

# Master Data Management in Health Information Exchange



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# Agenda

## *Agenda*

- I. Problem
- II. Organizational Challenges
- III. The Solution
- IV. Benefits
- V. Conclusion

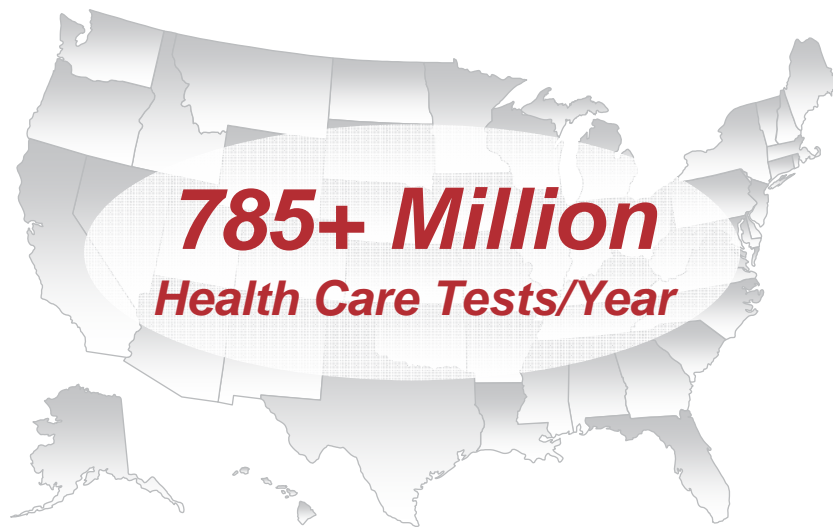


# The Problem



# A Fundamental Healthcare Problem

- ▶ In the healthcare ecosystem, data about the patient is inconsistent, fragmented and dispersed across multiple systems



***No interoperable method  
to share results***

“It is estimated that there are more than 785 million health care tests conducted each year in the United States. The lack of interoperable systems to effectively communicate the results among the various providers who need to review them is consuming 1 billion hours of administrative processing time just to get the data in the right place according to one estimate.”

**Scott McCabe**

*“EMRs vs. Information  
Convergence”, April 2008*



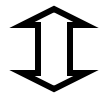
# The Patient Record Dilemma...

*“Find all relevant member records across all programs... in the next minute”*



# The Patient Identification Challenge: Finding George Foreman – Are These the Same Person?

Bobbie Potter                      305 N Harvard                      Nashville, TN 37201                      (615) 577-4298                      F



Roberta Molinero                      143 S Pepper Rd                      Knoxville, TN 37901                      (865) 374-6773                      F

**NO**

**NO**

**NO**

**NO**

**YES**



# Do These Two Records Represent the Same Person?

Bobbie Potter                      305 N Harvard                      Nashville, TN 37201                      (615) 577-4298                      F

