

Assessing IT Value: Ambulatory Care Order Entry

Center for IT Leadership
Partners HealthCare System
Boston



CITL – ACPOE Headlines

- Nationwide adoption of advanced ACPOE systems will:
 - Eliminate more than 2 million Adverse Drug Events (ADEs)/year
 - Avoid more than 190,000 hospitalizations/year
 - Save the US healthcare delivery system \$44 billion/year in reduced medication, radiology, laboratory, and ADE-related expenditures
 - Eliminate more than \$9 billion/year in rejected claims

ACPOE System Classification

Class	Medication (Rx) OE	Diagnostic (Dx) OE
1: Basic Rx-only	Structuring data capture, passive references	
2: Basic Rx-Dx		
3: Intermediate Rx-only	Rx & Order-specific decision support, with some patient data	
4: Intermediate Rx-Dx		
5: Advanced Rx-Dx	Sophisticated Rx & Order-specific decision support, with most patient data, EDI	

How Does ACPOE Improve Clinical Outcomes?

- Streamline, structure order process
- Ensure completeness, correctness
- Perform drug interaction checks
- Supply patient data
- Calculate and adjust doses based upon age, weight, renal function

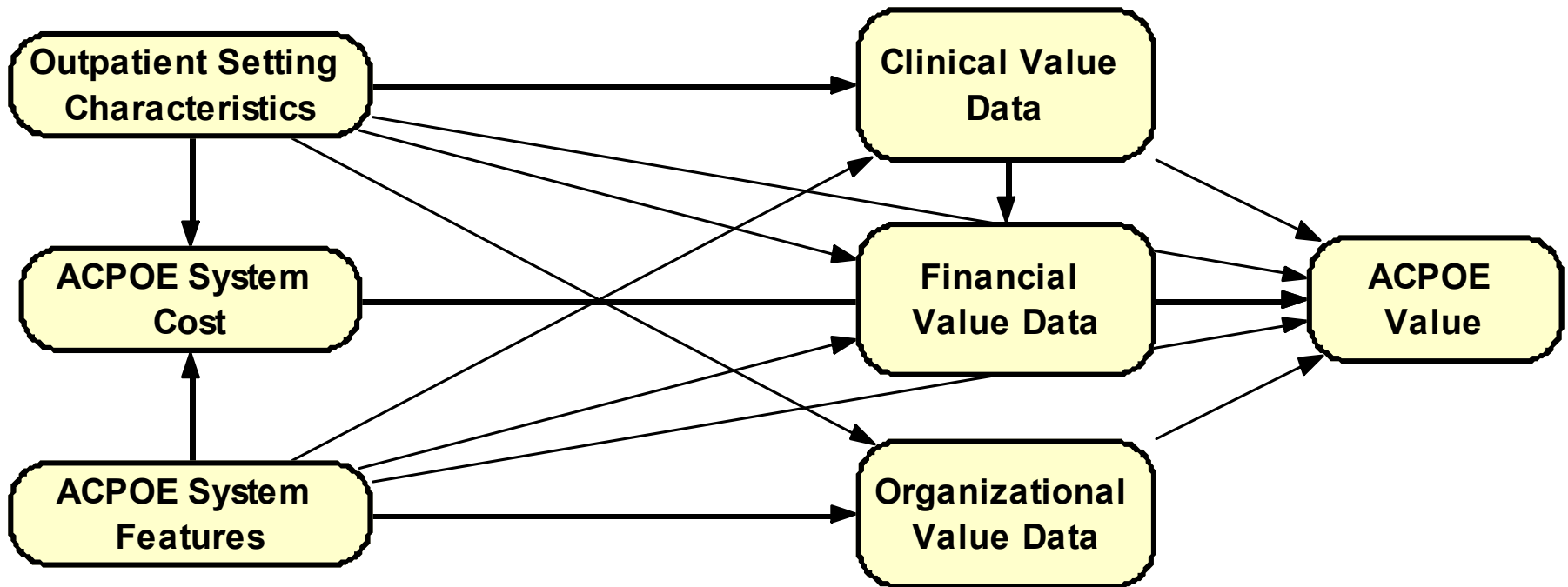
How Does ACPOE Improve Medication Utilization?

