

# **LSU Health System: Health Information Technology:**

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# LSU EHR: Status

- **Scope:** For the 10 hospitals, 64 clinical sub-systems have been identified that comprise the complete Electronic Health Record
- **Timing:** At least 5 years to procure and implement if all funding were immediately available
- **Budget:** One-time: \$84M; Start-up: \$5.6M/year for 5 years
- **Governance:** EHR Operations Council, with Management Councils for individual sub-systems
- **Coordination:** LSUHSC, LSU-HCSD, OIT, LSU-BR have representation on EHR Operations Council

# Role of the EMR in Healthcare Redesign

- Disaster Recovery: the displaced patient
- Continuity of Care: the “Medical Home”
- Statewide Clinical Data Access: LaHIE
- Patient Safety: Med management and CPOE
- Quality of Care: Evidence-based medicine
- Disease Management: Healthier patients, lower cost
- Transparency: patient access to cost and treatment quality measures
- ROI: cost efficiencies, education, research

# Return on Investment: Monetary

- Cost avoidance (possibly not a factor in UCC model, but would be in fee-for-service or managed care model)
  - Elimination of duplicate lab and radiology tests
  - RIS/PACS: eliminate film and labor costs
  - Control of cost of surgical supplies
  - Shortened length of stay
- Improved reimbursements through
  - Improved efficiencies that result in higher patient volumes
  - Improved collection work-flow processes

# Return on Investment: Healthcare Quality

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- Coupled with “Medical Home” concept, reduce expensive ER visits
  - Coupled with Disease Management, decrease chronic care hospitalizations
  - Coupled with Patient Safety, Med Management, & CPOE, reduce errors and length-of-stay
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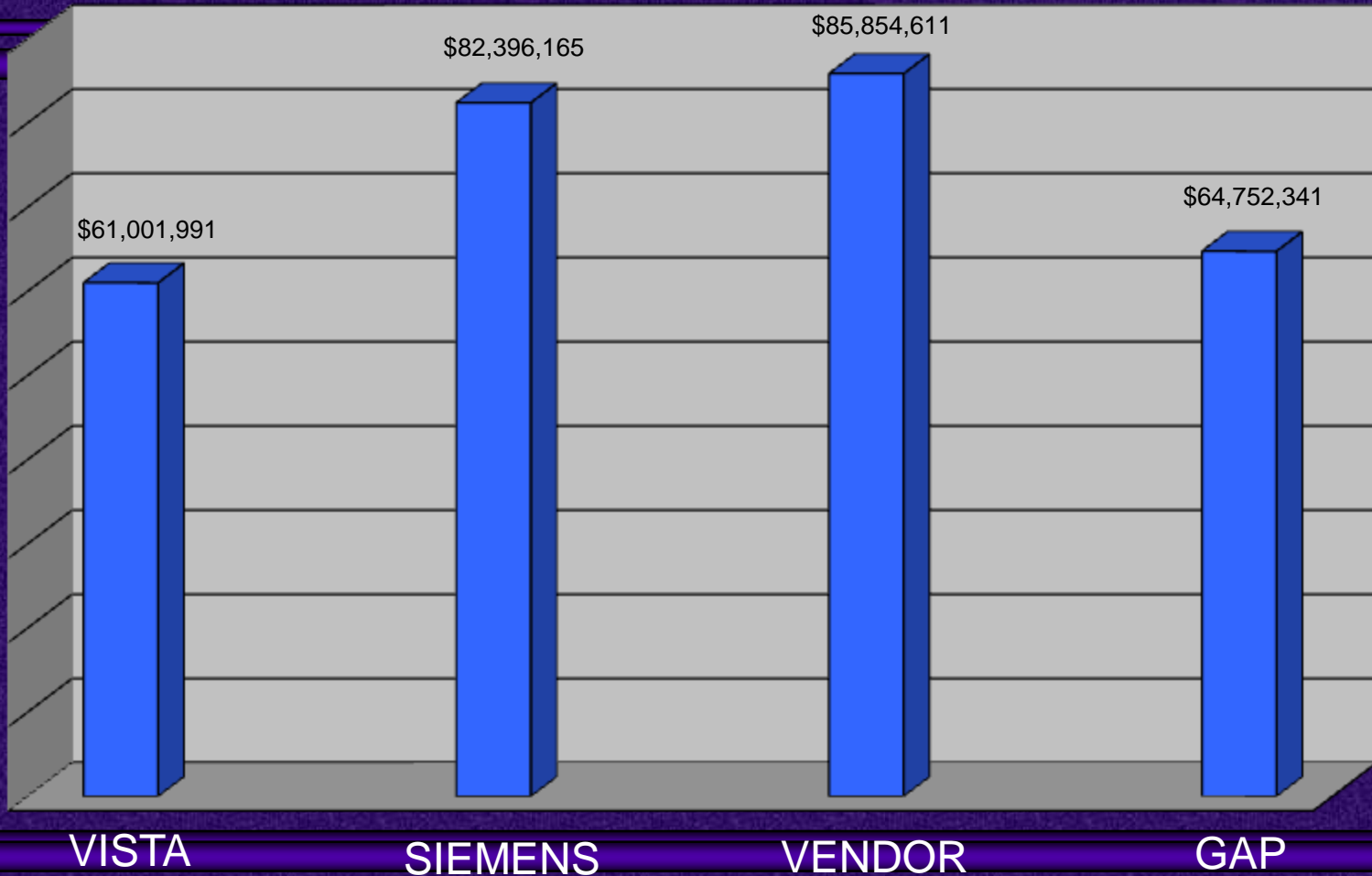
# Return on Investment: Education and Research