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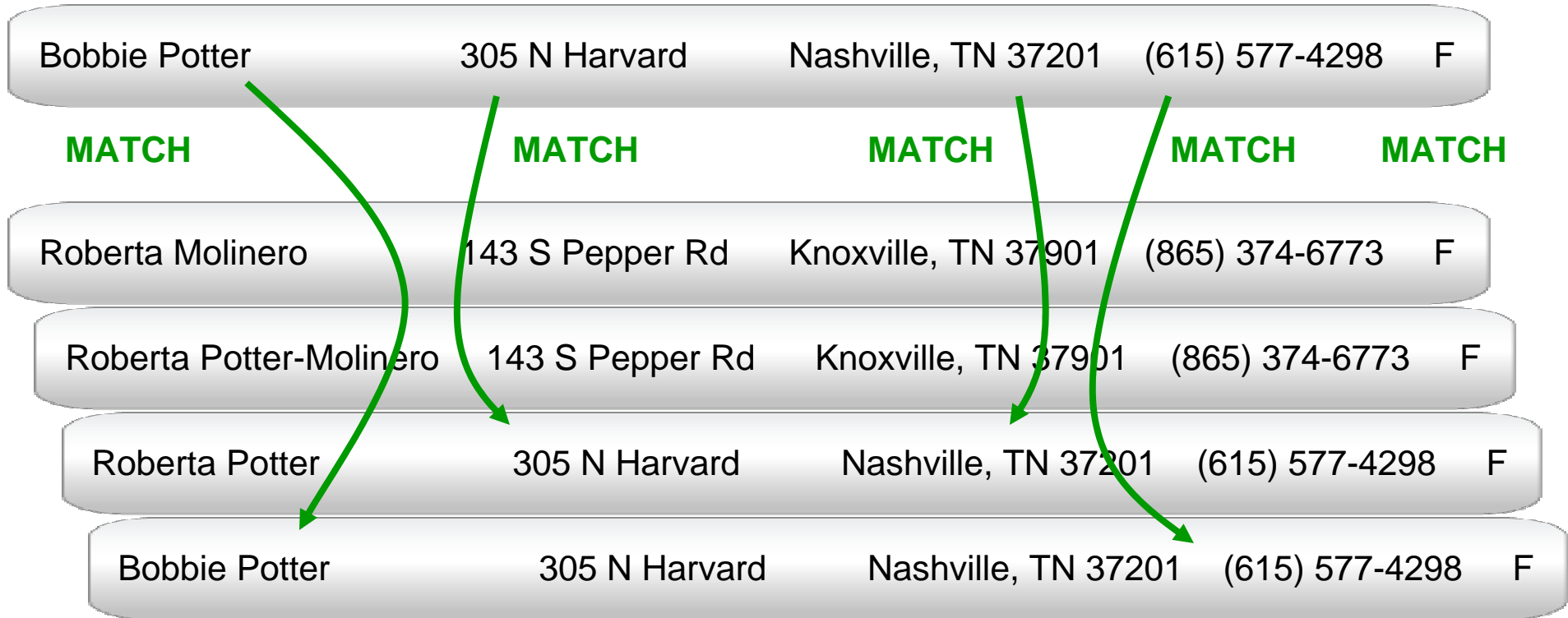
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Bobbie Potter                      305 N Harvard                      Nashville, TN 37201                      (615) 577-4298                      F

The next time she presented as Roberta.                      the ed as

Years ago Bobbie first visited the hospital as a little girl – Bobbie Potter.                      and r- to a

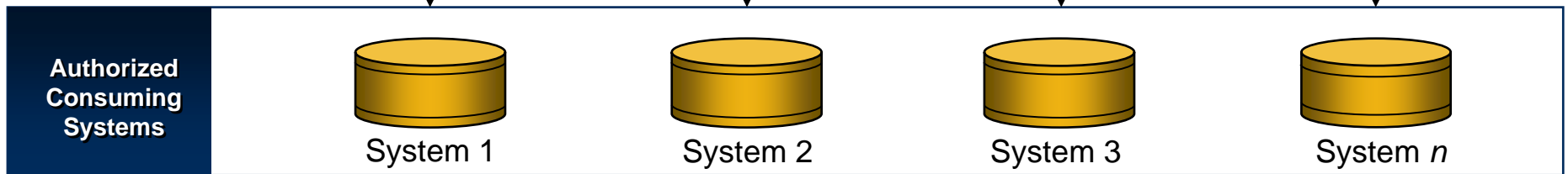
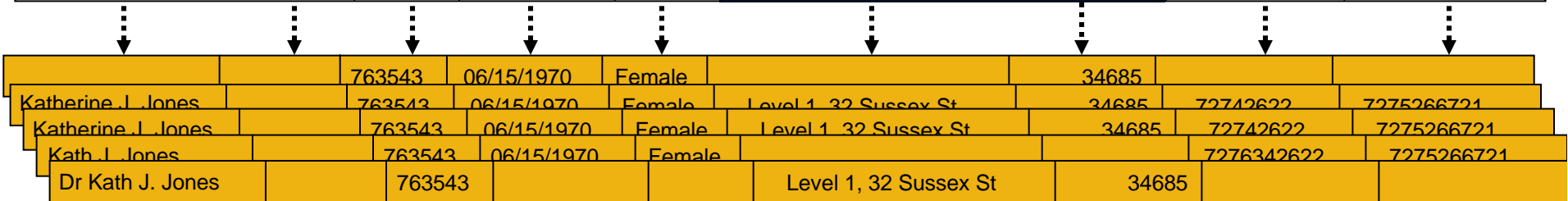
# Do These Two Records Represent the Same Person?



