

Successfully Navigating the HIE Landscape



Presented by:

Rick Edwards
Director, Integration Strategy



What is HIE?

Verb vs. Noun

Verb

The electronic sharing of health-related information among organizations.

The ACT of data sharing (exchange)

Noun

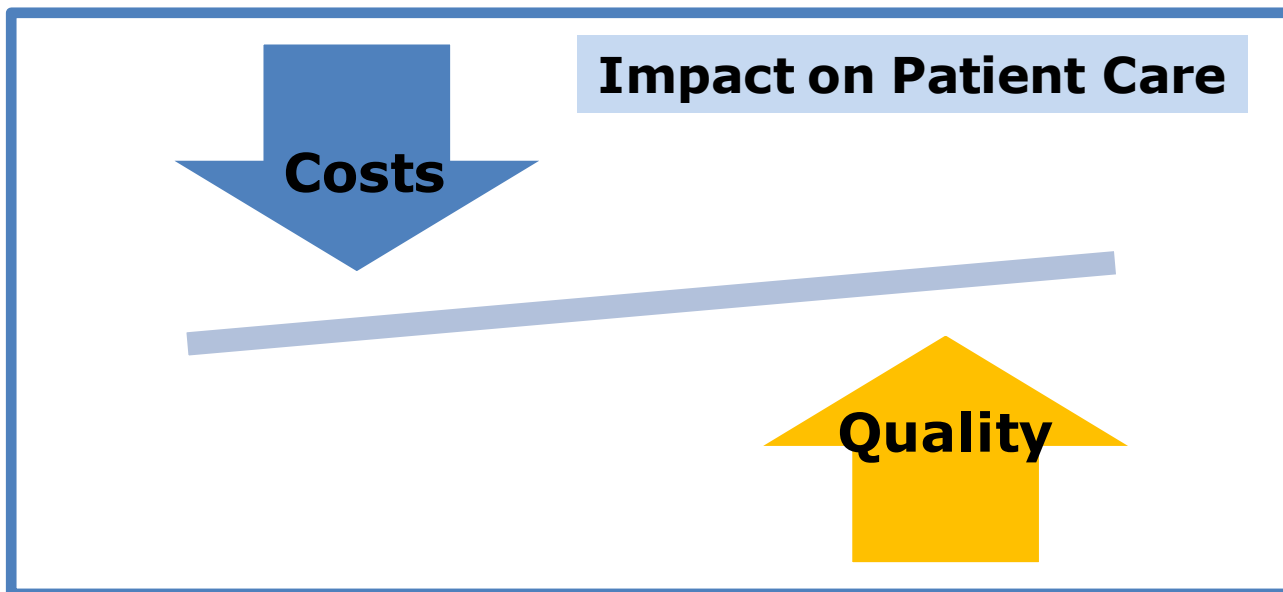
An organization that provides services to enable sharing of health-related information.

Health Information Organization (HIO, HIEO)

Why HIE?

ONC's Goal for HIE

"The goal of health information exchange is for information to follow a patient where and when it is needed, across organizational, vendor, and geographic boundaries".



Why HIE?

“The Five Rights of HIE”

**Right
Information**

**Right
Person**

**Right
Format**

**Right
Channel**

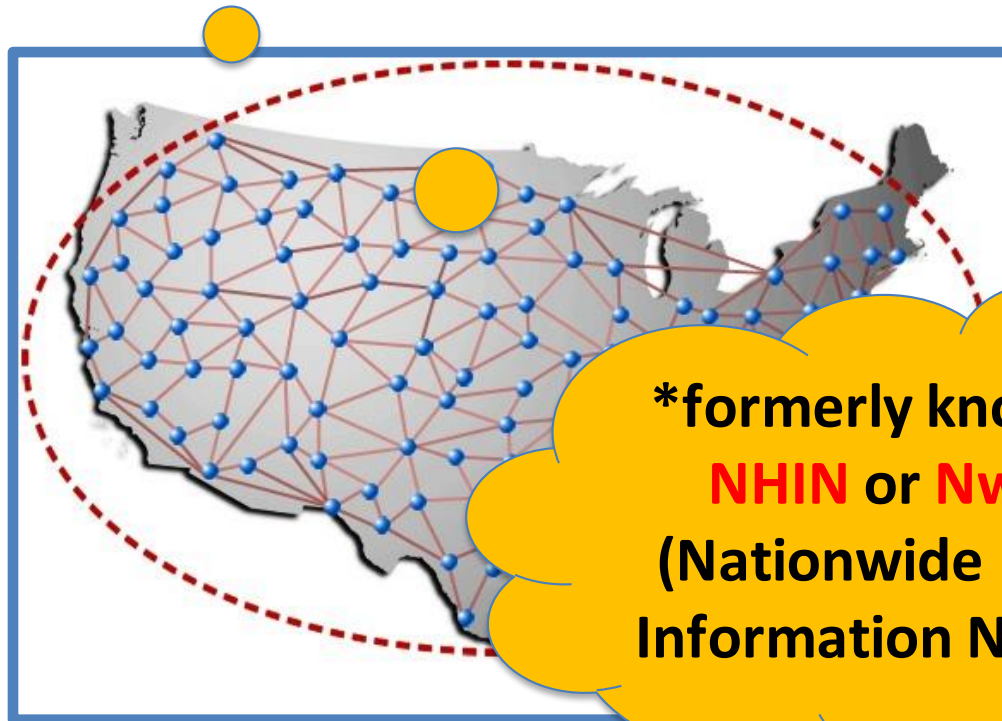
Right Time

Why HIE?

ONC's "Holy Grail"

eHealthExchange™

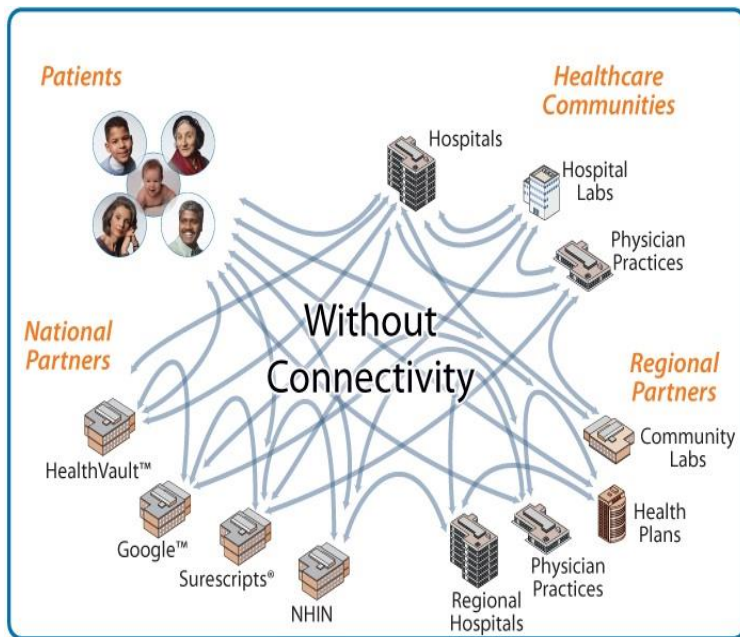
Concept of a "network of networks (HIEs)"



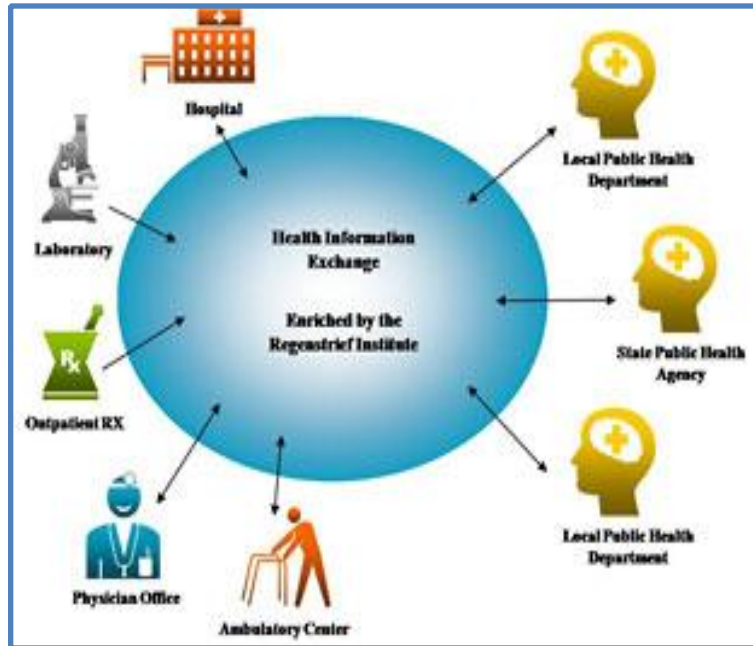
*formerly known as
NHIN or **NwHIN**
(Nationwide Health
Information Network)

Why HIE?

