR/EHR/CPR**
- **Pharmacy systems**
- **Lab systems**
- **Imaging systems**
- **Telemedicine**
- **Patient education**
- **Decision Support**
- **Library resources**
- **Sensors**

# Sad Facts

- Medical errors account for more deaths than breast cancer, AIDs and motorcycle accidents.
- US has highest HC costs per capita in world
- US has worst outcomes of industrialized nations. (infant mortality, lifespan, etc.)
- Healthcare is 10-15 yrs behind business in adoption of IT

# Some Hospitals are using Tablet Capture Devices

- Microsoft Office OneNote
- Windows Journal
- Microsoft Educational Pack for Tablet PC
- Microsoft Experience Pack for Tablet PC
- Sticky Notes
- Snipping Tool



# Electronic Medical Records

SOAPware - Active Physician - Nancy Clark, MD - SOAPware

File Edit View Subjective Objective Assessment Plan Rx Follow Up Help

Messages Reports Summary Vital Signs  
Demographics Encounters Flow Sheets

**Family History**  
Maternal grandmother died with ovarian cancer.  
Father's health problems include myocardial infarction at age 65.  
Brother's health problems include heart disease, high cholesterol.  
Sister's health problems include pacemaker in 50s.

**Tobacco**  
Smokes occasionally.

**Alcohol**  
There is a history of occasional alcohol consumption.

**Interventions**  
07/22/1999: MRI of the right facial region within normal limits  
06/15/1999 lipid panel with cholesterol 228H, triglyceride 82, HDL 78, and LDL 133.  
3/2000: Physical due.  
03/15/1999: Tetanus, Physical. Chol=227, LDL=139.  
12/96: Complete exam.  
3/98: Mammogram.

Visit Date 10/05/2000 14:10

**Subjective**  
10/06/00 1115 Called pt., Left message for patient to call back. On answering machine (+mk.

**Objective**

**Assessment**  
Phone call: Lab is excellent.

**Plan**  
Continue the same.

**Medications**  
Continue the same.

**Follow Up**  
Complete Physical (Wellness exam) due. Please schedule an EXTENDED visit and bring in all medications (prescription and otherwise).  
  
Randall Oates, M.D.

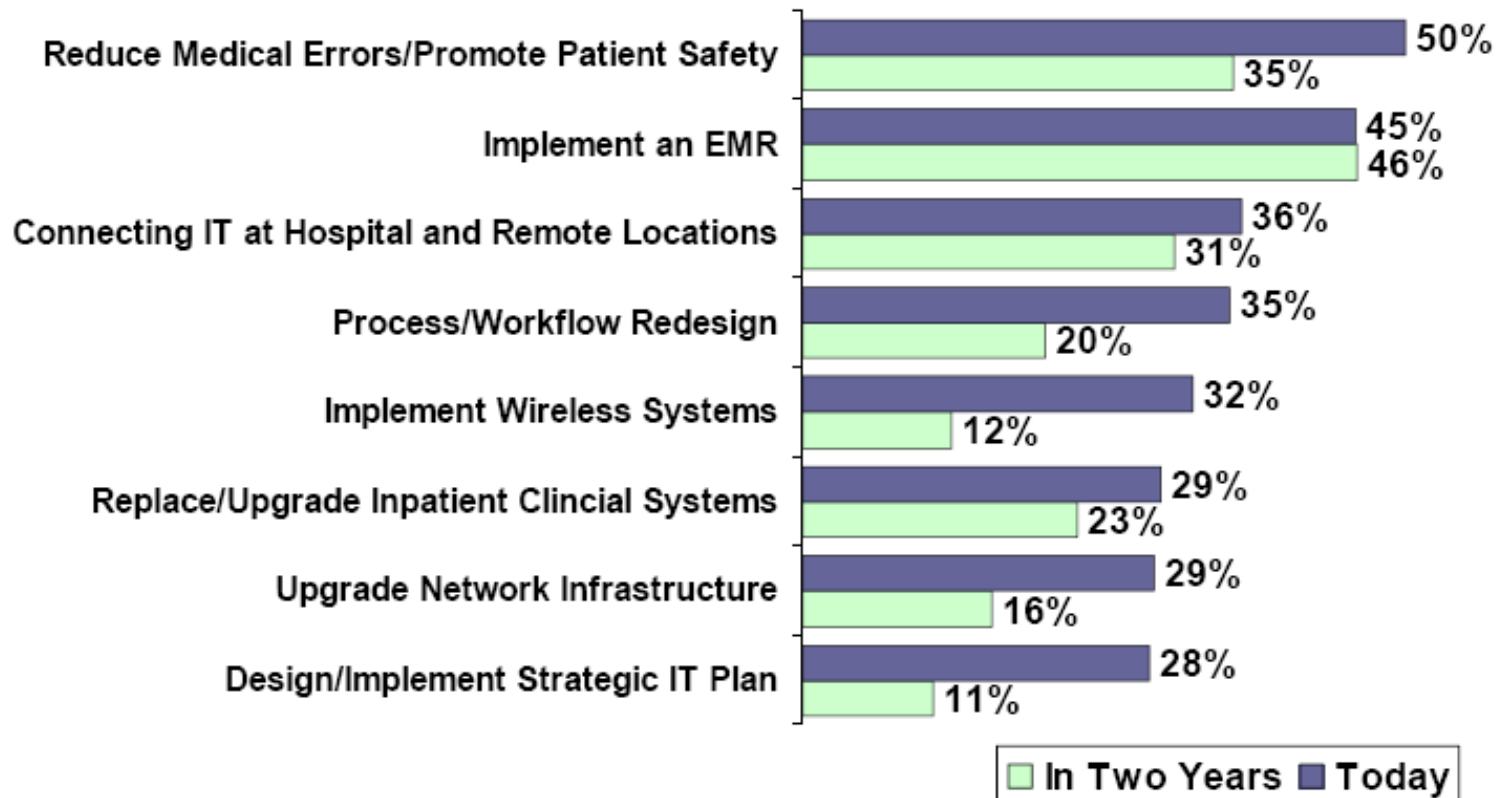
12938 Age- 46  
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# Projected IT Priorities

