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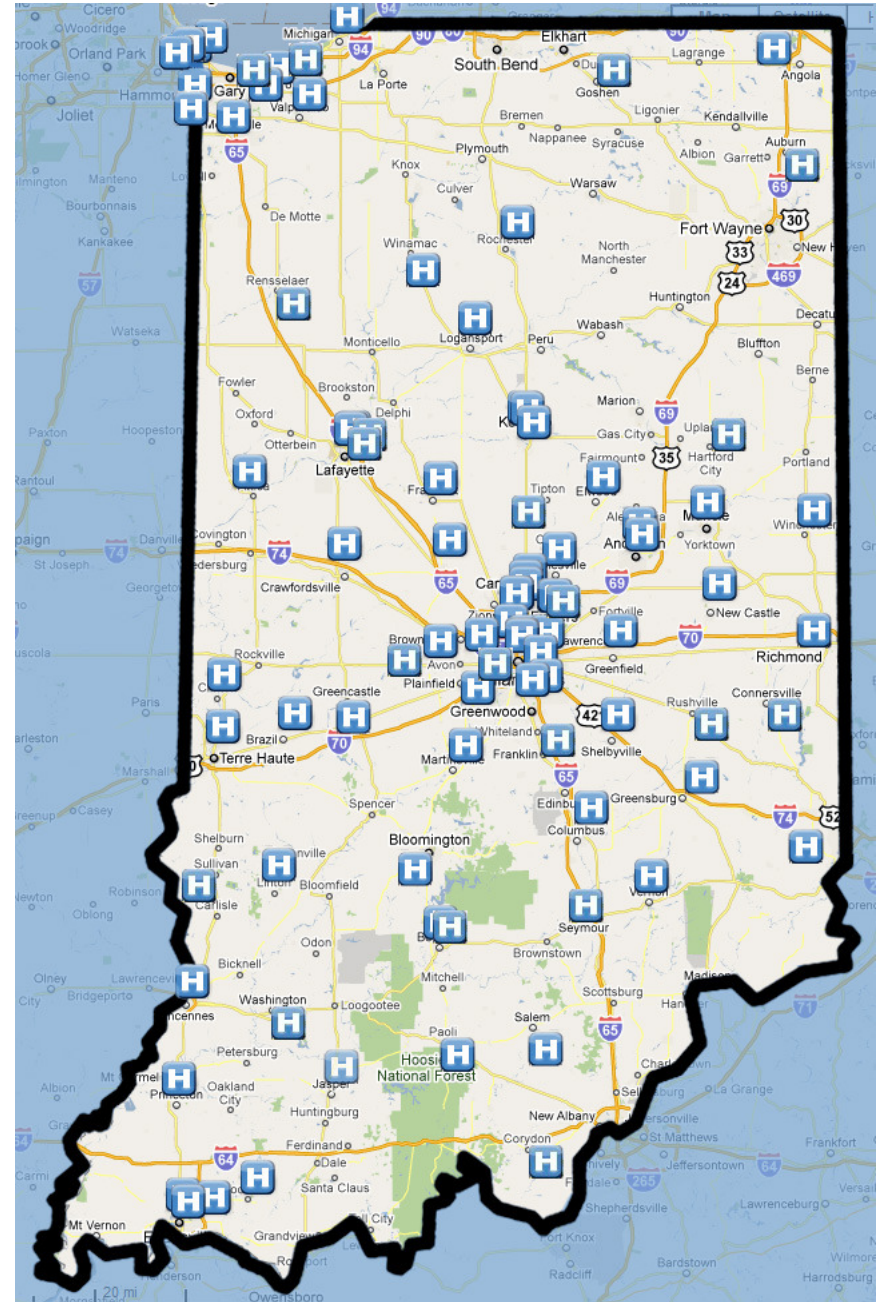
Better Outcomes. Delivered.

