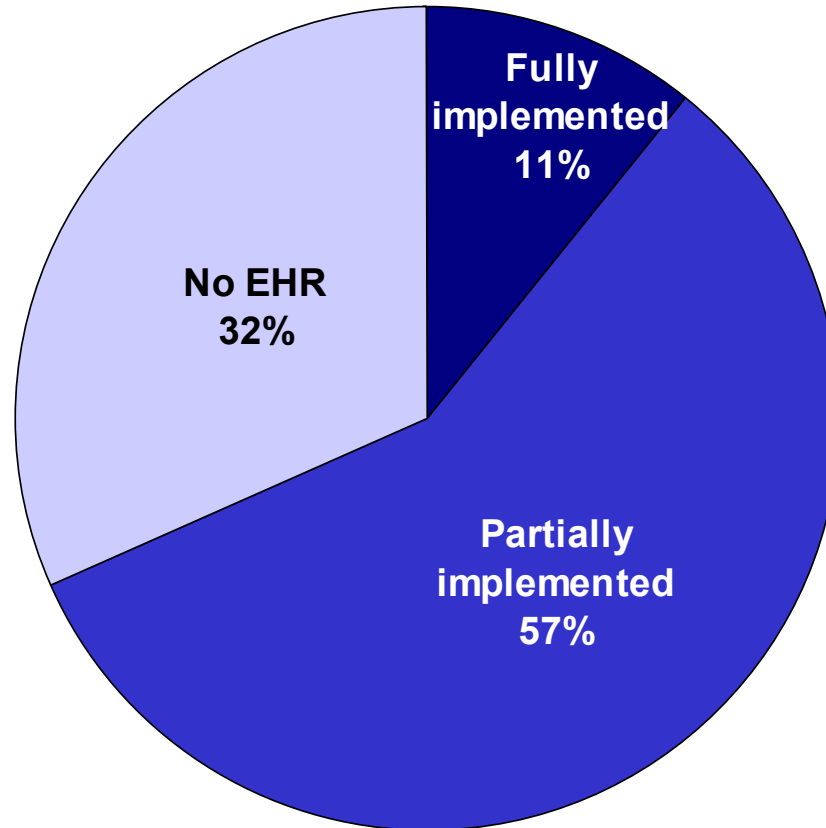# More than two-thirds of hospitals had fully or partially implemented EHRs

Percent of hospitals reporting EHRs*, 2006

Fully implemented 11%

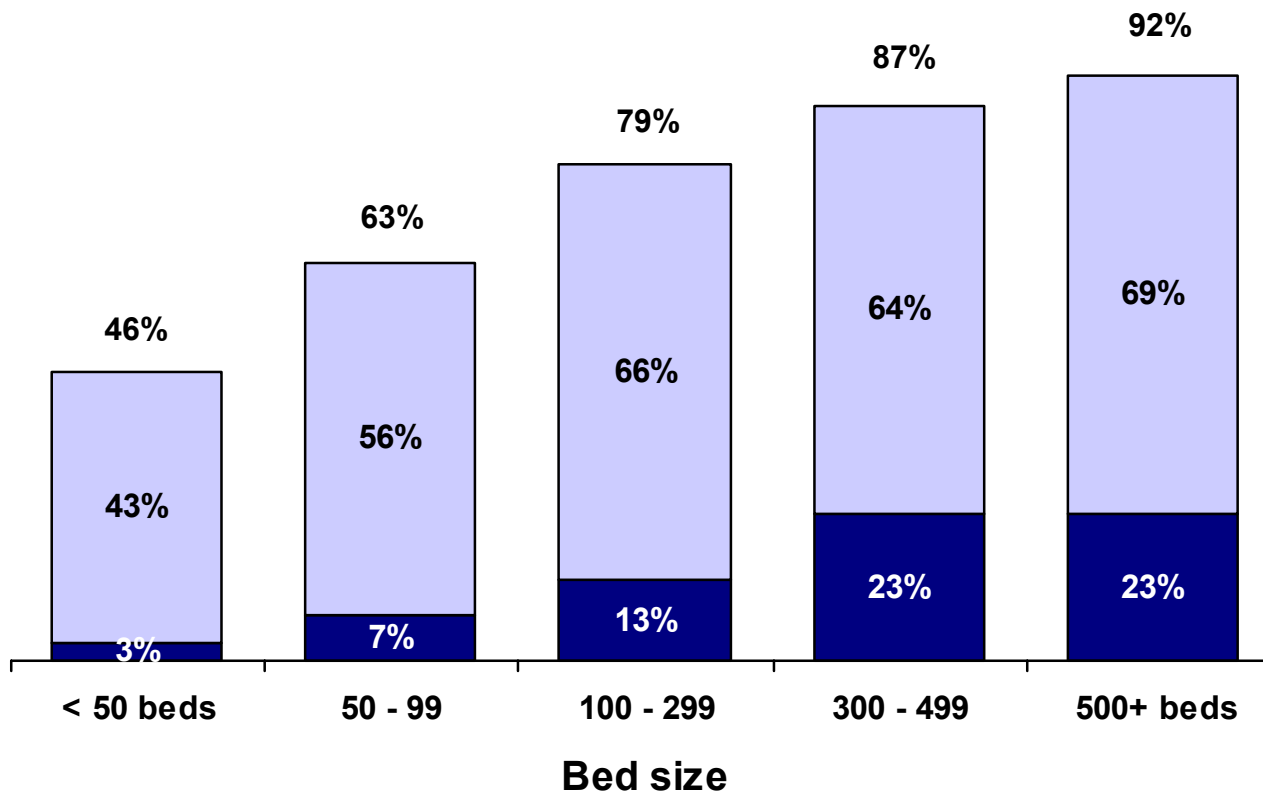Partially implemented 57%

No EHR 32%

An EHR integrates electronically originated and maintained patient-level clinical health information, derived from multiple sources, into one point of access. An EHR replaces the paper medical record as the primary source of patient information.

*Note: This question was first asked in 2006. No trend data are available.

American Hospital Association

Larger hospitals more likely to have EHRs than smaller hospitals

Percent of hospitals reporting EHRs by bed size, 2006

Bed size	Fully implemented	Partially implemented	Total
< 50 beds	3%	43%	46%
50 - 99	7%	56%	63%
100 - 299	13%	66%	79%
300 - 499	23%	64%	87%
500+ beds	23%	69%	92%

Bed size

■ Fully implemented □ Partially implemented

American Hospital Association

Urban hospitals more likely to have EHRs than their rural counterparts

Percent of hospitals reporting EHRs by location, 2006

Rural: 58% total (Partially implemented 53%, Fully implemented 5%)
Urban: 77% total (Partially implemented 61%, Fully implemented 16%)

■ Fully implemented □ Partially implemented

American Hospital Association
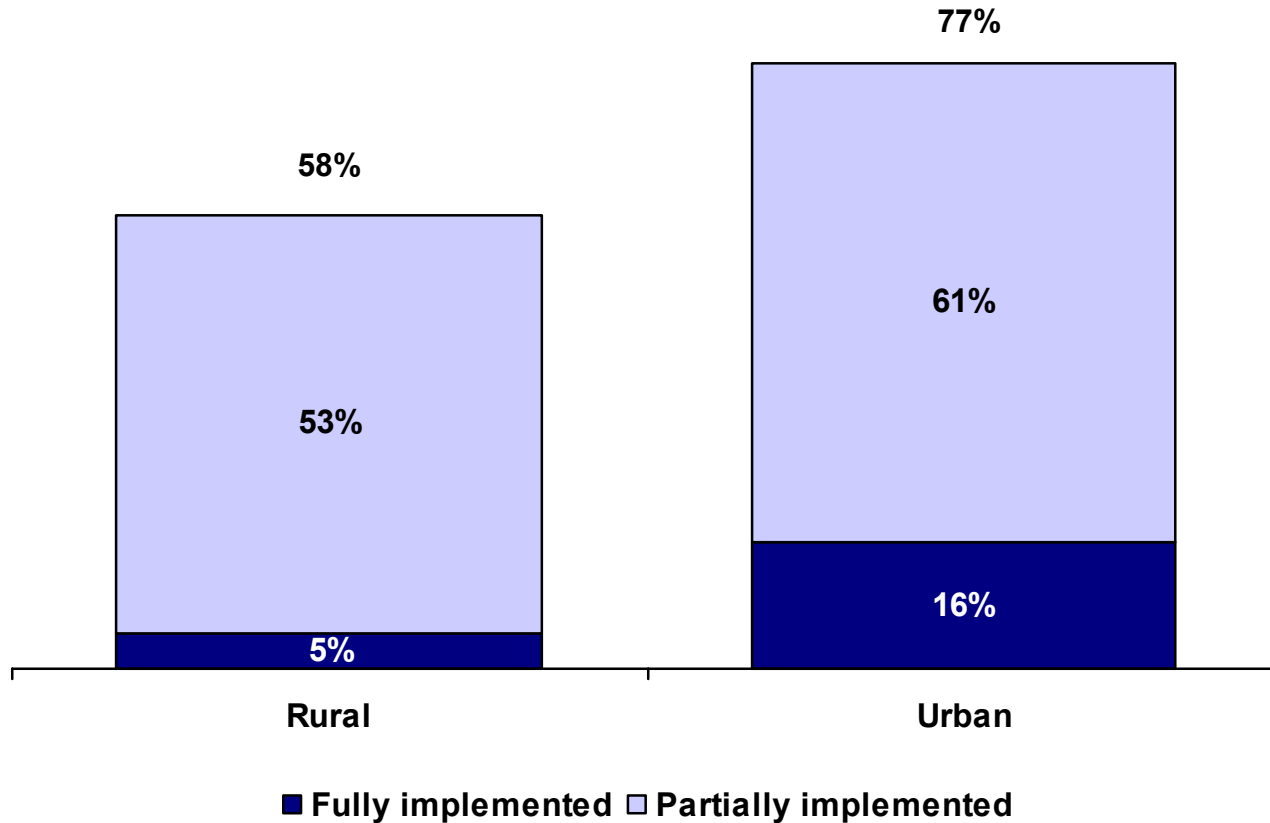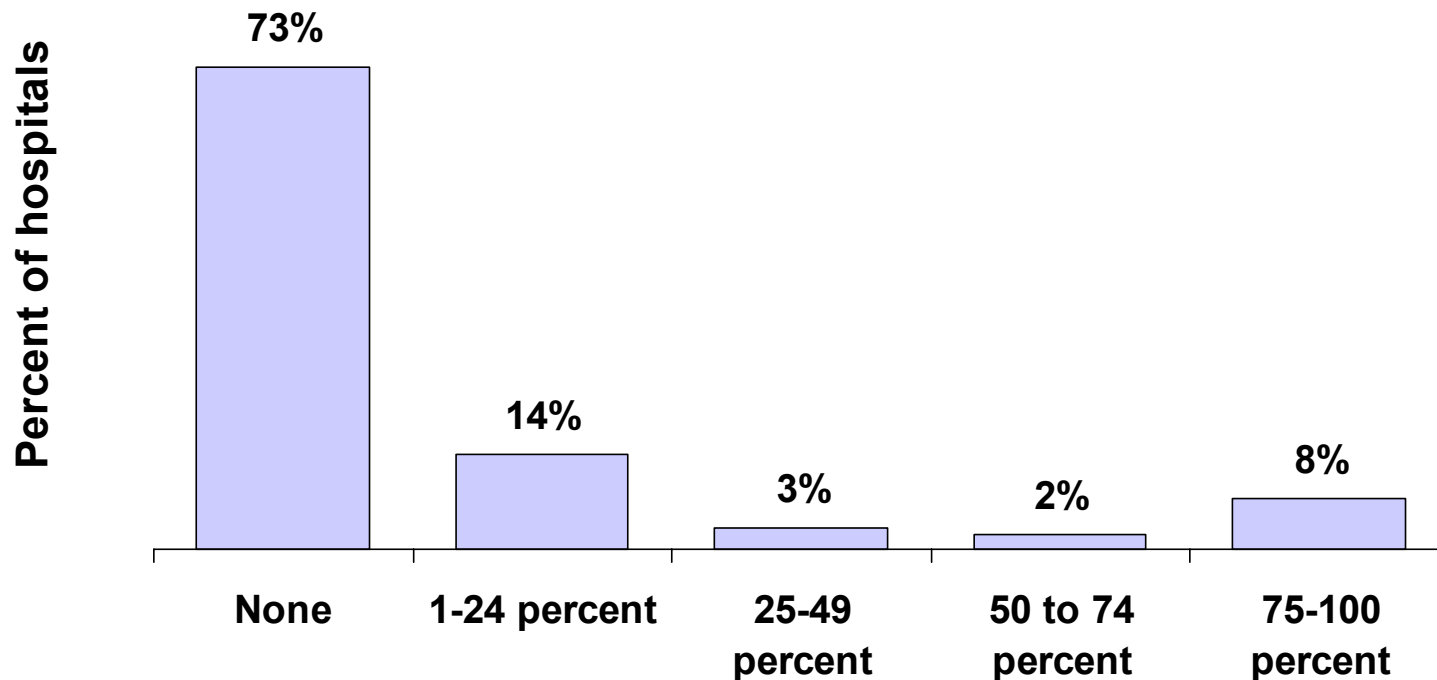
Teaching hospitals more likely to have EHRs than their non-teaching counterparts