(Today vs. Next Two Years)

Figure 9



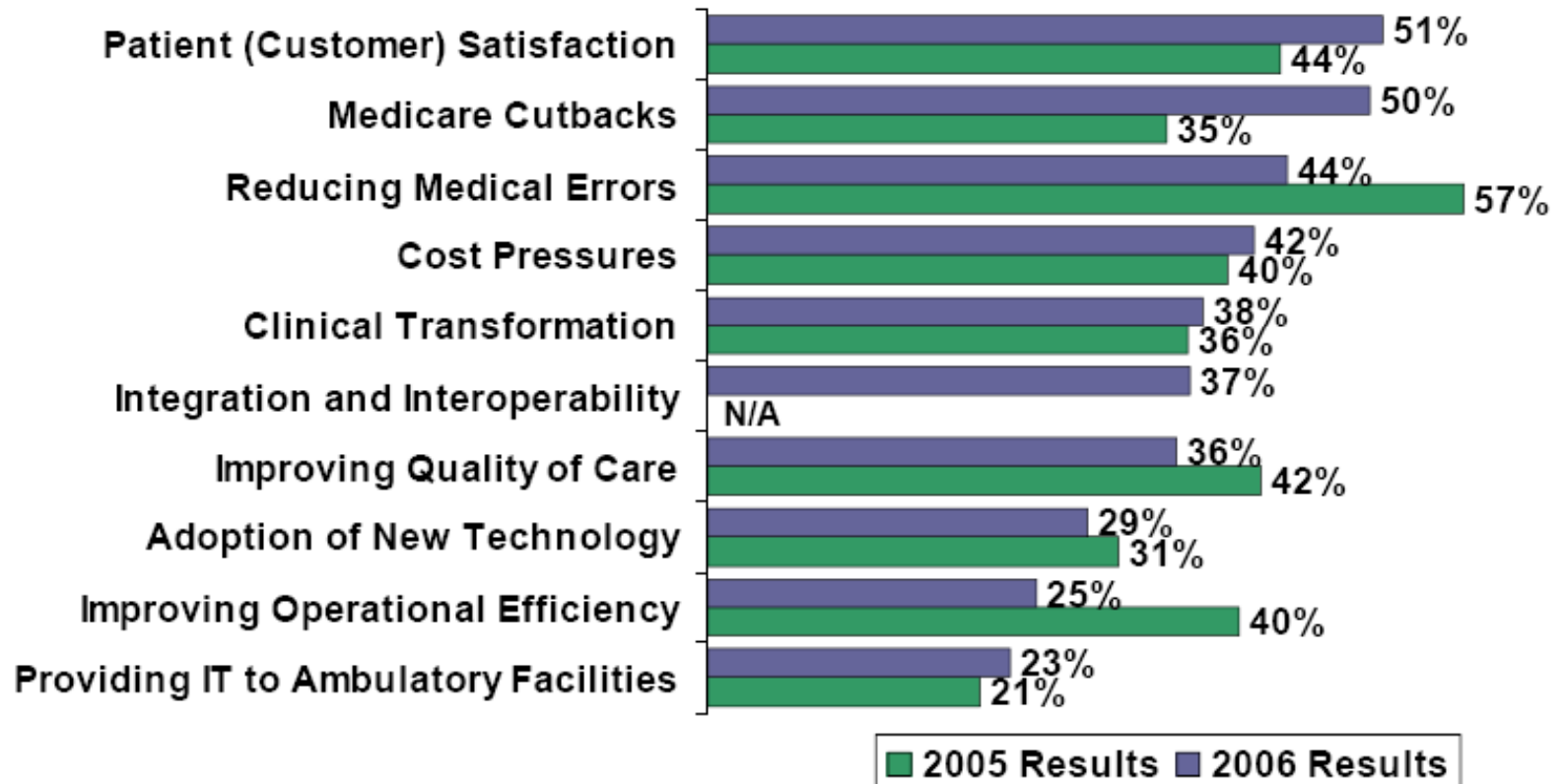
Source: 17<sup>th</sup> Annual HIMSS Leadership Survey Sponsored by ACS HealthCare Solutions



# Top Business Issues Facing HealthCare

(2006 vs. 2005 Results)