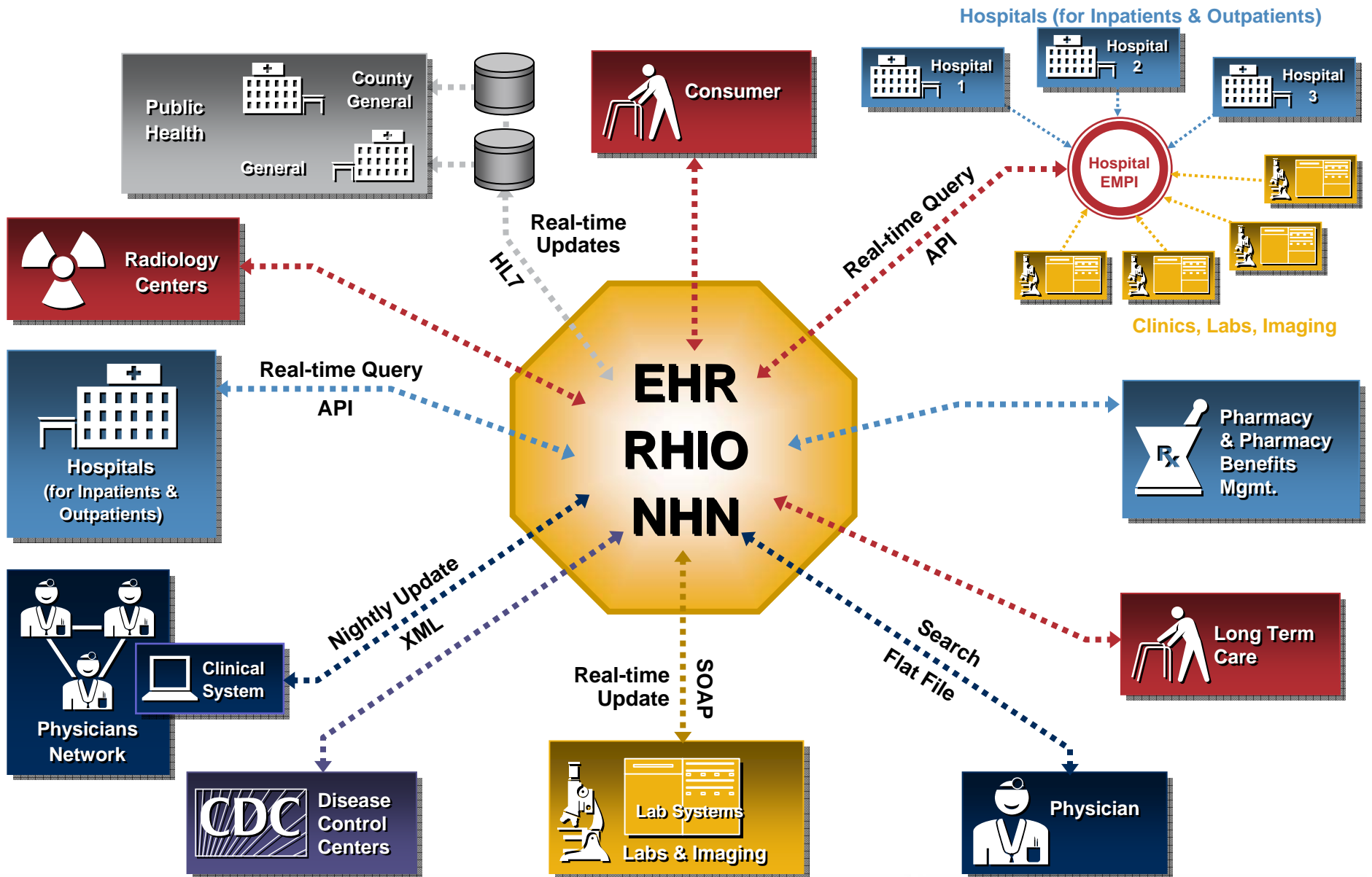
# Linking Records Across Disparate Systems

- ▶ Accurately find, link, index, maintain and provide secure access to patient records within and across source systems
- ▶ Provides one or more business views to protect privacy and comply with HIPAA Minimum Necessary

Name	Local ID	EID	DOB	Sex	Address 1	Zip Code	Home phone	Mobile
Dr Kath J. Jones	1:N4456	763543	06/15/1970		32 Sussex St	34685	7276342622	7274152667
Dr Kate Lamb	2:2736	763543		Female		34685	7276342622	
Mrs. K. Jones	3:S7846	763543	06/15/1970		Level 1, 32 Sussex Rd	34685	7276346222	7274152667
Catherine Lamb	n:97662	763543	06/15/2006	Female			7276342622	7274152667