The Value of HIE

July 2014

Agenda

> Health Information Exchange (HIE) –

- *What it is*

- *What it does*

> The Value of HIE – Present and Future
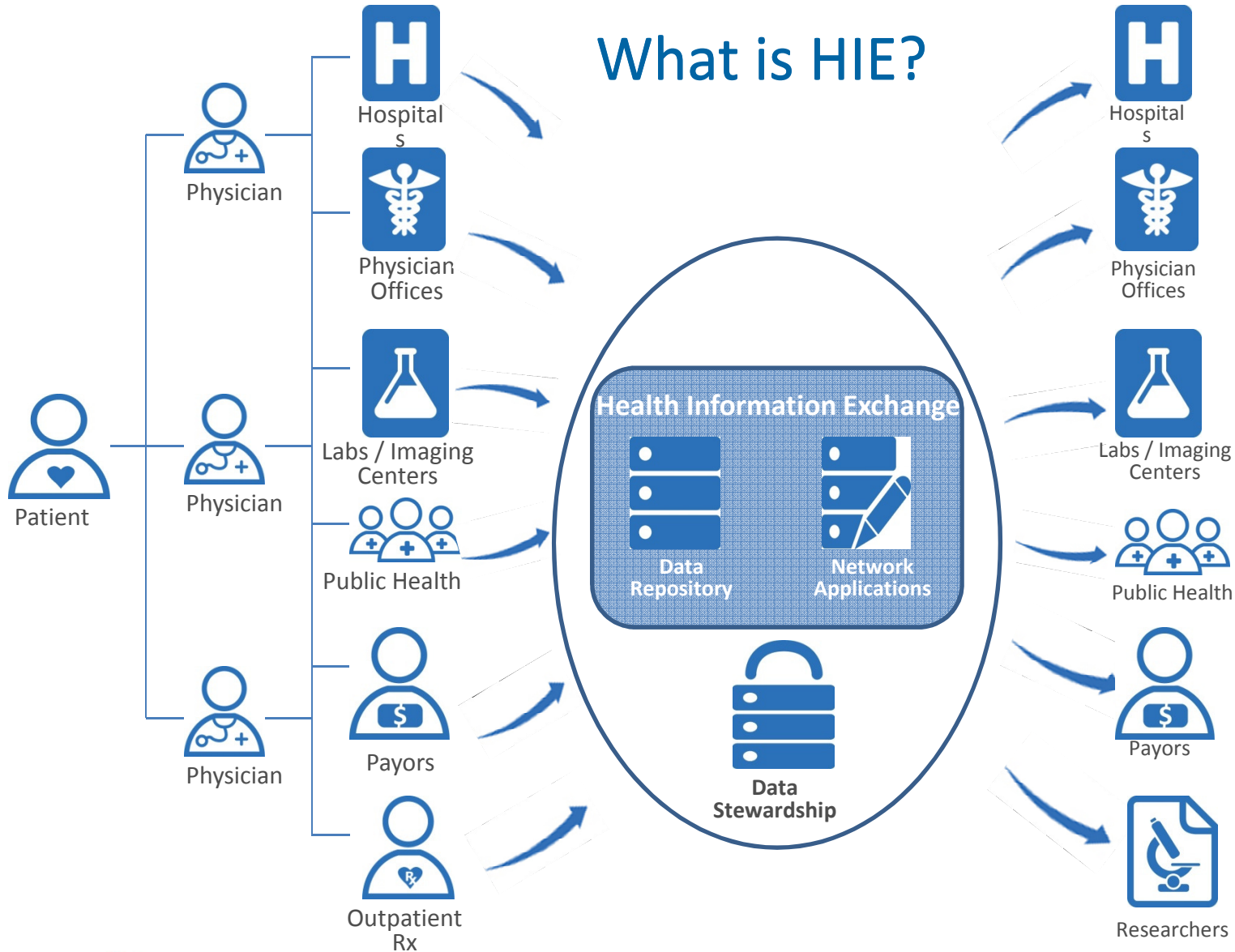
> Q&A