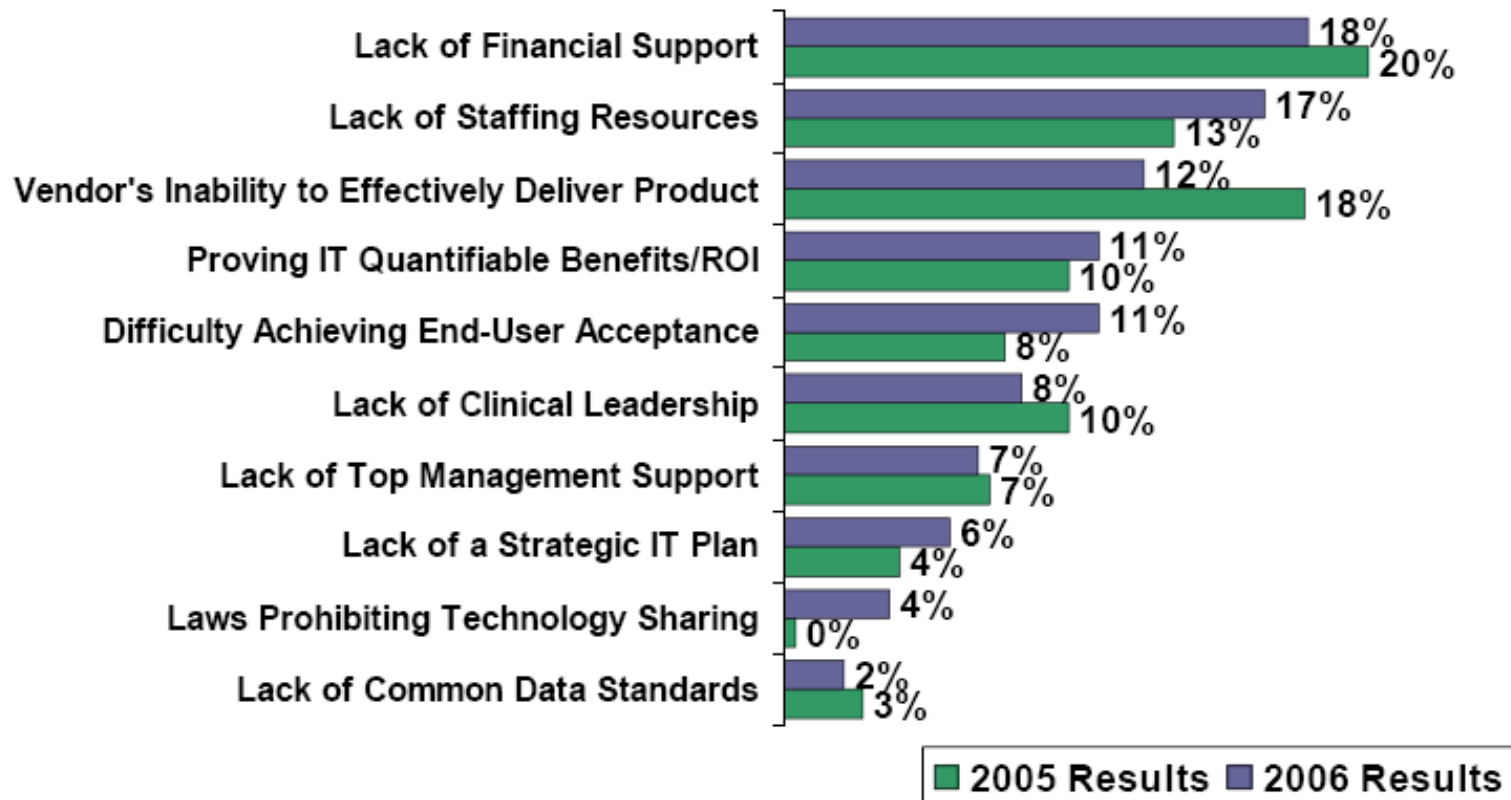
Figure 10



# Most Significant Barriers to Barriers to Implementing IT

(2006 vs. 2005 Results)

Figure 11

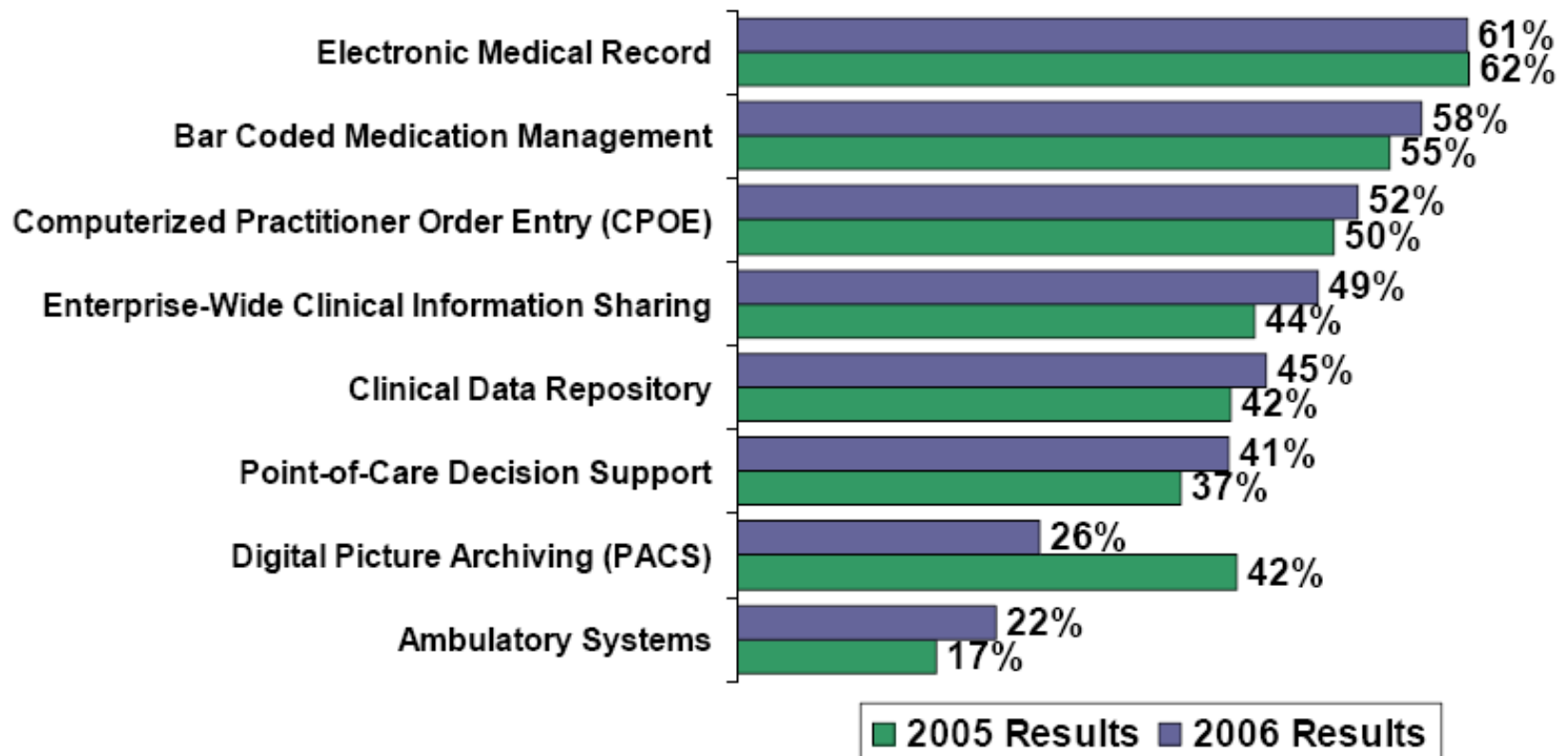


Source: 17<sup>th</sup> Annual HIMSS Leadership Survey Sponsored by ACS HealthCare Solutions

# Most Important Applications

(2006 vs. 2005 Results)