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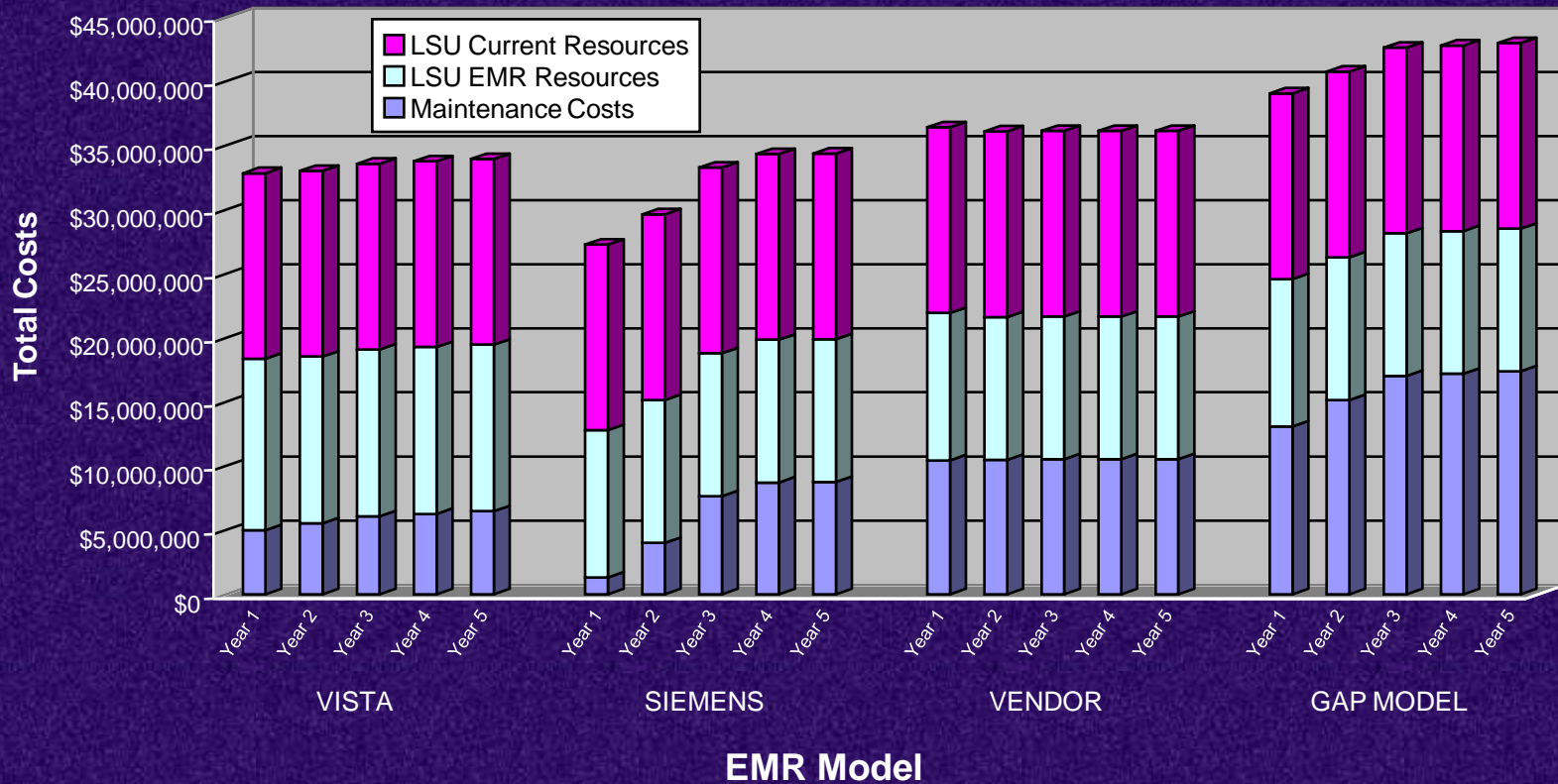
- Pharmaceutical Companies: access to de-identified patient data
  - Federal Research Grants and Clinical Trials
  - Clinical Research and Tech Transfer
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# EMR New One-Time Costs by Model