IHIE Background

- Nation's largest HIE
    - >100 hospitals (38 health systems)
    - 25,000 clinicians
    - Payors
    - Labs and Imaging Centers
    - Public Health
- Generating about $10M in non-grant income annually
- Founded in February 2004
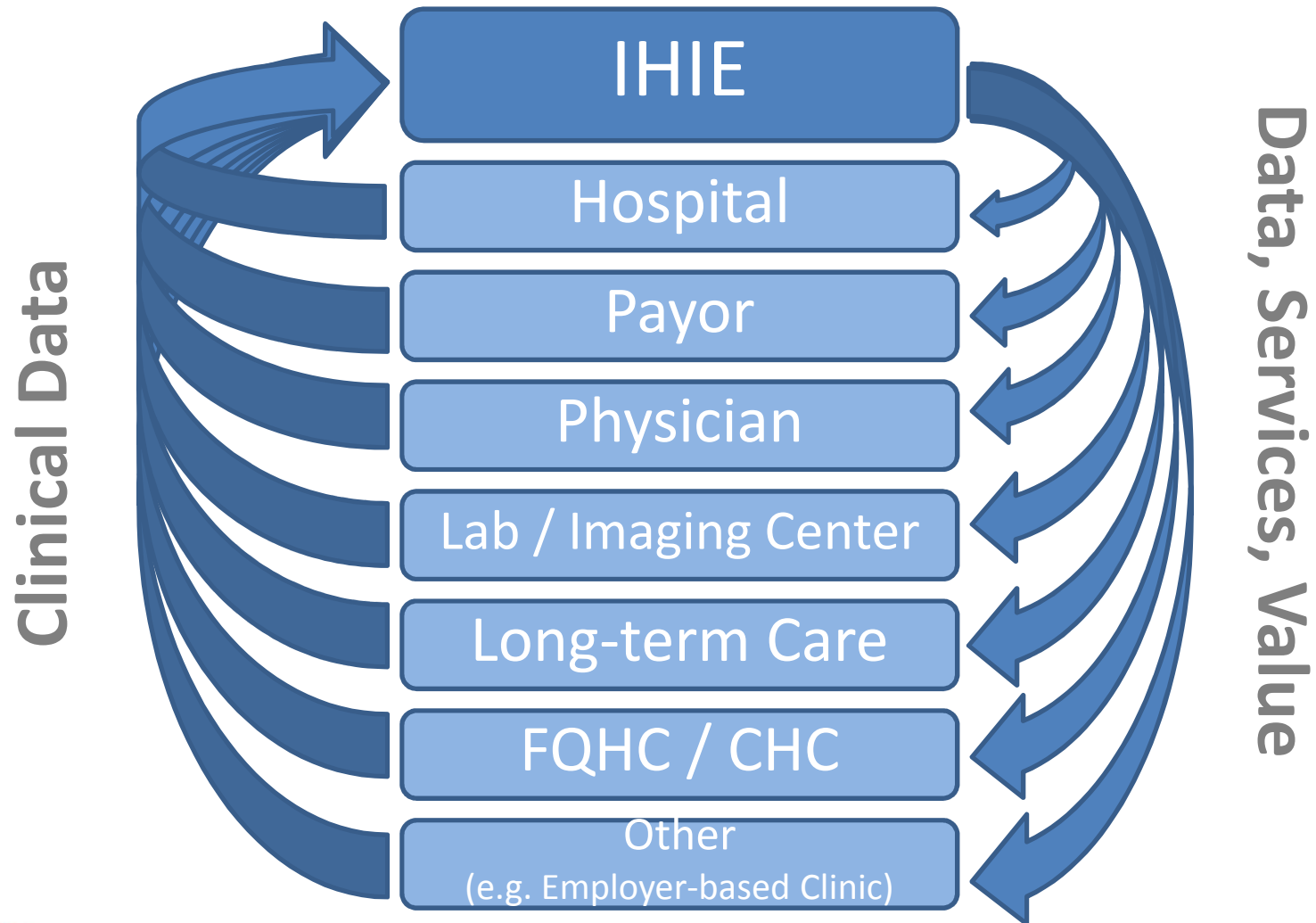- 501c3 not-for-profit organization
- Regenstrief Institute partnership

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What is HIE?