Simplify connectivity and infrastructure requirements associated with exchange.



Without HIE



With HIE

HIE Governance Types



CRISP



Regional or State

Publicly Funded

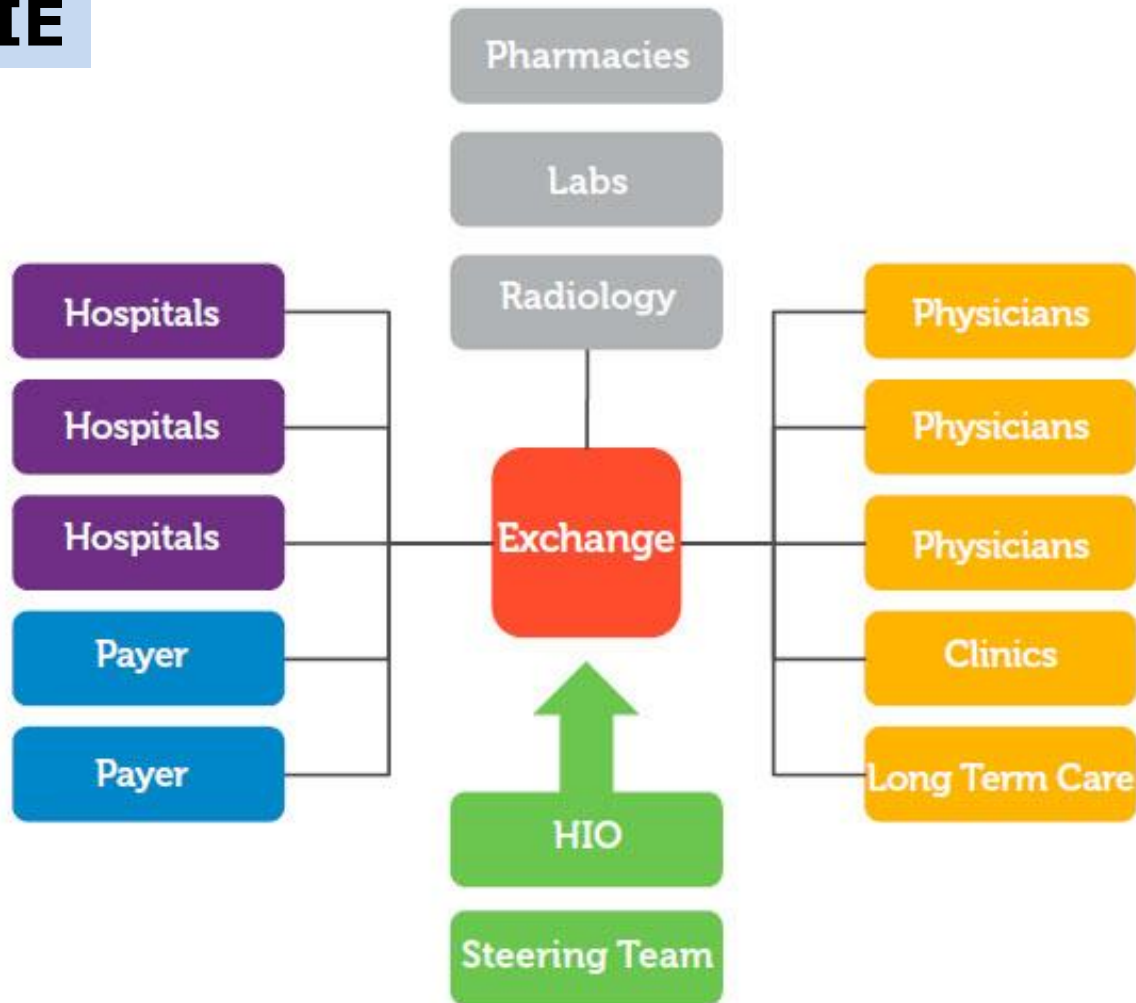
Public

Federated or Hybrid

Centrally Governed (HIO)

HIE Governance Types

Public HIE



HIE Governance Types



eLINCx Health Information Exchange



Community or Enterprise

Privately Funded

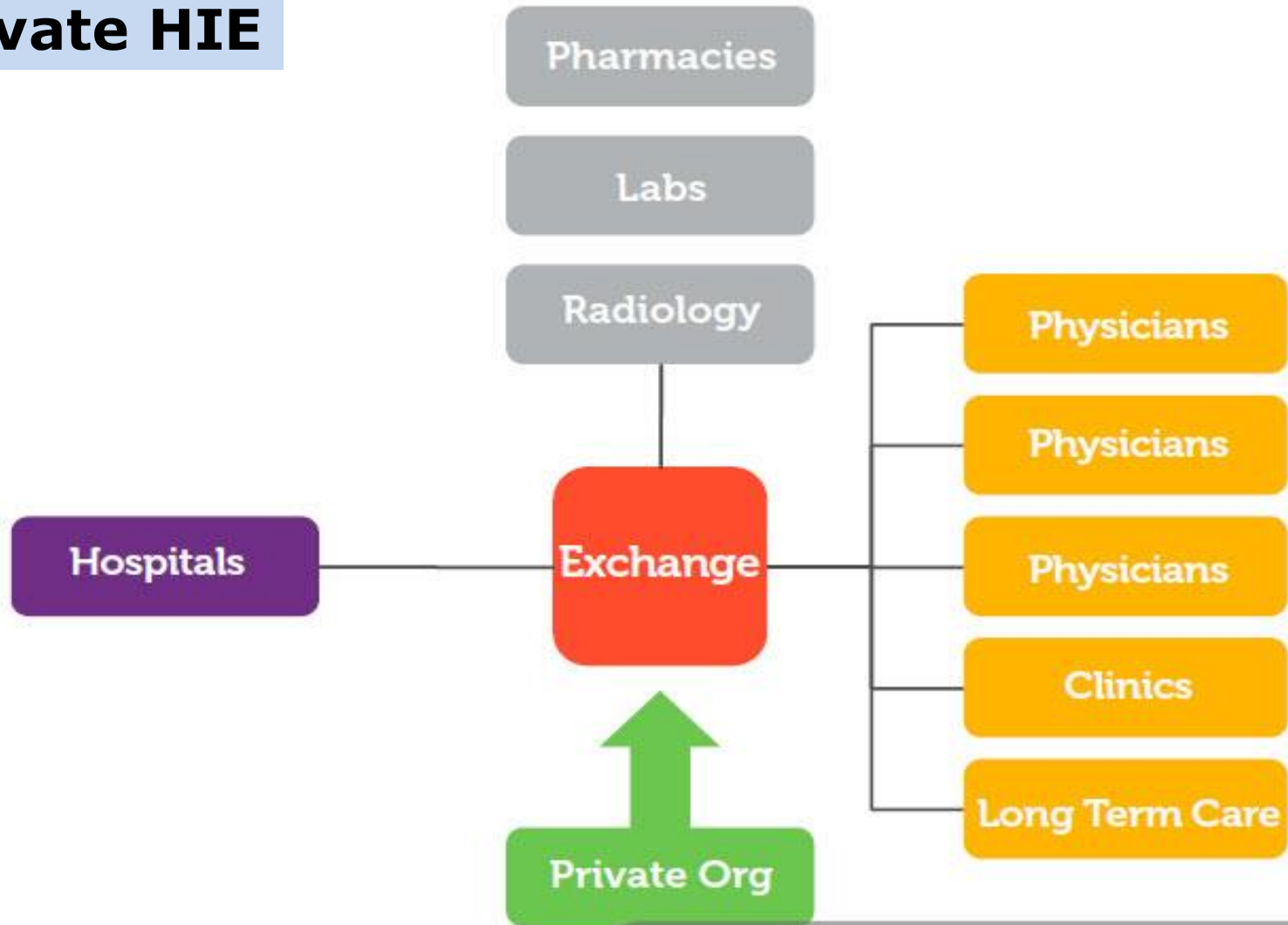
Private

Centralized or Hybrid

Locally Governed

HIE Governance Types

Private HIE



Public vs. Private HIE

Not an “either/or” Scenario!