Percent of hospitals reporting EHRs by teaching status, 2006

Non-teaching: 65% total (Partially implemented 56%, Fully implemented 9%)

Teaching: 81% total (Partially implemented 64%, Fully implemented 17%)

■ Fully implemented   □ Partially implemented

American Hospital Association
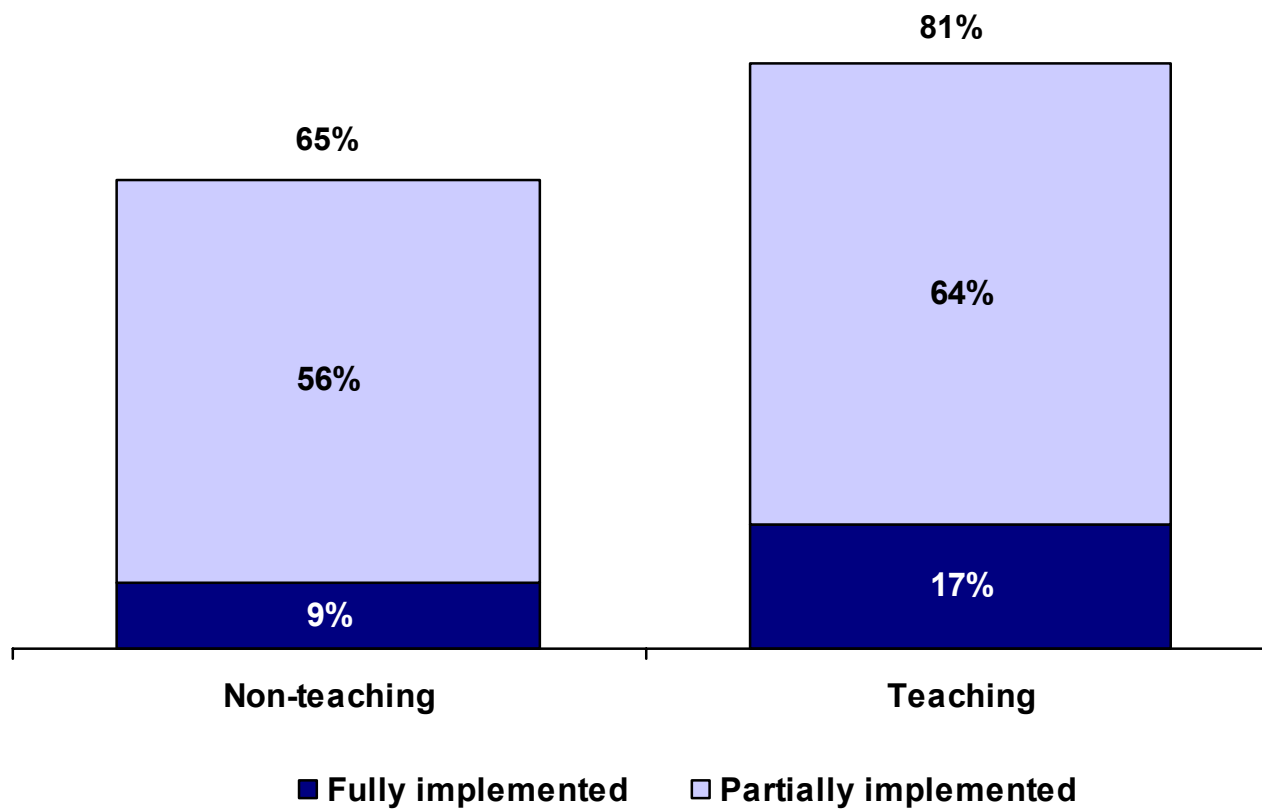
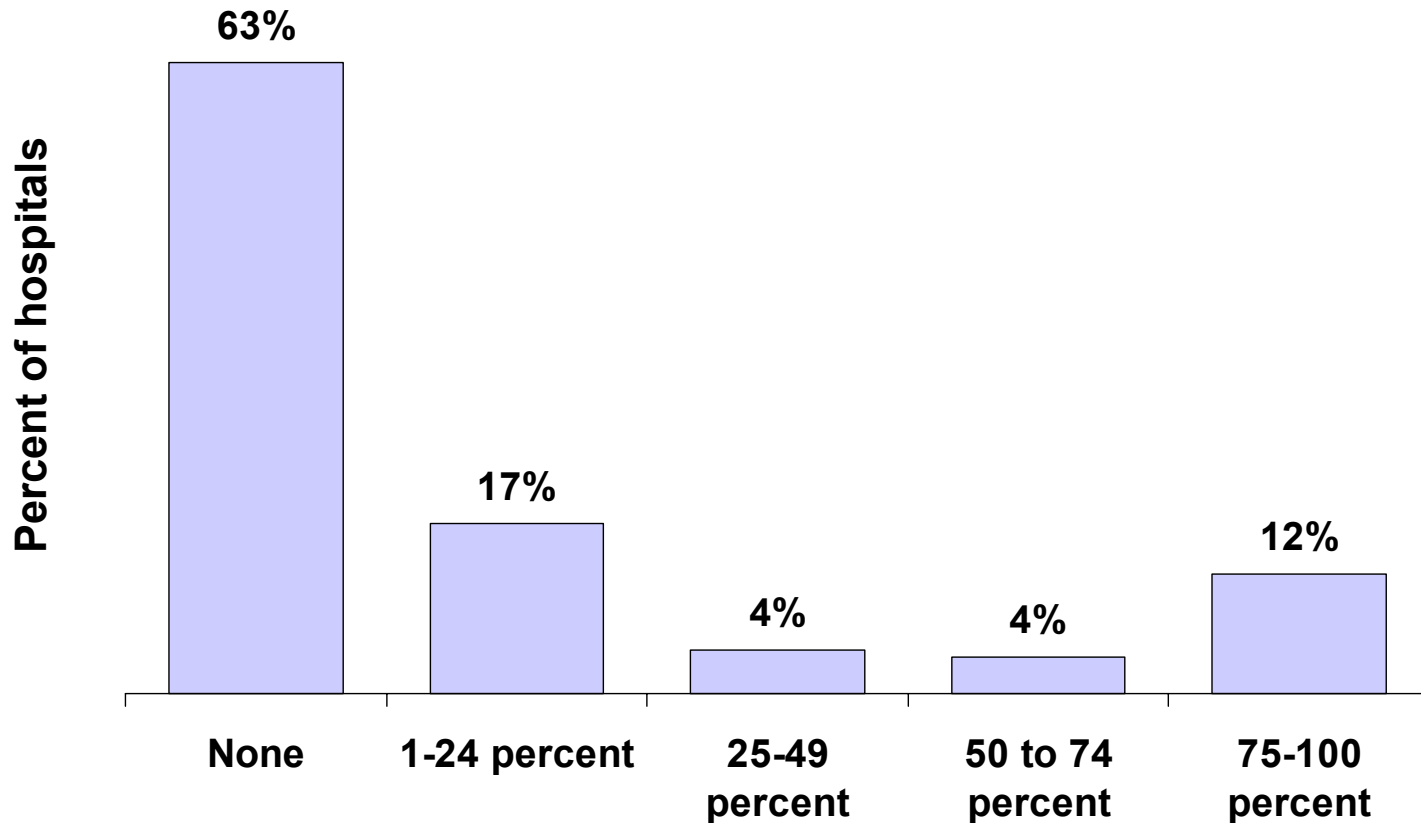# In 10 percent of hospitals, more than half of treating physicians routinely ordered medications electronically

Share of physicians ordering medications electronically, 2006

Bar chart — Percent of hospitals by share of physicians ordering medications electronically:
- None: 73%
- 1-24 percent: 14%
- 25-49 percent: 3%
- 50 to 74 percent: 2%
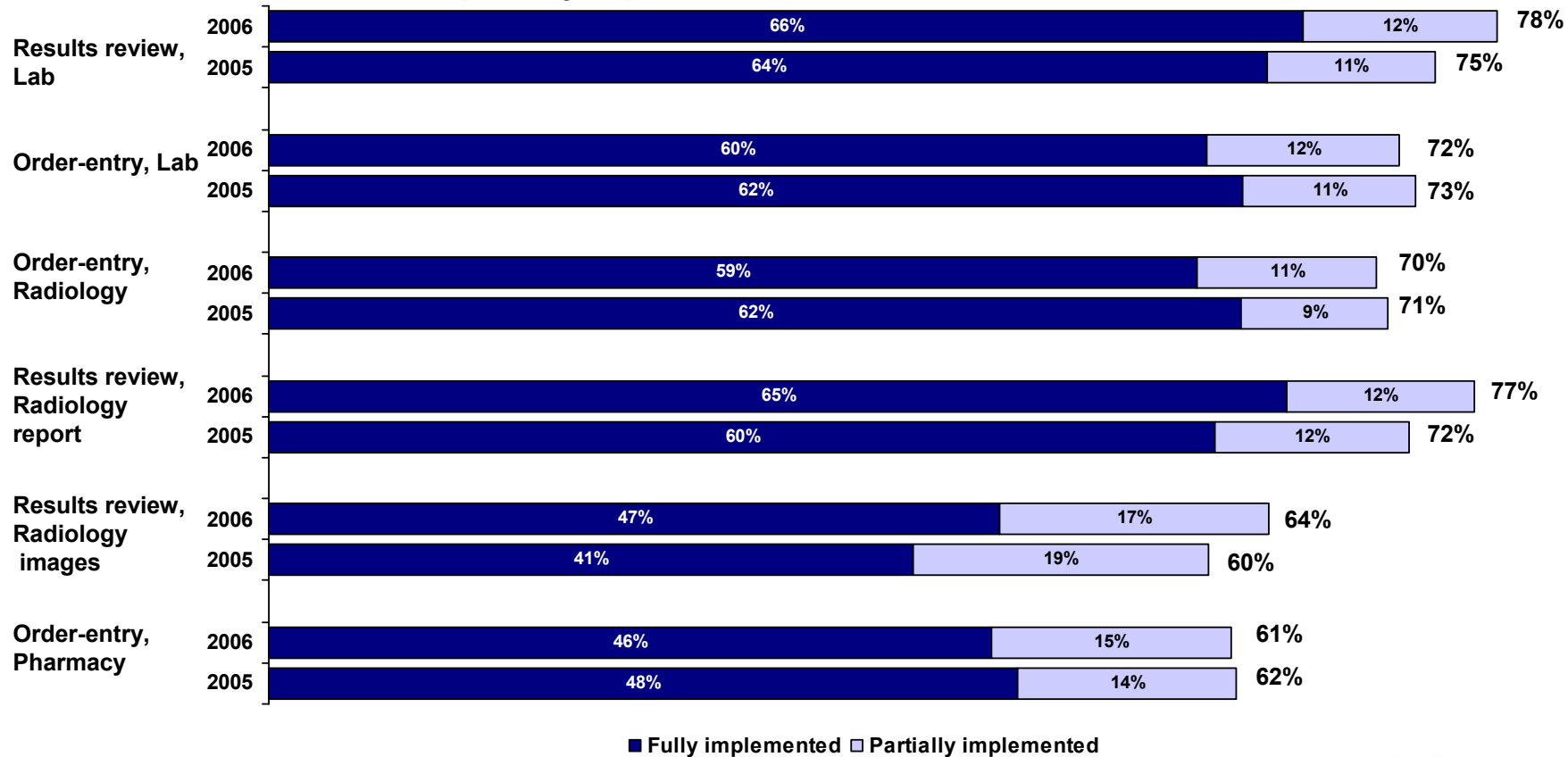- 75-100 percent: 8%