Health Data Sources

- Physician
- Physician
- Physician
- Patient

- Hospitals
- Physician Offices
- Labs / Imaging Centers
- Public Health
- Payors
- Outpatient Rx

Health Information Exchange

- Data Repository
- Network Applications
- Data Stewardship

Value-Added Services

- Hospitals
- Physician Offices
- Labs / Imaging Centers
- Public Health
- Payors
- Researchers

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What is HIE?

Clinical Data

IHIE

Hospital

Payor

Physician

Lab / Imaging Center

Long-term Care

FQHC / CHC

Other
(e.g. Employer-based Clinic)

Data, Services, Value

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What is HIE

- HIE Definition – "*The electronic movement of (patient-level) health-related information among organizations, according to nationally recognized standards.*" *(HIMSS)* *...with the goal of making healthcare safer, less costly, and of higher quality (John)*

- Most HIEs are not-for-profit or governmental organizations with a goal to improve the quality, safety, and/or cost efficiency of healthcare

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What is an HIE/HIO

- HIO = noun; HIE = verb

- Three type of HIOs (according to …Me)

HIO Type	Description / Examples
State-run	**Run by the governments of their respective states**….like ILHIE in Illinois, KHIE in Kentucky, and Clinisync in Ohio
Regional / Inter-organizational	**Inter-organizational, often not-for-profit** ….like IHIE, HealthBridge.
Proprietary (Single-organization centric)	**What the industry calls "private HIE"** (centered on and run by a single organization….like an IDN)

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A Word on Sustainability

Sustainability –

"Not going broke while continuing to fulfill your organization's mission"

HIO Type	Sustainability Planning
Regional / Inter-organizational	A) Figure out how to generate revenue to (more than) cover costs....presumably by delivering value to customers at a price they are willing to pay
Proprietary (Single-organization centric)	B) Not Applicable
State-run	Either A) or B) ...it depends

The Soapbox and the Green Eyeshade

There are services that a health information exchange could theoretically provide for which there is no apparent business model. There are also services that have business models that are outside the mission of a typical not-for-profit HIE.

The Soapbox

The Green Eyeshade

Stuff an HIE could do to help "save the healthcare system"