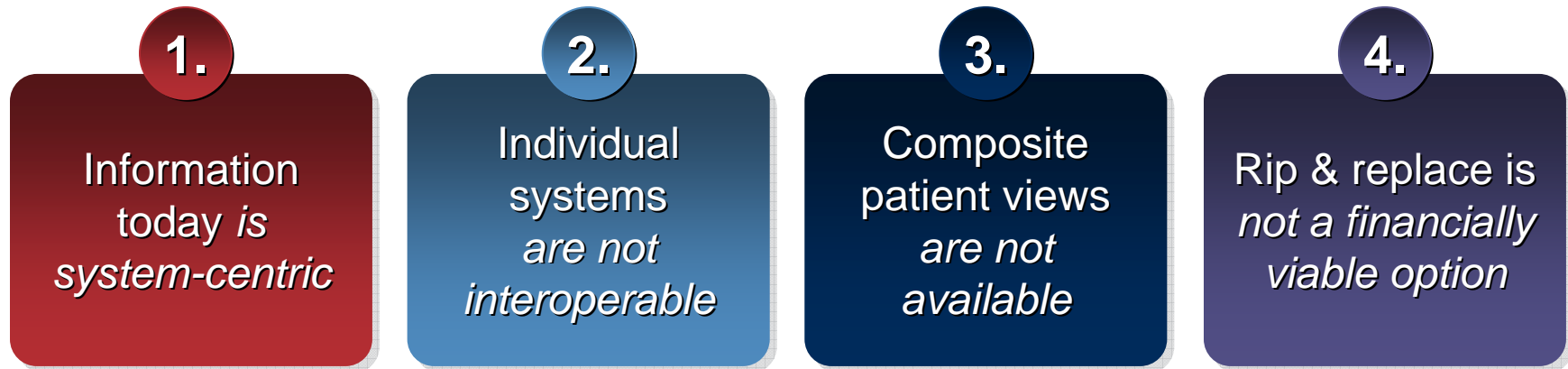
# Sharing Information Across the Healthcare Ecosystem



# Challenges



# Information Sharing: Four Fundamental Challenges



***Bottom Line: Today's information systems are not flexible enough to meet current & future requirements***

# Challenges for the Hospital/IDN



- ▶ Need to electronically exchange data with affiliated and referring providers



- ▶ Incomplete and inaccurate patient information at the point of service



- ▶ Patient's must repeat their registration and medical history information even within an Integrated Delivery Network

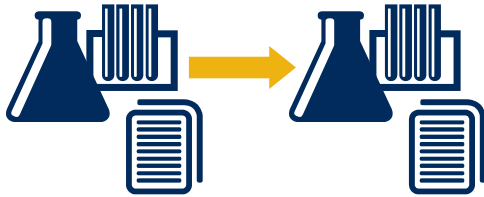


- ▶ Competitive regional markets and the need to attract and maintain high-value, referring physicians

# Challenges for Hospital Departments



- ▶ High value departments such as Radiology, Cardiology and Pathology are challenged by the need to exchange data between their departmental systems



- ▶ Some departments perform duplicate clinical tests because the original cannot be located

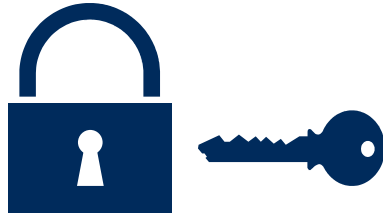


- ▶ Billing offices contend with patient and provider data residing in disparate silos across the department with no clear, consolidated view of the individual impacting proper billing and days outstanding in A/R

# Business Challenges



- ▶ Data governance – Need to support either centralized or distributed data stewardship activities



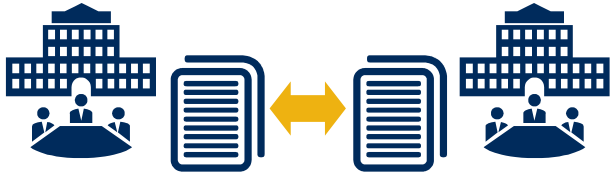
- ▶ Security and Privacy – need to deliver virtual views of patient data in order to conform to the patient's privacy requests



- ▶ Besides the local HIE, may also be participating in a regional/community health information exchange