American Hospital Association

In 16 percent of hospitals, more than half of treating physicians routinely ordered tests electronically

Share of physicians ordering tests electronically, 2006

Bar chart — y-axis: Percent of hospitals

- None: 63%
- 1-24 percent: 17%
- 25-49 percent: 4%
- 50 to 74 percent: 4%
- 75-100 percent: 12%

American Hospital Association

Hospitals used many electronic laboratory, radiology, and pharmacy functions

Percent of hospitals reporting that they have fully or partially implemented various clinical IT functions

Results review, Lab
- 2006: 66% | 12% → 78%
- 2005: 64% | 11% → 75%

Order-entry, Lab
- 2006: 60% | 12% → 72%
- 2005: 62% | 11% → 73%

Order-entry, Radiology
- 2006: 59% | 11% → 70%
- 2005: 62% | 9% → 71%

Results review, Radiology report
- 2006: 65% | 12% → 77%
- 2005: 60% | 12% → 72%

Results review, Radiology images
- 2006: 47% | 17% → 64%
- 2005: 41% | 19% → 60%

Order-entry, Pharmacy
- 2006: 46% | 15% → 61%
- 2005: 48% | 14% → 62%

■ Fully implemented ☐ Partially implemented

American Hospital Association

Hospitals increased use of decision-support functions

Percent of hospitals reporting that they have fully or partially implemented various decision-support functions

Real-time drug alerts
- 2006: 31% Fully implemented, 20% Partially implemented — 51%
- 2005: 10% Fully implemented, 13% Partially implemented — 23%

Back-end drug alerts
- 2006: 37% Fully implemented, 19% Partially implemented — 56%
- 2005: 14% Fully implemented, 13% Partially implemented — 27%

Clinical guide-lines and pathways
- 2006: 10% Fully implemented, 26% Partially implemented — 36%
- 2005: 9% Fully implemented, 26% Partially implemented — 35%

Other clinical alerts
- 2006: 17% Fully implemented, 26% Partially implemented — 43%

■ Fully implemented   □ Partially implemented

American Hospital Association
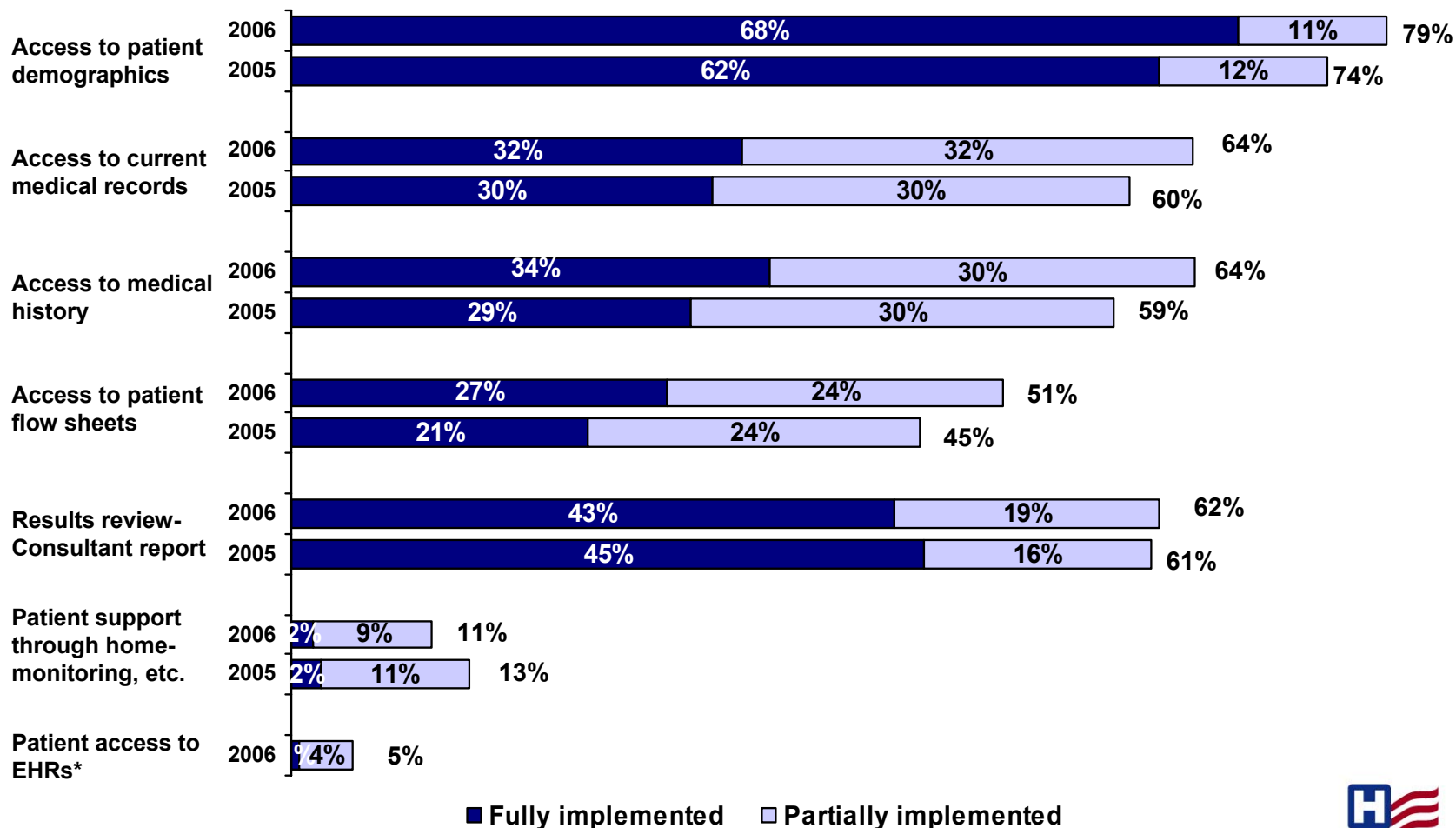
Hospitals increased use of electronic record management functions

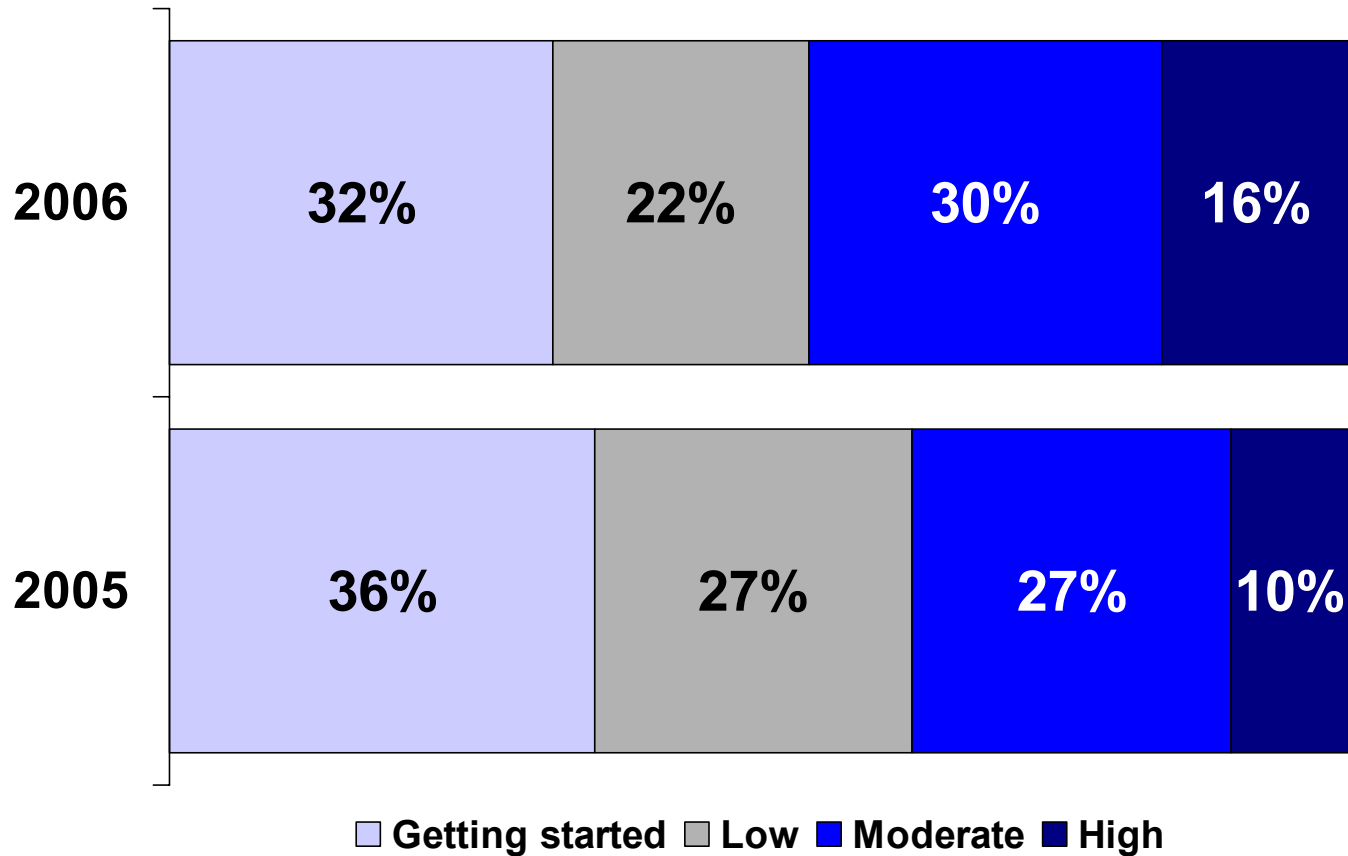**Percent of hospitals reporting that they had fully or partially implemented various EHR functions**

Access to patient demographics
- 2006: 68% / 11% = 79%
- 2005: 62% / 12% = 74%

Access to current medical records
- 2006: 32% / 32% = 64%
- 2005: 30% / 30% = 60%

Access to medical history
- 2006: 34% / 30% = 64%
- 2005: 29% / 30% = 59%

Access to patient flow sheets
- 2006: 27% / 24% = 51%
- 2005: 21% / 24% = 45%

Results review-Consultant report
- 2006: 43% / 19% = 62%
- 2005: 45% / 16% = 61%

Patient support through home-monitoring, etc.
- 2006: 2% / 9% = 11%
- 2005: 2% / 11% = 13%

Patient access to EHRs*
- 2006: / 4% = 5%

■ Fully implemented   ☐ Partially implemented

*Note: This question was first asked in 2006.