- Eliminate over-use, under-use, and misuse
- Check for duplicate medications
- Suggest
 - Brand to generic substitutions
 - Alternative cost-effective therapies
 - Formulary compliance

How Does ACPOE Improve Lab and Radiology Utilization?

- Charge display
- Redundant test reminders
- Structured ordering with counter-detailing
- Consequent or corollary orders
- Indication-based ordering

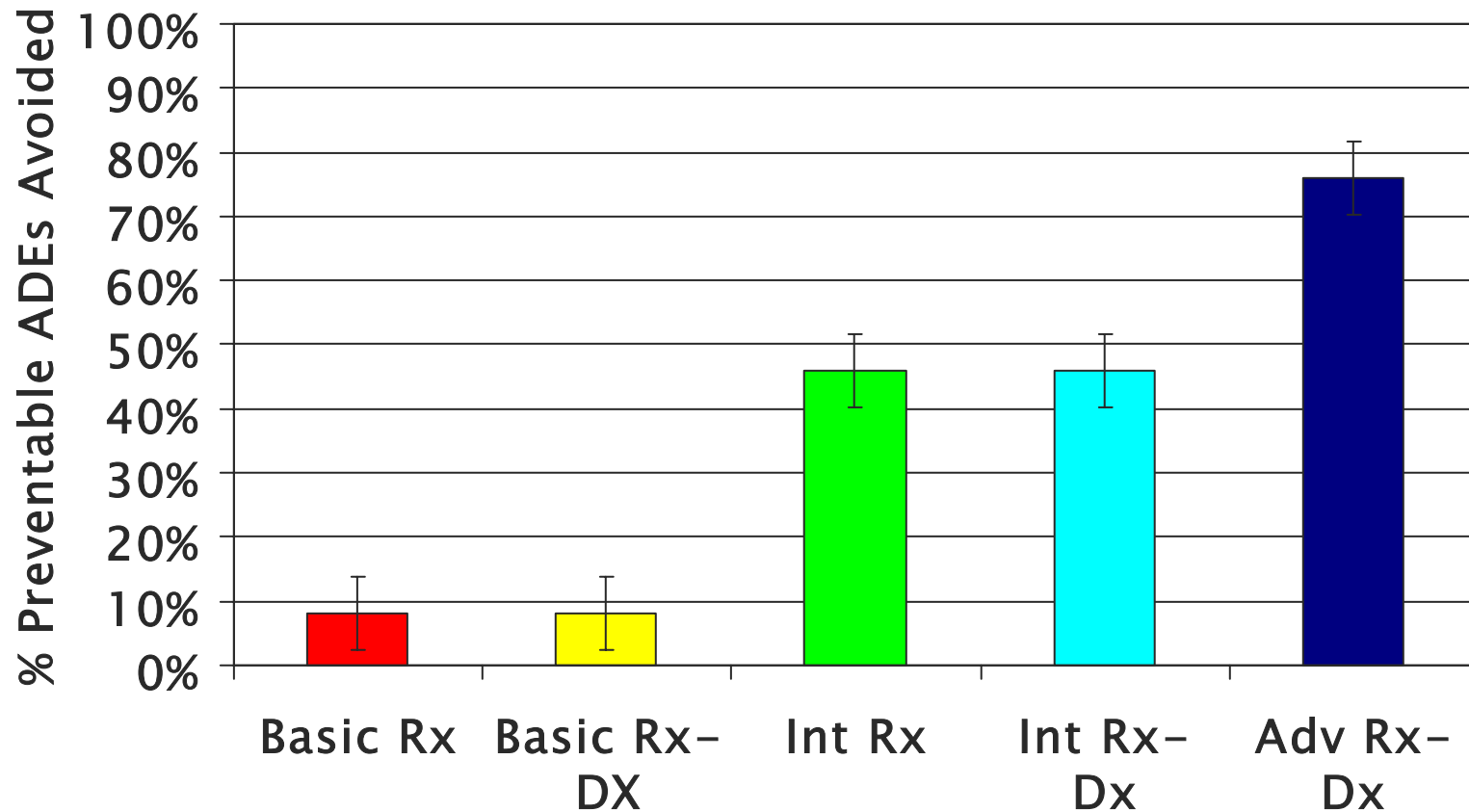
ACPOE Model – Top View



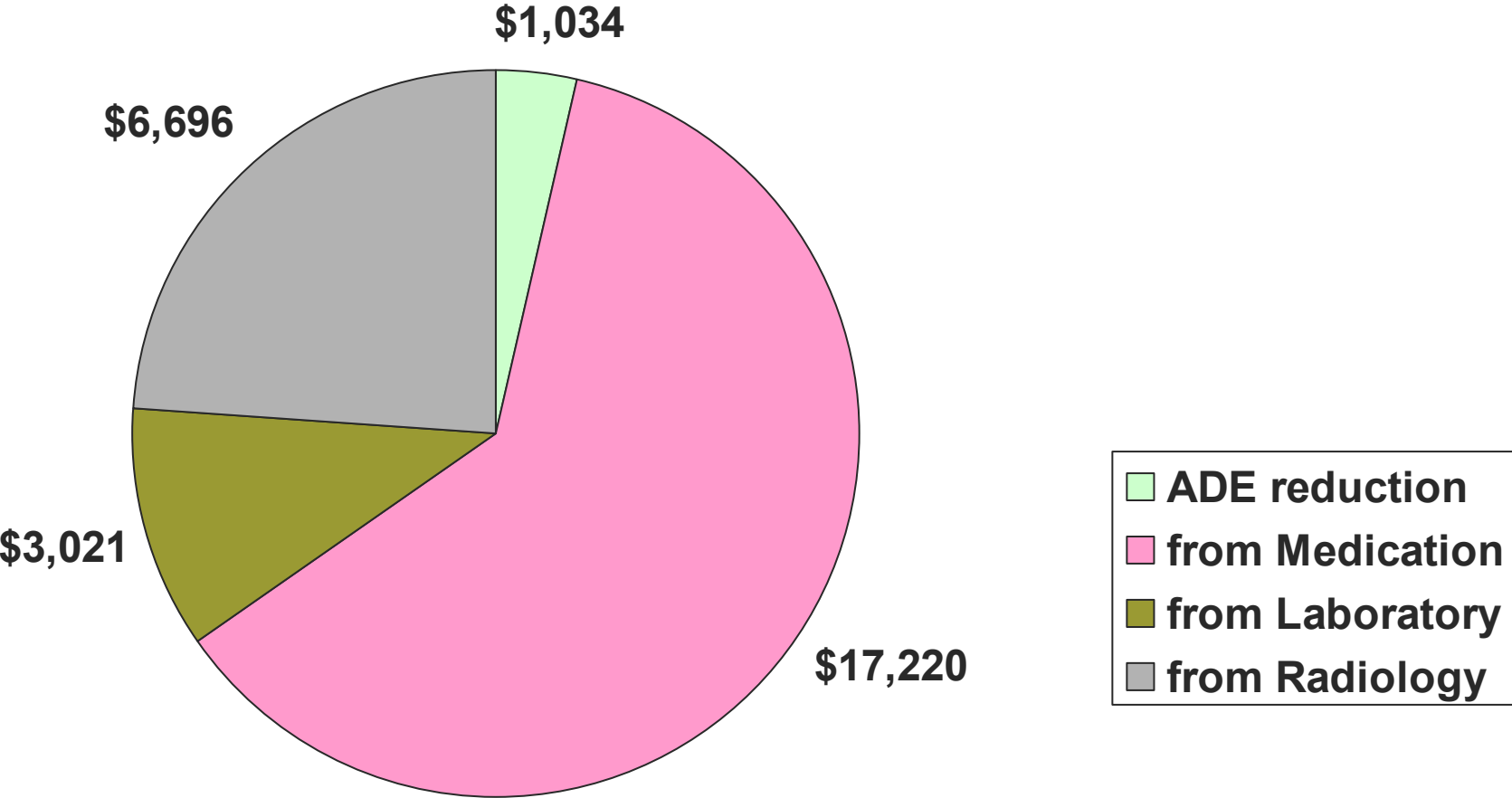
Clinical: How Many Outpatient ADEs?