# Challenges for Health Plans



- ▶ Plan-to-Plan PHR exchange



- ▶ Proper NPI matching to legacy provider identifiers on inbound transactions



- ▶ CAQH CORE compliance for eligibility transactions

# The Solution



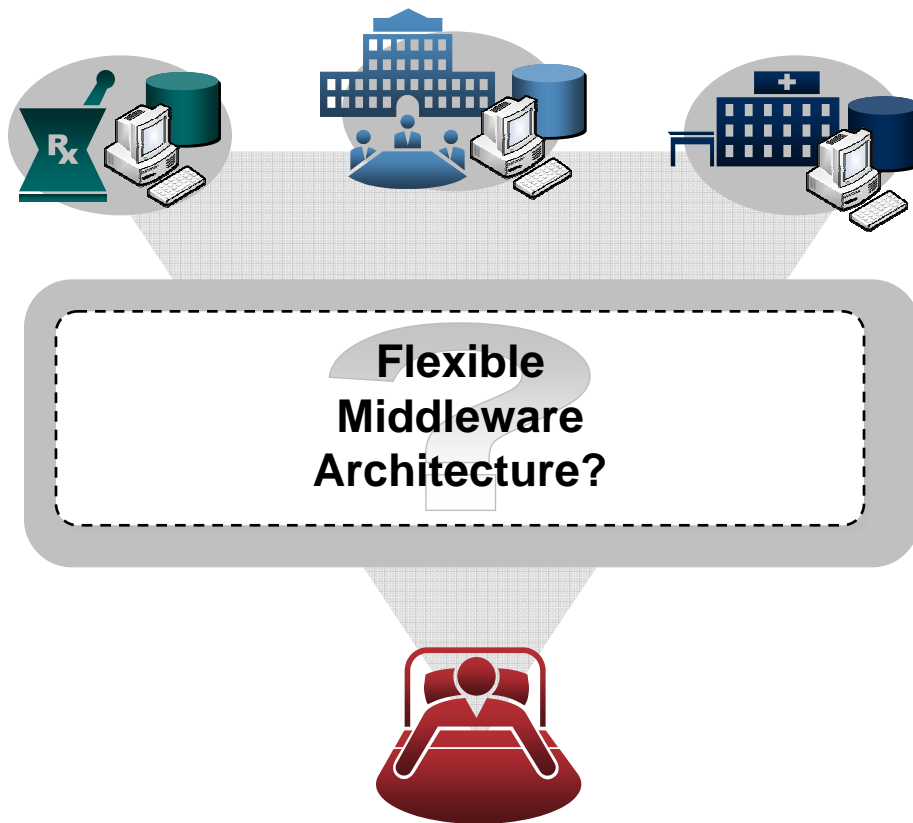
# The Solution

- ▶ Interoperable Health Exchange enables healthcare organizations to accurately identify and share patient-provider data within and across their ecosystem in order to support an accurate, consolidated view of the data



# The End Game: Interoperable Health Exchange

Scalable, agnostic and secure middleware architecture providing accurate and reliable patient data across the healthcare ecosystem