American Hospital Association

Spectrum of health IT use

Level of Use

Getting Starting	Low	Moderate	High
0-3 Functions	**4-7 Functions**	**8-11 Functions**	**12-15 Functions**
(0-25%)	**(26-50%)**	**(51-75%)**	**(76-100%)**
Fully Implemented	**Fully Implemented**	**Fully Implemented**	**Fully Implemented**

Functions

•Access to current medical records •Access to medical history •Access to patient flow sheets •Access to patient demographics •Order-entry – lab •Results review – lab	•Order-entry - radiology •Results review - radiology images (incl. PACS) •Results review - radiology report •Results review - consultant report •Order-entry – pharmacy	•Real time drug interaction alerts •Back-end drug interaction alerts •Clinical guidelines and pathways •Patient support through home monitoring, self-testing, and interactive patient education

Hospitals used more health IT in 2006

Distribution of hospitals by level of health IT use

Year	Getting started	Low	Moderate	High
2006	32%	22%	30%	16%
2005	36%	27%	27%	10%

Legend: ■ Getting started ■ Low ■ Moderate ■ High

American Hospital Association

Larger hospitals used more health IT and saw greater growth from 2005 to 2006

Distribution of hospitals across levels of health IT use by bed size

	< 50 beds		50-99 beds		100-299 beds		300-499 beds		500+ beds	
	2005	2006	2005	2006	2005	2006	2005	2006	2005	2006
High	6%	5%	7%	11%	12%	21%	13%	24%	13%	34%
Moderate	10%	18%	18%	20%	31%	37%	45%	47%	61%	40%
Low	19%	20%	27%	26%	34%	23%	31%	18%	19%	20%
Getting started	66%	58%	48%	42%	23%	20%	11%	11%	7%	6%

Legend: □ Getting started ■ Low ■ Moderate ■ High

American Hospital Association
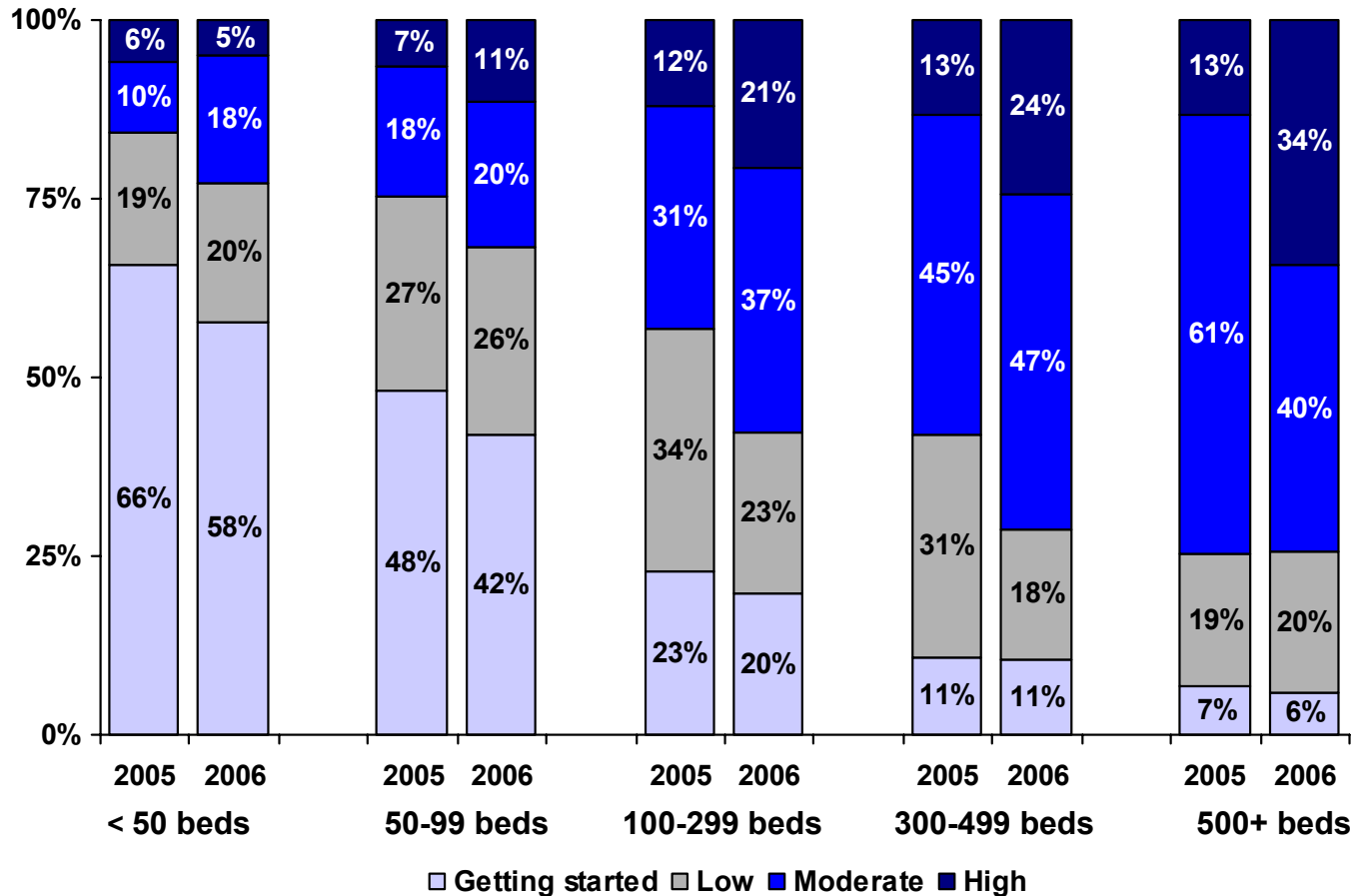
Urban hospitals used more health IT than rural hospitals, but both groups increased use

Levels of health IT use by location

	Rural 2005	Rural 2006	Urban 2005	Urban 2006
High	7%	11%	12%	20%
Moderate	18%	22%	36%	36%
Low	24%	21%	30%	22%
Getting started	50%	46%	22%	22%

■ Getting started ■ Low ■ Moderate ■ High

American Hospital Association
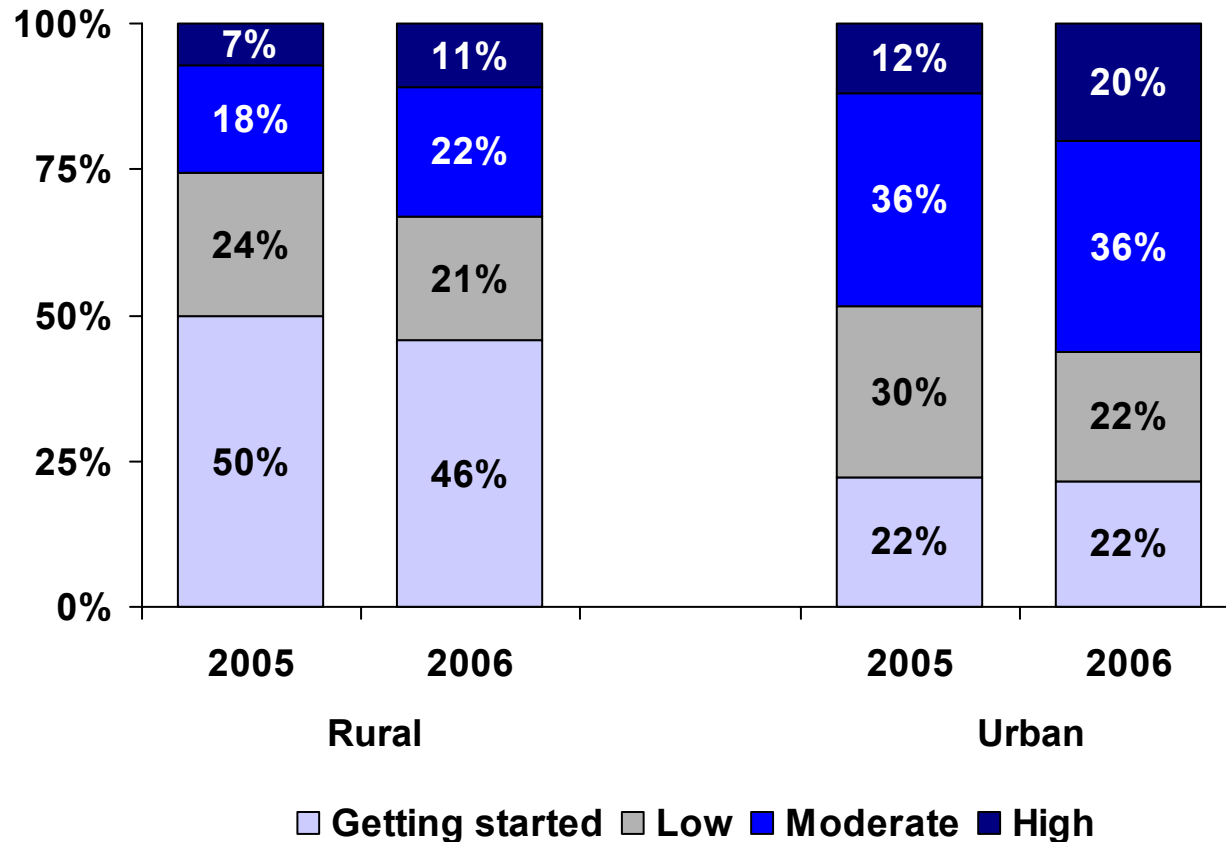
Teaching hospitals used more health IT than non-teaching hospitals, but both groups increased use

Level of health IT use by teaching status

Legend: Getting started, Low, Moderate, High

Teaching
- 2005: Getting started 15%, Low 30%, Moderate 43%, High 13%
- 2006: Getting started 18%, Low 24%, Moderate 40%, High 19%

Non-teaching
- 2005: Getting started 41%, Low 26%, Moderate 24%, High 9%
- 2006: Getting started 37%, Low 21%, Moderate 27%, High 15%