- 38 ADEs per provider-year on average
 - 14 preventable
 - 2 life-threatening
- 8 million ADEs in U.S. per year
 - > 3 million preventable
 - > 500,000 life-threatening
- During this hour...
 - > 1,000 ADE occurred nationally
 - 92 people hospitalized for ADE

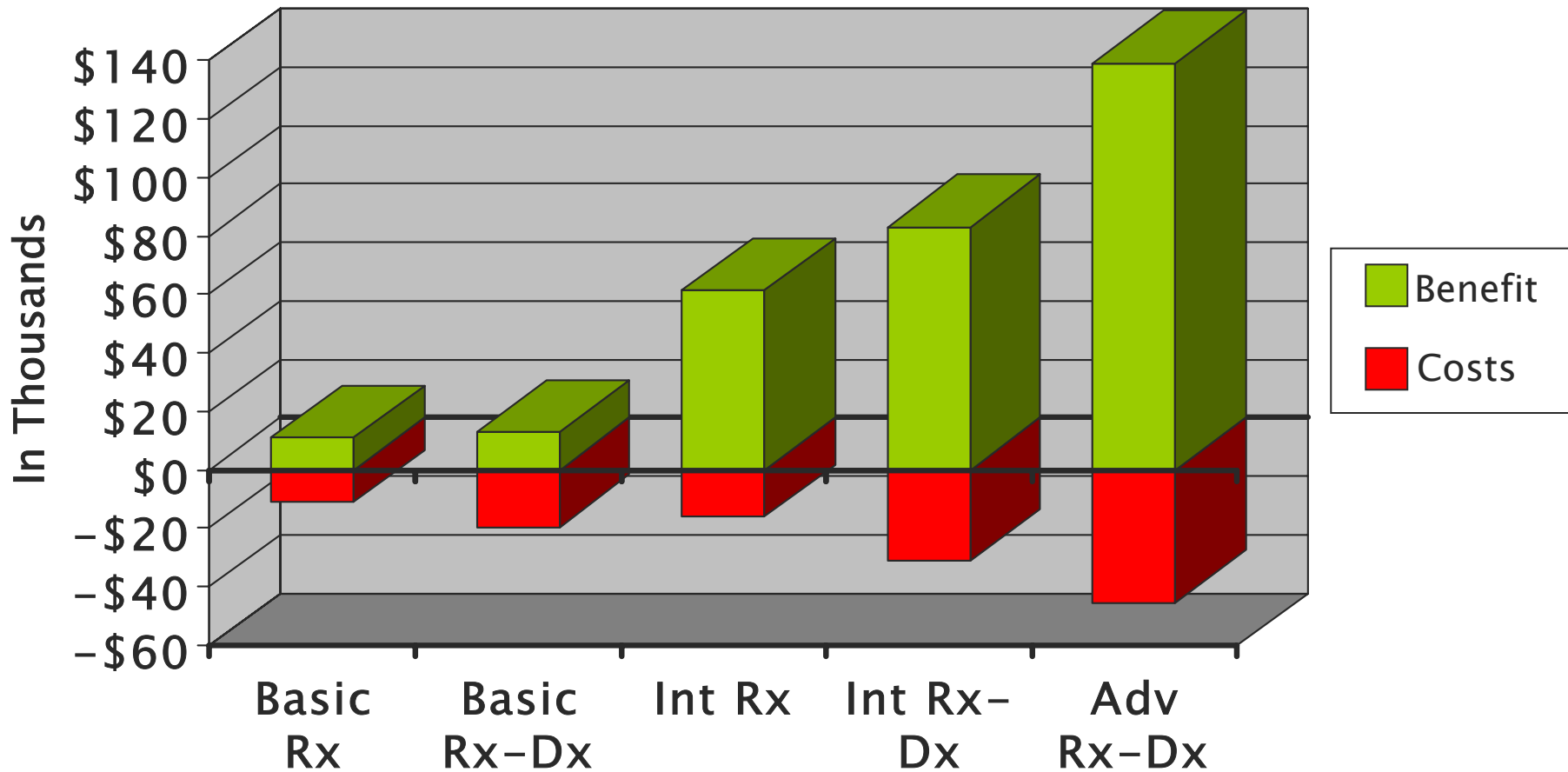
Clinical Benefits: How Effective Is ACPOE?