Figure 12

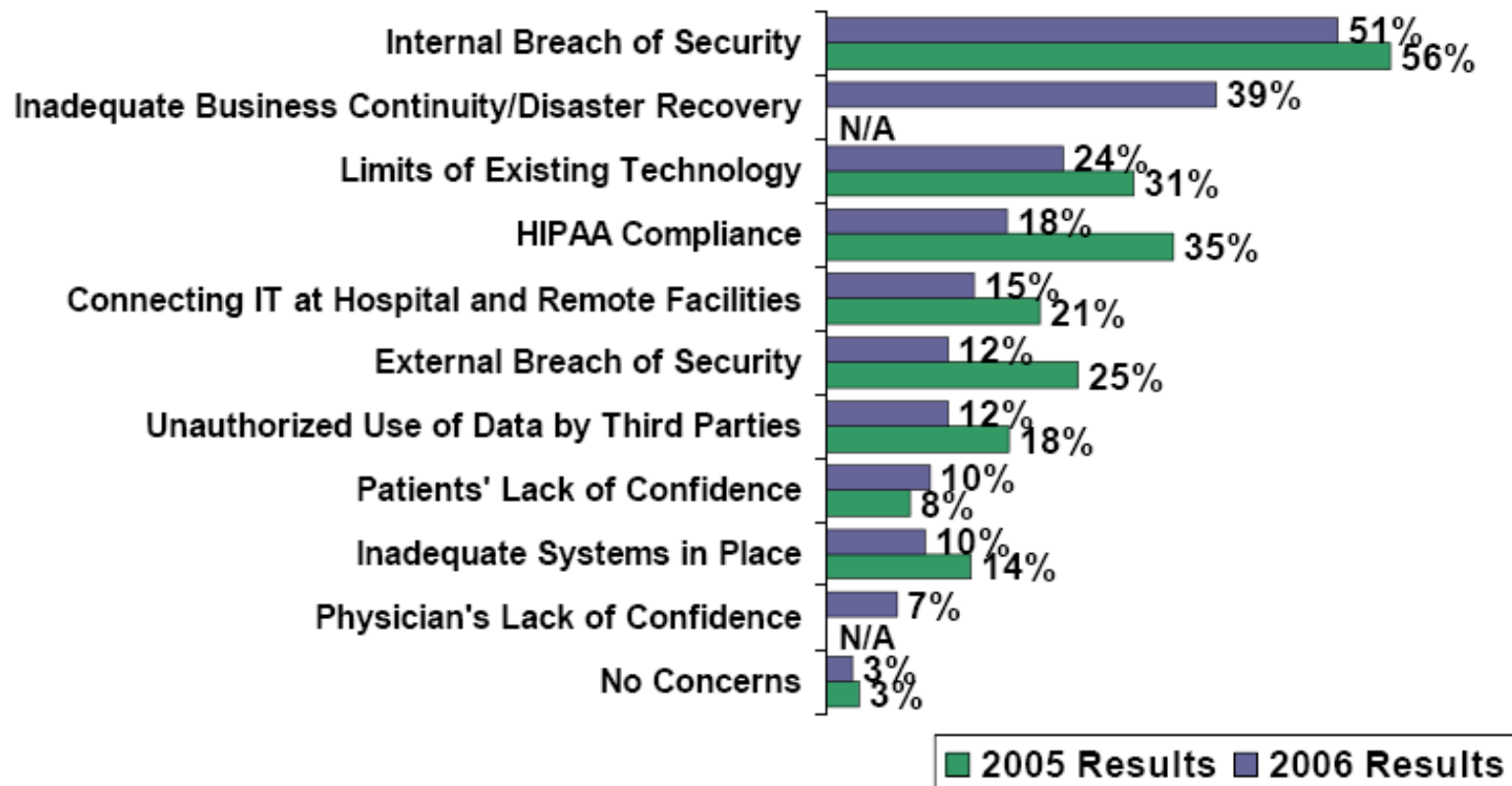


Source: 17<sup>th</sup> Annual HIMSS Leadership Survey Sponsored by ACS HealthCare Solutions

# Top Security Concerns of Computerized Medical Information

(2006 vs. 2005 Results)