Public HIE

- **Intrastate Exchange**
- **Public Health Reporting and Alerting**
- **Syndromic Surveillance**
- **Provider and Facility Comparative Metrics**

- **Implement EMR Interfaces**
- **Support ACO or PCMH**
- **Competitive Advantage**
- **Meaningful Use**
- **Aggregate Data**

Private HIE

HIE Architectural Models

Centralized Model

- Participants submit data to, and query data from, one central repository.
- Patient identity matching performed when record is added.
- Patient Consent and Access Control enforced centrally.

Pros

- High Performance
- High Resiliency
- Data Analysis

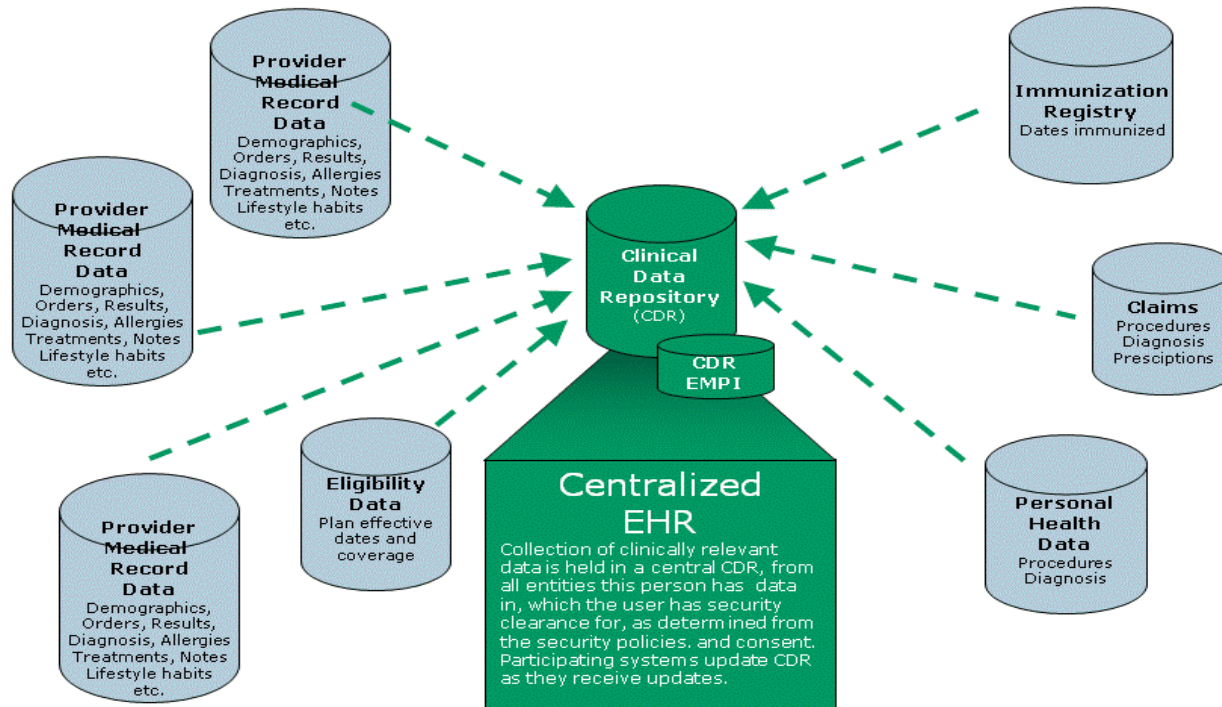
Cons

- High Infrastructure/Support Costs
- Data Security and Ownership
- Data Timeliness

HIE Architectural Models

Centralized Model

Centralized Repository Model



HIE Architectural Models

Federated Model

- Connects participants directly to one another.
- Participants maintain their own data and respond to requests from other participants.
- HIO provides centralized EMPI, RLS, etc.

Pros

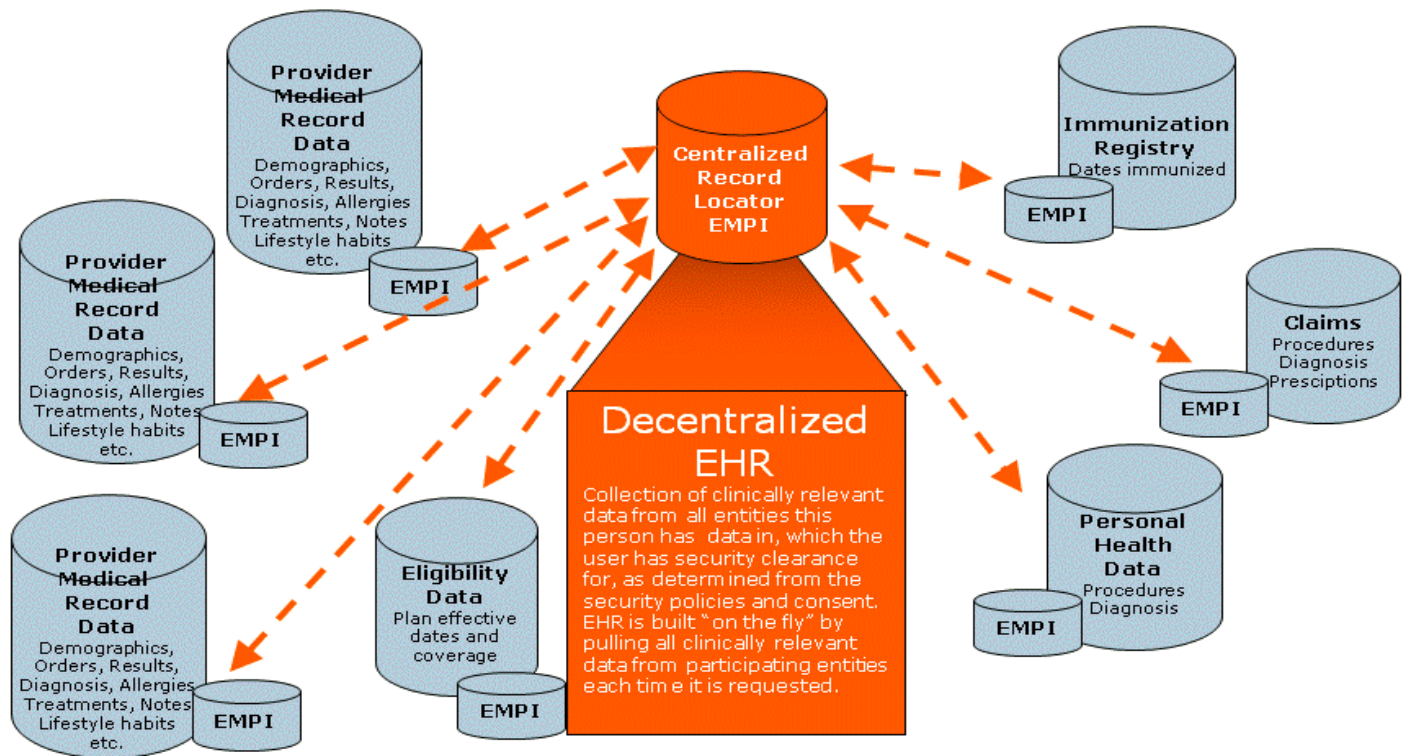
- Current Data
- Not Single System Dependent
- More Local Control of Data