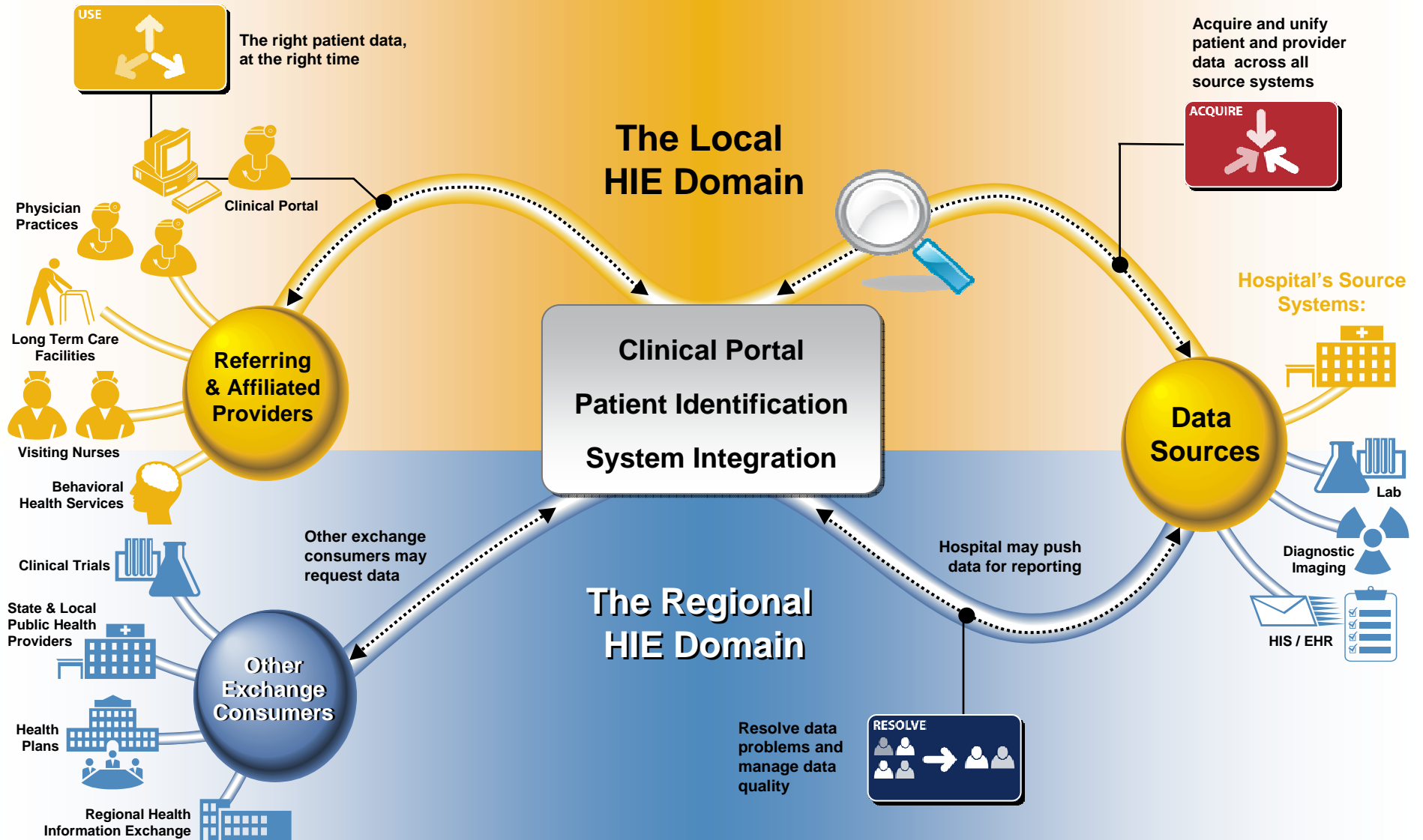
“There is a need for truly flexible ‘middleware’ architecture that is agnostic to underlying architectures, whilst being able to interface to both existing systems and newly developed technologies in a secure, robust manner protecting both the privacy of patients and the integrity of the care process.”

“A successful health information exchange should...effectively merge patient records from multiple sources and avoid duplicate records that result in increased errors and decrease information availability.”

**- Accenture**

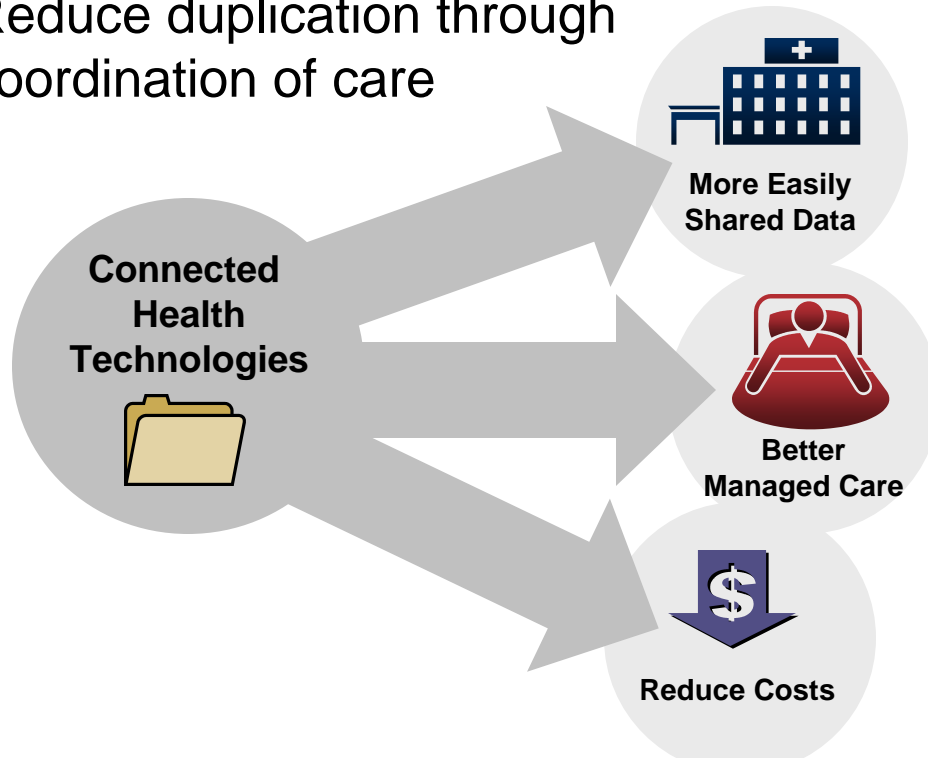
*“Platform for Interoperable Healthcare Data Exchange”,  
July 2007*