Figure 14

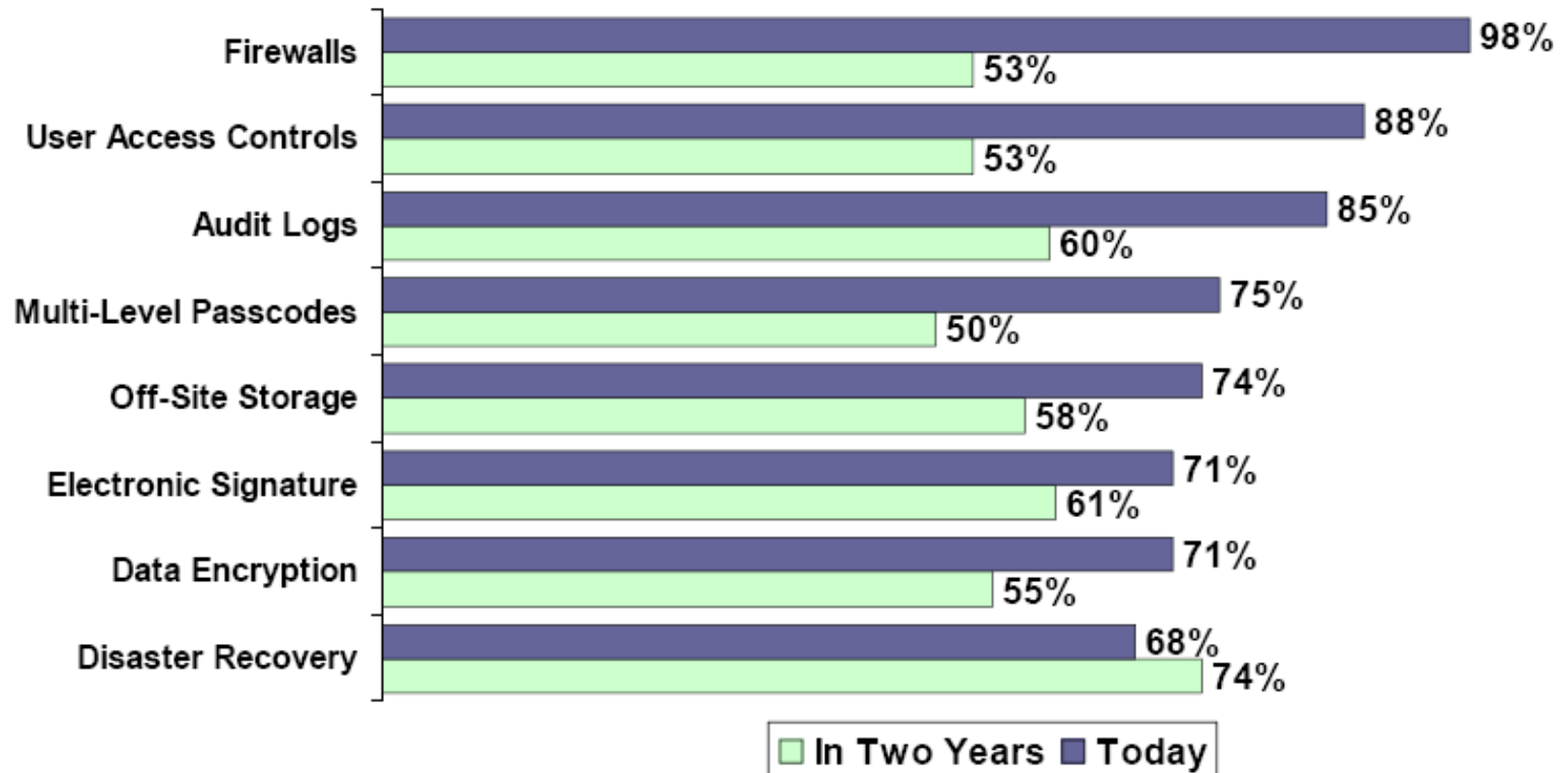


Source: 17<sup>th</sup> Annual HIMSS Leadership Survey Sponsored by ACS HealthCare Solutions

# Security Tools

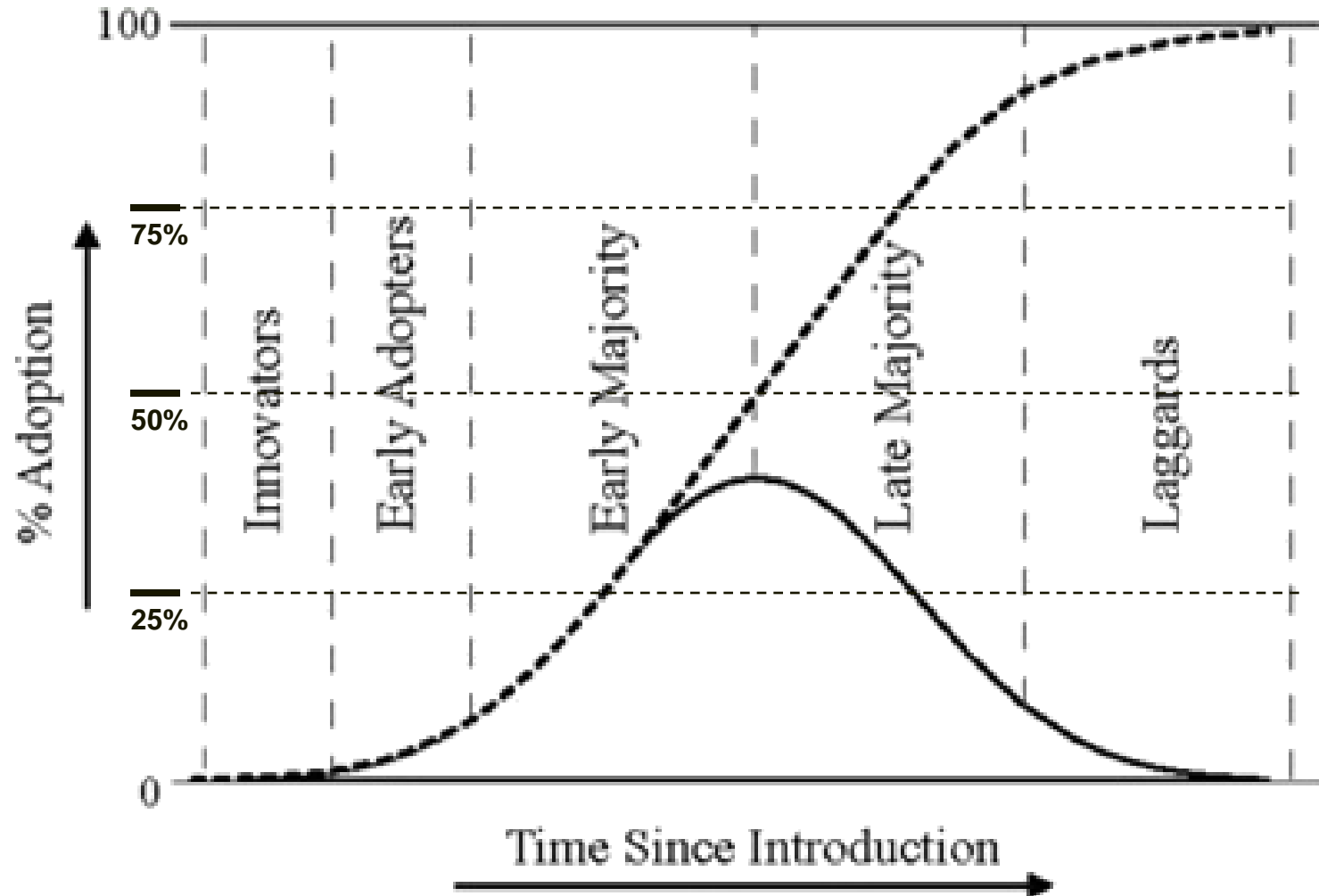
(Today vs. Next Two Years)

Figure 15



Source: 17<sup>th</sup> Annual HIMSS Leadership Survey Sponsored by ACS HealthCare Solutions