Cons

- Dependent on Weakest Link(s)
- Complex Management of Patient Consent and Access Security

HIE Architectural Models

Federated Model



HIE Architectural Models

Hybrid Model

- **Centralized repository is constructed over time as requests are processed by the exchange.**
- **The size and intent of the CDR can range from a focused database (e.g. enterprise patient portal) to the ultimate creation of a Centralized model.**

Pros

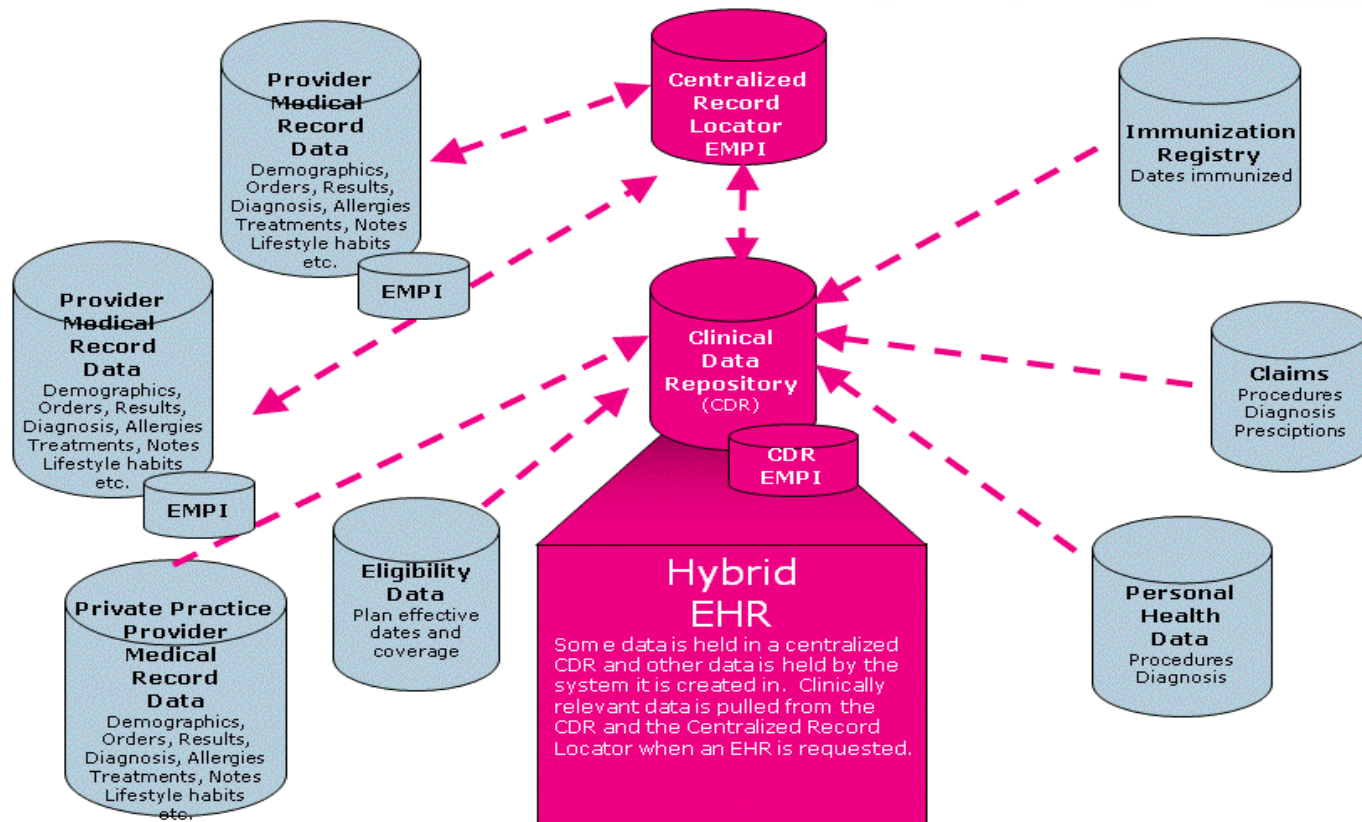
- **See Centralized and Federated Models**

Cons

- **See Centralized and Federated Models**

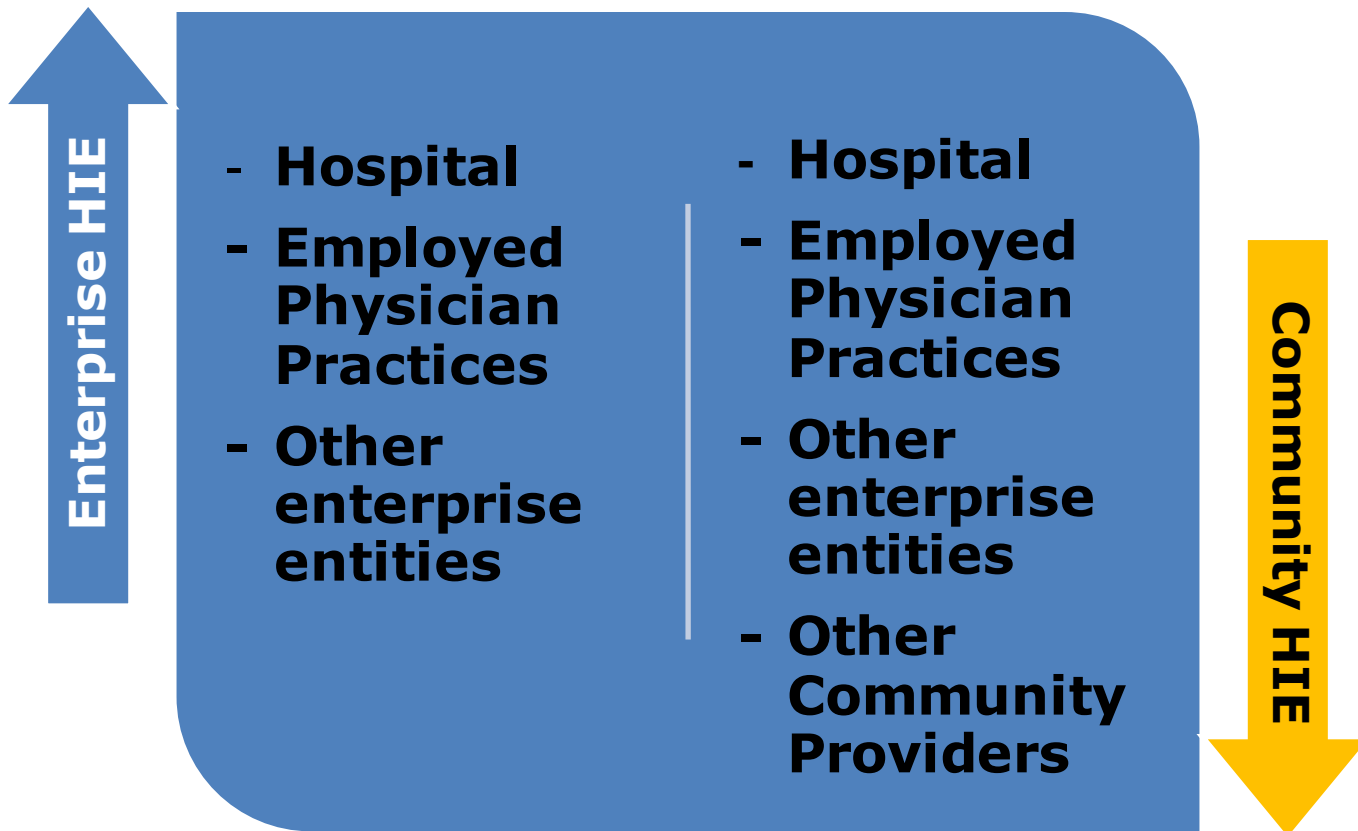
HIE Architectural Models

Hybrid Model



HIE Architectural Models

Private HIEs – Enterprise HIE and Community HIE



Why Enterprise or Community HIE?