# Interoperable Health Exchange



# Tipping Point: Connected Health Technology

- ▶ Allow providers to easily identify patients and share data to improve quality of care
- ▶ Reduce costs by streamlining workflows
- ▶ Allow patients to manage their care
- ▶ Reduce duplication through coordination of care



“The time is now for healthcare institutions, employers and payers to incorporate connected health into their standard healthcare programs. The technologies are rapidly evolving, giving us increasingly consumer-friendly, simple and effective tools to deliver quality care outside of a medical setting. Patients and providers are also increasingly embracing connected health programs to improve care, communication and quality of life”

# Benefits



# The Benefits of Interoperable Health Exchange

- ▶ Allows healthcare organizations to:
  - Extend the value of the existing health information exchange platform
  - Enable increased accuracy and functionality in the way clinical results are distributed to the affiliated provider community
  - Share patient demographic/registration/insurance data between organizations
  - Eliminate the need for patients to constantly resubmit their registration or insurance details
  - Attract and maintain high-value providers
  - Effectively integrate newly acquired facilities
  - Support migration from legacy systems



# ROI Measures

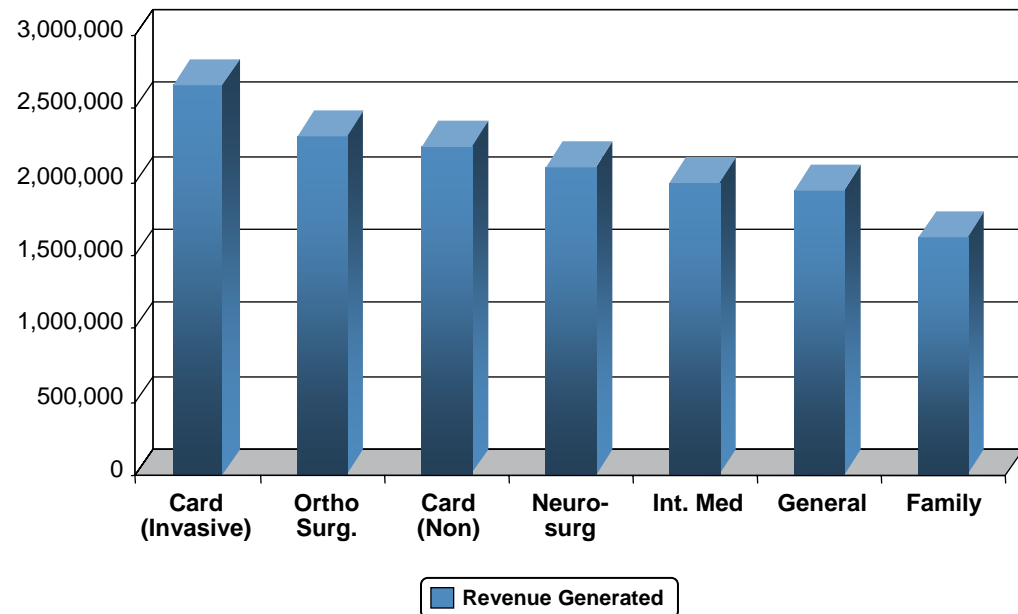
“A hospital-sponsored HIE only helps the physicians – ***there is no real ROI for my hospital.***”

– A (CIO) of a large hospital in the southeast

**FACT:** An HIE environment makes it easier and more attractive for the referring provider to do business with the hospital. By capturing the loyalty of just 1 specialty referring provider a hospital can ensure, on average, an annual revenue stream of \$1,496,432.