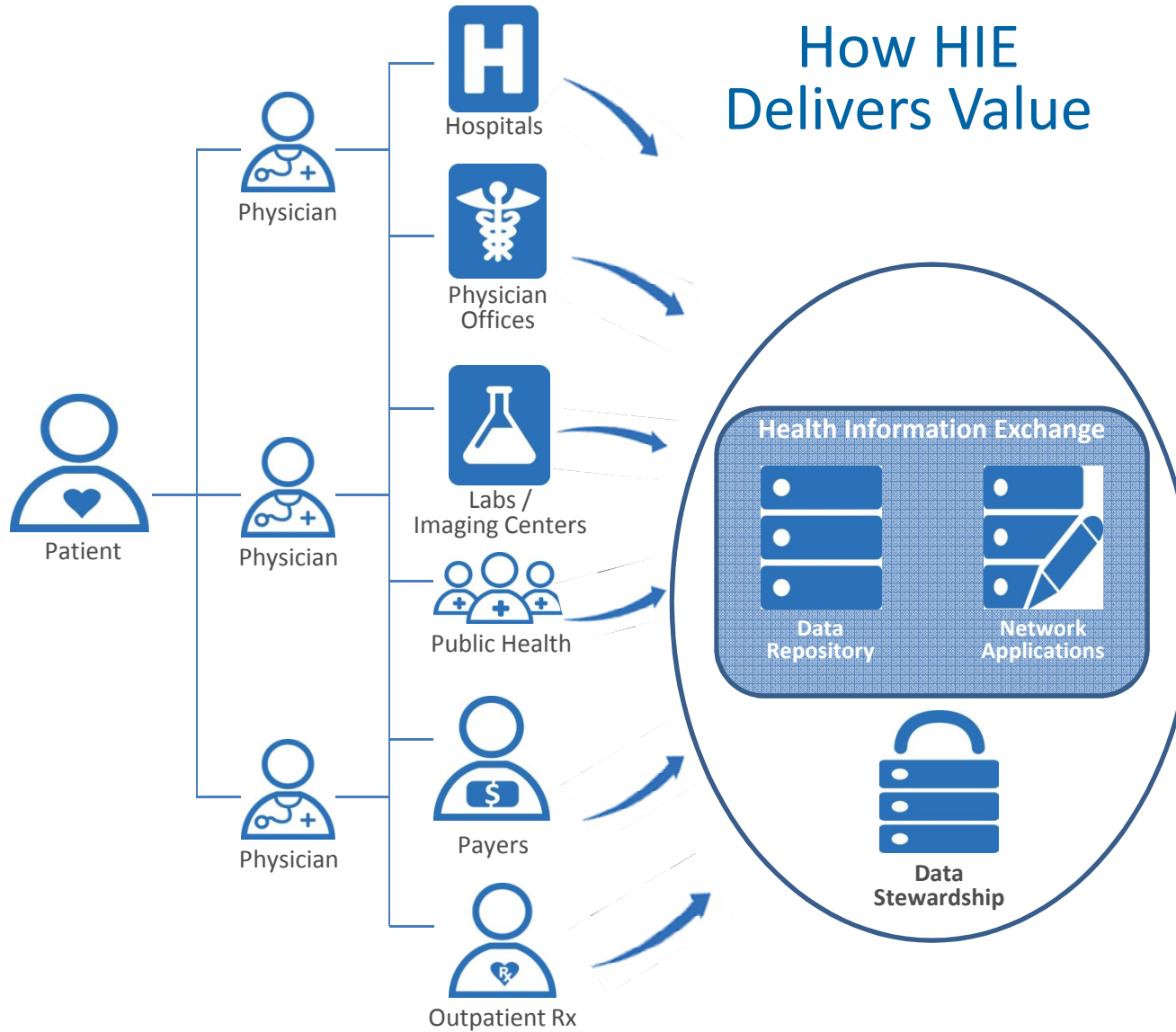Services on which you can base a sustainable Health Information Exchange

Stuff an HIE could do that someone will pay for

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Health Data Sources

Patient

Physician
Physician
Physician

Hospitals
Physician Offices
Labs / Imaging Centers
Public Health
Payers
Outpatient Rx

How HIE Delivers Value

Health Information Exchange

Data Repository
Network Applications

Data Stewardship

Value-Added Services

Clinical Data Repository (INPC™)
- MPI & Record Locator Service
- Longitudinal Patient View

Clinical Results Delivery (D4D®)
- Web-based portal or EMR delivery
- No Cost to Physicians

ACO & Analytic Services
- Clinical Event Notifications (ADT Alerts)
- Population Health Management
- Predictive Analytics