- **ACO or PCMH Initiative**
- **Care Coordination / Quality of Care**
- **Costs of Inefficiencies**
- **Readmissions**
- **Referral Volumes**
- **Competitive Position**
- **Aggregation of Data**
- **Longitudinal Patient Record**
- **Meaningful Use**
- **etc...**

Challenges for HIE

**Patient
Privacy and
Security**

**Workflow
Continuity**

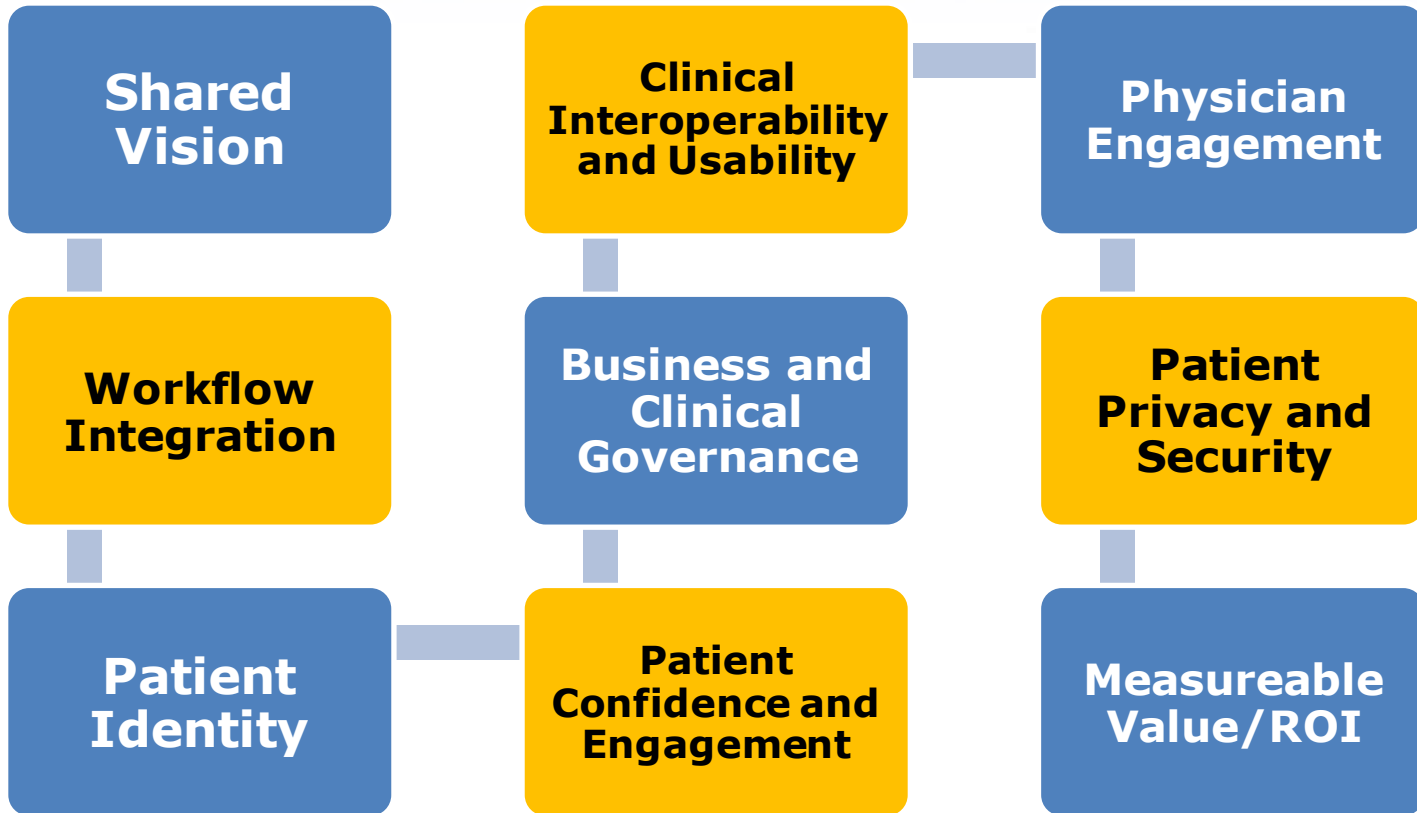
**Staffing and
Support**

**Demonstrating
Value**

Funding

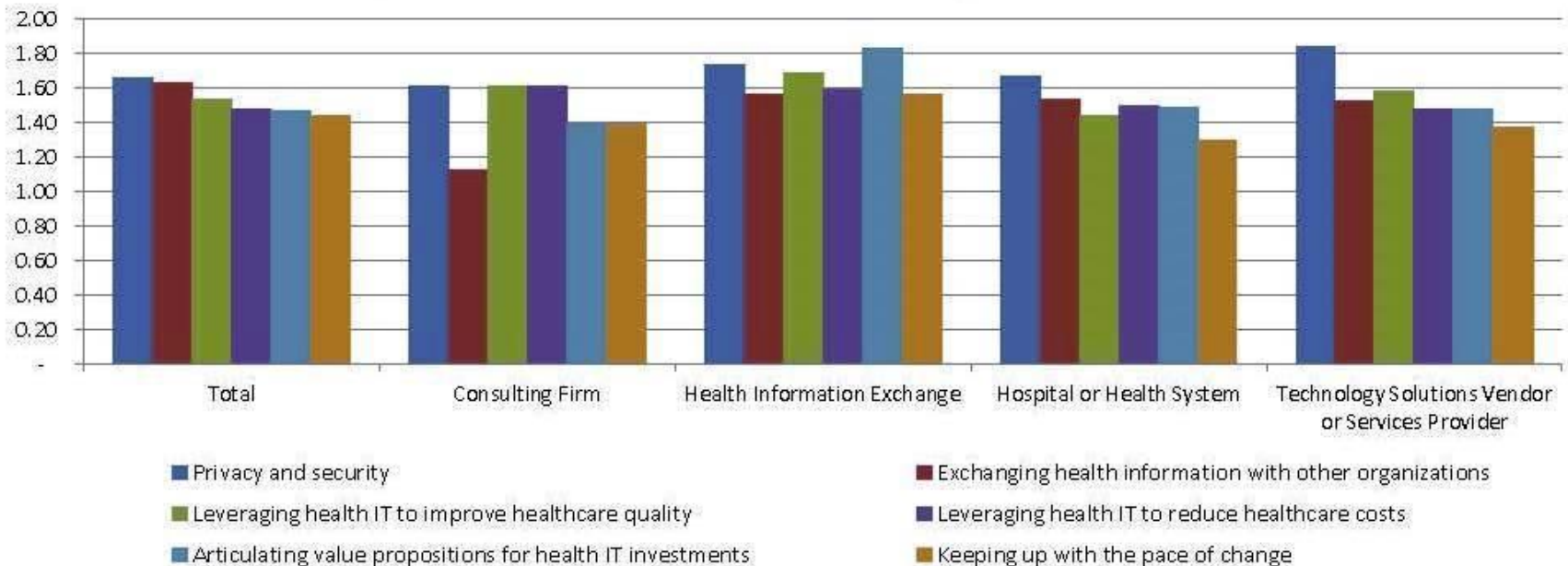