American Hospital Association
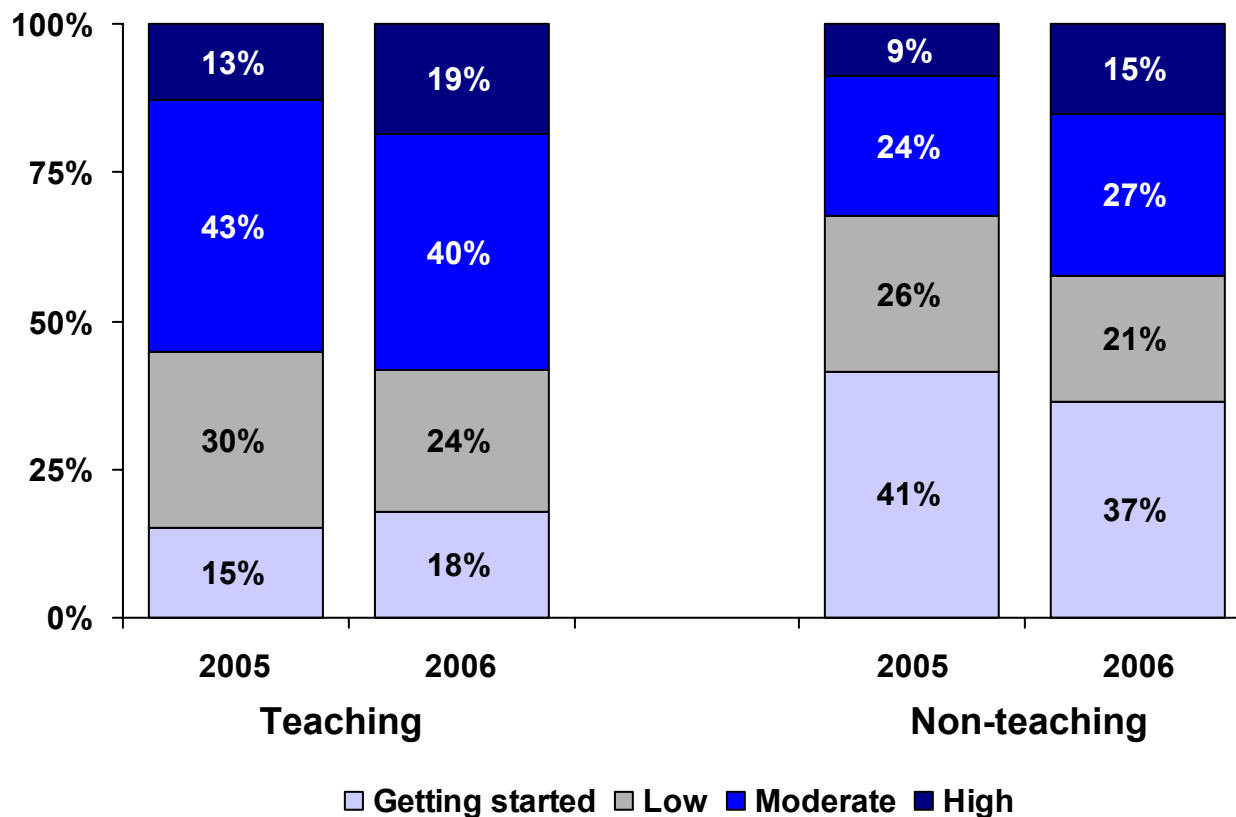
Hospitals that were members of systems used more health IT than those that were not, but both groups increased use

Level of health IT use by system status

Chart data:

System
- 2005: Getting started 28%, Low 26%, Moderate 32%, High 14%
- 2006: Getting started 31%, Low 18%, Moderate 32%, High 19%

Non-system
- 2005: Getting started 42%, Low 28%, Moderate 23%, High 7%
- 2006: Getting started 34%, Low 24%, Moderate 28%, High 14%

Legend: ☐ Getting started ☐ Low ■ Moderate ■ High

American Hospital Association
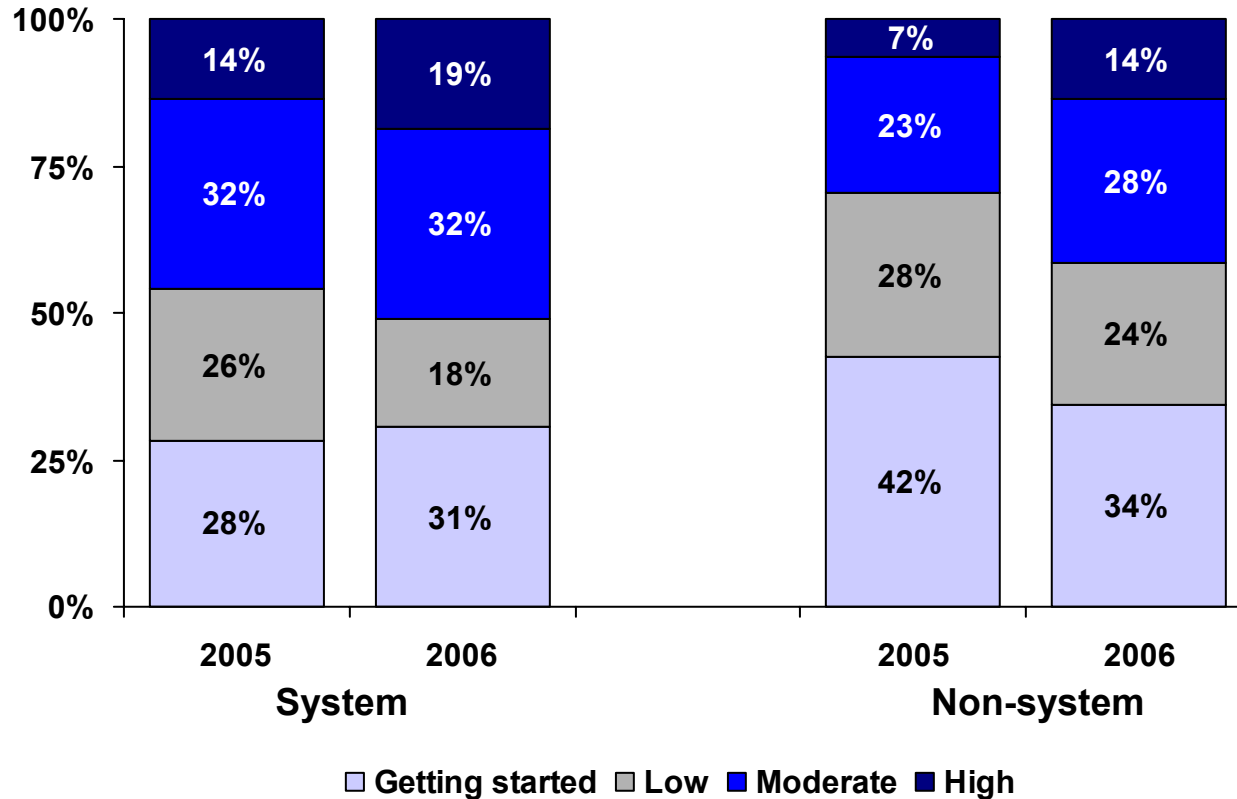
Hospitals with positive margins used more health IT in both 2005 and 2006

Level of use of fully implemented IT systems by margin level

Positive Margin

	2005	2006
High	11%	17%
Moderate	29%	32%
Low	27%	22%
Getting started	32%	29%

Negative Margin

	2005	2006
High	6%	11%
Moderate	22%	24%
Low	26%	22%
Getting started	46%	43%

Legend: ☐ Getting started ☐ Low ■ Moderate ■ High

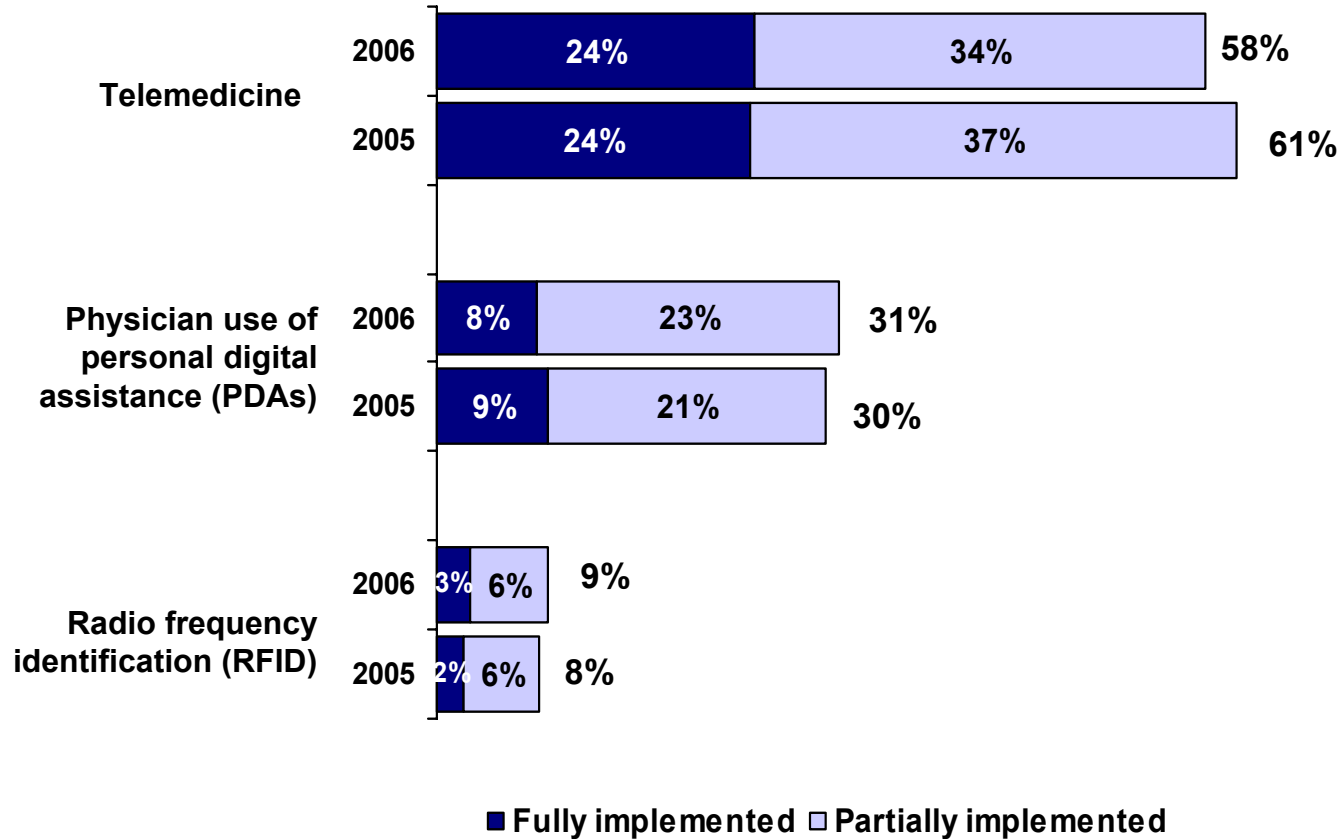American Hospital Association
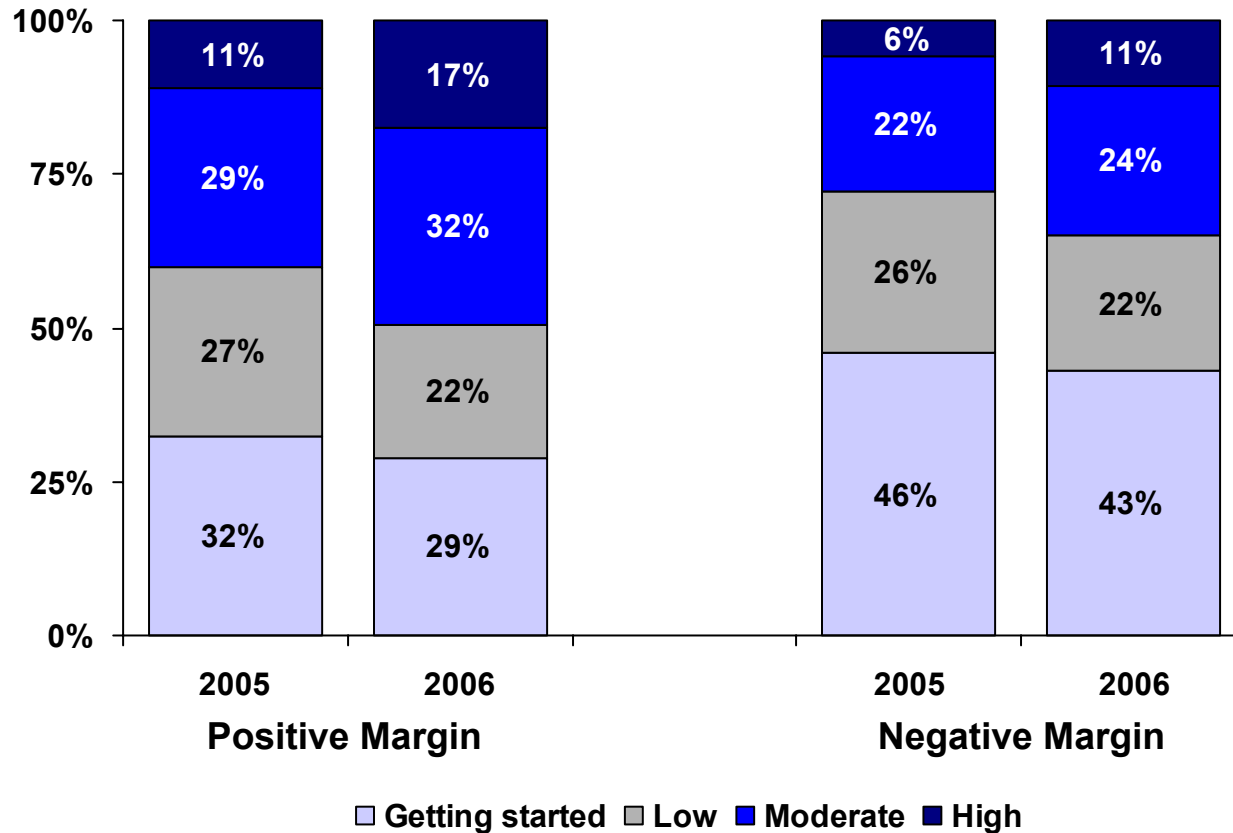
Hospitals increased use of bar-coding