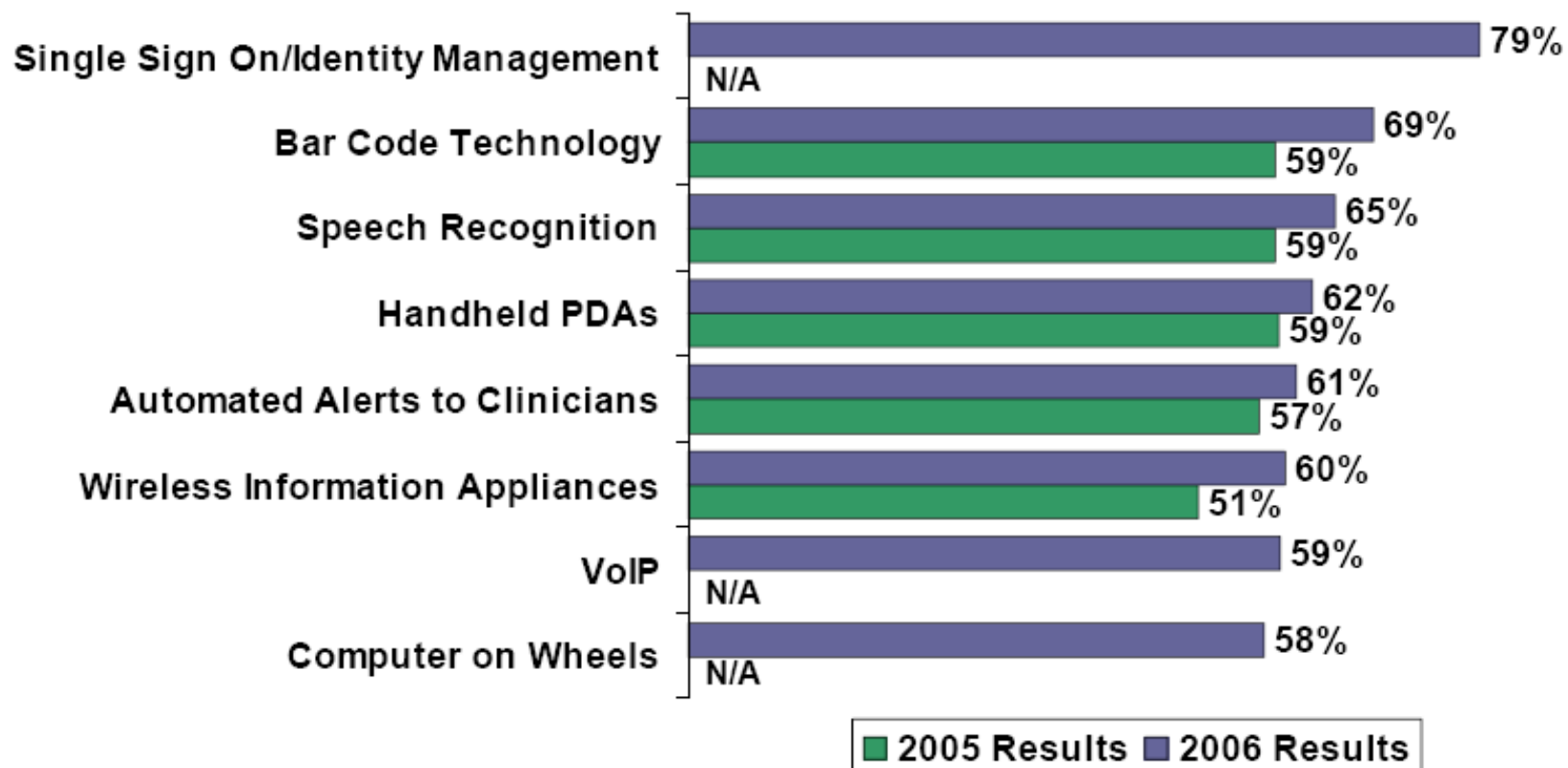
# Technology Adoption Curve



# Technology Adoption (Next Two Years)

(2006 vs. 2005 Results)