Stakeholder Trust

Success Factors for HIE



Recent Survey Results

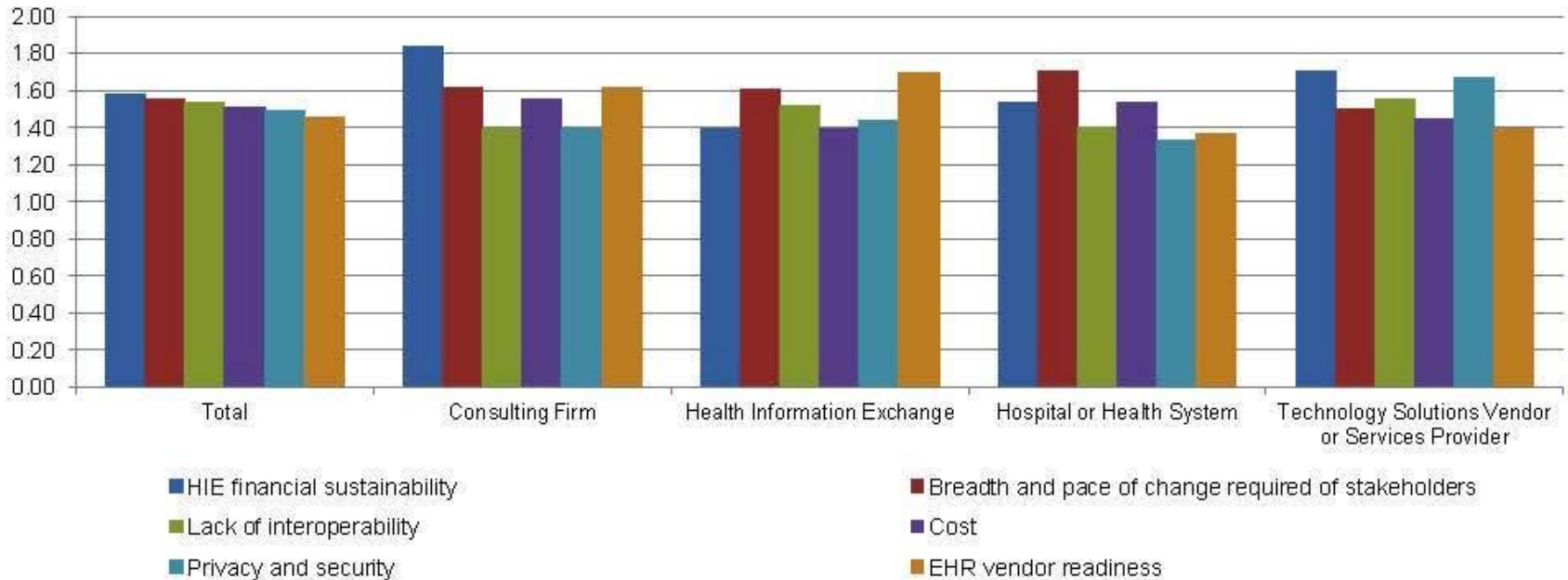
Most Important Health IT and HIE Challenges to Address in 2013



***2013 Stakeholder Survey (February 7-22, 2013)**

Recent Survey Results

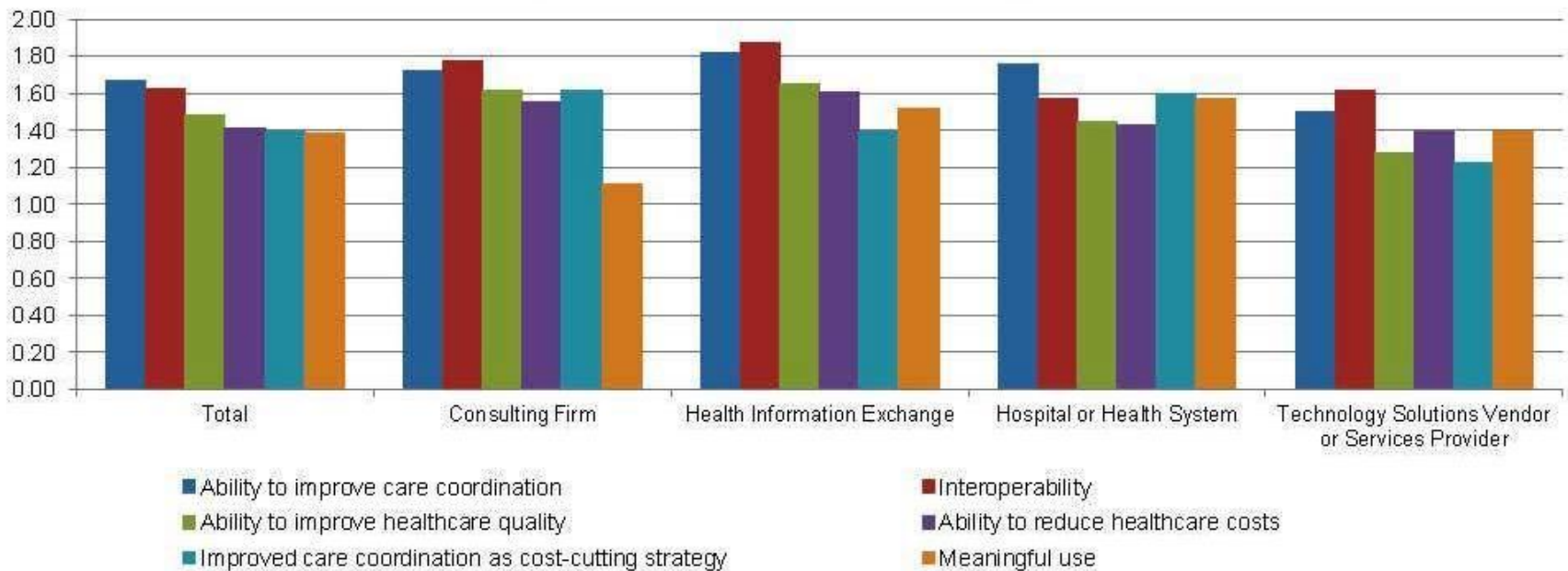
Most Impactful Barriers to Widespread HIE



*2013 Stakeholder Survey (February 7-22, 2013)

Recent Survey Results

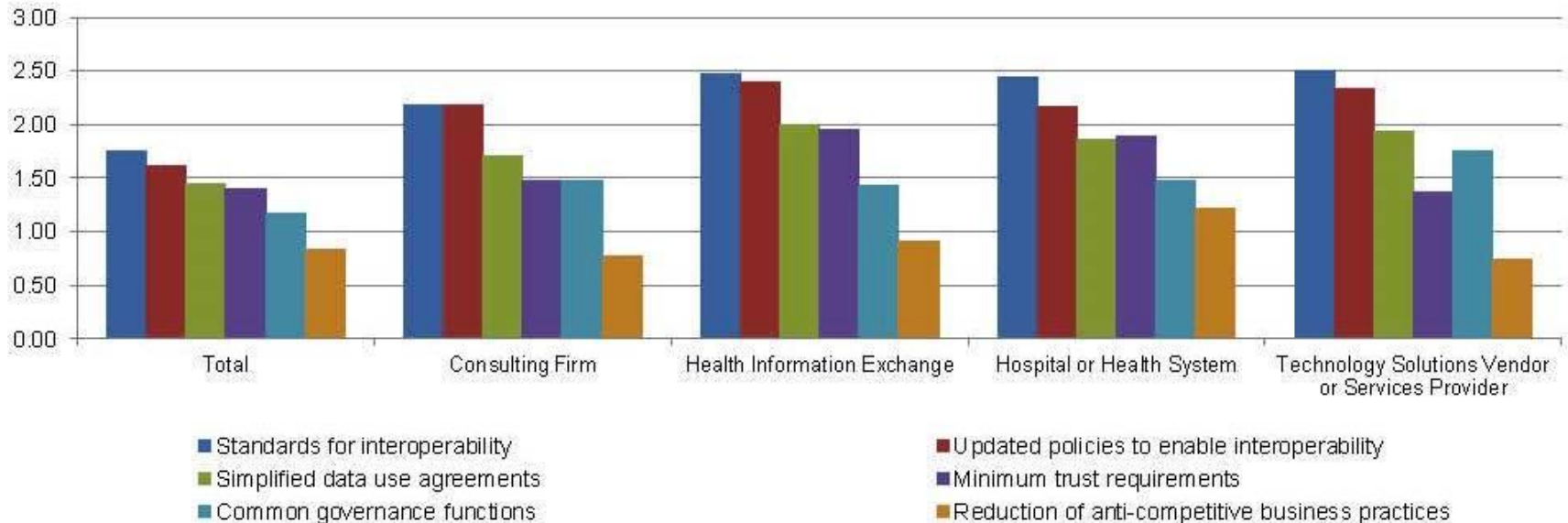
Most Impactful Drivers of Widespread HIE