# EMR Total Recurring Costs by Model

## LSU EMR RECURRING COSTS



# Funding Status

- Total Project Cost
  - One-time: \$84M
  - Start-up (5-year): \$32M
  - Total: \$116M
- One-time funds on-hand: \$53M
- One-time Federal Stimulus: \$64M
- Total Expected Funding: \$117M

# LSU EHR Project Status

- Prime vendor selection: Completed Sept, 2009
  - Risk to state will be minimized if most subsystems can be purchased from prime vendor
  - Implementation of several subsystems delayed until after prime vendor selected
- RIS/PACS implementation: April, 2009
- E-MPI vendor implementation: April, 2009
- LSU-HIE in Test: April, 2009

# Scope of Project

Patient Management/Patient Accounting Systems (11)

Materials Management (surgical, clinical) (1)

Clinical Information Systems (16)

Ancillary Systems (4)

Specialty Systems (9)

Decision Support System or Functions (7)

Ambulatory Information Systems (2)

Technical (13)

# LSU

## Healthcare Information Exchange

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- Primary goal is to enhance continuity of care for all LSU patients
  - Provides access to patient records in CLIQ (HCSD), LCR (Shreveport), and AllScripts (HCN)
  - Web-based interface for LSU care givers to access all records at LSU hospitals and clinics statewide

# Summary

- HIT is the foundation for a new model of health care
- Advances ability to measure quality of care
- Enables Transparency and “Value Exchanges”
  - Patient, Payor, Provider, Purchaser
  - Informed decisions regarding value, quality
- Enhances ability to provide Continuity of Care
- Improves access to care and to patient records
- Addresses disaster response and access to records

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# Extra Material

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# Scope of Project:

## Patient Management/Patient Accounting Systems

Admission/Discharge/Transfer Registration System (including bed management)

Patient Tracking System

Enterprise Master Patient Index

Patient Accounting Physician Billing

Payor Verification/Eligibility

Document Imaging (Business Office and Clinical)

Medical Records Management (coding, abstracting, chart management, release of info.)

Transcription

Enterprise Patient and Resource Scheduling

Integrated Physician Consult Management (notification and scheduling)

# Scope of Project:

## Enterprise Resource Management Systems

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Materials Management (surgical, clinical)

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# Scope of Project:

## Clinical Information Systems

Computerized Physician Order Entry (CPOE)

Order Entry

Results Management

Clinical Data Repository Clinical

Decision Support

Device integration (monitors, pumps, POC testing – with automated data capture features)

Real-time Clinical Alerts

Critical Results Notification

Clinical Messaging

Multi-disciplinary Clinical Documentation

Clinical Content

Clinical Trials Management (including compliance management)

Patient/Consumer Portal

Physician Portal

Patient Acuity

Medication Administration Record (with bar coding)

# Scope of Project:

## Ancillary Systems

Pharmacy Management (including e-prescribing, Pyxis interface)

Outpatient Pharmacy

Laboratory/Pathology Information Systems (general, microbiology, blood bank, anatomic pathology with PACS interface, reference lab, instrument interfaces)

Peri-operative System (pre-op, surgical, post-op, anesthesia)

# Scope of Project:

## Specialty Systems

Emergency Department

Cardiology Information System (with PACS interface)

Oncology Information System

Infection Control Reporting

Allied Health System (Occupational, Physical, Speech & Respiratory Therapy)

Hemodynamic Monitoring

NICU

ICU

Labor & Delivery (bedside charting, monitoring)

# Scope of Project:

## Decision Support System or Functions

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Outcomes Management/Performance Improvement

Risk Management/Quality Assurance

Case Management & Utilization Review

Clinical and Financial Data Warehouse

Expert analytics and reporting

User reporting tools

Medical Staff Credentialing

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# Scope of Project:

## Ambulatory Information Systems

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Ambulatory EMR (e-prescribing, clinical content, clinician documentation, etc.)

Ambulatory clinic and practice management (administrative tools)

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# Scope of Project:

## Technical

Biometrics

Workflow Engine

Rules Engine

Interface Engine

Data Dictionary

Communication tools (especially between clinical providers)

Phone Call Management

Integrated Voice Response

Single Sign-on Integrated with Microsoft Active Directory

High Availability Disaster Recovery

Operating Software System Tools (including strong user access security features)

HIPAA Compliance Support (auditing, security and patient confidentiality features)

# HIT Goal for Louisiana:

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Ensure appropriate, secure, simple access to a patient's clinical and financial records, not only for the patient but also for providers and payors

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# Processes:

How will Louisiana Achieve this Goal  
in a way that...

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- Provides appropriate data security
  - Minimizes duplication
  - Ensures interoperability among systems
  - Simplifies user access
  - Promotes standards
  - Reduces costs
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