Percent of hospitals with fully or partially implemented bar-code systems

Lab specimens
- 2006: 38% | 19% — 57%
- 2005: 35% | 18% — 53%

Patient ID
- 2006: 25% | 17% — 42%
- 2005: 20% | 17% — 37%

Supply chain management
- 2006: 16% | 24% — 40%
- 2005: 16% | 24% — 40%

Tracking pharmaceuticals
- 2006: 14% | 19% — 33%
- 2005: 12% | 18% — 30%

Pharmaceutical administration
- 2006: 14% | 12% — 26%
- 2005: 12% | 11% — 23%

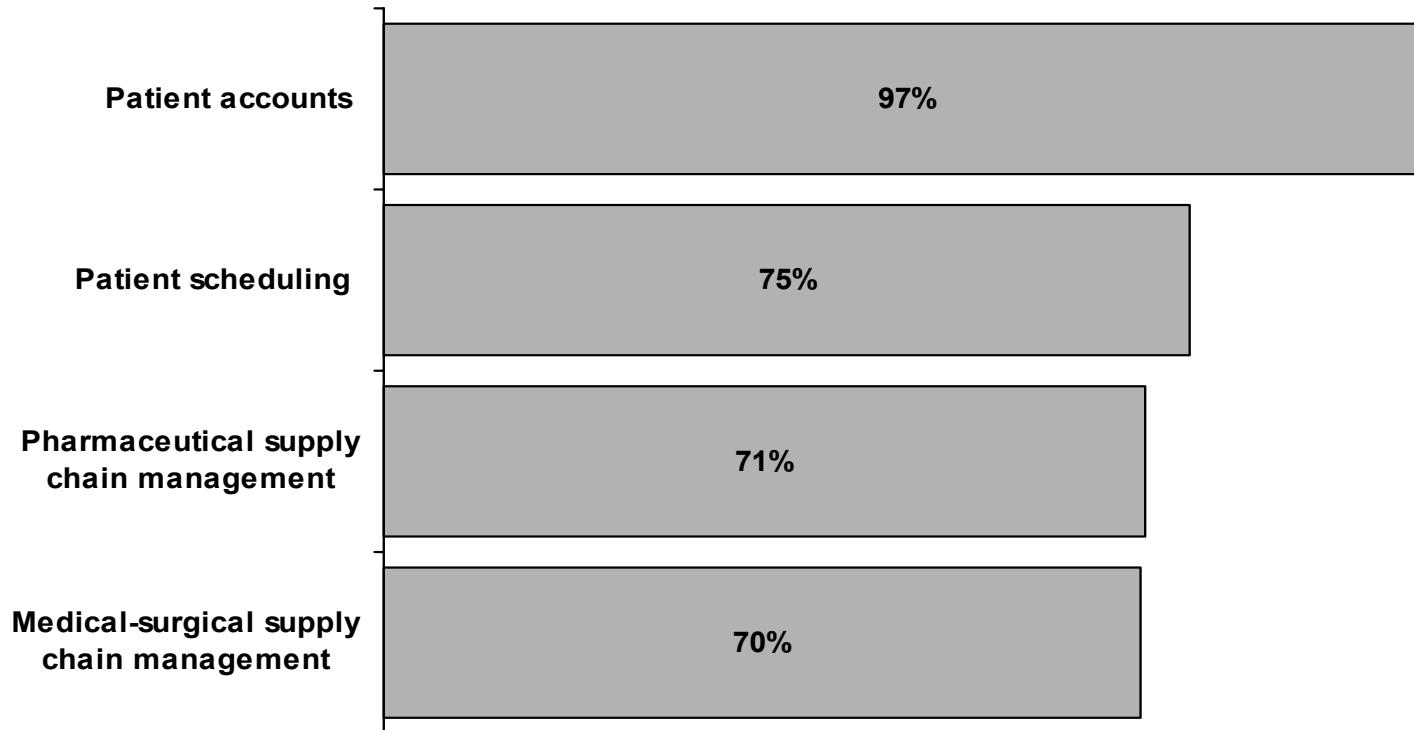■ Fully implemented   □ Partially implemented

American Hospital Association
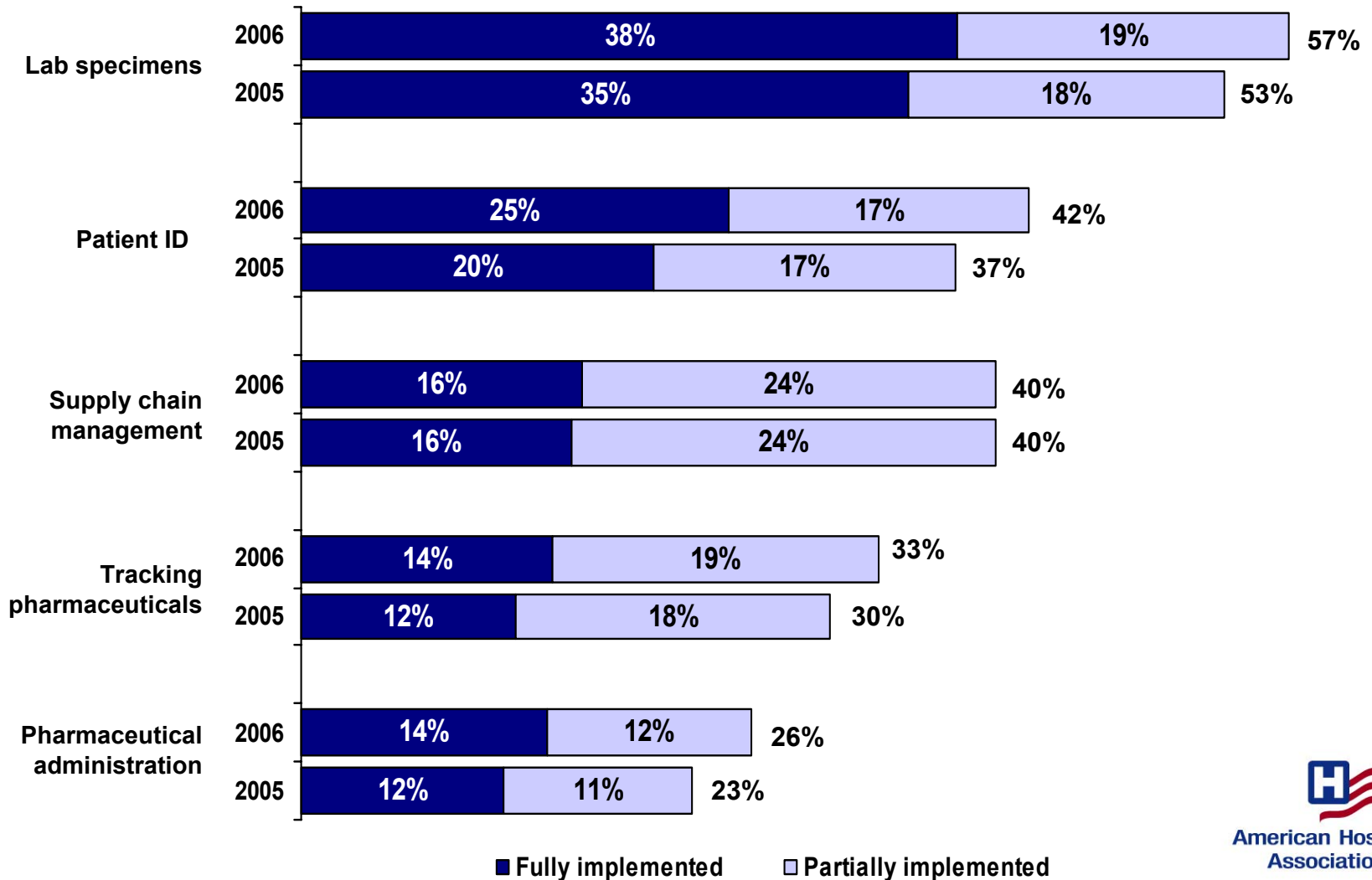
Hospitals adopting telemedicine and other technologies

Percent of hospitals with fully or partially implemented systems

Technology	Year	Fully implemented	Partially implemented	Total
Telemedicine	2006	24%	34%	58%
	2005	24%	37%	61%
Physician use of personal digital assistance (PDAs)	2006	8%	23%	31%
	2005	9%	21%	30%
Radio frequency identification (RFID)	2006	3%	6%	9%
	2005	2%	6%	8%

■ Fully implemented □ Partially implemented

Hospitals using administrative systems

Percent of hospitals with administrative systems, 2006

Category	Percent
Patient accounts	97%
Patient scheduling	75%
Pharmaceutical supply chain management	71%
Medical-surgical supply chain management	70%

American Hospital Association

Spending on health IT is high and increasing

Median one-year spending per bed

	Capital spending			Operating costs	
	2005	2006		2005	2006
	$5,500	$5,556		$11,538	$12,060