***2013 Stakeholder Survey (February 7-22, 2013)**

Recent Survey Results

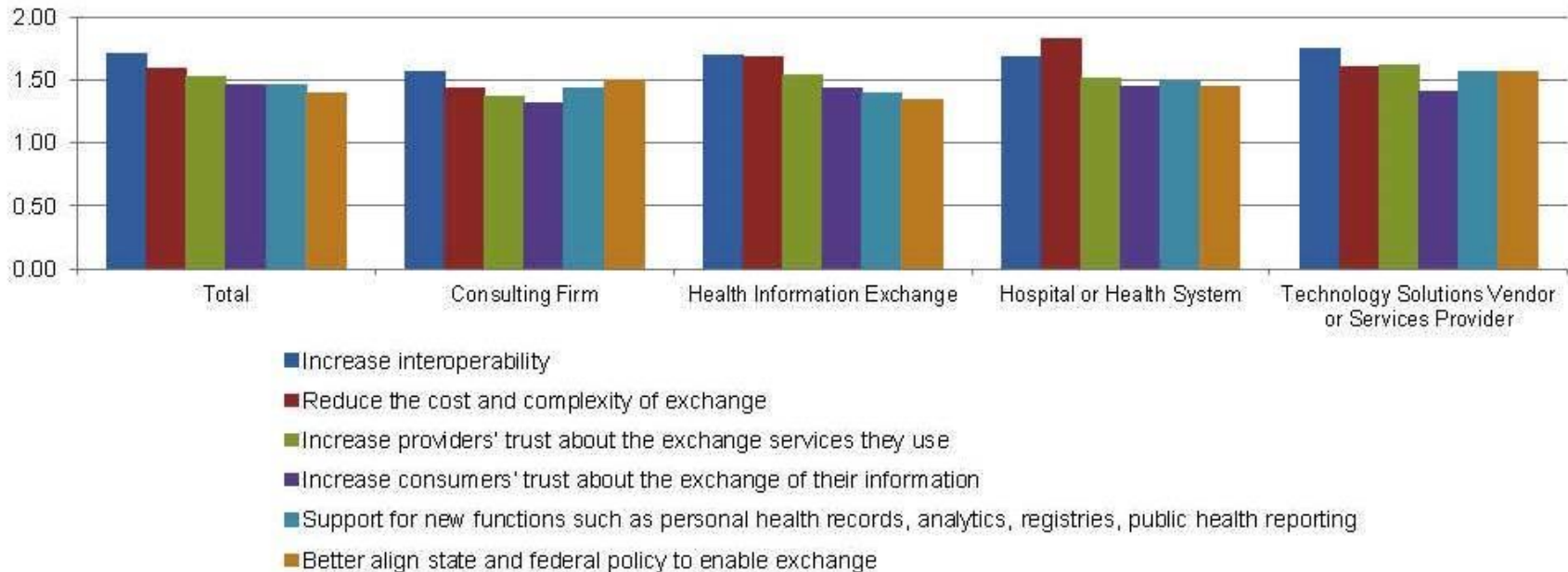
Most Important Enablers of Exchange with Entities Served By Another Exchange Provider



*2013 Stakeholder Survey (February 7-22, 2013)

Recent Survey Results

Most Important HIE Governance Goals



***2013 Stakeholder Survey (February 7-22, 2013)**

Observations about HIE

■ Physician "IT Fatigue"

- Meaningful Use, EMR Implementations, ICD-10, etc.

■ Integration is Complex and Challenging

- EMR interfaces - portals, Direct SM less than ideal to physicians
- EMR interfaces - out of scope for most public HIEs

■ Sustainability has been Elusive

■ Technology has Limitations

- Cannot change human behavior

■ Need for "Last Mile Integration"

- US highway system and GPS network analogies



Technological Approaches to HIE

Directed

"Push"

Direct
Secure
Messaging

IHE Profiles
XDM, XDR

Query- Based

"Pull"