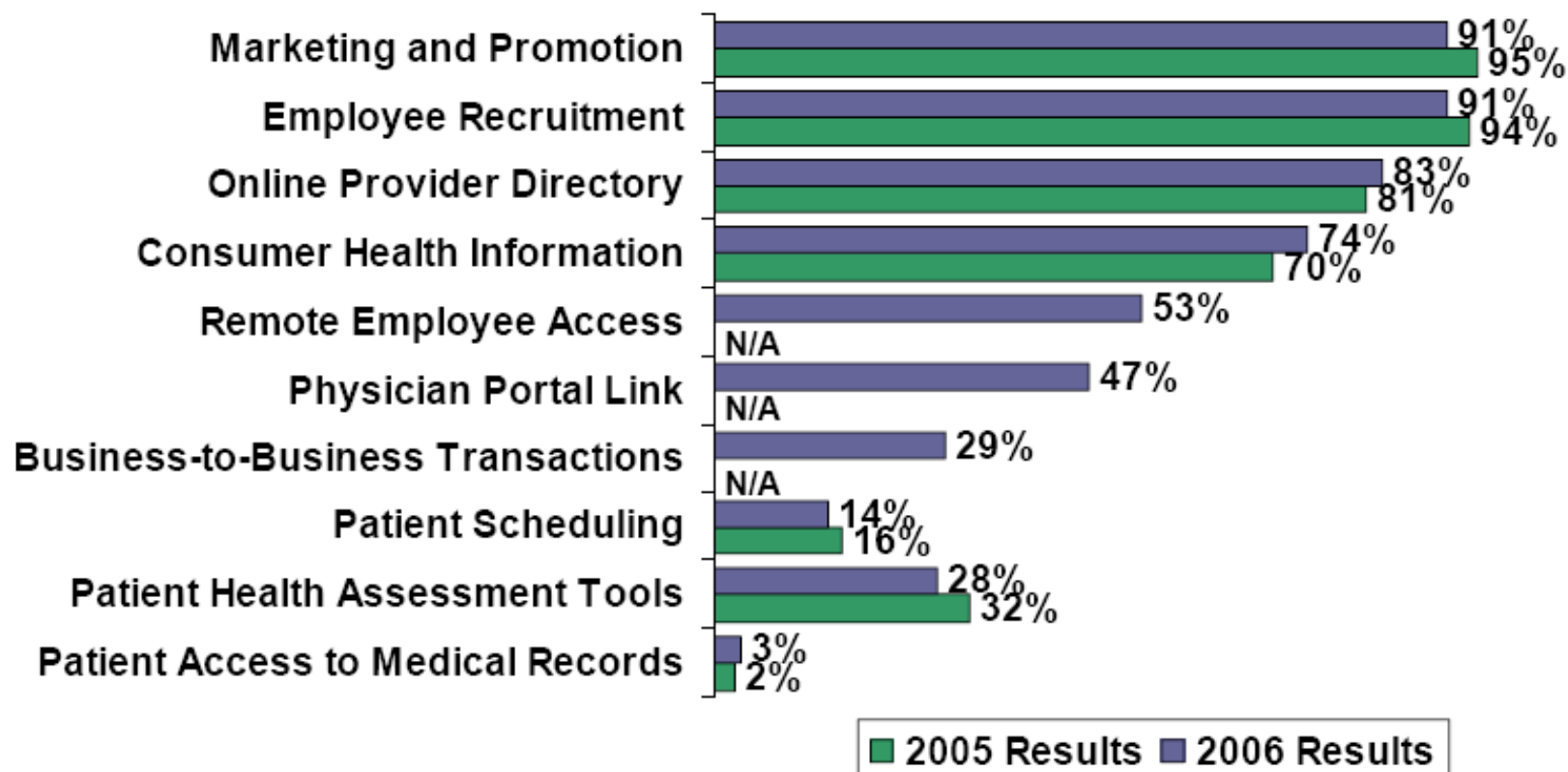
Figure 17



# Current Web Site Functions

(2006 vs. 2005 Results)

Figure 19



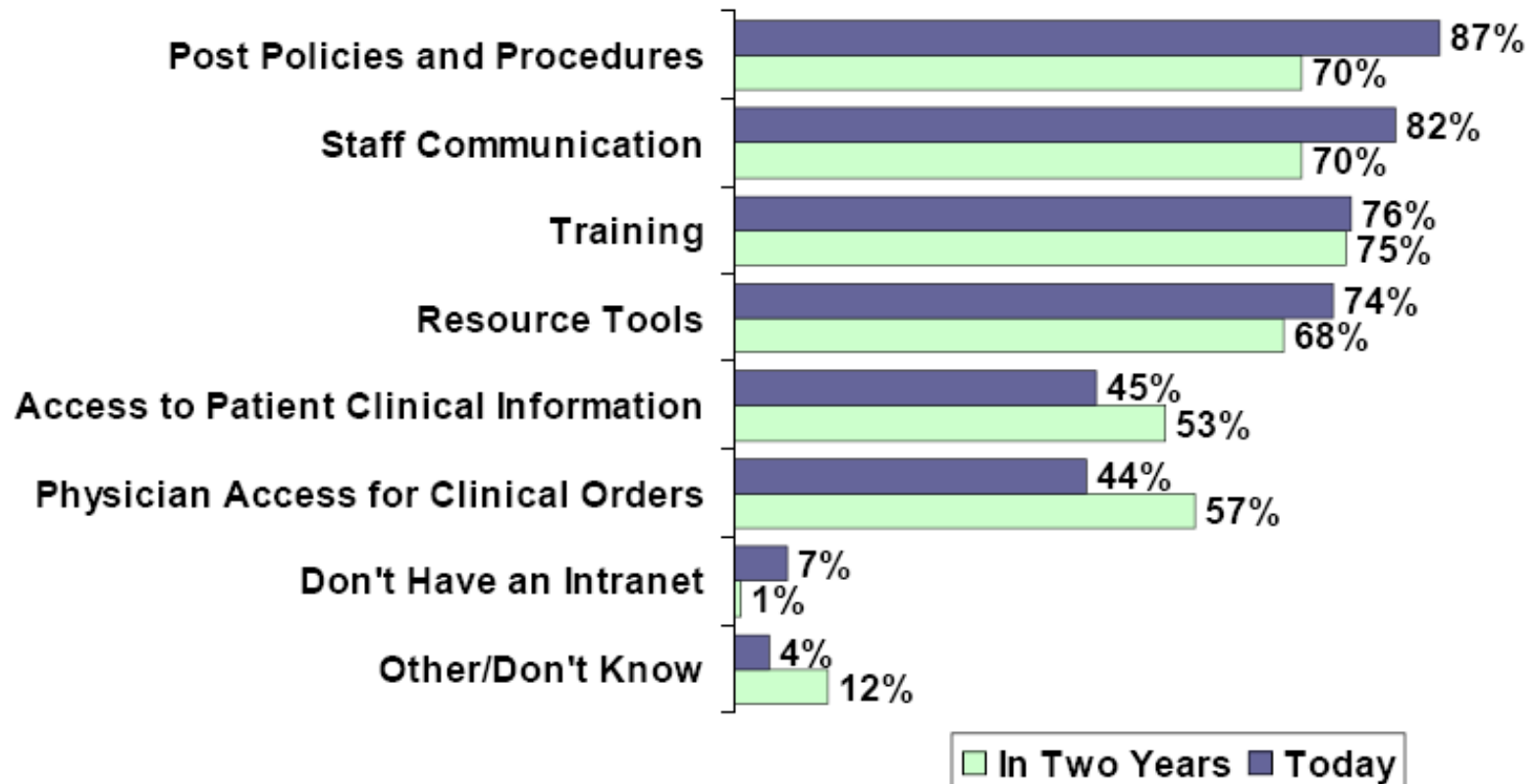
Source: 17<sup>th</sup> Annual HIMSS Leadership Survey Sponsored by ACS HealthCare Solutions