American Hospital Association
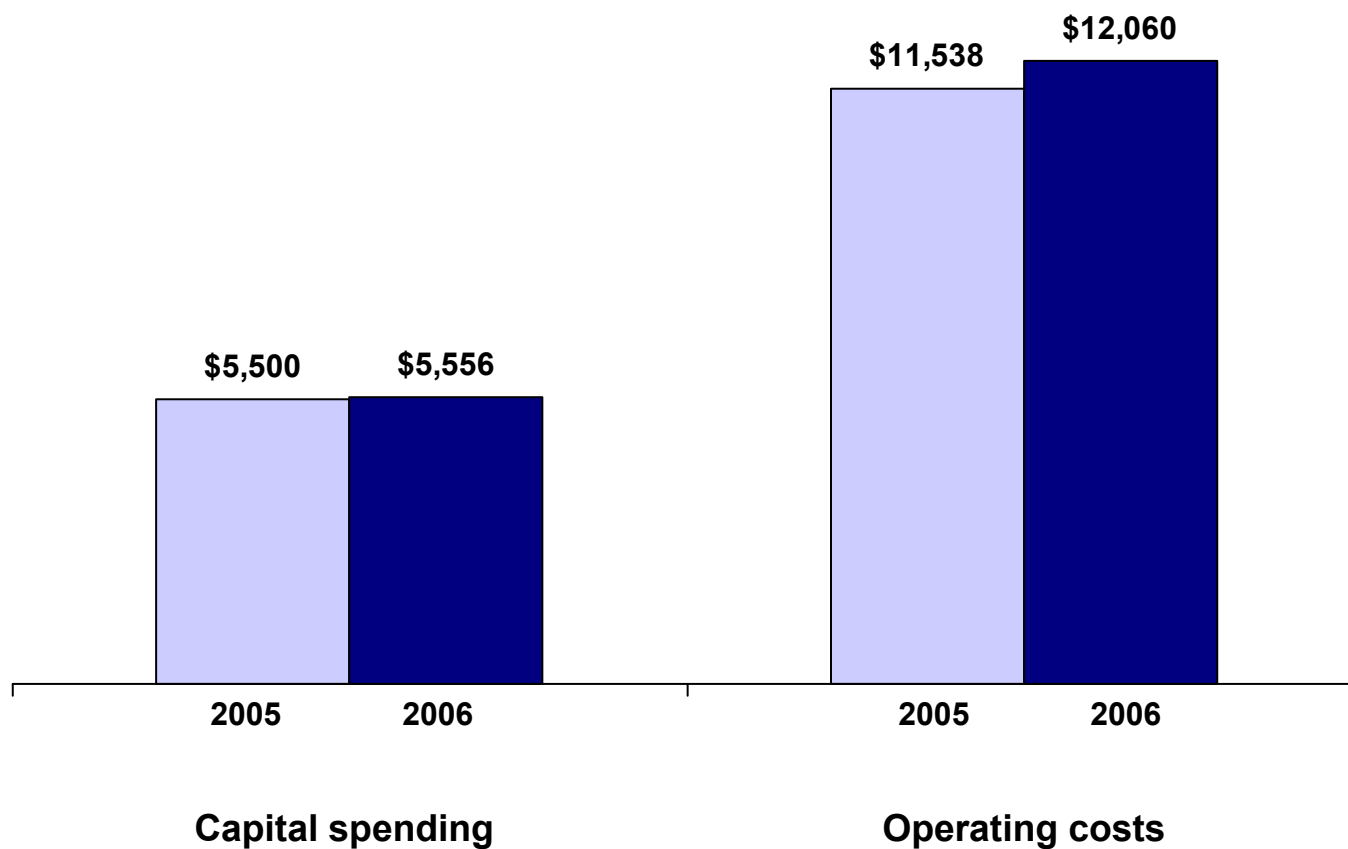
Hospitals continued to report cost as greatest barrier to IT adoption

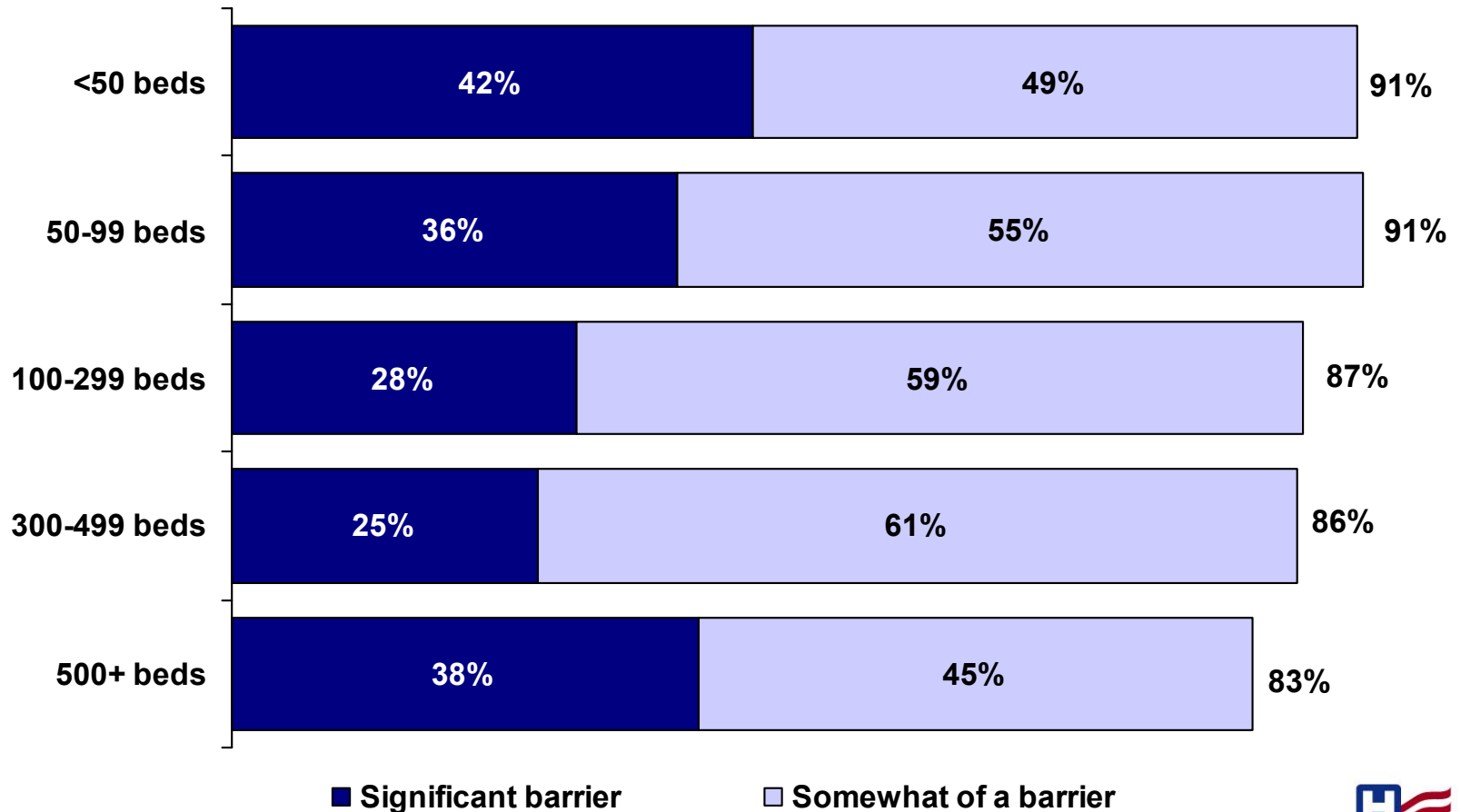**Percent of hospitals indicating barrier is a "significant barrier" or "somewhat of a barrier"**

Initial costs
- 2006: 54% | 40% → 94%
- 2005: 59% | 36% → 95%

Ongoing costs
- 2006: 32% | 55% → 87%
- 2005: 33% | 54% → 87%

Interoperability with current system
- 2006: 27% | 52% → 79%
- 2005: 25% | 52% → 77%

Acceptance by clinical staff
- 2006: 23% | 59% → 82%
- 2005: 24% | 58% → 82%

Availability of well-trained IT staff
- 2006: 16% | 51% → 67%
- 2005: 15% | 49% → 54%

Inability of technology to meet needs
- 2006: 11% | 51% → 62%
- 2005: 12% | 48% → 60%