Public Health Integration and Automation
- Bio-surveillance
- Communicable Disease Reporting
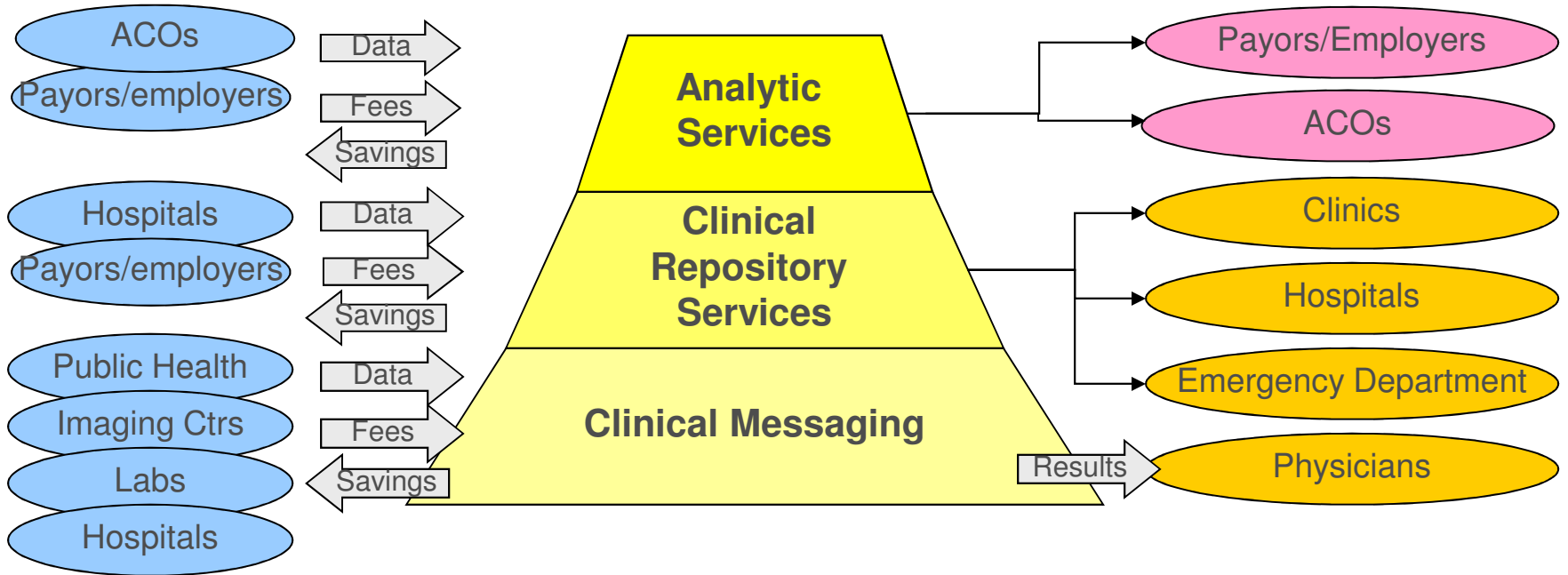- Immunizations

Federal Government Services
- SSA Disability Determination
- VA's VLER Program

Meaningful Use Supporting Services
- Transitions of Care
- Public Health Integration

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How HIE Delivers Value

Building or "layering" services on top of each other squeezes more value from existing investments.

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The Indiana Network for Patient Care® is:

- A patient-centric community health record for a growing number of Indiana citizens (the "jig-saw puzzle assembler")
- Includes provider, payer, and public health data
- Growing to serve the population of Indiana
- Real time interfaces from providers – lab, radiology, transcription, ADT, CCDs
- Utilized in emergency departments, inpatient and outpatient settings

CareWeb

External Resources ▾   Leave Feedback   Help ▾

| Notifications | **Browse Patient Record** | Settings | Administration |

Select an Option:
- Flowsheet
- **Clinical Abstract**
- All Reports
- Encounters
- Pharmacy Orders
- Chronological Results