eHealth
Exchange

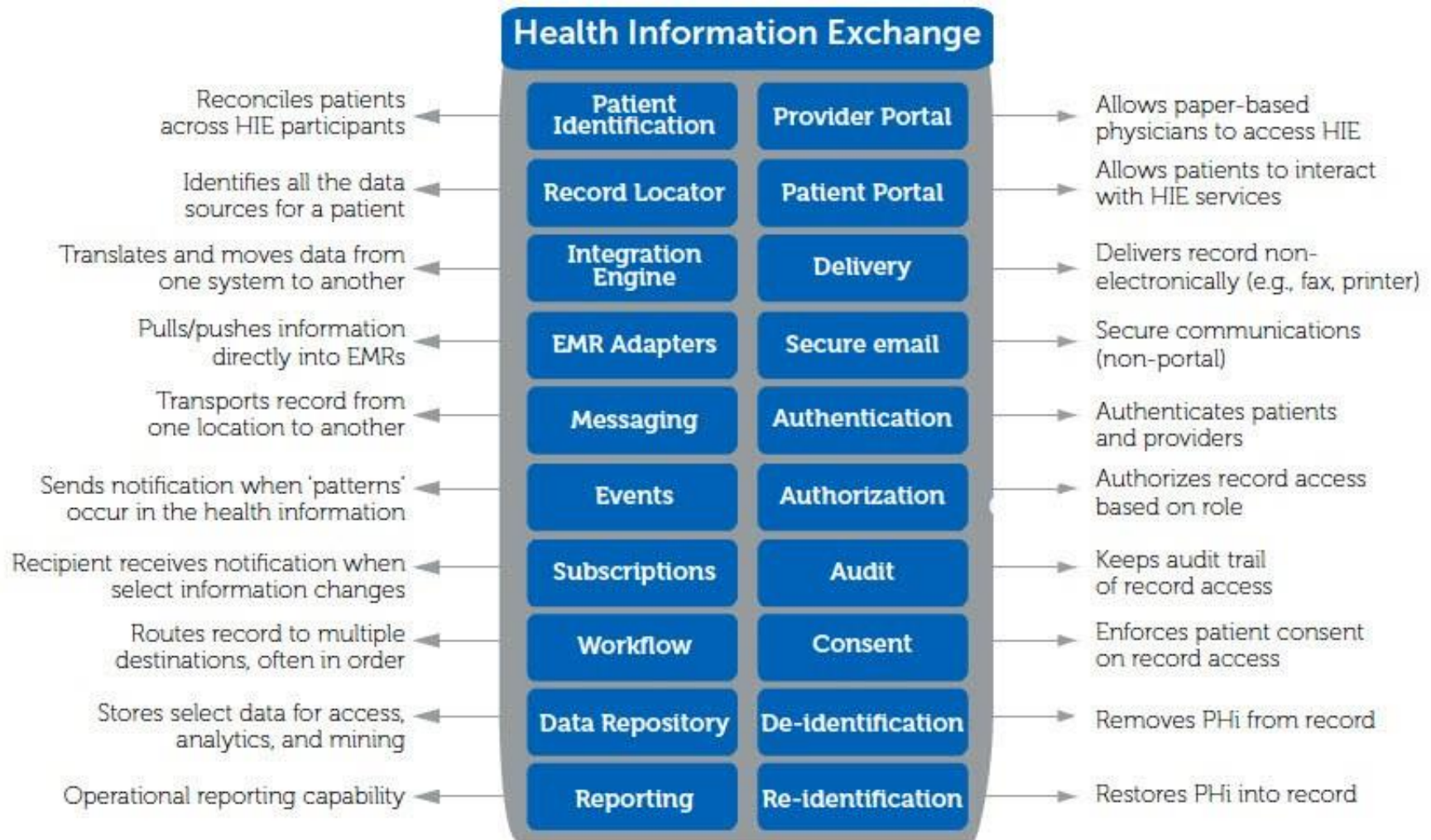
IHE Profiles
XCA, XDS

Consumer Mediated

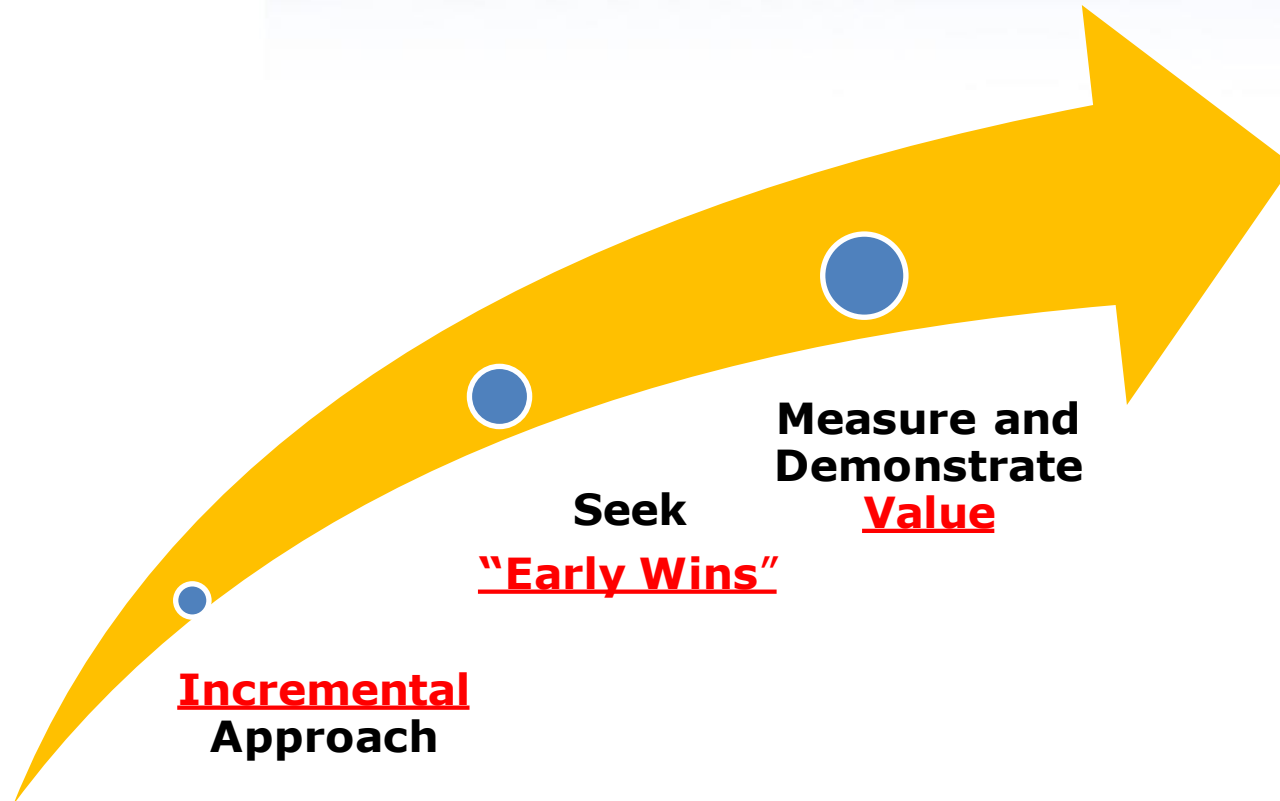
Blue
Button/Blue
Button+

iBlueButton

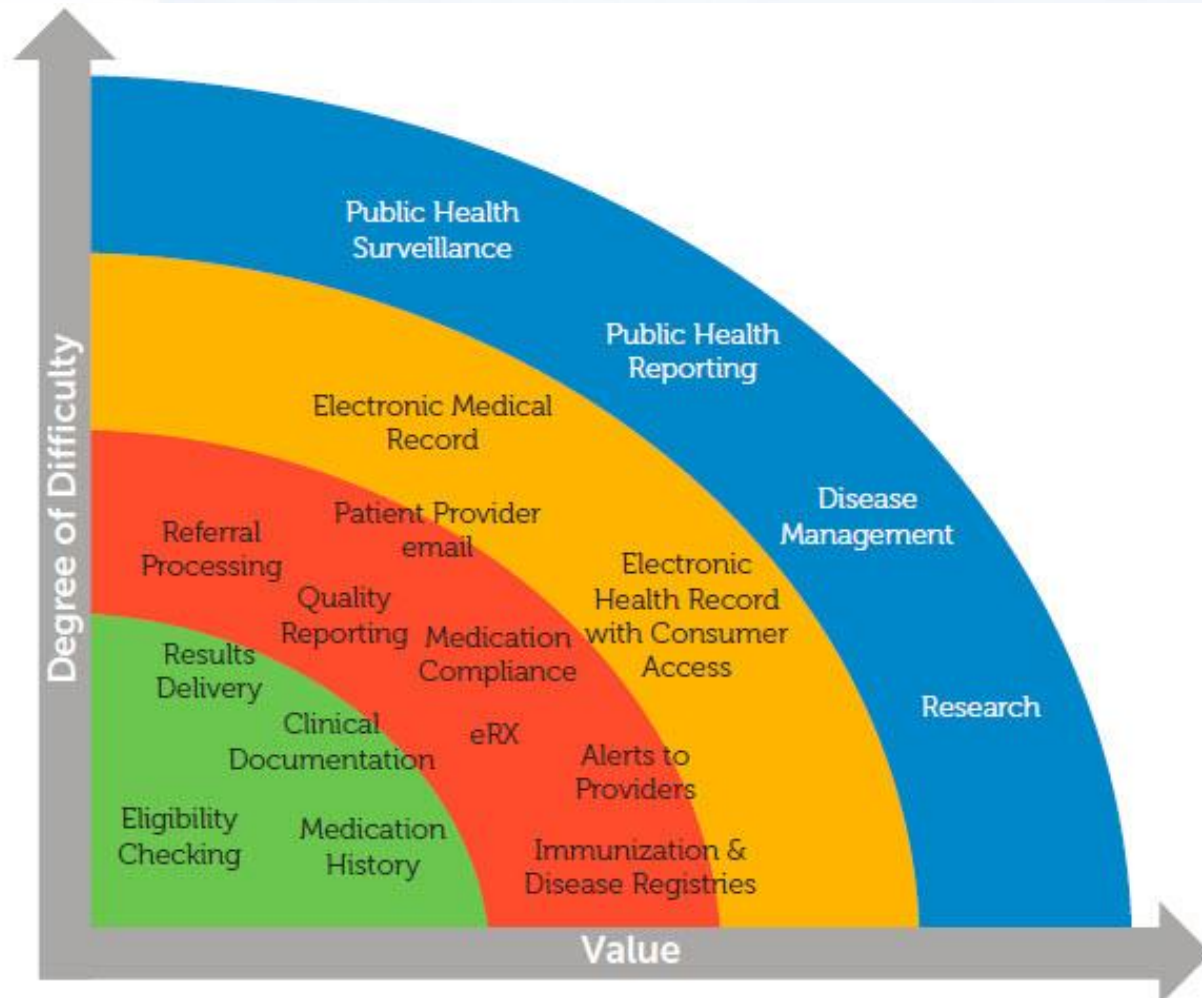
Implementation Strategy Broad Scope of Services?



Implementation Strategy Recommendations



Implementation Strategy Recommendations



HIE Trends

**Rise of Private
HIEs**

**Promotion of PHR
as Form of HIE**

**The Rise and Fall
of State-Run HIE**

**The Tenuous Role
of HIE in MU**

***John Loonsk, MD, FACMI, Chief Medical Information Officer at CGI**

HIE Trends

Less than 20% of Hospitals and only 3% of Physician Practices are connected to a HIE (2011)

- Private HIEs grew from 62 to 161
- Public HIEs grew from 37 to 67 (2010-2011)

14% of the Public HIEs operational in 2010, ceased operations in 2011

Wrap-Up

Questions and Answers

Contact Info: rick.edwards@iatric.com
(978) 674-8461

Presentation: www.iatric.com/muse2013