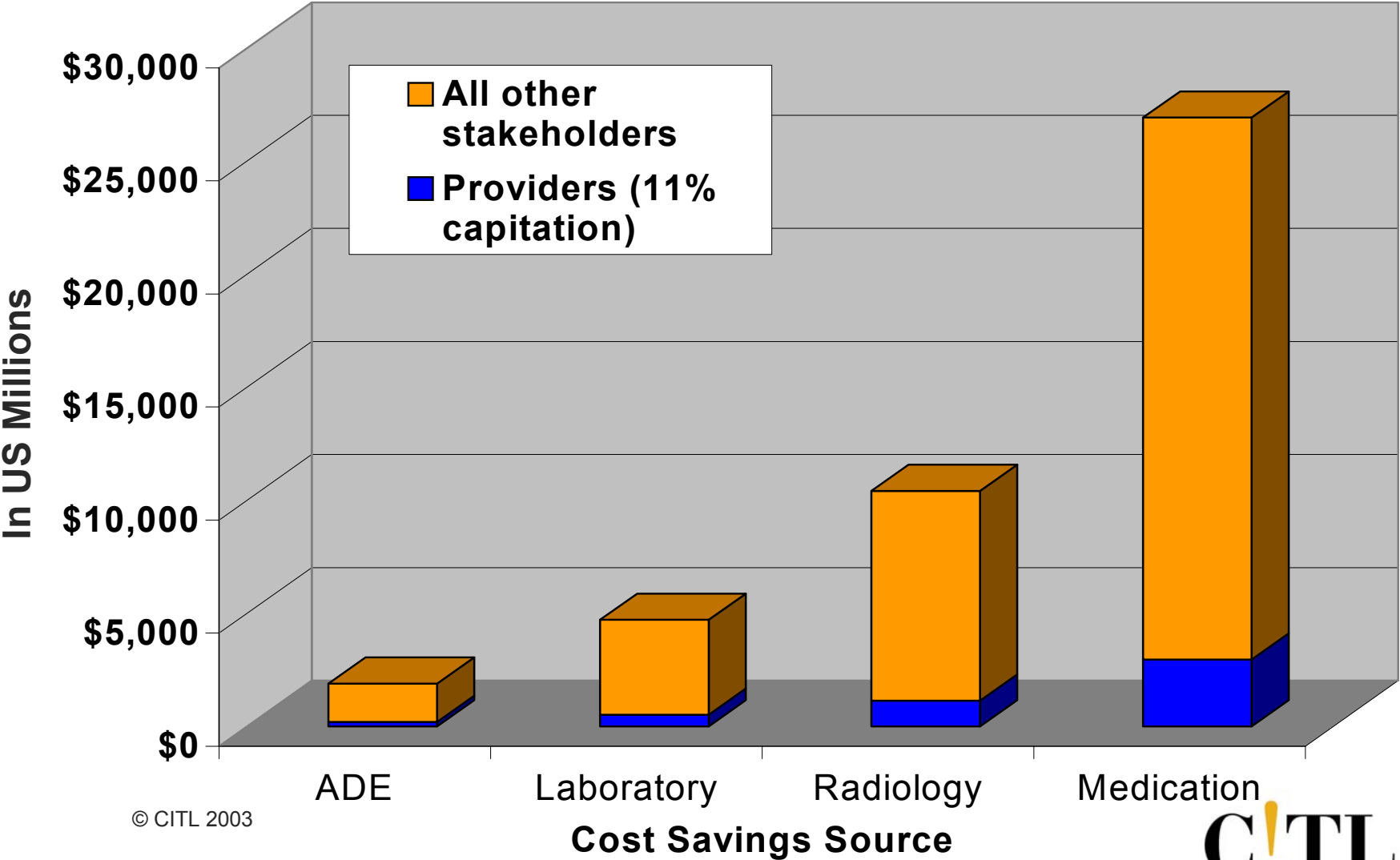
Per “Average” Provider Annual Cost Saving Projections



5 Yr Net Cost-Benefit for 25 Providers



National Cost Savings to Providers and Other Healthcare Stakeholders



National Cost Saving projections -- \$44 billion