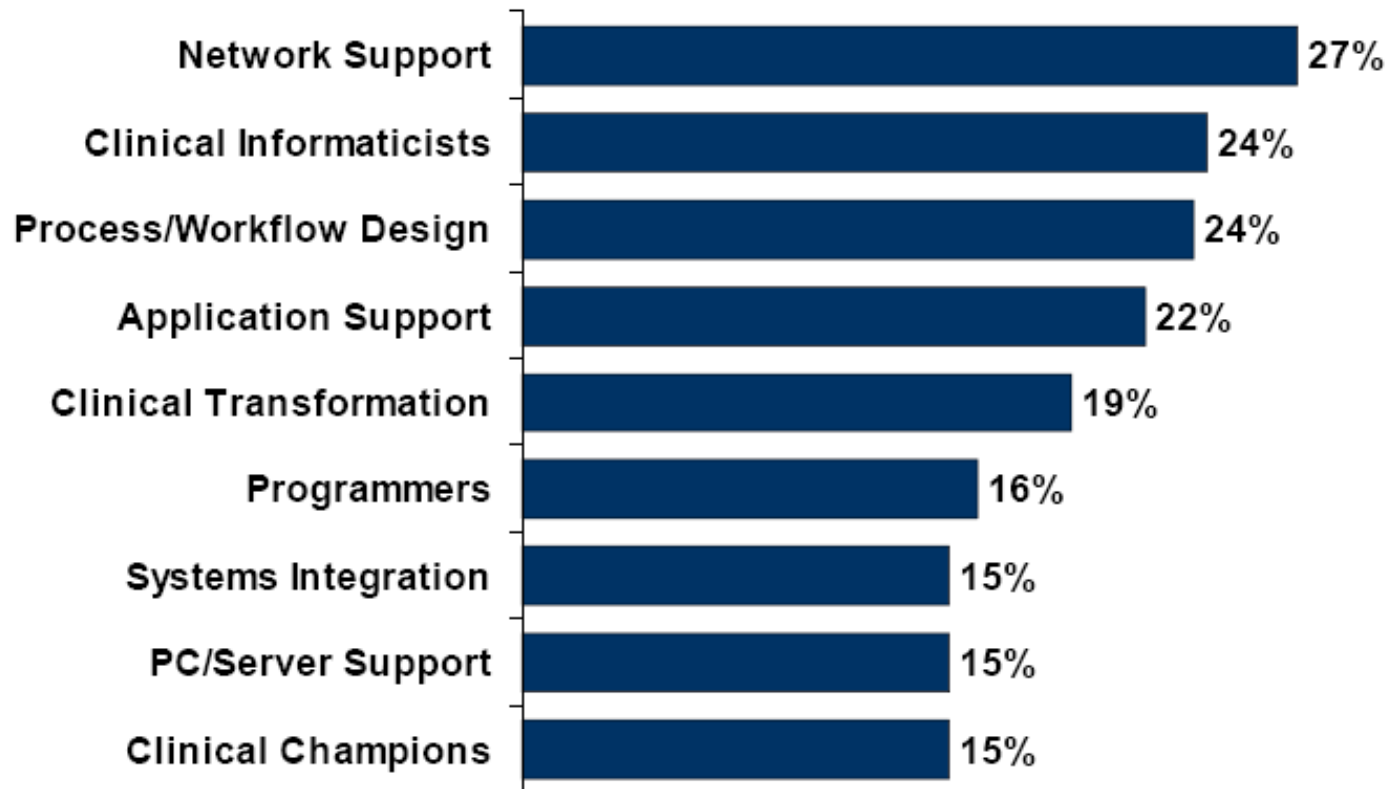
# Intranet Functions

(Today vs. Next Two Years)

Figure 21



# 2006 Health IT Staffing Needs

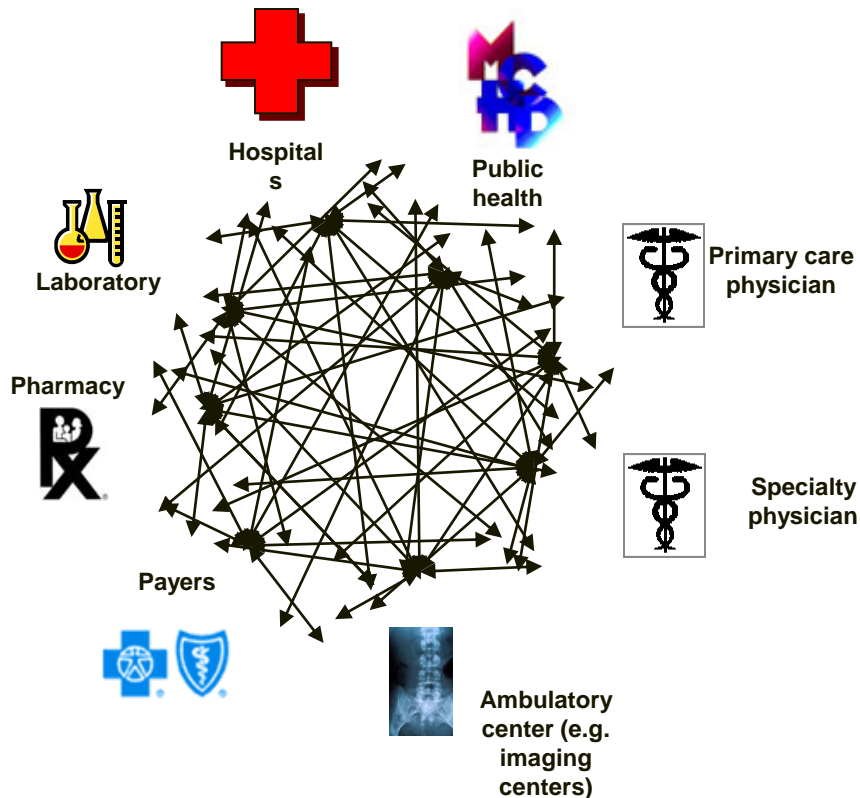


*Source: 17<sup>th</sup> Annual HIMSS Leadership Survey Sponsored by ACS HealthCare Solutions*

# Goals

# “Wiring” Healthcare

Current system fragments patient information and creates redundant, inefficient efforts



Future system will consolidate information and provide a foundation for unifying efforts