■ Significant barrier   ■ Somewhat of a barrier
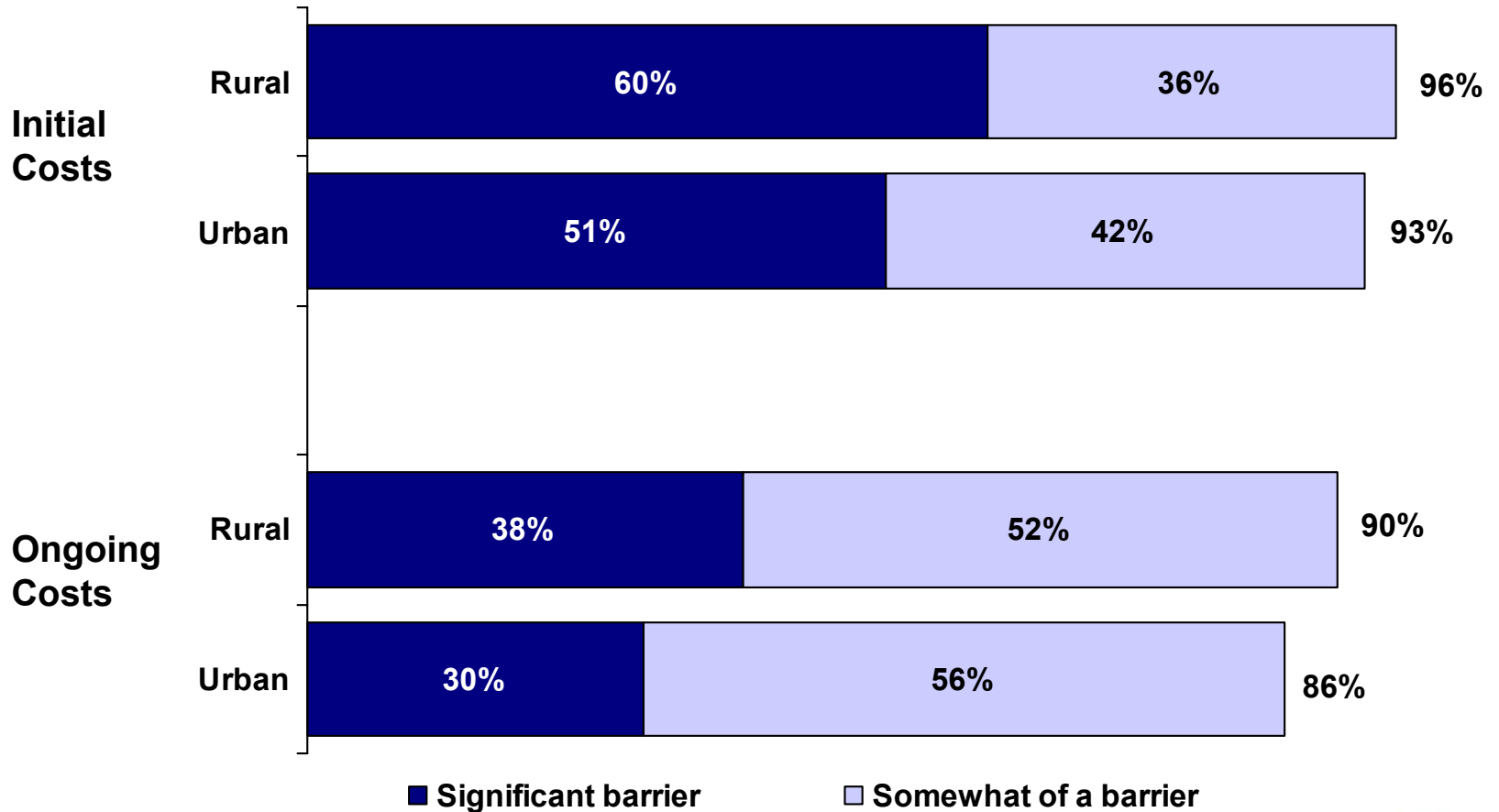
American Hospital Association
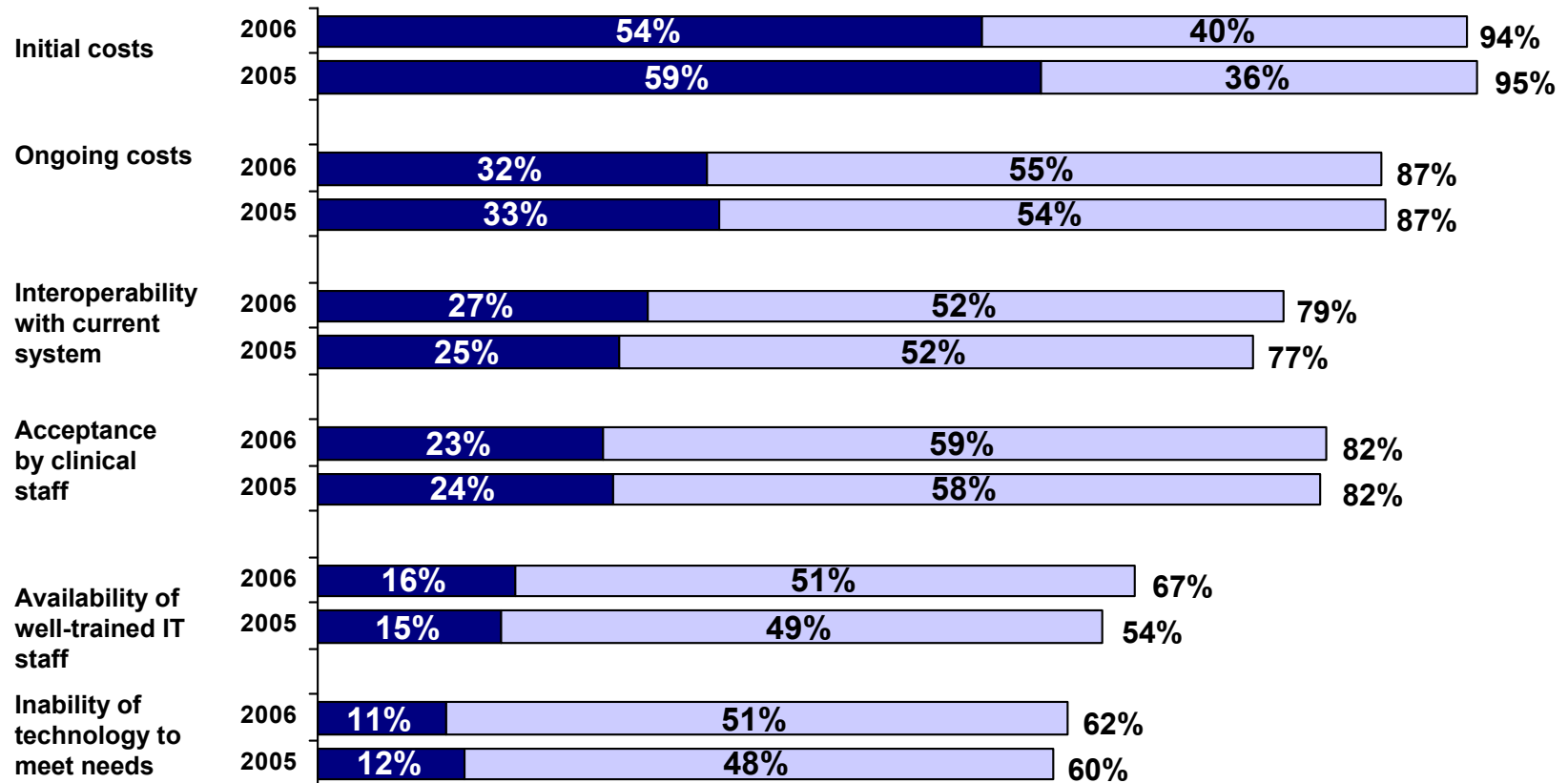
While a barrier for all, smallest hospitals were most likely to see ongoing costs as significant barrier

Percent of hospitals indicating ongoing costs are a "significant barrier" or "somewhat of a barrier" by size, 2006

Bed size	Significant barrier	Somewhat of a barrier	Total
<50 beds	42%	49%	91%
50-99 beds	36%	55%	91%
100-299 beds	28%	59%	87%
300-499 beds	25%	61%	86%
500+ beds	38%	45%	83%

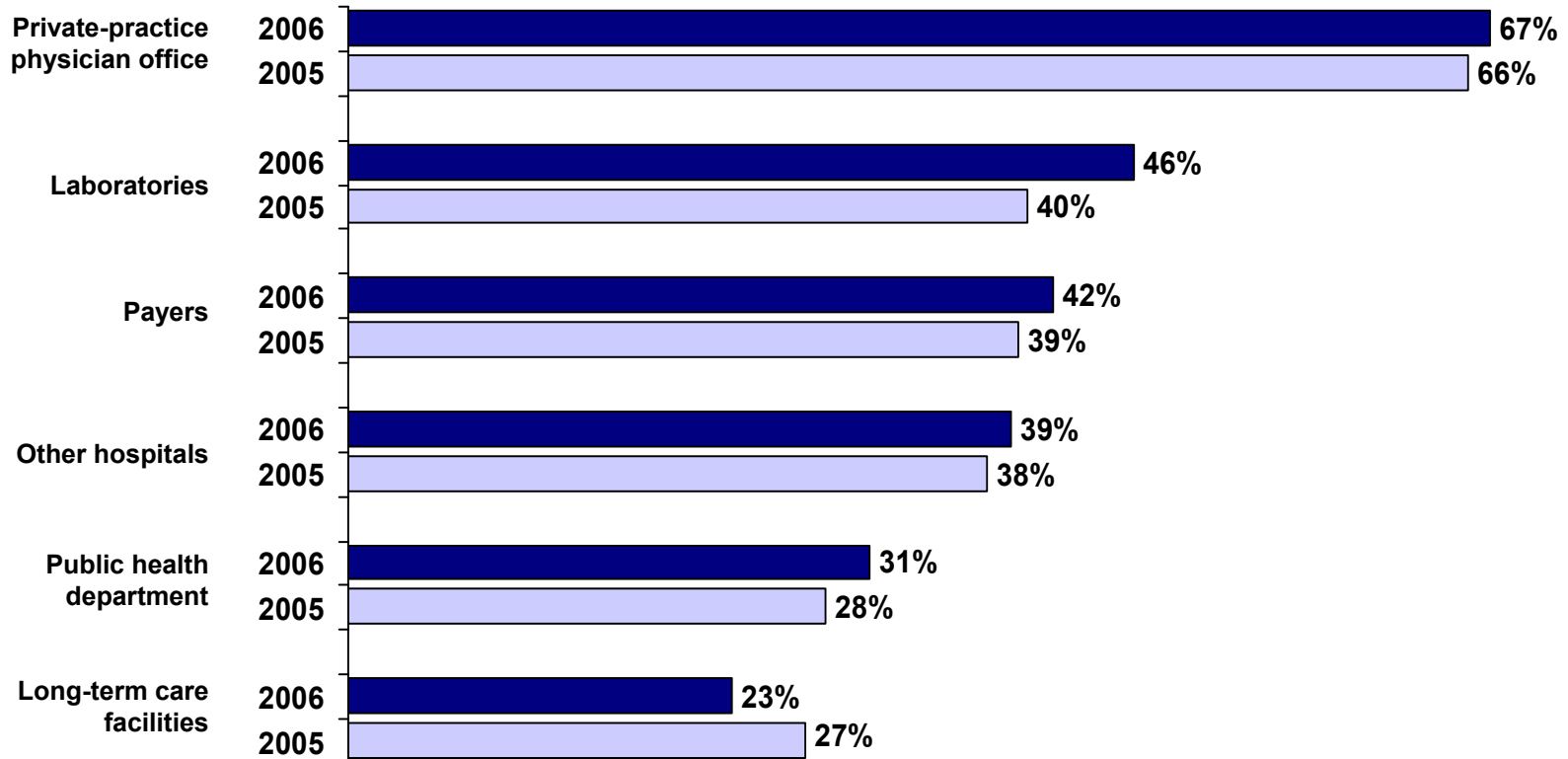■ Significant barrier ☐ Somewhat of a barrier

Rural hospitals more likely to see costs as significant barrier

Percent of hospitals indicating ongoing costs are a "significant barrier" or "somewhat of a barrier" by location, 2006

	Significant barrier	Somewhat of a barrier	Total
Initial Costs Rural	60%	36%	96%
Initial Costs Urban	51%	42%	93%
Ongoing Costs Rural	38%	52%	90%
Ongoing Costs Urban	30%	56%	86%

■ Significant barrier   □ Somewhat of a barrier

American Hospital Association

Hospitals most commonly shared electronic patient information with physician offices

Most commonly reported organizations for sharing of electronic patient health care information among hospitals that shared data

Private-practice physician office
- 2006: 67%
- 2005: 66%

Laboratories
- 2006: 46%
- 2005: 40%

Payers
- 2006: 42%
- 2005: 39%

Other hospitals
- 2006: 39%
- 2005: 38%

Public health department
- 2006: 31%
- 2005: 28%

Long-term care facilities
- 2006: 23%
- 2005: 27%

American Hospital Association

Comparison of sample to universe

Characteristic	Universe (%)	Sample (%)
Bed size		
Under 50 beds	28.4	29.1
50 to 99 beds	20.3	18.6
100 to 299 beds	35.4	33.0
300 to 499 beds	11.0	12.6
500+ beds	4.9	6.7
Location		
Urban	59.3	53.5
Rural	40.7	46.5
Teaching status		
Non-teaching	78.3	80.4
Teaching	21.7	19.6

Note: Universe includes all 4,936 community hospitals in the 2005 AHA Annual Survey. Sample includes 1,543 community hospitals responding to the 2006 AHA Health IT Survey.

American Hospital Association

Comparison of sample to universe (2)

Characteristic	Universe (%)	Sample (%)
Region		
New England	4.2	5.0
Middle Atlantic	9.6	11.6
South Atlantic	15.1	13.2
East North Central	15.1	14.5
East South Central	8.9	7.7
West North Central	13.7	18.7
West South Central	15.0	12.8
Mountain	7.4	7.6
Pacific	11.1	8.6
Ownership		
Non-profit	59.9	62.5
Investor owned	17.6	9.7
State/local government	22.5	27.7
System Membership		
Member	55.0	41.7
Non-member	45.0	58.3

Note: Universe includes all 4,936 community hospitals in the 2005 AHA Annual Survey. Sample includes 1,543 community hospitals responding to the 2006 AHA Health IT Survey.

American Hospital Association