- Merritt, Hawkins & Associates,  
“2007 Physician Inpatient/  
Outpatient Revenue Survey”

Average Revenue Generated  
by Physician Type 2007



# Problem Solved?



“We recently invested big bucks in an enterprise HIS system that claimed they could address our data exchange challenge. ***Didn't I already solve this problem?***”

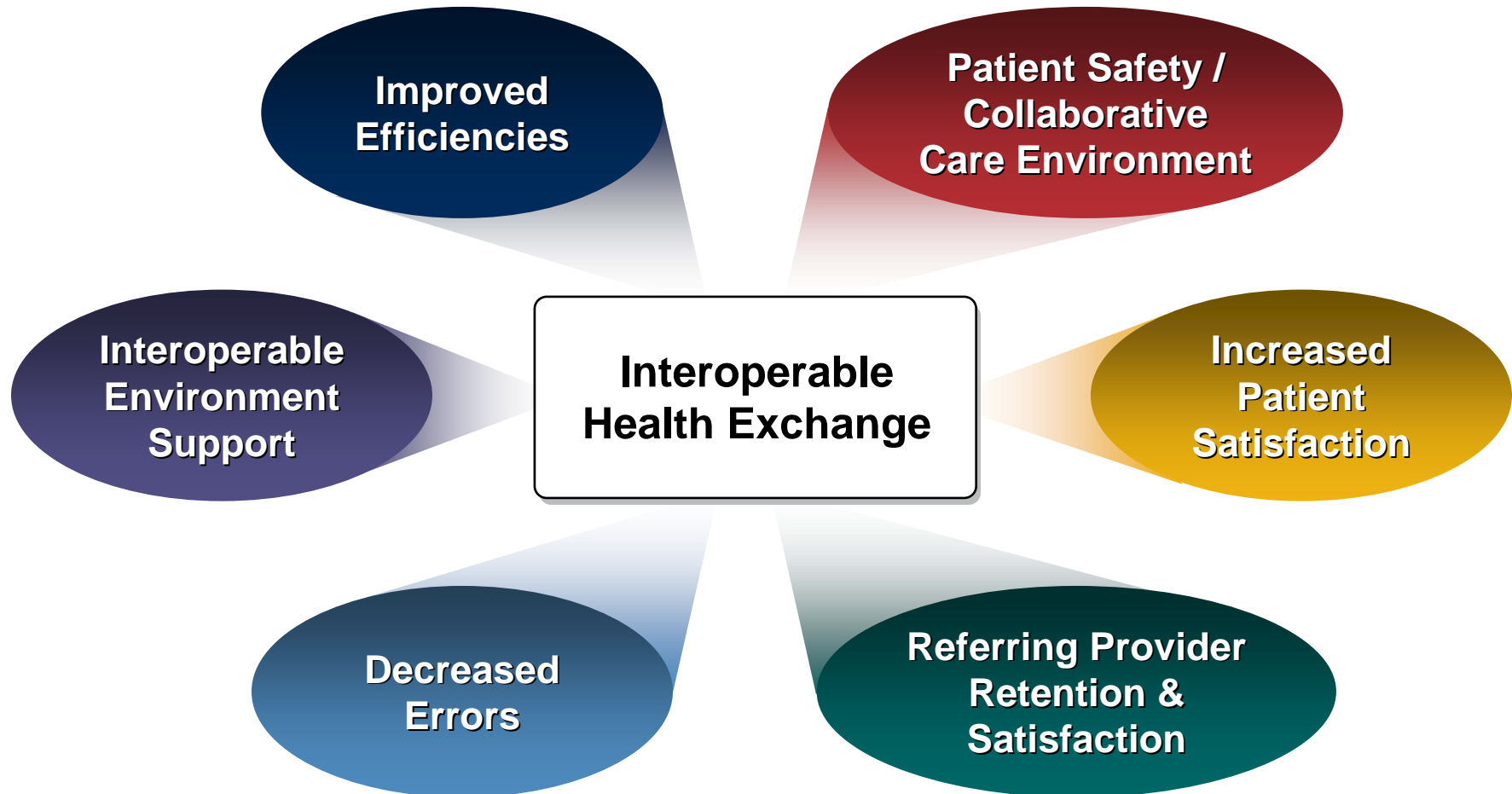
– A (CFO) of a large hospital in the southeast

**FACT:** Often vendors of HIS systems have EMPI technology “baked in” to their offering. However, their ability to scale across the entirety of the HIE while supporting a vendor agnostic exchange environment will prove challenging for these HIS vendors.



# The Benefits

*Accurately identifies & links records from multiple, disparate sources across the exchange environment, to enable:*



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