EMERGENCY ▾

HISTORY and PHYSICAL

☑ **Dx & Complaints**

☑ **Hosp ICD9 Dx**

☑ **E.R. Diagnosis**

☑ **ALLERGIES**

☑ **GERIATRICS DATA**

VISIT HISTORY

☑ **VISIT HISTORY**

VITALS

☑ **INPATIENT VITALS**

CHEMISTRY

☑ **ELECTROLYTE PRFL**

☑ **CHEM 16**

HEMATOLOGY

☑ **BLD CELL PROFILE AND DIFF**

WBC #	13.2	*H	K/mm3	30-Nov-2009
RBC #	3.50	*L	million/mm3	30-Nov-2009
Hgb	10.4	*L	g/dL	30-Nov-2009
Hct	31	*L	%	30-Nov-2009
MCV	88.8		fL	30-Nov-2009
MCH	29.8		pg	30-Nov-2009
MCHC	33.6		g/dL	30-Nov-2009
RDW	13.5		%	30-Nov-2009
Platelet #	227		K/mm3	30-Nov-2009

PULMONARY (continued)

☑ **BLD GAS PANEL 1 (continued)**

Hct	31	*L	%	30-N

CARDIOVASCULAR

☑ **Cardiac Echo**

☑ **Cardiac Cath Imp**

RADIOLOGY/NUCLEAR MED

☑ **CHEST XRAYS**

Chest AP Port XR	Clinical Document Available	11-N
	this is a test for Talk	
	Electronically signed by: Mike M Moss Date: 03/11/10 Time: 10:29	
Chest Lat XR	Clinical Document Available	01-D
	Chest and lateral: Plain film radiography images of the chest performed in PA and lateral projections were subsequently digitized for the purposes of transmission, interpretation, and storage. The study was performed with a supplied history of cardiomyopathy. Comparison is made to the prior examination of 3/13/2009. A pacemaker/defibrillator is again identified. The cardiac size is within normal limits and unchanged. Chronic bl... costal... ...ts and ...sence of pacemaker/defibrillator, no acute finding or interval change	
	Electronically signed by: John J Mathis DO Date: 12/01/09 Time: 10:41	

Sample Clinical Abstract

The DOCS4DOCS® Service is:

- An **electronic results delivery** service

  More than 25,000 physicians in 17 states are set up to receive patient results via DOCS4DOCS at no cost to the physicians

- **A single source for information** such as lab results, radiology reports, transcriptions, pathology and hospital admissions reports, discharge and transfer reports from all participating Indiana hospitals, physician practices, labs and radiology centers.

  Results can be viewed through a web-based portal or delivered directly into an electronic medical record system.

"While many major metropolitan areas have similar systems, (IHIE's) was one of the first and is viewed by many as one of the best…"
– *Indianapolis Star, June 2007*

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IHIE's ACO & Analytic Services

- ADT Alerts for Hospital Admits or ED Visits (ACOs, Medicaid Payer)…accompanied by…
  - INPC Access for Care Managers
  - Delivery of 12 selected clinical data elements
- Predictive Analytics for Various Use Cases
- Population Management Analytics
- Impact Analysis for Chronic Disease Management

Public Health Integration & Automation

Public Health Emergency Surveillance System (PHESS)

- Statewide infrastructure to analyze "primary complaint" data from Indiana emergency departments for the early detection of:
  - Acts of bioterrorism
  - Other public health emergencies
- 120 Indiana EDs connected

Communicable Disease Reporting

- Notifiable Conditions Detector (NCD)
- ONC-certified technology for electronic lab reporting

Immunizations

- Children and Hoosier Immunization Registry Program (CHIRP)

Indiana State Department of Health

> "If I was having a huge...outbreak, I could know it early instead of waiting for two weeks or a month."
> – Dr. Virginia Caine, Marion County Health Department director

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Federal Government Services

- Automated SSA disability determination via electronic request and record retrieval of INPC data through the eHealth Exchange
  - IHIE fulfills about 100 SSA applicant requests per day; previously, manual record gathering took 4 months to 3 years

- Share veterans clinical data via the eHealth Exchange as part of the VLER program
  - IHIE supplies about 90% of the clinical data that the VA receives from eHealth Exchange trading partners; IHIE data has been accessed in all 50 states

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Thank You
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